

eman ta zabal zazu



Universidad del País Vasco Euskal Herriko Unibertsitatea

Extraposition in English and Spanish: A Comparative Study

PhD Thesis

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For Ander, my dearest godson

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ABSTRACT

This thesis focuses on EX from DP, a construction in which a PP or clausal modifier appears separate from the head noun it modifies, typically in sentence-final position, as in (1).

- (1) a. *A book* was published last year *by Chomsky*.
b. *A man* came in *that I didn't know*.

This construction incarnates one of the long-standing puzzles of linguistic theory: discontinuity. The present study tries to find answers to questions concerning the motivation of EX, and its syntactic derivation in a minimalist setting. The construction is approached from a perspective which is different from that adopted in previous work and innovative in two fundamental respects. First, the focus is on the interaction of EX with other syntactic phenomena. Second, two languages are studied in parallel: English and Spanish. This aspect of the dissertation is important because EX in Spanish is recurrently absent from the syntactic discussion.

- (2) a. *Se publicó un libro el año pasado sobre la extraposición.*
CL_{pass} published(3sg) a book the year past about the extraposition
'A book was published last year about extraposition.'
b. *Entró un hombre en la habitación al que nadie conocía.*
came in a man into the room to-the who nobody knew(3sg)
'A man came into the room that nobody knew.'

Adopting an analysis of EX in terms of rightward movement, the first part of the discussion centers on the interaction of this operation with topicalization, focalization (including *wh*-movement) and subject raising. The aim pursued in this part is two-fold: (i) to determine the syntactic contexts in which EX can apply and (ii) to identify the trigger of the operation (in particular, the role played by focus). The discussion then turns to the interaction of EX with five ellipsis phenomena: VP-Ellipsis, pseudogapping, gapping, stripping and sluicing. This part is aimed at finding information concerning the hierarchical position of the extraposed constituent. Given the role played by focus in

most of the ellipsis constructions just enumerated, interesting information is also gathered concerning the motivation of EX.

Some of the results obtained from the discussion in this dissertation are (i) that EX is restricted to the vP/VP domain, contrary to what standard accounts maintain; (ii) that EX cannot be triggered by a focus feature in the general case; and (iii) that EX in Spanish is not only productive but also very similar to EX in English.

LIST OF ABBREVIATIONS

1, 2, 3	first, second, third person	IM	intermediate material
ACC	accusative	imp	imperative
CL	clitic	imper	impersonal
CLLD	clitic left-dislocation	ind	indicative
CLLDT	clitic left-dislocated topic	LD	left-dislocation
DAT	dative	LDT	left-dislocated topic
EC	extraposed constituent	LI	locative inversion
EC(IO)	constituent extraposed from the indirect object	LM	leftward movement
EC(OB)	constituent extraposed from the object	LOC	locative
EC(SU)	constituent extraposed from the subject	part	partitive
EC(<i>wh</i>)	constituent extraposed from a <i>wh</i> -phrase	pass	passive
E-feature	ellipsis-feature	pl	plural
EX	extraposition	RC	relative clause
EX(IO)	extraposition from the indirect object	refl	reflexive
EX(LOC)	extraposition from a locative	RM	rightward movement
EX(OB)	extraposition from a DP object	sg	singular
EX(SU)	extraposition from a DP subject	SU	subject
EX(TH)	extraposition from a theme DP	subj	subjunctive
EX(<i>wh</i>)	extraposition from a <i>wh</i> -constituent	TPE	TP-ellipsis
fem	feminine	VPE	VP-ellipsis
GEN	genitive	vPE	vP-ellipsis
HN	head noun		

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CHAPTER 1

Introduction

1. EX from DP, the theoretical challenge

It is the main aim of this dissertation to contribute to the understanding of extraposition (EX) constructions as those illustrated in (1). In sentences with EX from DP, a PP or relative clause modifier of the head noun surfaces at the end of the sentence, separate from the nominal it modifies; as a result, the DP appears scattered in two syntactic positions.

- (1) a. *A book appeared which was written by Chomsky.*
b. *A review was published last week of Chomsky's book.*

Part of the interest in this construction, evidenced by the number of analyses available in the literature, stems from the fact that EX incarnates one of the long-standing puzzles of grammatical theory: discontinuity. No less interesting is the fact that sentences with EX co-exist with their non-extraposed counterparts, (2). The fact that EX does not (apparently) affect interpretation, so that the sentences in (1) do not differ in meaning from those in (2), has led many to regard them as two stylistic variants (cf. Chomsky and Lasnik 1977, Baltin 1978, 1983 and Rochemont 1978, among many others). In more recent analyses, this fact has been interpreted as an indication that EX is a PF phenomenon (see for example Göbbel 2006, 2013 and the discussion in Büring 2013). The place of EX in the derivation (basically, if it is a syntactic or a post-syntactic phenomenon) is still a matter of debate.

- (2) a. *A book which was written by Chomsky appeared.*
b. *A review of Chomsky's book was published last week.*

Although equivalent in terms of truth conditional value, in several chapters of this dissertation, it will be shown that the extraposed and the non-extraposed variants are sensitive to the context of utterance, which indicates that they differ in information structural terms. By means of illustration, consider (3). According to Culicover and

Rochemont (1990), sentences like that in (3a) were judged ungrammatical in previous studies on EX. Nevertheless, they show that this sentence is acceptable in a context such as that provided in (3b).

(3) a. ??*A man screamed who was standing at the very edge of the crowd.*

b. *Suddenly there was the sound of lions growling. Several women screamed. Then a man screamed who was standing at the very edge of the crowd.*

The context sentences in italics in (3b) force the acquisition of prominence on the part of the subject *a man*, which stands in opposition to *several women*. The predicate *scream*, on the other hand, becomes part of the discursive background, as the same predicate appears in the preceding sentence. In summary, context forces the subject to acquire prominence and the predicate to be deaccented, exactly the opposite of what happens in the non-extraposed variant, where the predicate is more prominent. As will be discussed in chapter 5, the new information structure – which is accompanied by a specific prosodic contour – builds the ideal environment for EX.

The coexistence of the sentences in (1) and (2) is not a minor issue. A general question that arises in this respect concerns the relationship (if any) between the two variants. In the earliest analyses of the construction, it was assumed that the extraposed sentence and its non-extraposed counterpart were derivationally related. More specifically, the former was derived from the latter by moving the EC to the right. The same vision is shared in more recent analyses in terms of leftward movement (remnant movement analyses, cf. chapter 3, section 3.1.3). Other linguists hold the opposite view, and assume that the system can build any of the two variants independently from the other, that is, the extraposed and the non-extraposed sentences are not derivationally related. This idea has crystallized in two types of syntactic analyses: one is in terms of base-generation (Culicover and Rochemont 1990, Rochemont and Culicover 1997, among others), the other in terms of stranding (Kayne 1994). In chapter 3 I will consider all these options in some detail, and in chapter 5 I will offer a critical overview.

The theoretical challenge that anyone working on EX will have to face is multifaceted. On the technical side, for instance, questions concerning the motivation of the phenomenon as well as the position of the extraposed constituent (EC) will have to be answered. My study will focus fundamentally, but not exclusively, on these two

aspects. In the following section, I will explain in some more detail what distinguishes my analysis from previous work in the field.

2. The contribution of this dissertation

The main aim of the study that led to the completion of this dissertation was always to gather information about a construction that, though widely studied, remains a linguistic challenge. Instead of focusing on EX itself as an isolated phenomenon, I decided to adopt a novel perspective and turned my attention to the interaction of EX with other syntactic phenomena. For reasons that I will explain below, I was particularly interested in EX from fronted constituents and in the behavior of EX in structures with ellipsis. This approach to the construction is innovative and, consequently, the majority of data that will be discussed in subsequent chapters is, to the best of my knowledge, analyzed here for the first time. The second valuable contribution of this dissertation to the discussion on EX is the comparative perspective. In the chapters that follow, I will offer the first systematic analysis of the construction in Spanish.

At this point, I would like to elaborate further on these two aspects of my analysis. Let me start with the latter: the comparative perspective. In the preceding section, I mentioned the fact that EX has attracted the attention of many linguists. However, this statement has to be qualified, as it is true of Germanic but not of Romance languages. Although the literature is prolific in the case of languages like Dutch, German and English, the study of EX in Romance has been neglected. Alexiadou and Anagnostopoulou (1998), for example, echo the claim they attribute to Cinque (1982) that relative clause EX is marginal in null subject languages, as opposed to English. By means of illustration they provide the Greek sentences in (4), whose ungrammaticality they explain by appeal to the interpretation of the preverbal indefinite, which is specific (and therefore subject to the *Specificity Constraint* of Fiengo and Higginbotham 1981, which basically bans extraction from specific DPs).

- (4) a. ??*Enas andras irte pu ithele na su milisi.*
a man came that wanted subj you(acc) talk(3sg)
b. A man came in that wanted to talk to you.

Fernández Fuertes (2001) extends, in her doctoral dissertation, the same conclusion to Spanish on the basis of the datum in (5).

- (5) ??/**Un hombre vino que quería hablar contigo.*
a man came(3sg) who wanted(3sg) to-talk with-you
'A man came that wanted to talk to you.'

In the case of Spanish, it is also remarkable that the construction is systematically absent from extensive descriptive grammars of Spanish such as Bosque and Demonte's (1999) *Gramática descriptiva de la lengua española*. Similarly, no mention is made in Bosque and Gutierrez-Rexach (2008), Ordoñez (1997) or Zagona (2002).

In this dissertation I will show that, contrary to what is standardly assumed, EX is not only available in Spanish but it also displays patterns which are very similar to the English. There are, of course, some cross-linguistic differences which will be dealt with in due course. One of them is the contrast between (4b) and (5) above, which shows that EX from a subject DP is possible in English but not in Spanish. However, from the unacceptability of (5), it cannot be concluded that EX leads to ungrammaticality in Spanish quite generally. If this were the case, the datum in (6) below should be unacceptable, contrary to fact. In chapter 7, I will show that EX is not allowed from preverbal subjects in Spanish due to their topic-like character. Under this hypothesis, a unified account can be proposed for the English and the Spanish data. EX can take place from A-constituents (English preverbal and Spanish postverbal subjects), but not from A-bar constituents (Spanish preverbal subjects).

- (6) *Vino un hombre ayer que quería hablar contigo.*
came(3sg) a man yesterday who wanted(3sg) to-talk with-you
'A man came yesterday that wanted to talk to you.'

The datum in (7), from Kiss (2003), showing EX from a topic in English, comes to confirm this conclusion.

- (7) **Micro brews, I like (very much) that are located around the Bay Area.*

However, the fronted focus in (8) – standardly analyzed as occupying the SpecFocusP by movement (see for instance Rizzi 1997b) – is also an A-bar constituent, in spite of which EX is not blocked.

(8) *A BOOK* Peter bought last year *about global warming* (not a DVD).

Similar sentences are also possible in Spanish, (9).

(9) *UN LIBRO* compró Pedro *sobre el calentamiento global* (no un DVD).

a book bought(3sg) Peter about the warming global not a DVD

‘A BOOK Peter bought about global warming (not a DVD).’

To make matters more complicated, data like those in (10) below show that EX is not blocked from all topicalized constituents.

(10) a. Peter managed to find three engineers who speak Chinese, but *linguists* he didn’t find *who speak three Balkan languages*.

b. *Lingüistas* no encontrarás aquí *que hablen tres lenguas balcánicas*.

linguists not will-find(2sg) here who speak(3pl.subj) three languages Balkan

Lit. ‘*Linguist you won’t find here who speak three Balkan languages.’

There is, however, a significant difference between the topic in (7) and those in (10). Only the latter are contrastive. The picture that emerges from the sentences above is that EX is allowed from fronted constituents when they are either contrastive or focalized. The sentences in (8) and (9) also provide valuable information concerning the trigger of EX; in particular that the operation cannot be triggered by a focus feature, as claimed by many (see for instance Rochemont 1986, Huck and Na 1990 and the discussion in Göbbel 2006). The reason is straightforward. If focus is unique (as standardly assumed, see for example Rizzi 1997b) and the sentence initial constituent has undergone focalization, there is no place in the derivation for the second focus which would be required to trigger EX. Of course, this rationale only goes through if EX is derived by movement, an analysis that I will argue for in chapter 5.

Let me now turn to consider the interaction of EX with ellipsis phenomena. Its interest resides in the information that it can provide concerning the hierarchical

position of the EC. Using ellipsis to determine the structural configuration of EX is not a novel strategy, as many linguists (see for instance Culicover and Rochemont 1990) have used VP ellipsis (VPE) – a classical constituency test – to determine the height of attachment of ECs. Among the conclusions that Culicover and Rochemont draw from the application of this test is that a constituent extraposed from an object is necessarily VP-adjoined, as it cannot survive VPE. The case is illustrated in (11) with their examples.

(11) a. John [_{VP} met a man last week from Philadelphia], and George did, too.

b. *John [_{VP} met a man last week] from Philadelphia, and George did from New York.

My contribution in the field of the interaction of EX with ellipsis will be twofold. First, I will update Culicover and Rochemont's analysis of VPE, adopting the conception of ellipsis in Merchant (2001) and subsequent work. Second, I will extend the new analysis to other ellipsis phenomena; specifically, to pseudogapping, gapping, stripping and sluicing. They are illustrated in (12) to (15). For the update of VPE I will rely heavily on the data that appear in the literature. For the extension to other phenomena I will present new data, as the analysis of EX in contexts of ellipsis is always restricted in the literature to VPE.

(12) *Pseudogapping*

John eats meat more often than he does fish.

(13) *Gapping*

a. Mary ate rice and Peter beans.

b. María comió arroz y Pedro alubias.

Mary ate(3sg) rice and Peter beans

(14) *Stripping*

a. John plays the piano, not the guitar.

b. Juan toca el piano, no la guitarra.

John plays the piano not the guitar

(15) *Sluicing*

- a. Someone arrived yesterday but I don't know who.
- b. Alguien llegó ayer pero no sé quién.
someone arrived(3sg) yesterday but not know(1sg) who

The reason why I have not provided examples of VPE and pseudogapping in Spanish is that the constructions are not available in this language. The rest of the ellipsis phenomena are, and their interaction with EX is analyzed in this dissertation for the first time.

One interesting (and to a certain extent unexpected) result that will emerge from the update of the old analysis of VPE, as well as from the consideration of new data, is that some of the traditional assumptions concerning the position of the EC, which have usually been assumed without questioning, will have to be modified. On the basis of ellipsis as well as binding data, Culicover and Rochemont (1990), among others, concluded that the adjunction site of the EC is determined by the surface position of its head noun. (16) shows the positions which are standardly assumed. The generalization that emerges is that the EC adjoins to the minimal maximal projection containing its head noun. See the discussion in Baltin (2006).

- (16) a. A constituent extraposed from the object is adjoined to VP.
- b. A constituent extraposed from the subject is adjoined to IP.
- c. A constituent extraposed from a *wh*-phrase is adjoined to CP.

In chapter 5 I will show that these adjunction sites cannot be adopted uncritically. My analysis indicates that the EC occupies the positions in (17), rather than those in (16).

- (17) a. A constituent extraposed from the object is adjoined to VP.
- b. A constituent extraposed from the subject is adjoined to VP (when the subject is an internal argument) or to *v*P (when the subject is an external argument).
- c. A constituent extraposed from a *wh*-phrase is adjoined to VP (if the *wh*-phrase is an internal argument) or to *v*P (if the *wh*-phrase is an external argument).

What I will claim is that the base position of the head noun (rather than its derived position) determines the adjunction site of the EC, which will imply that the operation

has a very restricted domain of application: ν P/VP. If my analysis is correct, EX is an extremely local operation, which will immediately explain why it is subject to the *Right Roof Constraint* (Ross 1967), (18). The RRC basically bans rightward movement of a constituent across a clause boundary.

(18) a. *[_{CP} The fact [_{CP} that someone t_i walked into the room] was irrelevant] [who I knew]_i.

b. *[_{CP} El hecho [_{PP} de [_{CP} que entrara alguien t_i en la habitación]]
the fact of that walked(3sg subj) someone in the room
 es irrelevante] [al que yo no conocía]_i.
is irrelevant to-the who I not knew(1sg)

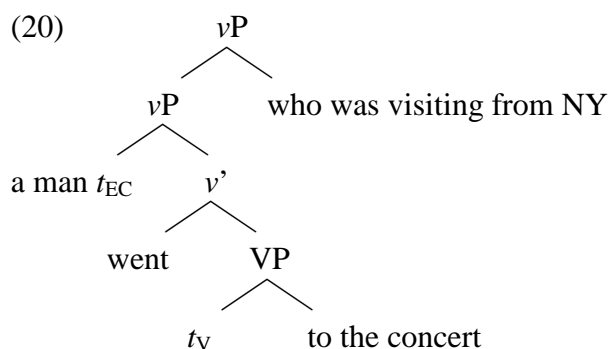
My analysis has the additional advantage that it can explain a long-standing (and not well-understood) asymmetry between rightward and leftward extraction from a subject: only the latter leads to ungrammaticality. The datum in (19a) is from Lasnik and Park (2003), that in (19b) from Culicover and Rochemont (1990).

(19) a. *Which Marx brother did she say that a biographer of _ interviewed her?
 b. A man _ went to the concert who was visiting from NY.

The contrast in (19) cannot receive a satisfactory explanation if it is assumed that EX takes place when the source DP is in SpecIP/TP and adjoins the EC to IP/TP, as in (16) above. The ungrammaticality of (19a) is standardly attributed to the islandhood of the external argument. But if SpecTP is an island, why is EX(SU) allowed? Two are basically the answers to this question that can be found in the literature. One appeals to the idiosyncrasy of rightward movement, which would not be subject to the same constraints as leftward movement. The other one interprets the contrast in (19) as an indication that EX does not involve movement at all (Culicover and Rochemont 1990). Neither of these two answers is satisfactory, as I will discuss in due course.

The analysis I propose here with EX applying in VP/ ν P can account for the contrast in (19) and still assume that EX is derived by a movement operation which is subject to the same constraints as other movement operations. If subject raising precedes EX, as standardly assumed, the EC would be trapped in an island and EX should be impossible. The fact that EX is indeed allowed can be explained by allowing

EX to take place before subject raising. Since the base position of the subject (Spec_{vP}) is transparent for extraction, EX can apply adjoining the EC to *vP*, as shown in (20). The derivation will be complete when the subject raises to Spec_{TP}. The trace of the EC – unbounded in its surface position – will not pose any problem as its legitimacy will be calculated upon application of EX (*strict cyclicity*, see Müller 2000, 2002). In the structure in (20), the relative clause c-commands its trace.



In chapter 7 I will offer a more detailed account of why the derivation of (19a) is impossible under standard assumptions.

Another instance of EX which poses similar problems for movement accounts is EX from a *wh*-constituent, as in (21). Since derived A-bar Specs are islands for extraction, EX(*wh*) should be impossible, contrary to fact. This problem does not arise in my analysis either, because EX is assumed to take place when the *wh*-phrase is in its base position. As is well-known, extraction from an internal argument is generally possible.

(21) *How many articles* did you read last year *about EX from DP*?

As seen in the preceding paragraphs, the interaction of EX with other syntactic phenomena contributes to the understanding of diverse aspects of the operation. However, the importance of the analysis does not end there. Valuable information is also obtained about the syntax of the operations with which EX interacts. In some cases, the interaction with EX allows us to choose among the competing analyses of the relevant construction available in the literature. Consider, by means of illustration, *locative inversion* (LI). The fact that EX from the postverbal subject in LI constructions is licit, (22), favors those analyses that claim that this constituent occupies its base

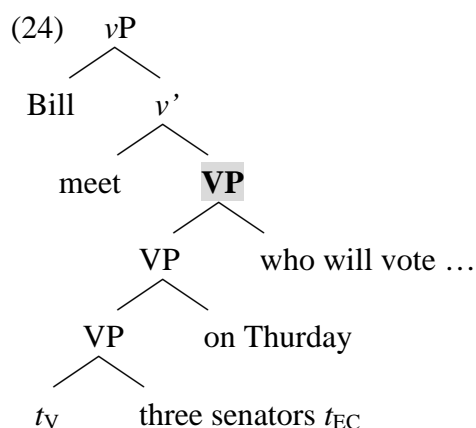
position over those that argue for movement to SpecTP and/or to a right-adjoined position, both well-established islands (see the discussion in chapter 8). In other words, EX data tip the scales towards the unaccusative hypothesis.

(22) Under that tree was lying *a man* yesterday *that I didn't know*.

The interaction of EX with ellipsis will also reveal some interesting information about some ellipsis phenomena. In chapter 10, I will have to supplement Merchant's analysis of gapping and pseudogapping in order to analyze sentences with multiple remnants as those in (23), where the split internal argument (head noun and EC) and a VP adverbial survive VPE in (23a) – a case of pseudogapping – and TP ellipsis in (23b) – a case of gapping. The deleted material (here, just the verb) appears in angle brackets.

- (23) a. John met more congressmen on Monday who will vote for the amendment than Bill did <meet> senators on Thursday who will vote against the amendment.
 b. John met three congressmen on Monday who will vote for the amendment and Bill <meet> three senators on Thursday who will vote against the amendment.

My proposal for sentences like these will be that all the remnants will vacate VP – (23a) – and TP – (23b) – as a unit. In other words, the constituent that will move to SpecFocusP (in the left periphery of vP for pseudogapping constructions and of TP for gapping structures) is the highlighted VP in (24).



This kind of derivation works smoothly for the sentences in which only the verb is gapped, as those in (23). However, in chapter 10, I will show that more complex

patterns of ellipsis are possible, in which more than one constituent undergoes deletion and more than one constituent survives. In such cases, I will have to propose more complex structures. An interesting cross-linguistic difference between Spanish and English will appear in the derivation of gapping constructions which is related to different modes of EPP checking.

After this brief introduction of the object of study of this dissertation and some of the results that will be presented in the chapters that follow, I turn now to describe the structure of this dissertation.

3. A chapter by chapter summary of contents

The organization of the remainder of this dissertation is as detailed in the following chapter-by-chapter summary of contents.

Chapter 2 offers a detailed description of the construction that will constitute the main topic of the discussion in subsequent chapters. Capitalizing on the fact that EX creates discontinuous DPs, I will provide complete characterizations of all the parts of the split: the head noun, its extraposed modifier and the linear segment that separates them. I will also provide plenty of data that will show that EX is attested in Spanish, contrary to what has sometimes been claimed in the literature. As part of the characterization of the construction, three of the constraints on EX reported in the literature will be presented in some detail. They are: (i) the prohibition against extraposing from definite DPs (*definiteness effects*), (ii) the prohibition against crossing clause boundaries (Ross's 1967 *Right Roof Constraint*) and (iii) the prohibition against crossing more than one bounding node (*Subjacency*, Chomsky 1986).

Chapter 3 presents the main analyses of EX from DP available in the literature. The eight proposals that will be briefly introduced illustrate the prolific discussion that has taken place around the construction in the course of several decades of investigation. From the earliest accounts in terms of rightward movement to the most recent reformulations incorporating minimalist assumptions, this chapter will provide a quite complete (although by no means exhaustive) overview of the main lines of research on EX from DP.

Chapter 4 will be devoted to presenting the basic tenets of the *Minimalist Program* (Chomsky 1995), as this will be the theoretical framework I will adopt for the analysis of the different syntactic phenomena that will be discussed in subsequent

chapters. Special attention will be paid to the conception of movement entertained in this theoretical framework.

In chapter 5, I will come back to the derivation of EX in order to present the analysis of the construction that will be adopted in the remainder of this dissertation. This chapter will look at three different questions. First, the most important accounts of EX (presented in chapter 3) will be subjected to critical review. From this discussion, rightward movement will emerge as the most promising analysis of EX. Second, the issue of the trigger of EX will be discussed in some detail; in particular, evidence will be presented to discard [+focus] as the feature driving the displacement of the EC. Third, the question of the landing site of the EC will be considered in some detail. I will revise the evidence provided in the literature for the standardly accepted adjunction sites of constituents extraposed from subjects, objects and *wh*-phrases. The results of my analysis indicate that the EC cannot move beyond *v*P, as I have just anticipated in the preceding section.

Chapter 6 is one of the chapters which will deal with EX from a fronted constituent. In this case, the sentence-initial constituent is a topic. Three are the constructions that will be considered: *Left-Dislocation*, *Clitic Left Dislocation* and *Topicalization*. It will be shown that English and Spanish behave differently with respect to these three operations. As to EX from fronted topics, it will be shown that it is prohibited in all but one type of context. Only when the fronted constituent is a contrastive topic is EX allowed. In all other cases of topic fronting, EX is excluded in both languages. It will be concluded that EX is incompatible with a strong [+topic] feature.

Chapter 7 is devoted to providing a quite exhaustive analysis of EX from both pre- and postverbal subjects in English and Spanish. This question is addressed at this point for two main reasons: first, because English preverbal subjects reach their surface position by leftward movement and, second, because Spanish preverbal subjects behave as topics. As expected from the results obtained in the preceding chapter, EX from preverbal subjects in Spanish is barred – presumably, due to the presence of a strong [+topic] feature. In this respect, Spanish departs from English. Preverbal subjects are A-constituents in this language and EX is allowed. As far as postverbal subjects are concerned, EX can apply on them quite generally in Spanish, but the operation is also licit on the rare occasions in which a subject can surface postverbally in English. These

results receive a uniform account under the assumption that EX targets the DP subject in its base position.

Chapter 8 deals with one of the constructions in which the subject surfaces in postverbal position in English: so-called *locative inversion*. The behavior of the two main constituents involved in this type of construction, i.e. the postverbal subject and the fronted locative, has been (and still is) a matter of debate and interest in generative grammar. The main reason is that both constituents display mixed syntactic behaviors. Thus, the locative PP is a topic on some counts but a subject on some others. Similarly, the postverbal DP, in spite of being the logical subject of the sentence, behaves as a syntactic object in some respects. The unavailability of EX from the locative is consistent with the results obtained for English in chapter 6 rather than with those in chapter 7, which suggests that this constituent should be analyzed as a topic rather than as a subject. The availability of EX from the postverbal subject can be interpreted as confirmation that EX takes place when the subject is in its base position. These two facts favor one of the analyses proposed for locative inversion in the literature: the unaccusative hypothesis.

In chapter 9, a different preposing operation will be considered: focalization. I will analyze the availability of EX from focalized DPs with different syntactic functions. Very similar patterns are observed in English and Spanish, even though the structure of focalization is different in the two languages, as only in Spanish is subject-verb inversion imperative. Two focalizing constructions that force inversion in English are also included in the discussion. They are negative and *only*-inversion.

It is generally the case that a focus feature on the head noun (be it contrastive or just emphatic) will facilitate EX to the extent that the degree of acceptability of the extraposed variant will be higher than that of its non-extraposed counterpart. All the patterns presented in this chapter are consistent with EX taking place before focalization. The interaction of the operation with focus fronting provides evidence that the driving force of EX cannot be a focus feature.

Regarded as a subtype of focalization (Rizzi 1997b and many others), *wh*-movement will be included in this chapter. Not surprisingly, the results obtained in cases of EX(*wh*) are very similar to those stemming from the interaction of EX with focalization. The operation is especially felicitous in interrogatives. And again, if *wh*-movement is driven by the need to check a [+focus/+wh] feature in SpecFocusP, the same feature cannot be responsible for EX.

Chapter 10 will be devoted to discussing the interaction of EX with five ellipsis phenomena: VPE, pseudogapping (both derived standardly by deleting the VP projection), gapping, stripping and sluicing (the latter three derived by TP ellipsis). I will adopt Merchant's conception of ellipsis (see Merchant 2001 and subsequent work) in terms of PF deletion triggered by an E(llipsis)-feature associated with a functional head. The results obtained from the analysis of different patterns of VPE in sentences with EX from object and EX from subject come to confirm that the domain of application of EX is VP in the case of internal arguments, ν P when the target of the operation is an external argument.

The discussion of pseudogapping will reveal that one of the constituents that can survive deletion is the EC itself. In such cases, it will be assumed to have moved (alone or as part of a bigger constituent) to the Spec of a FocusP that projects in the left periphery of ν P. As VPE is not available in Spanish, the sections dealing with VPE itself and with pseudogapping will only present English data.

Gapping, stripping and sluicing, on the other hand, are attested in the two languages. Since all these operations involve the deletion of a big chunk of structure (TP), the information that can be extracted concerning the analysis and behavior of EX is more limited than in the case of VPE. Still, some valuable conclusions can be drawn. For example, the interaction of sluicing with EX shows that a constituent extraposed from a *wh*-phrase cannot be adjoined to CP, as assumed in standard analyses.

This dissertation is closed with chapter 11, which provides a summary of the discussion as well as the main results and the conclusions.

Before closing this introduction, let me bring back very briefly the main objectives of my study. First, I will try to identify the trigger of EX with special attention turned to the role of focus. For this purpose, I will explore the interaction of the operation with other movement operations triggered both by strong [+focus] and [+topic] features. Second, based on an update of previous evidence, I will introduce the hypothesis that EX does not operate beyond the ν P/VP domain. The investigation of its interaction with other syntactic operations will also serve the purpose of putting this hypothesis to the test.

CHAPTER 2

Extrapolation from DP: the Construction

1. Introduction

The term *extrapolation* has been used in the generative tradition to refer to displacement phenomena in which a (usually heavy) constituent appears sentence-finally, in a position which is to the right of the place where the constituent is interpreted. The most typical case is illustrated in (1) and (2).

(1) a. That John is a fool is obvious.

b. It is obvious *that John is a fool*.

(Baltin 2006)

(2) a. To curb government spending would be a good idea.

b. It would be a good idea *to curb government spending*.

(Maynell 2008)

(1b)/(2b) used to be analyzed as derived from (1a)/(2a) via rightward movement of the clausal subject to the end of the sentence followed by *it*-insertion in the surface subject position. The second operation is forced by the requirement that every sentence have a subject at S-structure, a requirement that has come to be known as the *Extended Projection Principle* (EPP). Rosenbaum (1967), among others, called the operation that derived (1b)/(2b) from (1a)/(2a) *extrapolation*. In the meantime, the term *it-extrapolation* is preferred to refer to this operation in order to distinguish it from EX from DP, illustrated in (3) and (4). The examples are drawn from Baltin (2006).

(3) a. A book which was written by Chomsky appeared.

b. A book appeared *which was written by Chomsky*.

(4) a. A review of Chomsky's book appeared.

b. A review appeared *of Chomsky's book*.

In EX from DP, a phrasal constituent (PP or CP) surfaces in sentence-final position, separate from the head noun it modifies. EX creates what looks like a discontinuous

constituent. In spite of their different linearities, the two sentences in (3)/(4) receive the same interpretation. For this reason, they have usually been regarded as two ‘stylistic’ variants, with the (b) sentences deriving from their non-extrapolated counterparts in (a).

Although the construction has received a lot of attention in English (and other Germanic languages), research is much more scarce in Romance languages. To the best of my knowledge, no analysis of EX has been undertaken in Spanish. Moreover, the construction is absent from comprehensive descriptive grammars of Spanish (see for example Bosque and Demonte 1999). In this chapter I will provide data that show that EX is available in this language and displays a behavior that parallels in many respects that of the English construction. This initial perception will be confirmed by further data in subsequent chapters.

My aim at this point is to provide a detailed characterization of the phenomenon. With a view to identifying as precisely as possible the construction that will be the object of study of this dissertation, this chapter gathers an important part of the information available in the literature on EX. This information will be completed in the course of this thesis with the results obtained from the interaction of EX with other syntactic operations.

This chapter is structured as follows. Section 2 will focus on the description of EX from DP. The discussion will be articulated around the three linear segments that make up the construction. Thus, sub-section 2.1 will deal with the DP source of the extraposed constituent, to which I will refer as the head noun (HN). The extraposed constituent (EC) itself will be the topic of sub-section 2.2. The discussion in this section will revolve around two aspects: the base position of the EC inside the source DP (which is right-peripheral), §2.2.1, and the status of the EC as complement or adjunct to the head noun, §2.2.2. Finally, the linear string that separates the two parts of the split DP will be characterized in sub-section 2.3. I will refer to this string as the intermediate material (IM). In section 3, I will devote some lines to two syntactic constraints on EX: the *Right Roof Constraint* (Ross 1967), §3.1, and *Subjacency* (Chomsky 1986), §3.2. Section 4 will close the chapter with the conclusions.

2. Discontinuous DPs

As already mentioned, EX creates linearly discontinuous constituents. For the time being I will remain descriptively neutral as to the means by which such splits come into

being, i.e. if they result from movement or if they are base generated. In order to organize the discussion, this section will be articulated around the three segments in the discontinuous structure created by EX: the *head noun*, the extraposed constituent and the intervening material.

2.1. The head noun (HN)

2.1.1. General considerations

EX can potentially target any DP in the sentence in any of its syntactic functions. (5) to (8) illustrate, respectively, EX from a subject, a direct object, an indirect object and the complement of a preposition in Spanish and English. The English sentences in (b) are translations of the Spanish data in (a).

- (5) a. *Vino un hombre ayer que quería hablar contigo.*
came(3sg) a man yesterday who wanted(3sg) to-talk with-you
 b. *A man came in yesterday that wanted to talk to you.*
- (6) a. *Saqué un libro de la biblioteca sobre la vida en la Edad Media.*
took-out(1sg) a book from the library about the life in the Age Middle
 b. *I borrowed a book from the library about life in the Middle Ages.*
- (7) a. *Le hemos dado un regalo a una amiga esta mañana que se acaba*
CL_{DAT} have(1pl) given a present to a friend this morning who CL_{imper}.finish(3sg)
de graduar.
of to-graduate
 b. *We gave a present to a friend this morning who has just graduated.*
- (8) a. *Quisiera hablar con alguien ahora mismo que pueda ayudarme*
would-like(1sg) to-talk with someone now right who can(1sg.subj) to-help-me
a solucionar este problema.
to to-solve this problem
 b. *I would like to talk to someone right now who can help me solve this problem.*

Any of these constituents can be questioned, i.e. they can appear sentence-initially in the form of a *wh*-constituent. EX is also possible in these cases. (9) to (12) show the interrogative counterparts of the declaratives in (5) to (8) above.

- (9) a. *¿Quién vino ayer que quería hablar conmigo?*
who came(3sg) yesterday who wanted(3sg) to-talk with-me
 b. *Who came in yesterday that wanted to talk to me?*
- (10) a. *¿Qué libro sacaste de la biblioteca sobre la vida en la Edad Media?*
which book took-out(2sg) from the library about the life in the Age Middle
 b. *Which book did you borrow from the library about life in the Middle Ages?*
- (11) a. *¿A quién le habéis dado un regalo que se acaba de graduar?*
to whom CL_{DAT} have(2pl) given a present who CL_{imper} finish(3sg) of to-graduate
 b. *Who did you give a present to who has just graduated?*
- (12) a. *¿Con quién puedo hablar que me ayude a solucionar este problema?*
with whom can(1sg) to-talk who me help(3sg.subj) to to-solve this problem
 b. *To whom can I speak that can help me solve this problem?*

Although data like these will be discussed in chapter 9, I have included them at this point in order to complete the paradigm of contexts of EX usually discussed in the literature, namely EX from subject, object and *wh*-constituents. I will use the following abbreviations to refer to these instances of EX: EX(SU), EX(OB) and EX(*wh*).

One constraint on EX has been identified which is directly related to the head noun: a modifier cannot be extraposed from a DP headed by a definite DP or a demonstrative (*definiteness effects*). Not by chance, in all the examples used to illustrate EX up to this point the source DP was headed by an indefinite D. In the remainder of this section I will dwell on this restriction.

2.1.2. *Definiteness effects on EX*

Ziv and Cole (1974) observed that the availability of EX appeared to be constrained by the nature of the determiner heading the source DP. The examples used in (13) to illustrate the point are from Guéron and May (1984).

- (13) a. *A man showed up that hated Chomsky.*
 b. **The man showed up that hated Chomsky.*
 c. **I read that book during the vacation that was written by Chomsky.*

The contrasts in grammaticality shown in (13) suggest that EX is only possible out of DPs headed by the indefinite article. When the head of the DP is a definite article or a demonstrative, application of EX leads to unacceptability. But the sentences in (14) and (15) below show that definiteness effects are not exclusive of EX constructions. They also arise in cases of leftward extraction both in English and Spanish (see the *Specificity Constraint* of Fiengo and Higginbotham 1981). The Spanish data in (15) have been drawn from Demonte (1987).

(14) a. Who did Mary see a picture of?

b. ??Who did Mary see the picture of?

(15) a. ¿De qué poeta joven publicaste un soneto/?el soneto/*ese soneto?

by which poet young published(2sg) a sonnet/ the sonnet/ that sonnet

‘*By which young poet did you publish a sonnet/the sonnet/that sonnet by?’¹

b. ¿De qué soneto hiciste una traducción/??la traducción/??esa traducción?

of which sonnet made(2sg) a translation/ the translation/ that translation

‘Which sonnet did you do a translation / ?the translation /?that translation of?’

Definiteness effects in the context of EX have sometimes been analyzed as a syntactic phenomenon. Guéron and May (1984), for instance, claim that indefinites are quantifying, whereas demonstratives and definite Ds are not. As a result, in the analysis they propose, two different syntactic structures are attributed to the sentence in (13a), on the one hand, and to those in (13b,c), on the other. Only the former involves *Quantifier Raising* of the head noun at LF. This operation will create the syntactic configuration that licenses EX, where the head noun has to govern the EC. See chapter 3 for details of Guéron and May's proposal.

Kayne (1994) recasts EX in terms of leftward movement of the head noun, which strands the EC in the position where the DP originates. According to him, definiteness effects arise because the two types of DPs have different structures to the effect that D+N form a constituent only when D is an indefinite, as shown in the partial representations in (16b) below. In that case, the relative clause – with the head noun *a man* in SpecCP – modifies a null D head. In DPs headed by a definite D, on the other hand, the relative modifies the definite determiner and only the noun *man* appears in

¹ Extraction of an adjunct is independently ruled out in English. See footnote 6 below.

SpecCP, (16a). In other words, these two elements do not form a constituent. Given the assumption that only constituents move, an immediate consequence of Kayne's conception is that EX is available only in the case of indefinite DPs.

- (16) a. [DP [D the] [CP [NP man [C' that ...
b. [DP [D 0] [CP [NP a man [C' that ...

The problem for syntactic accounts of definiteness effects is that sentences like those in (17) are acceptable.

- (17) a. *Those students* will pass this course *who complete all their assignments on time.*
(Kayne 1994)
b. *The guy* just came in *that I met at TRENTO'S yesterday.* (Huck and Na 1990)
c. *The possibility* exists *that the first person to whom both versions of the epithet were applied (and within a couple of pages of each other), actually deserved them.* (Keizer 2007)

In spite of the fact that the DP subject is headed by a demonstrative, EX in (17a) is possible. (17b) is grammatical with contrastive stress on the constituent highlighted in capitals. (17c) shows an example drawn from Keizer (2007), who notes that definiteness effects do not arise when the EC is a *Noun Complement Clause*. In this and other contexts discussed in Keizer (2007), EX is not only possible out of both definite and indefinite DPs, but actually preferred over the non-extraposed version of the sentence, as in (18).

- (18) a. *The/A possibility* exists *that the first person to whom both versions of the epithet were applied (and within a couple of pages of each other), actually deserved them.*
b. ??*The/*A possibility* that the first person to whom both versions of the epithet were applied (and within a couple of pages of each other) actually deserved them exists.

Guéron (1980), Huck and Na (1990) and Maynell (2008), among others, have noticed that the acceptability of sentences like those in (17) above is dependent on the context

of utterance. Although unacceptable in isolation, these sentences improve once they are embedded in the appropriate context. Roughly, for EX from a definite DP to be possible, it is required that some constituent inside the relative is contrastively focused. According to Huck and Na (1990), (17b) is acceptable in a context in which A is speaking about two guys, one he met at Treno's and another one at Andrea's, and the first man suddenly comes into the room. From this observation, Huck and Na conclude that definiteness effects are interpretive in nature. Guéron (1980) and Maynell (2008) reach the same conclusion from different perspectives.

Turning now to Spanish, I will show that this language patterns with English with respect to definiteness effects in contexts of EX. The Spanish data in (19) reveal that the same contrasts arise as in English.

(19) a. *Hizo un comentario ayer con el que podría comprometer su campaña*
made(3sg) a comment yesterday with the which could(3sg) to-jeopardize his campaign
a la reelección.

to the reelection

‘He made a comment yesterday that could jeopardize his reelection campaign.’

b. **Hizo el comentario ayer con el que podría comprometer su*
made(3sg) the comment yesterday with the which could(3sg) to-jeopardize his
campaña a la reelección.

campaign to the reelection

‘*He made the comment yesterday that could jeopardize his reelection campaign.’

c. *Hizo *este/??ese/?aquel comentario ayer con el que podría*
made(3sg) this/ that that comment yesterday with the which could(3sg)
comprometer su campaña a la reelección.

to-jeopardize his campaign to the reelection

‘*He made this/that comment yesterday that could jeopardize his reelection campaign.’

The sentences above confirm that, in Spanish too, it is easier to extrapose from a DP when it is headed by the indefinite determiner than when it is headed by either a definite D or a demonstrative². Notice, however, that in the case of DPs headed by

² Spanish has a three-demonstrative system. The masculine singular forms are *este*, *ese*, *aquel* in order of increasing distance of the object pointed out from the speaker.

demonstratives the degree of acceptability is not uniform. In an appropriate context EX is possible from *ese/aquel* ('that') but not from *este* ('this').

Examples parallel to those in (18) above, which involve the EX of a *Noun Complement Clause*, are as acceptable in Spanish as they are in English.

(20) a. No hemos pensado en *la posibilidad* aún *de que Pedro sea inocente*.

not have(1pl) thought in the possibility yet of that Peter is(subj) innocent

'We haven't considered the possibility yet that Peter may be innocent.'

b. Unos días después de la muerte de Jesús corrió *el rumor* entre

some days after of the death of Jesus went-around(3sg) the rumor among

*sus seguidores de que había resucitado*³.

his followers of that had(3sg) risen-again

'Some days after Jesus' death the rumor went around among his followers that Jesus had risen again.'

The clausal complement of nominals like *rumor* ('rumor'), *afirmación* ('claim') or *posibilidad* ('possibility') is introduced in Spanish by the preposition *de* ('of'). EX of this PP is completely acceptable, as witnessed in (20). No definiteness effects arise when the DP is headed by the definite article.

From all the data discussed in this section, it can be concluded that the syntactic component allows for the generation of sentences containing constituents extraposed from a definite DP. Whether the sentence is finally acceptable or not depends on the context of utterance. Although I will not come back to these cases in this dissertation, I considered it necessary to include this discussion at this point for two main reasons: first, to offer a detailed description of the construction under study; and second, to identify potential sources of unacceptability that go beyond the interaction of EX with other syntactic operations. Consequently, I will avoid data in which EX takes place from a definite DP.

³ From http://dremthejahazielhistoriauniversal.blogspot.com.es/2008_08_01_archive.html

2.2. *The extraposed constituent (EC)*

I will consider two aspects in this section: the position of the EC within DP, and the nature of its relationship with the head noun, i.e. if the EC is a complement or an adjunct. The analysis of these two aspects will allow us to gain insight into what is possible and what impossible in EX.

2.2.1. *The Right Periphery Condition*

In the extensive literature on EX in English, it is often claimed that only PP and CP modifiers of N can undergo EX, as in (21) as opposed to (22), where modifiers of the category AP and NP are extraposed⁴. The low hyphen annotates the position where the EC appears in the non-extraposed version of the sentence.

(21) a. A man _ came into the room *with blond hair*.

b. A man _ came into the room *that no one knew*.

(Culicover and Rochemont 1990)

(22) a. *A _ man came into the room *dark-haired*.

b. *A _ student came into the room *Physics*.

The data in (23) below show, however, that certain adjectives are extraposable. The examples are drawn from Stucky (1987).

(23) a. I want to see someone at every window *armed and alert*.

b. Nothing ever shows up on her table *even remotely palatable*.

⁴ Only restrictive relative clauses and *Noun Complement Clauses* can extrapose. Appositive relatives are not extraposable, as witnessed in the ungrammaticality of (ib) for English, (iib) for Spanish.

(i) a. I met John, who I like a lot, yesterday.

b. *I met *John* yesterday, *who I like lot*.

(ii) a. Juan, que va a emigrar a China, va a dar una fiesta de despedida.

John who goes to to-emigrate to China goes to to-give a party of farewell

‘John, who is going to emigrate to China, is going to throw a farewell party.’

b. **Juan* va a dar una fiesta de despedida, *que va a emigrar a China*.

One of the differences between the AP/NP in (22) and the APs in (23) is the linear position they occupy with respect to the noun they modify in the non-extrapolated variant of the sentences. The former are pre-nominal modifiers, the latter post-nominal. Attributive adjectives occur post-nominally in very specific contexts in English (e.g. when they modify indefinite pronouns like *someone* or *nothing*). When attributive adjectives surface in this position, they are standardly analyzed as reduced relative clauses. Under this view, the sentences in (23) are to be regarded as reduced versions of those in (24). (25) shows the non-extrapolated version of (23).

(24) a. I want to see *someone* at every window *who is armed and alert*.

b. *Nothing* ever shows up on her table *which is even remotely palatable*.

(25) a. I want to see *someone armed and alert* at every window.

b. *Nothing even remotely palatable* ever shows up on her table.

But occurring post-nominally is not the only condition that an adjective has to fulfill to be extrapolatable. The degraded status of the sentences in (26) below – when compared with the grammatical (23) – indicates that only complex adjectives can be extrapolated, where complex roughly means modified, coordinated or heavily stressed⁵.

(26) a. *I want to see someone at every window *alert*.

b. *Nothing ever shows up on her table *palatable*.

From the examples presented above, it may be concluded that the right generalization is that only post-nominal constituents can undergo EX. It so happens that post-nominal modifiers of N are almost exclusively PPs or CPs. (23) above shows that the adjectives that exhibit the same distribution are also extrapolatable.

The restriction of EX to post-nominal constituents is not well-understood, but notice that a similar asymmetry is observed in cases of leftward movement, i.e. post-nominal, but not pre-nominal, modifiers can be moved to the left.

(27) a. *What is he a student? [He is a Physics student.]

⁵ With regard to the data in (23) above, Stucky (1987) adds the following comment in a footnote: “Here, one seems to need only to have a phrase with ‘enough’ (inverted commas in the original) content, which requires longer phrases than a single word in order to legitimize the extraposition.” (Stucky 1987:289)

b. What is he a student of? [He is a student of Physics.]

(28) *What color of hair is he a man? [He is a dark-haired man.]

In conjunction with the data in (21) and (22) above, these sentences show that a pre-nominal modifier (be it a complement or an adjunct) can neither *wh*-move nor extrapose. Post-nominal modifiers, by contrast, are free to separate from their head nouns by either of the two operations.

The ban on displacing a pre-nominal modifier is reminiscent of the *Left Branch Condition (LBC)*, proposed by Ross (1967) to rule out sentences like (29). In its original formulation the LBC banned extraction of an NP on the left branch of another NP.

(29) *Whose did you see [NP _ book]?

On the rare occasions in which this issue is addressed in the literature on EX, some constraint is proposed that is usually nothing but a mere description of the facts. One example is Wilder's (1995) *Right Periphery Condition*, whose definition appears in (30).

(30) *The Right Periphery Condition*

α may extrapose from β only if there is a trace of α in a right-peripheral position inside β .

According to Wilder (1995), (30) expresses the fact that EX is possible in the configuration in (31a) but not in (31b).

(31) a. [β α] \rightarrow [β t_α] ... α

b. * [β ... α ...] \rightarrow [β ... t_α ...] ... α

An account in which the restriction could be related to some other property of the language would be more desirable. I will not go into this question, but simply point out that the restriction exists. At this point I only intend to identify contexts in which EX is unacceptable for reasons that have nothing to do with the interaction of the construction with other syntactic phenomena and avoid using data involving such contexts.

So far the categorial status of the extraposed constituent has been considered, as well as its distribution prior to EX. Yet, nothing has been said of its relationship to the head noun, i.e. of its status as a complement or an adjunct. To this issue I turn directly.

2.2.2. Complement and adjunct modifiers

The question that arises in this respect is whether both complements and adjuncts are equally eligible for EX. In principle, examples like those in (32) and (33) seem to provide a positive answer to this question. The examples are from Culicover and Rochemont (1990)⁶.

(32) a. John saw a picture in the paper *of his brother*.

b. A report was made public today *that the ambassador was still in hiding*.

(33) a. A man came into the room *with blond hair*.

b. A man came into the room *that no one knew*.

The sentences in (33) illustrate EX of adjuncts, those in (32) EX of complements, a PP in (32a)/(33a) and a clause in (32b)/(33b). While adjuncts are relatively easy to extrapose, things are different for complements. In this respect, Sheehan (2010) reports the reluctance of most speakers to accept the sentences in (34), while they readily accept those in (35).

(34) a. *A *student* was invited *of Physics*.

b. *A *driver* has been seen *of a Ford Cortina*.

c. *A *lover* has been found *of fine food*.

(35) a. A *good solution* has been found *to the problem*.

b. A *problem* has emerged *with your proposal*.

c. A *picture* has been taken *of Mary*.

⁶ The sharp contrast in (i) shows that complements and adjuncts of N do not display the same behavior in contexts of leftward movement. However, in the case of EX in (ii), they seem to behave alike. The examples have been drawn from Fox and Nissenbaum (1999).

(i) a. Of whom did you see a painting yesterday?

b. *From where did you see a painting yesterday?

(ii) a. We saw *a painting* yesterday *of my brother*.

b. We saw *a painting* yesterday *from the museum*.

As can be seen, both complements and adjunct extrapose, whereas only complements *wh*-move. In this sense, EX seems to be less constrained than leftward movement.

The two sets of complements in (34) and (35) have been shown to behave differently on a number of counts. Thus, consider (36).

- (36) a. ?He found a solution to my problem, and I found one to his.
b. I took a picture of Mary, and you took one of John.
c. *He is the driver of a Ford Cortina and you're the one of the Jaguar.
d. *She's a lover of good food and I'm one of fine wine.

The *one*-replacement test indicates that the PPs in (35) do not behave as complements. *One* is a pro-N', i.e. it should replace minimally the nominal head and its complement. The fact that (36a) and (36b) are acceptable with substitution of the lexical noun alone indicates that this constituent is an N'. The PP modifier that follows is, according to this result, an adjunct. The fact that *one* cannot replace the noun in (36c) and (36d), on the other hand, is indicative of the N status of this constituent. The PP that follows the lexical head is therefore a complement.

From evidence of this sort, Chomsky (2008) concludes that PPs following so-called *picture* nouns are reduced relative clauses (hence, adjuncts). If this is so, only the PPs modifying agentive nominals – as in (34) – could be regarded as true complements. However, sentences like those in (37) below show that the distinction is not so clear-cut. It seems that the PPs in (35) can also display behaviors typical of complements. Thus, these PPs resist being separated from the nominal head by a PP adjunct⁷. For the purposes of EX, it seems that only in the case of complements of agentive nominals is strict adjacency required, with the subsequent ban on EX.

- (37) a. *A good solution from an expert to this problem.
b. ??A picture for John of Mary.

Turning now to Spanish data, it has to be noted that speakers tend to accept the EX of clausal constituents more readily than the EX of PPs. In the same way, it is easier to

⁷ Distinguishing complement PPs from adjunct PPs in the nominal domain is not an easy task, but a full discussion of this issue is beyond the scope of this dissertation. The reader is referred to Grimshaw (1990), Schütze (1995), Davies and Dubinsky (2003), Keizer (2007), Sheehan (2010) and the references quoted there for further details.

extrapose adjunct modifiers than complements. In what follows I will provide several examples. (38a) shows EX of a relative clause, (38b) EX of a noun complement clause.

(38) a. Hay *un chico* en la puerta *que quiere verte*.

there-is a boy at the door who wants to-see-you

'There is a boy at the door who wants to see you.'

b. Circularon *rumores* durante toda la mañana *de que se podía*

went-around(3pl) rumors during all the morning of which CL_{imper} could(3sg)

alcanzar un acuerdo de paz.

to-reach an agreement of peace

'Rumors went around the whole morning that a peace agreement could be reached.'

Notice that, strictly speaking, (38b) constitutes an instance of EX of a PP, where the complement of P is a clause. EX of this type of structure, i.e. EX of a PP with a clausal complement, is quite acceptable in Spanish. The sentences in (39) illustrate EX of adjunct PPs.

(39) a. En breve llamará *una persona* por teléfono *con la que no quiero hablar*.

in brief will-call(3sg) a person by telephone with the whom not want(1sg) to-talk.

'In a while a person will phone that I don't want to talk to.'

b. He comprado *unos terrenos* en mi pueblo *en los que quiero construir*

have(1sg) bought some land in my hometown in the which want(1sg) to-build

una casa.

a house

'I have bought some land in my hometown where I want to build a house.'

c. Pedro estuvo hablando *con una persona* en la fiesta *a la que ninguno de*

Peter was talking with a person at the party to the who none of

nosotros conocía.

us knew(3sg)

'Peter was talking to a person at the party that none of us knew.'

d. Sólo hemos contratado *trabajadores* para la campaña de Navidad *con*

only have(1pl) hired workers for the campaign of Christmas with

conocimientos de informática.

knowledge of computing

'We have only hired workers for the Christmas campaign with computing skills.'

The EX of PP complements is not so widely accepted, although in several cases it is quite natural. Thus, for example, as was the case in English, EX of complements of agentive nominals is not acceptable in Spanish. The data in (40) are the Spanish counterparts of the English sentences in (34) above.

(40) a. *Invitaron a *un estudiante* a la fiesta/ayer *de física*.

invited(3pl) to a student to the party/yesterday of Physics

'*They invited a student to the party/yesterday of Physics.'

b. *Vieron a *un conductor* ayer *de un Ford Cortina*.

saw(3pl) to a driver yesterday of a Ford Cortina

'*They saw a driver yesterday of a Ford Cortina.'

Again as in English, the PPs accompanying *picture* nouns behave as adjuncts and, as such, are extraposable.

(41) a. Aparecieron *fotos* en toda la prensa *de los disturbios de ayer* en Grecia.

appeared(3pl) pictures in all the press of the riots of yesterday in Greece

'Pictures appeared in all the newspapers of yesterday's riots in Greece.'

b. Tras tensas negociaciones se encontró *una solución* ayer *al*

after tense negotiations CL_{pass}found(3sg) a solution yesterday to-the

conflicto entre Israel y Palestina.

conflict between Israel and Palestine

'After tense negotiations a solution was found yesterday to the conflict between Israel and Palestine.'

c. Pedro le regaló *un libro* a su novia *sobre el calentamiento global*.

Peter CL_{DAT} gave(3sg) a book to his girlfriend about the warming global

'Peter gave a book to his girlfriend about global warming.'

d. Se aprobó *una moción* en el parlamento *contra la política económica*

CL_{pass} passed(3sg) a motion in the parliament against the policy economic

del gobierno.

of-the government

'A motion was passed in Parliament against the government's economic policy.'

Contrary to English, attributive APs in Spanish typically follow the noun, i.e. they can surface in the right periphery of DP. The question that arises is if they can be freely targeted by EX. (42) shows that this is not the case.

(42) a. **Me compré un coche ayer nuevo.*

me bought(1sg) a car yesterday new

'I bought a new car yesterday (for me).'

b. **Hay un chico en recepción rubio.*

there-is a boy at reception blond

'There is a blond boy at the reception desk.'

c. **Llegó un hombre a la fiesta alto.*

arrived(3sg) a man at the party tall

'A tall man arrived at the party.'

These sentences are interpretable but not acceptable, at least not with a neutral intonation. A clear improvement is observed when the adjective is modified, as in (43). Recall the English facts illustrated in (23)/(24) versus (26), where a similar effect was observed.

(43) a. *Me compré un coche ayer mucho más caro que el tuyo.*

me bought(1sg) a car yesterday much more expensive than the yours

'I bought a car yesterday much more expensive than yours.'

b. *Hay un chico en recepción rubio como el sol.*

there-is a boy at reception blond as the sun

'There is a boy at the reception desk as blond as the sun.'

c. *Llegó un hombre a la fiesta tremendamente alto y delgado.*

arrived(3sg) a man at the party tremendously tall and thin

'A man arrived at the party tremendously tall and thin.'

In summary, the data discussed above show that adjuncts are more easily extraposable than complements, although EX of the latter is not completely excluded. There appears

to be a certain type of complements that display a syntactic behavior similar to that of adjuncts; a similarity that extends to EX, which is available in the case of this specific type of complement.

2.3. *The intervening material (IM)*⁸

Keizer (2007) provides the following description when introducing a discussion of corpus data involving EX of relative clauses from DP:

Embedded clauses are among the most typical cases of the kind of displacement from NP: the displaced material is relatively lengthy and complex and typically contains focal (salient, often new), stressed information, while the intervening material is typically short, semantically light, non-salient (presupposed/given) and unstressed.

(Keizer 2007: 283).

In this paragraph the IM is characterized basically as ‘light’ in terms of length, syntactic complexity, prosody and semantic content when compared with the extraposed constituent. Compare the sentences in (44).

(44) a. ??Juan leyó *un libro* el verano que pasó en la India *sobre Gandhi*.

John read(3sg) a book the summer which spent(3sg) in the India about Gandhi

'John read a book in the summer he spent in India about Gandhi.'

b. Juan ha leído *un libro* este verano *sobre Gandhi*.

John has read a book this summer about Gandhi.

'John read a book last summer about Gandhi.'

c. ?Juan leyó *un libro* el verano que pasó en la India *sobre el pacifista*

John read(3sg) a book the summer which spent(3sg) in the India about the pacifist

más famoso de la historia, Gandhi.

most famous of the history, Gandhi.

'John read a book in the summer he spent in India about the most famous pacifist in history, Gandhi.'

⁸ Given that the lexical items that appear between the head noun and the EC do not necessarily form a syntactic unit to the exclusion of the latter, the terms *intervening linear segment*, *intervening lexical items* or *intervening material* will be preferred throughout this section to the more habitual *intervening constituent*.

Although the three sentences have the same structure (in all of them, a PP that modifies the object appears at the end of the sentence with a temporal adverbial intervening), they display different degrees of acceptability. The source of the deviance of (44a) resides, most probably, in the imbalance between the EC and the IM, which will have an effect on processing. Once a certain balance is attained, as in (44b,c), the sentences become acceptable. This effect is in tune with a very clear stylistic preference observed in many languages for short phrases and clauses to precede longer ones. Whatever factors turn out to be responsible for the marginality of (44a), they do not seem to be syntactic in nature.

In the data found in the literature, the IM consists overwhelmingly of time and/or place adverbials, as in (45), both standardly analyzed as VP adjoined constituents. They can appear in either of the available categories: DP, PP and CP, (46) and (47). The sentences in (47) are the English translations of the Spanish data in (46).

(45) a. Vi a una niña en el parque/ayer que llevaba un sombrero muy
saw(1sg) to a girl in the park / yesterday who had-on(3sg) a hat very
bonito.
beautiful

b. I saw *a girl* in the park/yesterday *that was wearing a very beautiful hat.*

(46) a. Ha venido un hombre esta mañana que quería hablar contigo.
has come a man this morning who wanted(3sg) to-talk with-you

b. He leído un artículo durante las vacaciones sobre la extraposición
have(1sg) read an article during the vacation about the extraposition
de cláusulas de relativo.
of clauses of relative

c. Ocurrió algo cuando te marchaste que deberías saber.
happened(3sg) something when you left(2sg) which should(2sg) to-know

(47) a. A man came in this morning *that wanted to talk to you.*

b. I read *an article* during the vacation *about the extraposition of relative clauses.*

c. *Something* happened when you left *that you should know.*

In (48), it can be seen that a time and a place adverbial can be part of the intervening material at the same time. The main requirement is that the heaviness of the IM is kept within bounds.

- (48) a. Hay *un hombre* delante de la casa desde esta mañana *que quiere hablar*
there-is a man in-front of the house since this morning who wants to-talk
contigo.
with-you
 ‘There is a man in front of the house since this morning who wants to talk to you.’
- b. Mi profesor dio *una conferencia* el sábado en el Liceo *que me pareció*
my professor gave(3sg) a lecture the Saturday at the Lyceum which me seemed(3sg)
muy interesante.
very interesting
 ‘My professor gave a lecture on Saturday at the Lyceum that I found very interesting.’
- c. ??/*Mi profesor dio *una conferencia* el fin de semana pasado en el nuevo
my professor gave(3sg) a lecture the end of week past in the new
 edificio que la universidad acaba de inaugurar en el campus *que me*
building that the university finishes of to-inaugurate on the campus which me
pareció muy interesante / sobre la extraposición.
seemed(3sg) very interesting / about the extraposition
 ‘My professor gave a lecture last weekend in the new building that the university has just inaugurated which I found very interesting/about extraposition.’
- (49) a. There was *someone* at the door this morning *that wanted to talk to you.*
 b. My professor gave *a lecture* last Saturday at the Lyceum *that I found very interesting.*

Manner adverbs are also standardly assumed to be part of VP. They can also surface between head noun and EC, but it has to be noted that not all speakers are equally ready to accept the sentences. The data in (51) are the English counterparts of the Spanish in (50).

- (50) a. Cuando alguien comete *un error* deliberadamente *que podía haber*
when someone makes a mistake deliberately which could(3sg) to-have
evitado, ¿merece una segunda oportunidad?
avoided deserves a second chance

- b. Ayer cancelaron una reunión sin previo aviso que se tenía
yesterday cancelled(3pl) a meeting without previous notice which CL_{imper} had(3sg)
 que celebrar el próximo fin de semana.
that to-take-place the next end of week
- c. He borrado un e-mail por error que contenía información muy
have(1sg) deleted an e-mail by mistake which contained(3sg) information very
 importante.
important

- (51) a. When someone makes a mistake deliberately that they could have avoided,
 should they be granted a second chance?
- b. Yesterday they cancelled a meeting unexpectedly that was going to take place
 next weekend.
- c. I've deleted an e-mail by mistake that contained very important information.

Higher in the structure than manner adverbials are those expressing purpose and condition⁹. They can be part of the IM as well. The sentences in (52) and (53) show clausal adverbials.

- (52) a. Hemos contratado a unos abogados para que representen a la empresa /
have(1pl) hired to some lawyers for that represent(3pl.subj) to the firm
 para representar a la empresa que pertenecen a una de las firmas más reputadas
for to-represent to the firm who belong(3pl) to one of the firms most reputable
 de la ciudad.
of the city
 'We hired some lawyers to represent the company who belong to one of the
 most reputable law firms in the city.'
- b. Tenemos que acudir a una reunión para pedir ayuda económica que se va
have(1pl) that to-attend to a meeting for to-ask support economic that CL_{imper} goes
 a celebrar en decanato.
to to-take-place at dean's office
 'We have to attend a meeting to ask for financial support which is going to take
 place at the dean's office.'

⁹ Binding and scope relations indicate that adverbials expressing event time are located in a position that immediately dominates the VP. Those expressing event condition or purpose are higher in the structure, those expressing cause being the most external adverbials in the clause. See Valmala Elguea (2009) and references quoted there.

c. Por la tarde llegaron unos inspectores para informarnos *que habían*
in the afternoon arrived(3pl) some inspectors for to-inform-us who had(3pl)
sido enviados por el director de la empresa.
been sent by the manager of the company
 ‘Some inspectors arrived in the afternoon to inform us who had been sent by the
 manager of the company.’

(53) a. Organizaremos una votación si lo permite el reglamento *en la que se*
organize(1pl) a vote if CL_{ACC} allows the regulation in the which CL_{pass}
elegirá a los representantes del comité.
will-choose(3sg) to the representatives of-the committee
 ‘We will organize a vote if the rules allow in which we will select the committee
 representatives.’

b. Te regalo un libro si te interesa (el tema) *sobre el calentamiento*
you give(1sg) a book if you be-interested(1sg) (the topic) about the warming
global.
global
 ‘I’ll give you a book if you are interested (in the topic) about global warming.’

Finally, the sentences in (54) illustrate the intervention of adverbial clauses and PPs expressing cause. These are assumed to be higher in the structure than all other adverbials.

(54) a. El gobierno suspendió una reunión porque no había suficiente quórum/
the government cancelled(3sg) a meeting because not there-was enough quorum
por falta de quórum que tenía que celebrarse antes de las vacaciones.
for lack of quorum which had(3sg) that to-take-place before of the holidays
 ‘The government cancelled a meeting because there was not enough quorum / due
 to lack of quorum which had to take place before the vacation.’

b. ?Despidieron a algunos empleados porque robaban dinero / por robar dinero
fired(3pl) to some employees because stole(3pl) money / for to-steal money
que habían empezado a trabajar antes del verano.
who had(3pl) started to to-work before of-the summer
 ‘They fired some employees because they stole money/for stealing money who
 had started working before the summer.’

Similar sentences are also possible in English. They require an intonational contour that includes a slight pause before the EC. This might be due to the length of the sentences.

- (55) a. We hired *some lawyers* to represent the company *who belong to one of the most reputable law firms in the city*.
- b. *Some inspectors* arrived in the afternoon to inform us *who had been sent by the manager of the company*.
- c. We will organize *a vote* if the rules allow *in which we will select the committee representatives*.
- d. I'll give you *a book* if you are interested (in the topic) *about global warming*.
- e. The government cancelled *a meeting* due to lack of quorum *which had to take place before the vacation*.
- f. They fired *some employees* because they stole money *who had started working before the summer*.

In the preceding examples, only the intervention of adverbial modifiers has been considered, but DP and PP arguments can also be part of the IM. In (56) below the IO *a María/to Mary* appears between the direct object and the constituent extraposed from it.

- (56) a. Juan le regaló un libro a María sobre el calentamiento global.
John CL_{DAT} gave a book to Mary about the warming global
- b. John gave a book to Mary about global warming.

In this section, it has been shown that the IM is made up most often of VP constituents (i.e. arguments and adverbials that are standardly analyzed as part of VP or as VP-adjoined). Notice that, although the different types of adverbials can be hierarchically ordered with respect to each another, they are all merged below *vP*. See Valmala Elguea (2009) for details concerning the specific positions of these adverbials in the tree diagram.

In order to complete the description of EX constructions, let me introduce into the discussion two syntactic constraints imposed on the operation.

3. Two syntactic constraints on EX from DP

Although throughout this chapter I have tried to remain neutral concerning the analysis of EX, in this section, I will discuss two syntactic constraints on EX that suggest that the construction involves movement. The two constraints are *the Right Roof Constraint* (3.1) and *Subjacency* (3.2).

3.1. The Right Roof Constraint (RRC, Ross (1967))

Ross (1967) noticed that an EC could not abandon the clause in which it originated, as illustrated in the contrasts in (57) and (58). Only the (b) sentences constitute violations of the restriction that has come to be known as the *Right Roof Constraint*. The original formulation of this constraint is provided in (59).

(57) a. [_{CP} The fact [_{CP} that someone t_i walked into the room [who I knew]_i] was irrelevant].

b. *_{CP} The fact [_{CP} that someone t_i walked into the room] was irrelevant] [who I knew]_i.

(58) a. [_{CP} El hecho [_{PP} de [_{CP} que entrara alguien t_i en la habitación]

the fact of that walked(3sg subj) someone in the room

[al que yo no conocía]_i] es irrelevante].

to-the who I not knew(1sg) is irrelevant

b. *_{CP} El hecho [_{PP} de [_{CP} que entrara alguien t_i en la habitación]] es irrelevante] [al que yo no conocía]_i.

(59) In all rules whose structural index is of the form ... A Y, and whose structural change specifies that A is to be adjoined to the right of Y, A must command Y.

It has to be noted that the notion of *command* used by Ross (1967) in this definition goes up to the first S, which prevents rightward movement from targeting positions outside the clause where the moving constituent originates.

No matter whether EX is analyzed in terms of rightward movement or otherwise, what is undisputed is the fact that no clause boundary can separate HN and EC. In this respect, EX is different from leftward movement operations. The data in (60) show that

a *wh*-moved constituent can abandon the clause where it has its base position. This type of contrast has traditionally been explained by stipulating that rightward movement simply obeys different constraints from leftward movement. For some mysterious reason, only the latter is allowed to proceed successive cyclically, as in (60).

(60) a. Who_i did you say [_{CP} *t*'_i that Peter saw [a picture of *t*_i]]?

b. ¿A quién_i dices [_{CP} *t*'_i que vio Pedro *t*_i]?
to whom say(2sg) that saw(3sg) Peter

‘Who did you say that Peter saw?’

The *wh*-constituent in (60) moves to its final landing site in the Spec of the matrix CP through an intermediate landing site: the Specifier of the embedded CP. For reasons that have never been explained satisfactorily, the EC cannot make use of the periphery of the embedded clause in a way similar to the *wh*-phrase in (60). Should such a move be possible, the derivations in (61) below – with an intermediate trace in the right periphery of the embedded clause – would be well-formed, contrary to fact.

(61) a. *[The fact [_{CP} that someone *t*_i walked into the room] *t*_i was irrelevant] [who I knew]_i.

b. *[El hecho [_{PP} de [_{CP} que entrara un hombre *t*_i en la habitación]] *t*_i es
the fact of that came-in(subj3sg) a man into the room is
 irrelevante] [al que yo no conocía]_i.
irrelevant to-the who I not knew(3sg)

This asymmetry between EX and other movement operations has been regarded as a problem that has to be explained by those that analyze EX in terms of movement. It is not desirable that movement operations are subject to different constraints depending on their directionality. I will come back to this problem in chapter 5.

3.2. *Subjacency (Chomsky 1986)*

The depth of embedding of the source DP also seems to be a factor in the availability of EX in English, as witnessed in the contrast in (62) and (63). The former examples are drawn from Akmajian (1975), the latter from Chomsky (1986).

- (62) a. [_{DP} A photograph t_i] was published last year [of a book about French cooking]_i.
 b. *_{[DP} A photograph [_{PP} of [_{DP} a book t_i]]] was published last year [about French cooking]_i.
- (63) a. [_{DP} [_{DP} Many books with stories] t_i] were sold [that I wanted to read]_i.
 b. *_{[DP} Many books [_{PP} with stories t_i]] were sold [that I wanted to read]_i.

In these two pairs of sentences, construal of the EC with the most deeply embedded nominal in subject position is excluded. This fact has standardly been attributed to a violation of *Subjacency* (a constraint on movement that allows a constituent to cross only one bounding node at a time, where NP and IP are bounding nodes). But the role of this constraint in the availability of EX has also been called into question. Consider the data in (64), drawn from Strunk and Snider (2008)¹⁰.

- (64) a. A wreath was placed [in [_{DP} the doorway [of [_{DP} the brick rowhouse t_i]]]] yesterday [which is at the end of a block with other vacant dwellings]_i.

¹⁰ The lack of *Subjacency* effects in the case of EX in German is so generalized that many linguists doubt that they exist at all. See Haider (1997), Kiss (2005), Müller (2004), Müller and Meurers (2006), among others. For the opposite view, see Keller (1995) and Wiltschko (1997).

The following sentences show that the EC can actually be construed with a relatively deeply embedded constituent in German. (ia) is a constructed example from Müller (2004) and (ib) an authentic example from Strunk & Snider (2008).

- (i) a. Karl hat mir [_{DP} eine Kopie [_{DP} einer Fälschung [_{DP} des Bildes [_{DP} einer Frau t_i]]]
Karl has me_{DAT} a_{NOM} copy a_{GEN} forgery the_{GEN} picture a_{GEN} woman
 gegeben, [[die schon lange tot ist]_i.
given that already long dead is
 ‘Karl gave me a copy of a forgery of the picture of a woman who has been dead for a long time’
- b. Und dann sollte ich [_{DP} Augenzeuge [_{DP} der Zerstörung [_{DP} einer Stadt t_i] werden,
and then should I eye witness the_{GEN} destruction a_{GEN} city become
 [die mir am Herzen lag]_i – Sarajevo.
that me_{DAT} at-the_{DAT} heart lay - Sarajevo
 ‘And then I was about to become eye witness of the destruction of a city that was dear to my heart – Sarajevo.’

The freedom observed in the extraposition of an adjunct from a deeply embedded DP contrasts with the impossibility of extraposing a complement. The example in (ii) is Haider’s (1997).

- (ii) *Man hat den Überbringer des Befehls t_i heftig beschimpft, [den Platz zu verlassen]_i.
they have the_{ACC} deliverer the_{GEN} order severely scolded the_{ACC} square to clear
 ‘They scolded severely the deliverer of the order that the square had to be cleared.’

- b. We drafted [DP a list [of [NP basic demands t_i]]] that night [that had to be unconditionally met or we would stop making and delivering pizza and go on strike]_i.
- c. For example, we understand that Ariva buses have won [DP a [NP number [of [NP contracts [for [NP routes [in [NP London]] t_i]]]]]]] recently [which will not be run by low floor accessible buses]_i.

The question is now how these data can be reconciled with the contrast in (62) and (63) above. It is noteworthy that the English examples where EX is allowed to cross several bounding nodes are notably more complex than the sentences in (62) and (63). However, despite their structural complexity, the head noun is linearly very close to the EC – both in post-verbal position. Linear proximity may well be a factor in the final acceptability of EX. That this observation might be on the right track, i.e. that factors other than the purely structural might come into play in the perception of acceptability, appears to be supported by the results of an experiment reported in Strunk and Snider (2008).

The data in (65) to (68) below illustrate two of the conclusions they reach in their work. No significant difference was observed between examples (65) and (66), despite the fact that in the former only one maximal projection is crossed, as opposed to the five which are crossed in the latter. If *Subjacency* held, (66) should be considerably worse than (65).

(65) I consulted [DP the diplomatic representative [PP of [DP a small country [PP with [DP border disputes _]]]]] *early today* [which threaten to cause a hugely disastrous war].

(66) I consulted [DP the diplomatic representative [PP of [DP a small country [DP with [DP border disputes]]]]_] *early today* [who threatens to cause a hugely disastrous war].

Similar results are obtained from the comparison of (67) and (68). Although four maximal categories are crossed in (67) but only one in (68), most of the subjects interviewed preferred the former. Once more the facts appear to contradict *Subjacency*.

(67) I consulted [DP the diplomatic representative] [PP about [DP a small country [PP with [DP border disputes _]]]] *early today* [which threaten to cause a hugely disastrous war].

(68) I consulted [_{DP} the diplomatic representative _] [_{PP} about [_{DP} a small country [_{PP} with [_{DP} border disputes]]]] *early today* [who threatens to cause a hugely disastrous war].

It has to be noticed that, in all the examples, the EC is linearly very close to the head noun in the cases that should violate *Subjacency*. It seems that the linear proximity compensates somehow for the extraction across several XPs. Further research is required to be able to formulate more precise locality constraints on EX. At the moment, I have nothing to add to the discussion in this respect.

Let me turn briefly to Spanish to show that similar constraints as those just illustrated hold in this language. The sentence in (69b) shows that an extraposed constituent can be construed with a nominal embedded inside another nominal without giving rise to ungrammaticality. It has to be noted, however, that the sentence is degraded when compared with (69a).

- (69) a. Se ha publicado [una fotografía t_i] esta mañana [de una mujer que CL_{pass} has published a picture this morning of a woman who desapareció hace tres días]_i.
disappeared(3sg) since three days
 ‘A picture has been published this morning of a woman that disappeared three days ago.’
- b. ?Se ha publicado [una fotografía [de [una mujer t_i]]] esta mañana [que desapareció hace tres días]_i.

Notice that EX is acceptable when the head noun is headed by an indefinite D – as in (70a) below –, even though the more external DP is headed by a definite D. The acceptability of the sentence is degraded when the DP source of the EC is headed by a definite D. If both DPs are definite, the sentence is unacceptable.

- (70) a. Se ha publicado la fotografía *de una mujer* esta mañana *que desapareció*
CL_{pass} has published the picture of a woman this morning who disappeared(3sg)
hace tres días.
since three days

‘The picture has been published of a woman this morning who disappeared three days ago.’

b. ??/*Se ha publicado una fotografía *de la mujer* esta mañana *que*

CL_{pass} has published a picture of the woman this morning who
desapareció hace tres días.

disappeared(3sg) since three days

‘A picture has been published of the woman this morning who disappeared three days ago.’

c. *Se ha publicado la fotografía *de la mujer* esta mañana *que desapareció*

CL_{pass} has published the picture of the woman this morning who disappeared(3sg)
hace tres días.

since three days

‘The picture has been published of the woman this morning who disappeared three days ago.’

It is very difficult to assess if EX from more deeply embedded DPs is possible at all. Thus, the sentence in (71), for instance, sounds very unnatural, but this might be due to the iteration of PPs headed by *de* (‘of’) and of indefinite articles. Compare with (72), where there is no EX. Although rather unnatural, the sentence in (72) is grammatical.

(71) ?Carlos me ha dado [una copia [de una fotografía [de una mujer t_i]]] esta

Charles me has given a copy of a picture of a woman this
mañana [que desapareció hace tres días]_i.

morning who disappeared(3sg) since three days

‘Charles gave me a copy of a picture of a woman this morning who disappeared three days ago.’

(72) Carlos me ha dado esta mañana una copia de una fotografía de una mujer (que desapareció hace tres días).

In the preceding section, it was shown that EX is confined to the limits of the clause in which the EC originates. This section has introduced another measure of locality: the structural distance between the EC and its head noun, i.e. the number of maximal projections that can separate the two segments of the split DP. It has been shown that, in some cases, the number reduces to two. In other words, it seems that EX obeys *Subjacency* (a principle defined on leftward movement operations that states that a

maximum of two bounding nodes can be crossed by movement, where NP and IP are bounding nodes)¹¹. This principle, however, can barely be enough in the face of the contrasts between (62) and (63), on the one hand, and sentences like those in (64), on the other.

4. Conclusion

In this chapter, I have described in some detail the construction that will constitute the subject of study of this dissertation: EX from DP. The initial sections characterized the two segments of the split DP that results from EX (i.e. the head noun and the EC), as well as the type of constituents that can appear between these two units (which I have called the *intervening material*).

I have shown that, contrary to what has been claimed in the literature, EX is possible in Romance. Although the starting point of my description has been the situation in English, I could always provide parallel examples in Spanish. In other words, it has been shown that the two languages display very similar patterns of EX. The comparative component will also play a central role in the remaining chapters.

As far as the source DP is concerned, two basic facts have been mentioned. First, EX can take place from any DP in any syntactic function (subject, direct object, indirect object and complement of P). Second, when the source DP is headed by a definite determiner or a demonstrative, EX tends to be unacceptable. Nevertheless, it has been shown that some of these so-called *definiteness effects* are neutralized when the sentences are embedded in an appropriate context, which highlights the importance of extra-grammatical factors in the operation of EX.

Concerning the EC, it has been observed that PP and CP modifiers can extrapose. This claim, which appears repeatedly in the literature, has been qualified by showing that post-nominal adjectives are also eligible for EX. Pre-nominal modifiers, on the other hand, are generally excluded. It seems to be the linear position of the

¹¹ Baltin (1981, 1983) proposes a reformulation of *Subjacency* along the lines in (i), a new principle that he calls *Generalized Subjacency* and that incorporates the directionality of movement as a crucial factor in determining which maximal projections count as bounding nodes.

(i) *Generalized Subjacency (GS)*

In the configuration $A...[\alpha...[\beta...B...]\beta...]\alpha...A'$,

(a) A and B cannot be related where α and β = NP, PP, and either one or both of S and S';

(b) A' and B cannot be related where α and β are maximal projections of any major category.

modifier with respect to the nominal head that matters. It has likewise been shown that this restriction emerges also in the case of extraction to the left. Post-nominal but not pre-nominal modifiers can undergo leftward extraction.

Continuing with the EC, another question that has been explored in the literature is whether the complement-adjunct distinction plays any role in the availability of EX. In this chapter, a sub-set of complements have been shown to resist EX, namely the complements of agentive nominals. Adjuncts and complements of other types of nominals undergo EX without problems.

As to the IM, different adverbials have been shown to be allowed between the head noun and the EC. All of them are usually analyzed as being placed in the VP area (below vP).

To close the description of the construction I included in the final section two constraints on EX that appear recurrently in the literature: the *Right Roof Constraint* (RRC) and *Subjacency*. As the two are well-known constraints on movement, subjection of EX to them should constitute evidence that EX is a movement operation. Although it is quite clear that EX obeys the RRC (the EC and its head noun have to belong in the same CP), the case for *Subjacency* is more difficult to make. The evidence provided in the literature is contradictory. Some data show that an EC can be construed with a DP that is relatively deeply embedded inside another DP. However, other examples show just the opposite. A study carried out by Strunk and Snider (2008) concludes that other factors – such as the linear proximity between HN and EC – have to be taken into consideration.

In this chapter I have tried to remain neutral as concerns the potential syntactic analysis of EX. Now I will turn to the proposals that have been made in the course of time.

Chapter 3

Previous accounts

1. Introduction

EX from DP has received a lot of attention in the syntactic discussion. A clear indication of this interest is the number of analyses that have been proposed. It is the aim of this chapter to present the most significant among them.

It is important to notice that the accounts that will be presented here have been proposed in the course of several decades. For this reason, the presentation will reflect different stages in the evolution of the grammatical theory. This will be particularly visible in the labels (and tree diagrams) that will be used in the different sections of this chapter. It will likewise be patent in the logic of some of the arguments which, in the meantime, has become obsolete. At this point, I do not intend to offer a critical review of the different analyses, so I will try to remain faithful to the original proposals. Only in some cases will it be necessary to update some aspects of some particular analysis.

The chapter is organized as follows. On the whole, eight analyses of EX from DP will be briefly reviewed. The presentation will be divided in two sections, each dealing with four proposals. The parameter used to make this division is the directionality of EX. Thus, in the four accounts in section 2, the EC is located on a right branch. Three of these analyses explain this location by movement, one by base-generation. The former will be sketched in subsection 2.1, the latter in subsection 2.2. Guéron and May (1984) and Baltin (1981) argue for rightward movement. Their proposals will be presented respectively in sections 2.1.1 and 2.1.2. A more modern incarnation of this type of analysis is found in Fox and Nissenbaum (1999), §2.1.3. In subsection 2.2 an alternative in terms of base-generation will be presented, Culicover and Rochemont's (1990).

Since Richard Kayne proposed his *antisymmetry* theory in 1994, many linguists have adopted the *Lexical Correspondence Axiom* (LCA) as the linearization algorithm in their analyses. Given that the LCA maps hierarchical superiority onto precedence, rightward movement operations, of which EX is just one example, are excluded from any framework adopting this principle. As a result, several attempts have been made to accommodate the analysis of EX to the new proposal. Four such attempts will be

presented in section 3. Although three of the analyses resort to leftward movement to derive the position of the EC, they will use different strategies. Thus, Kayne (1994) proposes an analysis in terms of stranding, which will be described in section 3.1.1; Wilder (1995) argues for distributed deletion (§3.1.2); and Göbbel (2006) and Müller (1997) for remnant movement, §3.1.3. The section is closed with a reformulation of Culicover and Rochemont's original account proposed by the same authors (Rochemont and Culicover 1997). They argue once again for base-generation but this time on left branches. Their analysis is presented in section 3.2. The chapter is closed with the conclusions in section 4.

Although not exhaustive, the analyses selected to illustrate the discussion on EX are varied and representative of the main lines of research on the construction. It is now high time to introduce the first of these proposals.

2. The classical approaches: right branches

In the earliest accounts of EX, the right peripheral position of the EC was explained either in terms of movement to the right or of base generated right adjunction. These two options will be tackled in turn in the following subsections.

2.1. EX as rightward movement (RM)

The first accounts of EX analyzed the operation as a reordering rule that moved the relative clause or PP modifier of a head noun to the right periphery of the sentence. Thus, (1b) was related with (1a) by means of a movement transformation. In what follows, I will present three different incarnations of this basic idea.

(1) a. A book by Chomsky appeared last week.

b. A book t_i appeared last week *by Chomsky*_i.

For analyses in terms of rightward movement, see among others Ross (1967), Akmajian (1975), Guéron (1980), Guéron and May (1984), Reinhart (1980), Baltin (1981, 1984) and, more recently, Buring and Hartmann (1997).

2.1.1. Guéron and May (1984)

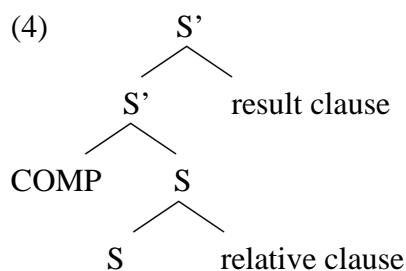
Guéron and May (1984) propose that the EC is adjoined, via rightward movement, to the S node. They present two pieces of empirical evidence that support S-adjunction. First, on the basis of a comparison between the syntactic behavior of ECs and result clauses, they conclude that both are outside VP. The sentences in (2) are used to prove the point.

- (2) a. Many people have left the party who John despises, but few have who Mary admires.
b. So many people have left the party that John started cleaning up, but too few have for Mary to stop dancing.

In both cases, the VP *left the party* has been deleted in the second conjunct. The acceptability of the two sentences indicates that both extraposed relatives, (2a), and result clauses, (2b), can be stranded by VP-deletion. They must, consequently, be outside VP.

The second piece of evidence involves the ordering of extraposed result clauses with respect to extraposed relatives. The contrast in (3) shows that a result clause can never precede an EC. From this linearity, Guéron and May (1984) conclude that ECs are adjoined to S, whereas result clauses are a level higher in the structure, i.e. adjoined to S'. These two nodes, S and S', can be translated as the more modern IP/TP and CP, respectively. This hierarchical configuration is schematically represented in (4).

- (3) a. Everybody is so strange whom I like that I can't go out in public with them.
b. *Everybody is so strange that I can't go out in public with them whom I like.



In Guéron and May's system, the LF of a sentence containing an EC has to satisfy the necessary condition stated in (5).

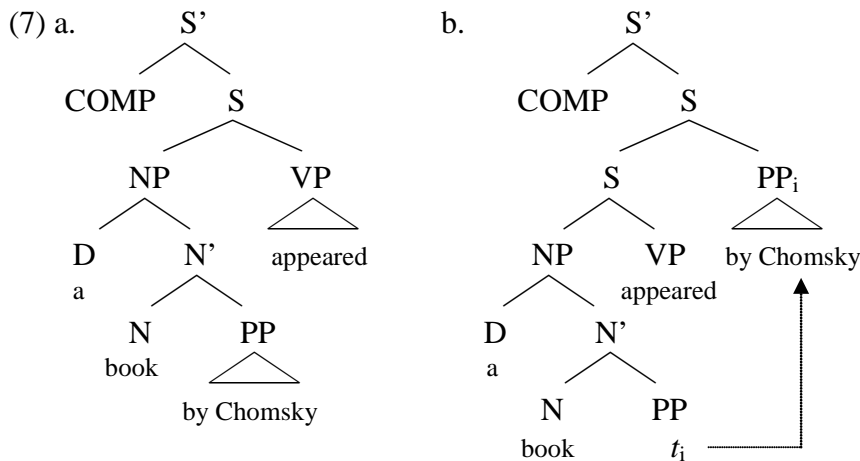
(5) In a sequence of categories $\alpha_i, \beta_i^1, \dots, \beta_i^n$ in a structure Σ , $\beta_i^1 \dots \beta_i^n$ are complements to α_i only if α_i governs $\beta_i^1, \dots, \beta_i^n$.

Choice of β is restricted to maximal projections, whereas α could be either maximal or minimal (i.e. a phrase or a lexical head). If α is a lexical head, β will be a strictly subcategorized complement.

The notion of government used by Guéron and May (1984) is given in (6), where maximal projections are S', NP, VP, AP and PP.

(6) α governs β iff α, β are dominated by all the same maximal projections, and there are no maximal projection boundaries between α and β .

(7) shows the (simplified) LF structures that the sentences in (1) above would be assigned in this system.

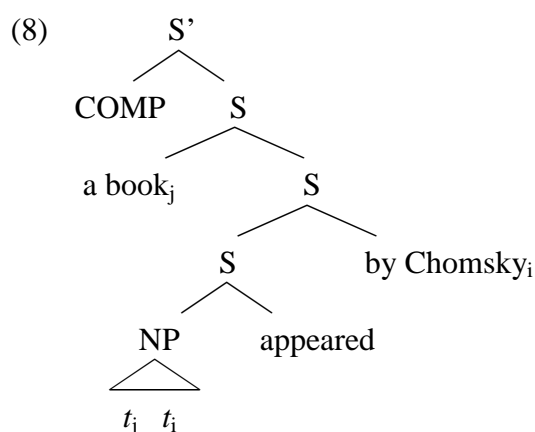


As can be seen, in (7a), the head noun *book* governs the PP *by Chomsky*, according to the definition of government in (6). As a result, N and PP stand in a head-complement relation at LF, as required by the condition in (5).

However, when EX takes place, as in (7b), things change. In its right-adjoined position, the extraposed PP is dominated by a unique node, namely S'. Since only one segment of S dominates PP, it cannot be said that PP is dominated by S. N, on its part, is dominated by NP, S and S'. As a consequence, government does not hold any longer

and the head-complement relation does not obtain. Even though the LF in (7b) appears to violate the condition in (5), the sentence is grammatical.

In order to solve this problem, Guéron and May (1984), following Guéron (1980), propose that the head-complement relation be ‘reconstructed’ at LF. In the case at hand such reconstruction is indeed possible. The NP *a book*, which – being headed by an indefinite article – is assumed to be quantificational, can raise and adjoin to S in an instance of *Quantifier Raising* (QR). The resulting LF is shown in (8).



In the new configuration, both N and PP are dominated exclusively by S'. PP is, therefore, governed by N. In other words, the head-complement relation that had been broken by EX has been restored via QR of the head noun. The implication is that, if QR does not take place, the head-complement relation will not be restored and the resulting LF will be ill-formed. In such a context EX is not expected to be possible. This situation arises when the DP source is not quantificational, i.e. when it is headed by a definite D or a demonstrative, as in (9). See chapter 2, section 2.1.2 for a description of *definiteness effects* in EX constructions.

(9) a. *The man showed up that hated Chomsky.

b. *I read that book during the vacation that was written by Chomsky.

(Guéron and May 1984)

Guéron and May's (1984) is not the only analysis of EX in terms of RM that can be found in the literature. In the following subsection, a proposal by Baltin (1981) will be sketched.

2.1.2. Baltin (1981)

Baltin (1981) formulates a rule he dubs *Detachment Rule* (for a similar phrase structure rule, see Ross 1967), and a principle called *Generalized Subjacency* to derive EX. They are provided in (10) and (11).

(10) *Detachment Rule*

$$\begin{array}{c} S' / PP - X \\ 1 \quad 2 \rightarrow 2 \quad 1 \end{array}$$

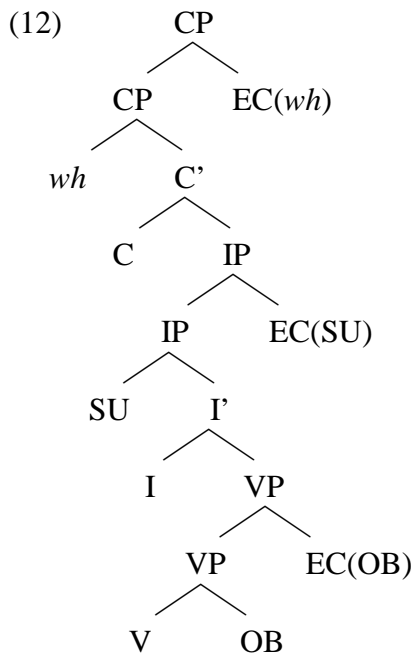
(11) *Generalized Subjacency (GS)*

In the configuration $A...[\alpha...[\beta...B...]\beta...] \alpha...A'$,

- (a) A and B cannot be related where α and β = NP, PP, and either one or both of S and S';
- (b) A' and B cannot be related where α and β are maximal projections of any major category.

The transformational rule formalizes the movement operation, and GS constrains the potential target positions. The part of GS that is relevant for RM is (b) and it states that a constituent cannot be rightward-moved across more than two XPs of any major category. (11b) amounts to saying that the EC has to be attached to the minimal maximal projection dominating the DP where it originates. Thus, in EX(OB), the EC will adjoin to VP; in EX(SU) to IP and in cases of EX(*wh*) to CP. This is shown schematically in (12) below.

It has to be noted that Baltin (1981) incorporates in his definition of GS the observation that RM and leftward movement (LM) obey – at least partially – different constraints. As it stands, the principle in (11) is a stipulation, given that it does not derive the asymmetry between RM and LM from any property of the constructions involved.



The positions of the ECs shown in (12) have been widely assumed in the literature. In chapter 5, I will come back to this configuration to show that most of the evidence used to support such an analysis of EX is based on old assumptions that are no longer entertained.

The discussion turns now to a more recent analysis of EX in terms of RM. It is provided in Fox and Nissenbaum (1999).

2.1.3. Fox and Nissenbaum (1999)

The starting point of Fox and Nissenbaum's (1999) analysis, which deals exclusively with EX(OB), is a well-known asymmetry: although adjuncts resist extraction from DP, they can be extraposed without problems, (13). This fact, coupled with the observation that complements are equally extractable as they are extraposable, (14), leads them to propose a dual analysis of EX. Thus, they will argue that, while PP complements and *Noun Complement Clauses* undergo overt movement to the right periphery of the sentence, EX of PP adjuncts and relative clauses involves base generation of the EC.

(13) a. *From where did you see a painting yesterday?

b. We saw a painting yesterday from the museum.

(14) a. Of whom did you see a painting yesterday?

b. We saw a painting yesterday of my brother.

The two linguists provide evidence that EX of complements shows certain signs of involving movement, while the behavior of adjuncts points in the opposite direction. Thus, only complements can undergo ATB movement, as in (15).

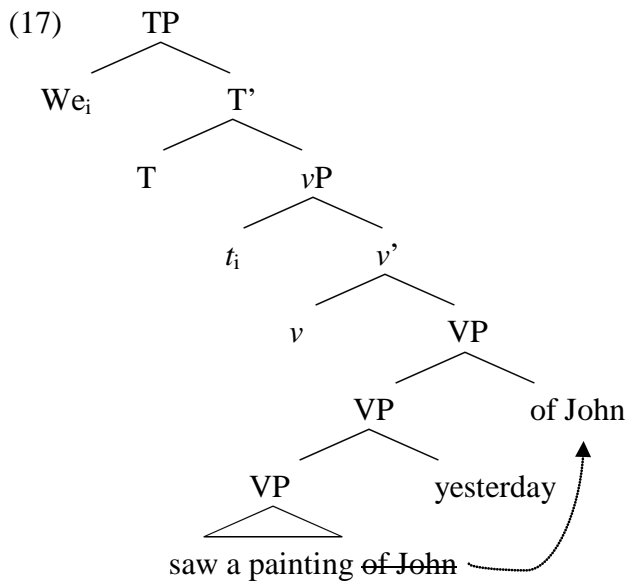
- (15) a. I wanted to [read a book _] and [understand an article _] very badly about the museum we visited last year.
b. *I wanted to [read a book _] and [understand an article _] very badly from the library we visited last year.

Similarly, only extraposed complements induce principle C effects, as in (16).

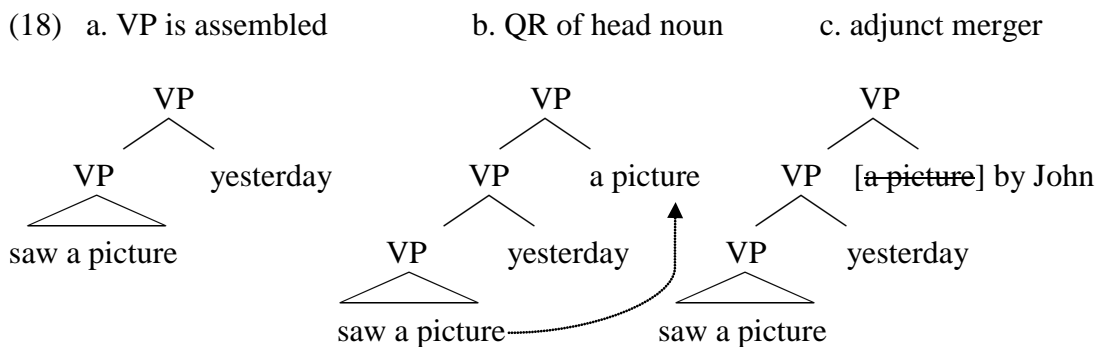
- (16) a. I gave him_i a picture yesterday from John's_i collection.
b. ??/*I gave him_i a picture _ yesterday of John's_i mother.

The ungrammaticality of (16b) with a correferential reading is due to the fact that the extraposed complement reconstructs to the position of its head noun, which is in the c-command domain of the pronoun. In (16a), on the contrary, as the adjunct is assumed to be base generated in its surface right-adjoined position, no reconstruction will be possible. As the R-expression is outside the c-command domain of the pronominal, no principle C effects arise and correferentiality is possible. See the derivation of adjunct EX provided in (18) below.

In the light of these facts, Fox and Nissenbaum conclude that complement EX involves movement and propose an analysis which does not differ from previous accounts of EX. The EC undergoes rightward movement and the higher copy (which is the right-adjoined copy) is pronounced. The representation of a sentence like *We saw a painting yesterday of John* is shown in (17), where strike-through annotates phonological deletion.



As for adjunct EX in a sentence like *We saw a painting yesterday by John*, Fox and Nissenbaum (1999) provide evidence that the head noun undergoes (covert) QR, which places the DP in a right-adjoined position which is hierarchically higher than its base position^{12,13}. The extraposed modifier will be merged with the Q-raised copy in what is an application of *Late Insertion* (in the sense of Lebeaux 1988). These three steps of the derivation of adjunct EX are shown in (18a) to (18c).



In (18c), the head noun will be pronounced in its pre-QR position and the extraposed PP in the only position in which it appears. This pattern of pronunciation results in covert

¹² Fox and Nissenbaum (1999) assume that overt movement operations can intersperse with covert movement operations. In other words, they conceive movement as a copying operation in which phonology will target one of the copies that make up a chain for pronunciation. The phonological realization of the head of the chain will result in what has been called overt movement, whereas pronunciation of the tail will yield covert movement structures.

¹³ The evidence for QR of the head noun is based on scope. In order to keep the discussion within bounds I will not reproduce the author's arguments here. The interested reader is referred to the original paper for details.

QR; *Late Merger* of the adjunct in the illusion of EX. What is not completely clear is why QR should take place to the right.

As mentioned at the outset of this section, Fox and Nissenbaum (1999) deal only with EX(OB) with the main focus placed on the differing behavior of extraposed complements and adjuncts, which is explained, as we have just seen, by assuming different syntactic structures for the two cases. Although the same type of analysis could be extended to EX(SU) and EX(*wh*), I will refrain from any such attempt as it would be pure speculation on my part.

After reviewing some of the main analyses of EX in terms of rightward movement, I will turn to a proposal that rejects the derivation of EX constructions in terms of movement.

2.2. EX as base generation: Culicover and Rochemont (1990)

Based on certain asymmetries observed between rightward and leftward movement, Culicover and Rochemont (1990) conclude that EX does not involve movement at all. First, they observe that, while a leftward-moved constituent can appear unboundedly far from its base position, a rightward-moved constituent cannot abandon the clause in which it originates (Ross's 1967 *Right Roof Constraint*). This contrast is illustrated in (19). See also chapter 2, section 3.1.

- (19) a. Who_i did Mary say [_{CP} that John saw a picture of *t*_i in the newspaper]?
- b. *It was believed [_{CP} that John saw a picture *t*_i in the newspaper] by everybody [of his brother]_i.

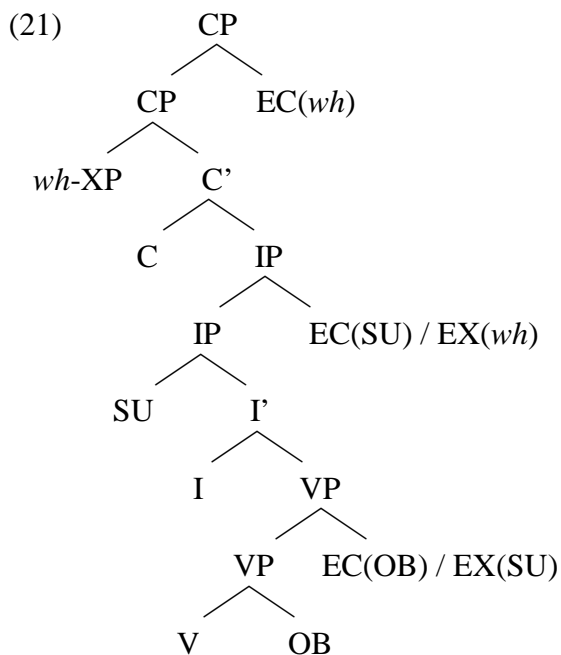
The moved constituent in these two sentences has to cross a clause boundary to reach its final landing site. This movement operation yields grammatical results only in the case of LM. This asymmetry is generally attributed to the fact that LM, as opposed to RM, is cyclic. Thus, while a *wh*-phrase can proceed through the embedded SpecCP (an intermediate position), a constituent that moves to the right cannot make use of the right periphery of the embedded clause on its way to its final adjunction site in the matrix. For reasons that are not well understood, the EC cannot adjoin to the embedded CP in order to neutralize its barrierhood.

A second asymmetry between RM and LM is that the former, but not the latter, allows sub-extraction out of a subject, as shown in (20).

(20) a. *[With what color hair]_i did a man *t_i* come into the room?

b. A man came *t_i* into the room [with blond hair]_i.

In the light of these facts, Culicover and Rochemont (1990) explore the possibility that the reason why EX is so different from other cases of movement is because it does not involve movement at all. In their account, the EC is base-generated in the position where it surfaces. Thus, a constituent extraposed from an object is base-generated in a VP-adjoined position. Phrases extraposed from subjects can be generated either as adjuncts to VP or IP. Finally, a constituent extraposed from *wh*-phrase can be either a CP or an IP-adjunct. This is schematically represented in (21).



This tree is very similar to the one shown in (12) above, which represented the landing sites of rightward-moved phrases. It basically differs from that one in the alternative positions where the constituent extraposed from subjects and *wh*-phrases can be adjoined. Of course, since EX does not involve movement in this case, no traces appear in this representation. In a few paragraphs, I will come back to the evidence they provide for the positions shown in (21) above (see also the discussion in chapter 5), but

at this point, I will devote some words to the technical side of the analysis proposed by Culicover and Rochemont (1990).

The structure in (21) raises at least two questions. One pertains to the relationship between the head noun and its extraposed modifier. Given that the two constituents are never together in the course of the derivation, some mechanism has to be introduced to guarantee the correct interpretation of the sentence. The other question has to do with the proposal of alternative adjunction sites in the case of EX(SU) and EX(*wh*). I will tackle these two issues in turn.

In order to establish the connection between the extraposed constituent and its head noun, Culicover and Rochemont (1990) propose a principle based on Guéron and May's (1984) condition stated in (5) above. Its definition is provided in (22).

(22) *The Complement Principle (CPr)*

β is a potential complement of α ($\alpha, \beta = X^{\max}$), only if α and β are in a government relation.

The definition of *government* is as in (23) (adapted from Chomsky 1986).

(23) α governs β if α c-commands β and there is no δ , δ a barrier for β that excludes α .

The definitions of c-command (24), barrier (25) and exclusion (26) follow Chomsky (1986).

(24) α c-commands β iff α does not dominate β and there is no δ that dominates α and not β .

(25) δ is a barrier for β iff (i) δ is an X^{\max} that dominates β and (ii) δ is not θ -governed (directly θ -marked).

(26) δ ($\delta = X^{\max}$) excludes α if no segment of δ dominates α .

The relation of *domination* (in (27)) is as in May (1985).

(27) δ ($\delta = X^{\max}$) dominates α only if every segment of δ contains α .

The *Complement Principle* differs from Guéron and May's condition in several respects. First, it applies at S-structure, rather than at LF. Second, it requires that head noun and EC be in a government relation, i.e., either the head noun governs the EC (as in Guéron and May 1984) or vice versa¹⁴.

The reader can easily verify that the *CPr* holds between the head nouns and their extraposed constituents in (21). Notice that in the cases in which Culicover and Rochemont (1990) propose alternative adjunction sites, the head noun governs the EC in the lower of the two positions, the relationship being reversed (i.e. the EC governs the head noun) in the higher.

Once the formal/conceptual side of Culicover and Rochemont's system has been presented, I turn to the empirical side. In the remainder of this section, I will review the empirical data that lead the two authors to propose the adjunction sites represented in (21) above. Special attention will be paid to the cases in which the EC can occupy alternative positions.

Culicover and Rochemont (1990) use three classical constituency tests, VP ellipsis (28), VP topicalization (29), and pseudoclefting (30) as well as binding data (31) to show that the EC(OB) is adjoined to VP and no higher. At this point, I will simply present the authors' arguments. I will come back to these data in chapter 5, where I will offer some critical discussion.

(28) a. John met a man last week from Philadelphia and George did, too.

b. *John met a man last week from Philadelphia and George did from New York.

(29) a. John said he would meet a man at the party from Philadelphia, and meet a man at the party from Philadelphia he did.

b. *John said he would meet a man at the party from Philadelphia, and meet a man at the party he did from Philadelphia.

(30) a. What John did was draw a picture on the wall of his brother.

b. *What John did of his brother was draw a picture on the wall.

¹⁴ Culicover and Rochemont (1990) understand the antecedent (or head noun) of the EC to be the NP with which it is construed. That is, the maximal projection, not only the nominal head.

The contrasts in (28) to (30) show that ellipsis, topicalization and pseudoclefting of the VP have to include the extraposed constituent. Binding data like (31) below show that the EC cannot be adjoined higher than VP.

(31) *She_i invited many people to the party that Mary_i didn't know.

For correferentiality to be impossible the EC has to be in the c-command domain of the subject in SpecIP. In a structure in which VP is the complement of the inflectional head, this configuration only arises if the EC adjoins to VP.

In the case of EX(SU), the two linguists acknowledge that they are making the non-standard assumption that the EC(SU) is adjoined to VP instead of IP. On the basis of VPE (32), word order (33) and the distribution of parentheticals (35), they show that the EC(SU) may adjoin to VP. As these data, always according to Culicover and Rochemont, do not show that the EC cannot adjoin higher, they decide to adopt the traditional analysis in terms of IP-adjunction as a possible alternative. How the system chooses among alternatives is not explained, however.

(32) a. A MAN [_{VP2} [_{VP1} came in] with blond hair] and a WOMAN did, TOO.

b. A MAN [_{VP2} [_{VP1} came in] with blond hair] and a WOMAN did with BROWN hair¹⁵.

VPE shows that a constituent extraposed from a subject may but need not be deleted with the rest of the VP. In Culicover and Rochemont's analysis this follows if the EC is adjoined to VP and any of the two VP layers can be deleted. A more modern analysis of VPE will be applied to these sentences in chapter 10.

The word order data in (33) below involve the relative ordering of ECs with respect to VP adverbials. The logic of the argument is as follows. Given that VP adverbials are VP adjuncts (as standardly assumed), if an EC can precede a VP adverbial, it will have to be adjoined to VP, too. Examples like those in (33), provided by Culicover and Rochemont (1990), show that this word order is indeed possible.

¹⁵ Capital letters annotate contrastive stress in these sentences. Culicover and Rochemont (1990) claim that these data are only acceptable with this specific prosodic contour.

- (33) a. Some women came in from Chicago as quickly as possible.
b. A man came into the room that Mary recognized as quickly as he could.

Notice that VPE can include both the adverbial and the EC, which indicates that both are part of VP. The relevant data, again Culicover and Rochemont's (1990), are provided in (34).

- (34) a. Some women came in from Chicago as quickly as possible, and some men did, too.
b. A man came into the room that Mary recognized as quickly as he could, and a woman did, too.

The third piece of evidence presented by the two linguists in favor of the VP-adjunction of constituents extraposed from the subject has to do with the distribution of parentheticals. Adopting the analysis of these constructions proposed by Emonds (1976), Culicover and Rochemont (1990) show that, in a sentence with EX(SU), when a VP follows the parenthetical, it has to include the EC(SU). Recall that what Emonds proposed is roughly that parentheticals are generated in sentence-final position and that any constituent could in principle move to the right across the parenthetical. One such constituent is VP.

- (35) *A man was t_i , I think, [_{VP} sitting in the room who had a scarf on]_i.*

If only constituents can move across the parenthetical, the grammaticality of this sentence shows that *sitting in the room who had a scarf on* is indeed a constituent, which would not be the case if the EC(SU) were adjoined to IP.

Culicover and Rochemont (1990):35 close their discussion on EX(SU) with the following words (where *OX* refers to a constituent extraposed from the object and *SX* to a constituent extraposed from the subject):

Note that in contrast to *OX*, though we have shown that *SX* may be adjoined to VP, we have not demonstrated that it must be. In fact, on the basis of the evidence considered, it may plausibly be assumed that *SX* may adjoin to either VP or IP. In the absence of evidence to the contrary, we will make this assumption here.

Turning finally to EX(*wh*), the two linguists claim that adjunction of the EC has to be to IP or higher. Specifically, it is not possible to regard EX(*wh*) as a case of EX(OB) with adjunction of the EC to VP. They offer two reasons for this assumption, one is conceptual the other one empirical. On the conceptual side, they adopt Guéron and May's (1984) assumption that, at the point of application of the *Complement Principle*, the antecedent of the EC must be a lexically filled phrase. Recall that the *CPr* applies at S-structure, i.e. after *wh*-raising. This means that, if the EC were adjoined to VP, its antecedent would be a trace, i.e. an empty category. If, on the other hand, the EC is adjoined to CP, its antecedent can be the *wh*-phrase in SpecCP, i.e. a lexically filled phrase.

The only two positions where the *Complement Principle* is fulfilled are the IP and CP adjunction sites. That the EC must be in a relatively high position is supported by the empirical datum in (36).

(36) How many girls did he_i invite to the party that John_i dated in high school?

The correferential reading annotated with sub-indices in (36) can only be available if the EC is not in the c-command domain of the pronominal subject. Given the definition of c-command used by Culicover and Rochemont (1990), see (24) above, this will happen both if the EC is adjoined to IP or to CP, but not if it is adjoined to VP. There is an important problem with the datum in (36), however. The correferential reading in this sentence is not uniformly accepted across speakers. I will come back to these examples in chapter 5, where I will show that, once the binding theory is updated, binding data turn out to play a very limited role in the identification of adjunction sites.

In this section the more traditional analyses of EX have been briefly reviewed. All of them involve the right periphery of the sentence. Theoretical developments, especially the new conception of movement introduced by the *Minimalist Program*, made it necessary to look at EX with new eyes. As a result, new accounts emerged that basically reinterpreted EX in terms of leftward movement. In the following section I will review some of them.

3. The second generation of analyses: left branches

3.1 EX as leftward movement (LM)

Three are the proposals that will be presented in this section. The discussion opens up with Kayne's (1994) analysis in terms of stranding (§3.1.1), and continues with a variant of this account: Wilder's (1995) distributed deletion (§3.1.2). Section 3.1.3 will present an account of EX in terms of remnant movement.

3.1.1. Stranding: Kayne (1994)

Kayne (1994) develops a general theory of linearization whose keystone is the *Linear Correspondence Axiom* (LCA), a linearization algorithm that maps hierarchical superiority onto precedence. An informal definition of the LCA is provided in (37).

(37) α precedes β iff α asymmetrically c-commands β .

When α c-commands β , but β does not c-command α , it is said that α asymmetrically c-commands β . Any syntactic theory that adopts (37) has no place for right adjunction, no matter whether it emerges as a result of movement or base generation. All movement operations have to be upward and leftward.

Within a theory that rests on this linearization principle, EX has to be reconsidered. Kayne (1994) proposes an analysis in terms of stranding. According to him, the EC is 'stranded' by leftward movement of the head noun, as represented schematically in (38). All the examples that I will use in this section are drawn from Kayne (1994).

(38) a. Something_i just happened [[e]_i that you should know about].

b. Someone_i just walked into the room [[e]_i who we don't know].

In Kayne's system, the ECs in these sentences occupy their base positions, while their head nouns move to SpecIP to check nominative Case and the EPP. Movement of the whole DP to SpecIP would yield the non-extraposed version of the sentences. This logic works smoothly for (38a), a sentence headed by an unaccusative predicate. This is due

basically to two facts: first, the subject originates as an internal argument and, second, it is the only VP constituent. However, things are not so clear for (38b). In this case, the subject is generated in a more external position (SpecvP, under standard assumptions) and there is an additional VP constituent, namely the locative PP *into the room*. Taken together, these two facts lead to the expectation that the linear sequence of the extraposed sentence in (38b) should be as in (39a). Instead, the correct ordering is as in (39b), with the relative clause in sentence-final position.

- (39) a. *Someone just [_{vP} _ who we don't know [_{v'} walked into the room]].
b. Someone just walked into the room who we don't know.

The contrast in (39) shows that, for an analysis in terms of stranding to work, it has to be assumed that the DP *someone who we don't know* originates lower in the structure, in a position that follows the PP. Kayne (1994) claims that (39b) is similar to (40a) below. In this sentence, the expletive *there* is inserted to satisfy the EPP, whereas in (39b) above the DP *someone* is raised to SpecIP for the same purpose, stranding the relative clause.

- (40) a. There just walked into the room someone who we don't know.
b. *There just walked someone who we don't know into the room.

This analysis will be qualified in a while, but in order to build the argument the sentences in (41) have to be considered.

- (41) a. John ushered someone who we don't know into the room.
b. John ushered into the room someone who we don't know.

Kayne (1994) claims that (41a) represents the canonical linear order of VP constituents, (41b) being a case of *Heavy NP Shift* (HNPS). According to the linguist, HNPS is derived by moving the PP to the left across the direct object. The landing site of this movement operation is the Spec of a functional category whose nature is not made precise.

- (42) John ushered [into the room]_i; someone who we don't know [e]_i.

In this sentence, the direct object is, according to Kayne (1994), in a non-Case position which is lower than the canonical position of English direct objects. Based on these facts, he formulates the following restriction on movement.

(43) A relative clause can be stranded by A-movement only in a non-Case position.

In order to obtain the extraposed version of the sentences in (41), *someone* will have to move to the position in which accusative Case is checked. In the course of his argumentation, Kayne (1994) draws a parallelism between (41b) and (40a), both repeated as (44) for convenience.

- (44) a. There just walked into the room someone who we don't know.
b. John ushered into the room someone who we don't know.

If the parallelism exists, the derivation of EX in these two sentences has to be identical. Thus, Kayne proposes that a sentence like (44a) involves leftward movement of the locative PP across the subject of the sentence, which occupies a non-Case position.

(45) _ just walked [into the room]_i [_{DP} someone who we don't know] [e]_i.

This derivation can proceed in three different ways: (i) *there* can be inserted in subject position yielding (44a) above (repeated as (46a) below); (ii) the indefinite *someone* moves from the non-Case position it occupies in the base to SpecIP, thus complying with the condition in (43) above; and (iii) the whole DP subject raises for Case checking purposes to SpecIP, yielding the non-extraposed version of the sentence. The three options appear in (46).

- (46) a. There just walked [into the room]_i [_{DP} someone who we don't know] [e]_i.
b. [Someone]_j just walked [into the room]_i [_{DP}[e]_j who we don't know] [e]_i.
c. [Someone who we don't know]_j just walked [into the room]_i [_{DP}e]_j [e]_i.

There is a construction that may cause some problems for the analysis of EX in terms of stranding just presented: sentences in which the EC is construed with the DP complement of a preposition, as in (47).

(47) John is going to talk *to someone* tomorrow *who he has a lot of faith in*.

Kayne (1994) acknowledges that the standard assumption that only constituents undergo movement poses a problem for this type of construction. Applying the same derivation as above, in a sentence like this the adverbial *tomorrow* has to move across the PP to leave this constituent in sentence-final position. This movement operation is followed by the leftward displacement of the PP *to someone*.

(48) John is going to talk [PP *to someone*]_j [tomorrow]_i [PP [e]_j *who he has a lot of faith in*] [e]_i.

The latter movement operation faces at least two problems: (i) the preposition and the nominal (*to someone*) do not form a constituent to the exclusion of the EC and (ii) it is not clear which feature would be checked by this movement operation, as it cannot be Case. Kayne (1994) suggests the following derivation, in which *to someone* ends up being a constituent.

- (49) a. [PP *to* [DP D [CP *someone ...*]]] → move *someone* to SpecPP (probably via SpecDP)
 b. [PP *someone*_i [P' *to* [DP D [CP *t_i ...*]]]] → left-adjoin *to* to *someone*
 c. [PP [QP *to* [QP *someone*]] [P' *t_P* [DP ...

In subsequent work (Kayne 2002, 2004), the linguist refines this analysis and proposes late merge of P, which will only enter the structure once the DP that will be its complement has checked Case in the Spec of a dedicated functional projection. The analysis is represented schematically in (50). For a more detailed discussion of this analysis the reader is referred to Kayne (2002, 2004).

(50) John is going to talk [*to* [DP *someone*]_j] [tomorrow]_i [DP [e]_j *who he has a lot of faith in*] [e]_i.

With its vices and virtues, to which I will come back in chapter 5, Kayne's is just one of the attempts to reanalyze EX in terms of leftward movement. In the following subsection, I will sketch a variant of this analysis, proposed by Wilder (1995).

3.1.2. *Distributed deletion: Wilder (1995)*

Two are the main ingredients of Wilder's (1995) proposal: standard leftward movement of the entire DP coupled with a non-standard assumption concerning the phonological realization of the copies involved. Wilder (1995) introduces the possibility that distributed deletion of copies is a valid alternative to the standard deletion of the lowest copy. To see how exactly these two assumptions are put to work, consider the derivation in (51).

(51) a. A man who I knew came in.

b. [TP [DP A man [CP who I knew]] [VP came in [DP a man [CP who I knew]]]].

As already mentioned, the subject of an unaccusative verb is assumed to be merged as complement of V. A copy of the DP subject – which contains a relative clause – is later merged in the SpecTP (surface subject position). This leftward movement operation has created a chain that contains two copies of the entire DP subject.

The default case contemplated in the *Copy Theory* of movement entails full deletion of the lower copy, roughly, on the grounds that the higher copy has more features checked. See Nunes (1995) for details. Applying chain reduction in this way, the sentence in (51a) is derived. The operation is illustrated in (52), where strike-through is used to annotate phonological deletion.

(52) [TP [DP A man [CP who I knew]] [T' T [VP came in [~~DP a man~~ [~~CP who I knew~~]]]]].

Wilder (1995) supplements this idea with the addition of a new pattern of deletion that he dubs *Chain-Internal Selective Deletion* (CISD). This rule has the effect described in (53)¹⁶.

¹⁶ See Fanselow and Cavar (2002) and Hinterhölzl (2002) for similar ideas applied to different phenomena.

(53) *Chain-Internal Selective Deletion (CISD)*

Phonological Deletion can remove part of the antecedent and the complementary part of the trace.

CISD applied to (51) above has the effects shown in (54).

(54) [TP [DP A man [CP ~~who I knew~~]] [T' T [_{vP} came in [DP ~~a man~~ [CP who I knew]]]]].

As in the previous case, the whole DP is copied and merged in SpecTP. The difference here is that the relative clause is deleted in the higher copy, whereas the complementary part of the copy (i.e. *a man*) undergoes deletion in the tail of the chain. In other words, application of *CISD* yields the extraposed version of the sentence.

More formally stated, *CISD* involves the interaction of *Backward Deletion* (BWD) and *Forward Deletion* (FWD). These two operations are defined by a directionality and a peripherality constraint, as in (55). β is the constituent that contains an ellipsis site α , β' the one containing the antecedent of α .

- (55) a. FWD: i) β' c-commands (precedes) β
 ii) α occurs at the left periphery of β
 b. BWD: i) β c-commands (precedes) β'
 ii) α occurs at the right periphery of β

FWD amounts to deletion of the head noun in the lower copy, as shown in (56a). The underlined constituent – labeled α – represents the deletion site created by this operation. BWD, on its part, deletes the EC in the higher copy, as in (56b). The underlined constituent in (56b) is the site of BWD. The antecedent of the deleted constituent will be pronounced in the lower copy.

- (56) a. We talked [β' about her claim that Mary will hire Peter] yesterday [β [α about her claim] that Mary will hire Peter].
 b. We talked [β about her claim [α that Mary will hire Peter]] yesterday [β' about her claim that Mary will hire Peter]

The sentence in (57) is unacceptable due to the improper application of *CISD*.

(57) *We talked [~~about her claim~~ that Mary will hire Peter] yesterday [about her claim that Mary will hire Peter].

The deletion operations applied in (57) violate the peripherality and directionality constraints described in (55) above. The correct application of these constraints in the case of this particular sentence can only throw the results seen in (56) above¹⁷. It should be clear by now that cases like (52) above, which illustrates the canonical realization of the highest copy, are cases of FWD.

FWD dependencies are argued to be licensed at LF, whereas BWD dependencies are assumed to be licensed at PF¹⁸. One of the consequences of these assumptions is that BWD has no impact on interpretation. Thus, the whole DP will be interpreted in its derived position. Wilder (1995) provides the binding data in (58) as evidence that only the higher copy is involved in interpretation.

- (58) a. A girl kissed him_i yesterday who really likes John_i.
b. A girl who really likes John_i kissed him_i yesterday.

In Wilder's system, these two sentences have the structure in (59a). They differ only in chain reduction, which will proceed along the lines of (59b) for (58a) and as in (59c) for (58b).

- (59) a. [_{DP} a girl who really likes John] kissed him yesterday [_{DP} a girl who really likes John].
b. [_{DP} a girl ~~who really likes John~~] kissed him yesterday [_{DP} ~~a girl~~ who really likes John].
c. [_{DP} a girl who really likes John] kissed him yesterday [_{DP} ~~a girl who really likes John~~].

According to Wilder (1995), if the relative clause were interpreted in its base position, the pronominal *him* would c-command (and bind) the R-expression *John*, giving rise to

¹⁷ But *CISD*, as presented here, overgenerates. See Wilder (1995) for other constraints that interact with this deletion rule to avoid overgeneration.

¹⁸ For a fully-fledged argumentation of this issue, the reader is referred to the original paper.

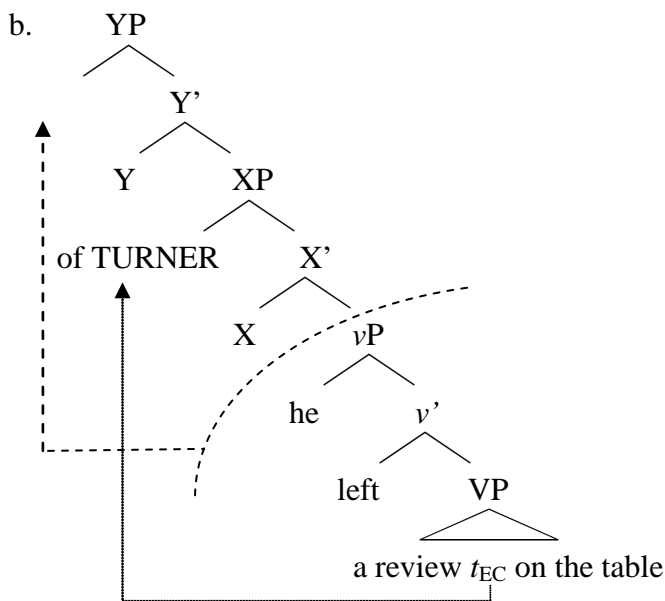
a Condition C violation. However, given that the reading with the two nominals as correferential is possible, it is conjectured that the sentence is interpreted on the basis of the LF in (59c), where the R-expression cannot be bound by the pronominal. In other words, Wilder (1995) assumes that (59b) is the PF representation of a sentence with EX (BWD is a PF operation), while (59c) represents its LF. For non-extraposed sentences, (59c) would represent both the LF and PF structures.

In the two analyses considered so far, the EC is assumed to occupy its base position. I turn now to a different kind of proposal, one that contemplates leftward movement of this constituent.

3.1.3. Remnant movement

The tree diagram in (60b) below shows the structure of EX(OB) analyzed in terms of remnant movement. The example has been drawn from Göbbel (2006)¹⁹. See also Müller (1997) for a remnant movement account of EX.

(60) a. He left a review on the table [_F of TURNER].



Simplifying things, what (60) illustrates is a movement operation triggered by a focus feature (F)²⁰. First, the focused constituent (the PP) is extracted to the edge of vP (a

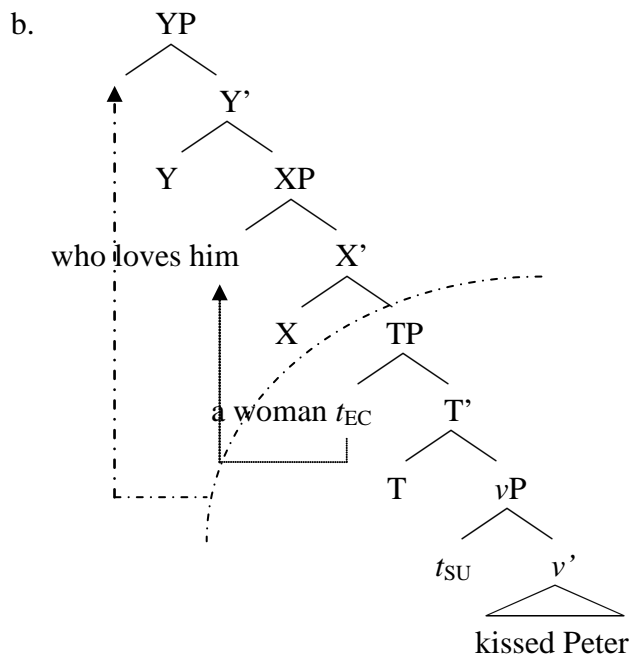
¹⁹ It has to be noted that Göbbel (2006) will eventually reject this analysis arguing for PF rightward movement instead.

²⁰ Following standard practice, capitals are used to annotate intonational prominence.

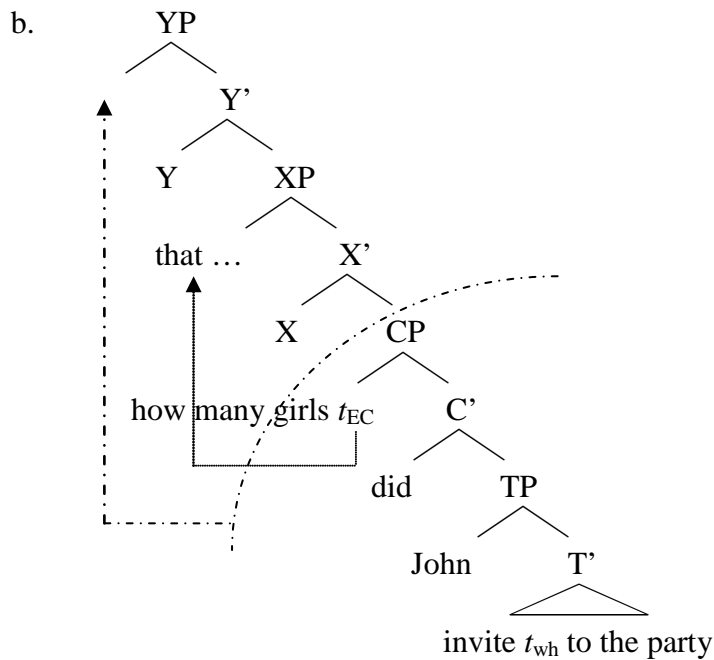
phase), presumably to a dedicated functional projection. If the driving force of the movement operation is a focus feature, the category labeled XP in the tree above should probably be identified as a low FocusP in the sense of Belletti (2004). I will remain unspecific in this particular, as Göbbel himself is not precise. This operation is followed by remnant movement of the defocused *v*P to the Specifier of another functional projection (probably, TopicP).

The result of applying the logic of EX(OB), illustrated in (60), to EX(SU) and EX(*wh*) is shown in (61) and (62). Since the constituents extraposed from subjects and *wh*-phrases are standardly assumed to occupy a high structural position, I will assume that, in these two derivations, XP and YP project in the left periphery of the clause.

(61) a. A woman kissed Peter who loves him.



(62) a. How many girls did John invite to the party that he had dated in high school?



Although very different in the details, all the analyses presented in this section succeed in not using rightward movement to derive EX. The operation is reinterpreted in all cases in terms of movement to the left. Rochemont and Culicover (1997) take a different path and, faithful to their belief that EX involves base generation, reinterpret their own previous work proscribing right adjunction in favor of left branches. Their new proposal will be presented in the following subsection.

3.2. EX as base generation: Rochemont and Culicover (1997)

In their 1997 paper, Rochemont and Culicover recast their original proposal in a way that avoids right adjunction. In this section I will briefly present the details of the new analysis, which is designed to comply with Kayne's LCA at the same time that it keeps, at least, the same empirical coverage as their 1990 analysis. The following three are the empirical observations that, according to the authors, have to be accounted for in the new proposal: (i) a constituent extraposed from a direct object is not c-commanded by an indirect object, (63a); (ii) a DP in surface subject position cannot c-command into a constituent extraposed from a *wh*-phrase, (63b) and (iii) in cases of serial extraposition, a nesting effect must always be observed, i.e. the linear ordering of the extraposed constituents has to mirror that of the head nouns, (64).

- (63) a. I sent her_i many gifts last year that Mary_i didn't like.
 b. How many people did she_i invite to the party that Mary_i didn't like?²¹
- (64) a. A man entered the room last night that I had just finished painting who had blond hair.
 b. *A man entered the room last night who had blond hair that I had just finished painting.

Rochemont and Culicover (1997) argue that extraposed constituents are generated in Specifier positions that are rather high in the structure; higher, in any case, than the base position of their head nouns. Given this structural configuration, they call their proposal the *High Specifier Analysis*. Notice that the final structure resembles that of remnant movement without displacement of the EC.

For the extraposed phrase to surface sentence-finally, a phrase containing the head noun will have to move to a Specifier which is higher in the structure than the extraposed constituent itself²². In what follows I will illustrate, in turn, the derivation of EX(*wh*) and EX(OB). I will use generic labels of the form XP and YP because Rochemont and Culicover themselves provide no specific labels for the categories involved in these movement operations²³.

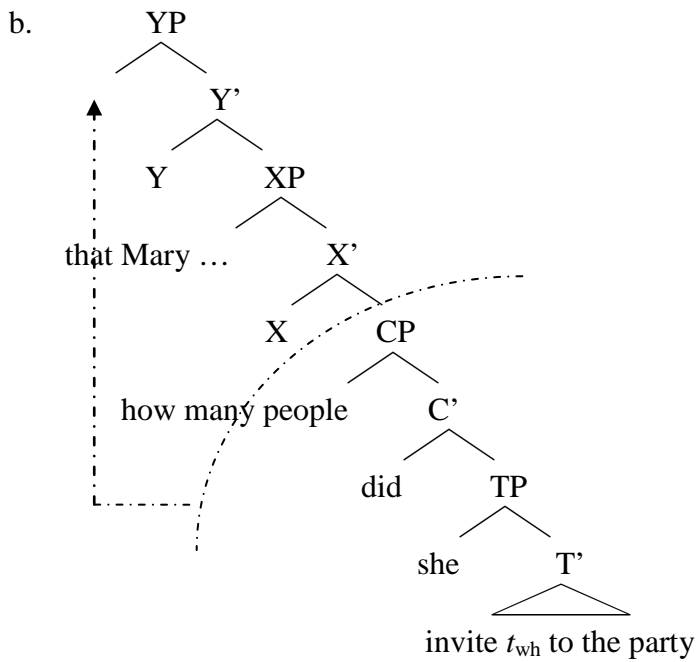
The extraposed relative in (65b) is base-generated in the Specifier of a functional category (XP) that projects in a relatively high position in the structure. In order to obtain the final linear sequence, CP will have to move obligatorily to a still higher Spec. What triggers this movement operation is not made clear in the original analysis.

- (65) a. How many people did she invite to the party that Mary didn't like?

²¹ Recall from section 2.2 above that the correferentiality reading represented by the indices in this sentence is rather doubtful. I will come back to this sentence in chapter 5.

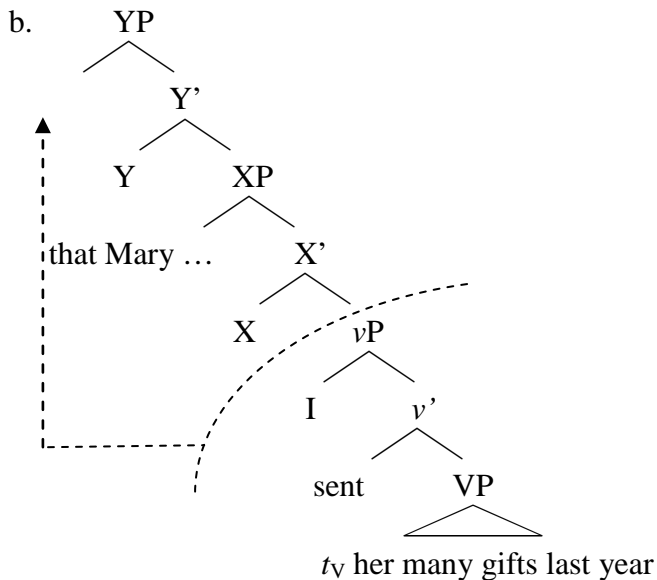
²² Rochemont and Culicover (1997) contemplate a second possibility, namely that the raised constituent adjoins to the Specifier occupied by the extraposed constituent.

²³ The tree diagrams provided in Rochemont and Culicover (1997) are also more schematic than the trees I provide in this section. My interpretation of their analysis brings the resulting structures close to those proposed in the preceding section for remnant movement with the difference that the EC in this case is base-generated in SpecXP.



A similar derivation is provided in (66) for EX(OB). The EC is again in a relatively high specifier (SpecXP), whereas the object is inside VP. For the EC to surface sentence-finally, vP (or VP) will have to rise to a higher Specifier than that hosting the EC (SpecYP in (66)).

(66) a. I sent her many gifts last year that Mary didn't like.

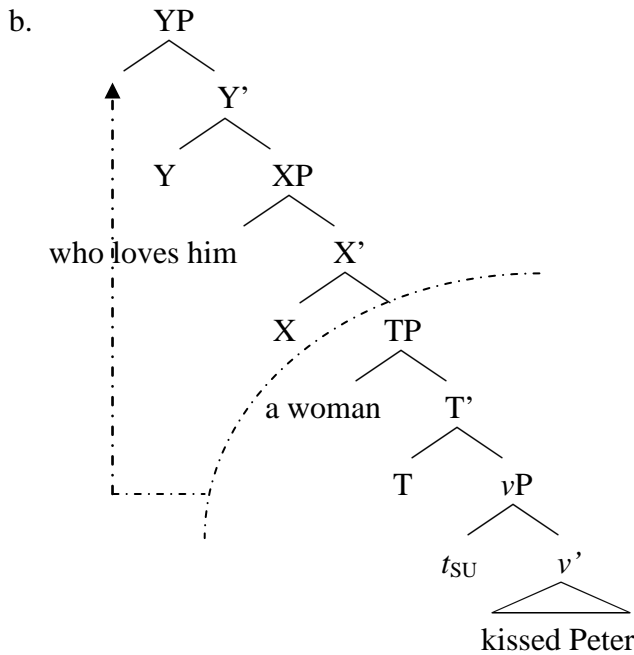


Notice in passing that, in the derivations in (65b) and (66b), the R-expression *Mary* is not bound by the pronoun *her/she*. In both cases, the pronoun is inside a projection that excludes the relative clause containing the R-expression. In other words, the referential

DP is outside the c-command domain of the pronominal, which makes a correferential reading possible. See, however, footnote 21 above.

Although the linguists do not illustrate EX(SU), the derivation should be as in (67).

(67) a. A woman kissed Peter who loves him.



Given that head noun and EC are never part of the same constituent, some interpretive principle along the lines of Culicover and Rochemont's (1990) original *Complement Principle* has to be maintained in order to guarantee the correct interpretation of the sentences. Rochemont and Culicover (1997) state it informally as in (68).

(68) *Complement Principle*

An extraposed phrase must be adjoined to the minimal maximal projection that contains its (surface or LF) antecedent.

Of course, this principle has to be reformulated, as now the EC is no longer an adjunct. A possibility would be to rephrase it along the following lines: *An extraposed constituent has to be generated in the Spec of a functional projection that immediately dominates the minimal maximal projection containing its antecedent.* In this respect, as well as in others in this section, I am just speculating because the authors do not provide specific details. Rochemont and Culicover are conscious that their analysis is

incomplete as it stands. According to them, at least two ingredients are still missing: (i) a trigger for the movement operations involved and (ii) independent motivation for the structures proposed.

4. Conclusion

The selection of analyses presented in this chapter conveys an idea of the number and variety of proposals available in the literature on EX. As already mentioned at the outset of this overview, this selection is far from exhaustive but it is varied enough to show how productive the debate around this construction has been.

Two are the main lines of research that have been followed in the past decades: one analyzes EX as involving movement, the other one as base generation. In both cases, a further dichotomy emerges determined by the directionality of the operation. Thus, some accounts have advocated movement of the EC to the right or base generation on a right branch. As the theoretical framework evolved and it was seen that these accounts had problems to comply with the new assumptions, linguists of different convictions have tried to reformulate the operation to adapt it to the new times. As a result, the first analyses in terms of LM appeared. In parallel, some proposals are made that assume base generation of the EC on a left branch, i.e. in the Specifier of some functional projection.

Many are the proposals, all of them with their virtues and their vices. In chapter 5 below I will offer a critical review of the analyses just presented. Now I turn to present the guidelines of the theoretical framework that I will adopt for my analysis of EX.

Chapter 4

The framework

1. Introduction

This chapter is devoted to introducing the basic tenets of the theoretical framework assumed in this dissertation: *Minimalism* (Chomsky 1993, 1995, and subsequent work). The main focus will be placed on those aspects that are relevant for the analysis of EX that will be presented later. Thus, priority will be conceded to the presentation of the theory of movement assumed in this framework. Specific aspects pertaining to particular constructions will be dealt with as they become relevant for the exposition.

The chapter is organized as follows. In section 2, I will introduce some general issues that constitute the essence of the minimalist enterprise, which is guided by economy considerations. Section 3 will present the new conception of the X-bar apparatus (*Bare Phrase Structure*) together with the (conceptually necessary) operations that will combine lexical and functional items to build syntactic structures. Section 4 will dwell on the minimalist conception of movement as feature checking/valuation. Section 5 will introduce the concept of *phase* and will sketch how it determines structure building. In section 6, I will show how structures are linearized. The chapter will be closed with the conclusions in section 7.

2. The minimalist enterprise

Minimalism develops the ideas of the *Principles and Parameters* approach of the 80s and 90s placing special emphasis on economy considerations. Thus, the whole minimalist enterprise is guided by principles of methodological economy, i.e. all things being equal, a simpler explanation is to be preferred over a more complex one (*Occam's razor*). In the same line, the minimalist program is characterised by the effort to simplify the inherited theoretical apparatus in a principled way. Derivations are guided by principles of substantive economy. This means, for example, that a derivation involving fewer operations is to be preferred over one involving more. In this sense, movement will always be regarded as more costly than *Merge*. Similarly, shorter moves are preferred over longer ones, and so on. Within the same logic, all operations applied

in the course of the derivation are ‘last resort’ in the sense that they will apply only if absolutely necessary. All these aspects of economy will be considered as the discussion unfolds.

A derivation is assumed to be a syntactic computation that creates pairs (π, λ) , where π is a PF object and λ an LF object. These are the only two linguistic levels of representation assumed in a minimalist setting. They are taken to interface with two performance systems, namely the articulatory-perceptual (A-P) and the conceptual-intentional (C-I). A-P and C-I impose *Bare Output Conditions* on the grammatical objects created by the computational system. Unlike in *Government and Binding* (GB) times, there is no level of representation beyond LF and PF; more specifically, there is no D-structure or S-structure.

The two members of the pair (π, λ) are subject to *Full Interpretation* (FI), a principle that requires that all the features of the pair be legible at the relevant interface, that is, all the features of π have to be interpretable at PF, and all the features of λ at LF. If FI is complied with at both levels, the derivation is said to converge. Failure to comply with FI at either or both levels will immediately cancel the derivation. It has to be noticed that a derivation has to converge, but it also has to be optimal, i.e. it has to satisfy economy conditions such as locality, the shortest move, etc. See sections 3 and 4 below.

I turn now to present the basic operations of the computational system involved in the derivation of a syntactic structure.

3. On structure building

In this section, the procedure of structure building within *Minimalism* will be illustrated by means of a sample derivation. This exposition will serve the purpose of introducing the basic concepts and the operations that are conceptually necessary in the new way of understanding the computation.

3.1. Bare Phrase Structure

In the minimalist framework, X-bar Theory is recast in terms of *Bare Phrase Structure*, a relational way of conceptualizing projections. Labels like N, AP, DP or V', for example, are devoid of any theoretical status, i.e. they are not regarded as primitives of

the theory²⁴. That these labels are no longer used does not mean that notions such as minimal, maximal and intermediate projection disappear as well. Their definitions, which I have drawn from Hornstein, Nunes and Grohmann (2005), are provided in (1).

(1) a. *Minimal Projection: X^0*

A minimal projection is a lexical item selected from the numeration.

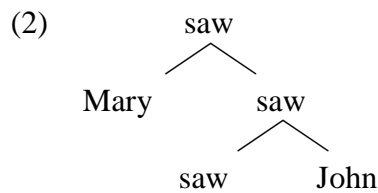
b. *Maximal Projection: XP*

A maximal projection is a syntactic object that does not project.

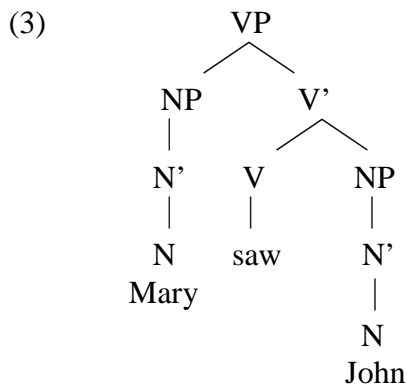
c. *Intermediate Projection: X'*

An intermediate projection is a syntactic object that is neither an X^0 nor an XP .

According to these definitions, a minimal projection is just a lexical or functional item, i.e. a head. If it does not project any further, it will also be a maximal projection. A head will project when combined with another item or phrase, with which it can establish one of three types of relationships: complementation, modification or Specifier-head. These grammatical relations are local in nature. All unnecessary intermediate projections that had proliferated in the X-bar schema are eliminated in *Minimalism*. Just to illustrate this point, compare the minimalist VP structure in (2) with its GB counterpart in (3). Instead of the traditional labels, lexical items like ‘saw’, ‘Mary’ and ‘John’ are used in BPS as a shorthand representation of the matrix of features that make up each node.



²⁴ These labels will be used throughout, however, for ease of exposition, but no theoretical status must be attributed to them. They have to be understood as a shorthand convenient way of representing bundles of features.



The remainder of this section will focus on the procedure by which a structure such as (2) is assembled.

3.2. Structure building operations: Copy and Merge.

The mechanics of structure building will be illustrated by showing how the derivation of the sentence in (4) proceeds.

(4) A man arrived yesterday.

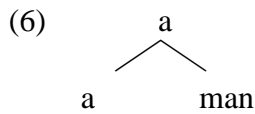
First, the computational system creates the numeration in (5) by selecting and copying the items contained in it from the Lexicon. In other words, the computational system builds N by applying two operations: *Select* and *Copy*. Under this view, the computational system will not have direct access to the Lexicon in the process of deriving (4).

(5) $N = \{arrived_1, a_1, man_1, T_1, yesterday_1\}$

In (5), sub-indices are used to indicate how many non-distinct copies of the relevant lexical and functional items integrate the numeration. In the case at hand, N contains only one copy of each LI and only one copy of the functional head T.

A first application of *Merge* yields the syntactic object in (6) below. *Merge* is a primitive operation of the system that combines two syntactic units to form a bigger syntactic object. The process is necessarily recursive and will be repeated until the derivation is complete. Under this conception, the derivation is assumed to proceed

bottom up. By allowing *Merge* to combine at most two elements at each derivational step, binary branching is derived.



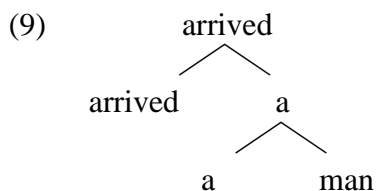
In (6), the indefinite determiner projects. The fact that the resulting syntactic object has the relevant features of the head is annotated by labelling the entire phrase with ‘a’. As only the head of the syntactic object projects, *Merge* is said to be asymmetric. Each application of this operation will produce a change in the numeration. In the derivation under consideration, the new N is as in (7), where the index 0 indicates that those lexical items are no longer available.

(7) $N' = \{\text{arrived}_1, a_0, \text{man}_0, T_1, \text{yesterday}_1\}$

Technically speaking, what *Merge* does is to combine items to form sets like (8). The labels of the tree diagrams used to illustrate the unfolding of the derivation should therefore look like (8). However, for simplicity only the label of the set will be used, in (6) ‘a’.

(8) $\{a, \{a, \text{man}\}\}$

A subsequent application of *Merge* will create the structure in (9) and modify the numeration along the lines in (10).

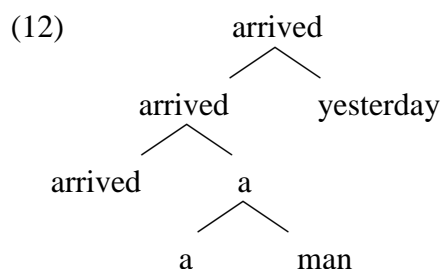


(10) $N' = \{\text{arrived}_0, a_0, \text{man}_0, T_1, \text{yesterday}_1\}$

Up to this point, only merger by projection has been applied, i.e. in all cases the head has projected. There exists, however, a different type of merger: merger by adjunction.

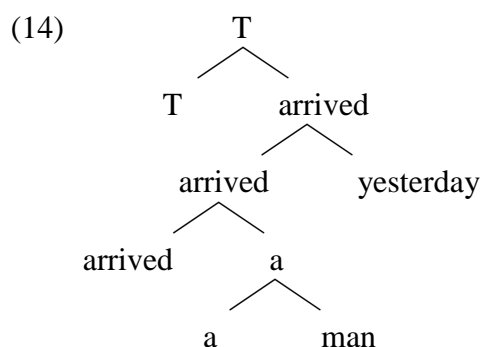
It applies when an adjunct (such as *yesterday*) enters the derivation. In those cases, the bar-level of the target of adjunction does not change. This is annotated by a complex label such as that in (11). The tree diagram corresponding to this syntactic object would look roughly like (12). The new numeration is provided in (13).

(11) {<arrived, arrived>, {{arrived, a man}, yesterday}}



(13) $N^2 = \{\text{arrived}_0, a_0, \text{man}_0, T_1, \text{yesterday}_0\}$

At this derivational step, there is only one item left in the numeration: Tense. It is now its turn to be selected, and merged with (12). The resulting structure is provided in (14).



With the last application of *Merge*, the numeration has been exhausted, i.e. it contains no further lexical or functional elements, as annotated by the subscript *0* next to each item in (15). The derivation is, however, not complete. Notice that the computational system has applied three conceptually necessary – i.e. three primitive – operations so far: *Select*, *Copy* and *Merge*.

(15) $N^2 = \{\text{arrived}_0, a_0, \text{man}_0, T_0, \text{yesterday}_0\}$

Above it was already mentioned that *Merge* has to be recursive and apply as many times as necessary until the derivation is complete. It is also important to note that each application of *Merge* has to target root syntactic objects. This property of the operation has been encoded in the *Extension Condition*, (16). As a result, a structure created by *Merge* will have the appearance in (17a), rather than that in (17b).

(16) *Extension Condition*

Applications of *Merge* can only target root syntactic objects.

(Hornstein, Nunes and Grohmann 2005)



The sort of parallel structure in (17b) is not licit in the minimalist analysis. Similarly, it is impossible to merge an item into a sub-constituent, i.e. into a constituent that has been previously assembled. Thus, no element D could be merged with A, B or C in a structure like (17a).

The three operations presented so far (*Select*, *Copy* and *Merge*) have led to the completion of the derivation in (14) above. They are the minimum necessary to create so-called ‘base generated’ structures, of which (14) is an example. However, the derivation is not yet complete. Compare (18a) with (18b).

(18) a. *arrived a man yesterday.

b. A man arrived yesterday.

Arrive is an unaccusative predicate, i.e. it takes only one internal argument. This fact is encoded in the structure in (14) above, where the DP *a man* stands in a complement relation with the verbal head. This structure, however, would be linearized as (18a), a deviant output. In order to obtain (18b), a further step has to be taken: the DP has to reach a position that linearizes to the left of the verb. In other words, the DP has to *move*.

At this point, I will leave the derivation of (18b) on stand-by in order to introduce some basic notions concerning the conception of movement in the minimalist

framework. I will take up the derivation of this sentence in the course of section 4.2.1 below.

4. On Movement

4.1 Move α and the Copy Theory of Movement

In natural languages certain elements are interpreted in a position different from the one they occupy on the surface. This circumstance has been referred to as the *displacement property* of human language. Thus, although in (19a) below the *wh*-pronoun *who* surfaces in sentence-initial position, it is interpreted as the internal argument of the predicate *see*, and internal arguments always follow the verb in English, as in (19b).

- (19) a. *Who_i did you see t_i?*
b. You did see *who?* / You saw *Peter*.

In GB times, the *wh*-constituent in (19) was assumed to be base-generated in VP-internal position (as a complement of V) and to subsequently move to the SpecCP to check a *wh*-feature, leaving a trace (*t*) in its base-generated position. The operation responsible for this was called *Move α* . The displaced constituent and its trace were assumed to form a chain – (*who_i, t_i*) – which ultimately allowed for the intended interpretation. There were also structural conditions imposed on the elements of a chain: the antecedent had to c-command the position of its trace. This structural relationship was necessary as traces were regarded as variables, and as such they had to be bound by their antecedents in a local domain (where binding involves c-command and coindexing).

From a minimalist perspective, the introduction of traces is rather problematic. They are regarded as an artifact of the theory. The very operation *Move α* is called into question as it is not a primitive operation. It is therefore proposed that it be decomposed into two more basic operations that are independently required by the system. These operations are *Copy* and *Merge*. See Chomsky (1993) and Nunes (1995, 1999, 2001, 2004) for relevant discussion concerning the *Copy Theory of Movement*.

Under the new conception of movement, (19) should be represented as in (20). Instead of a trace, the lower position is occupied by another copy of the moved

constituent. The chain created by the movement operation thus contains two non-distinct copies of the moved constituent, rather than a copy and a trace.

(20) *Who* did you see *who*?

Even though I will assume the *Copy Theory of Movement* just described, I will represent all lower copies as traces in the remainder of this dissertation. No theoretical status will be conferred to traces beyond that of being the convenient shorthand representation of a copy.

I will now turn briefly to discuss in some detail the two flavours in which movement comes both in GB and in minimalist theories. In both frameworks movement can be either overt or covert.

4.2. On overt and covert movement

Two characteristics of the operation *Move* have already been mentioned in the preceding sections: (i) it is conceived as the interaction of the two conceptually necessary operations *Copy* and *Merge*, and (ii) it is *Last Resort*, i.e. its application has to be well motivated.

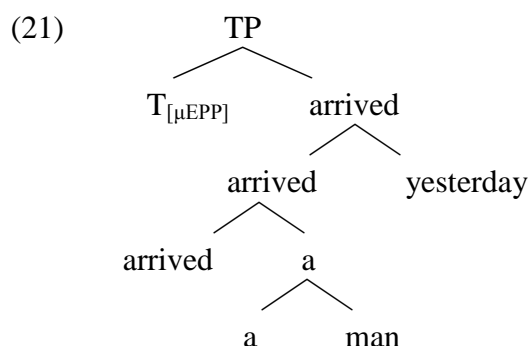
Last Resort is not the only constraint imposed on movement, though. Movement operations are also subject to economy conditions, which are computed at every step in the derivation. As mentioned in the introduction to this chapter, several economy metrics have been proposed; thus, for example, *Merge* is preferred over *Move*, the reason for this preference being that the latter involves one further operation (i.e. the number of operations that apply in the course of the derivation is important for economy). Once movement is necessary, ‘covert’ movement is regarded as more economical than ‘overt’ movement. These two variants will be considered in turn in the following subsections.

4.2.1. Overt movement

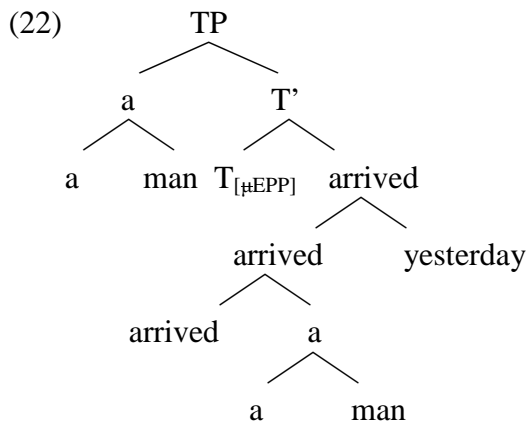
In the minimalist framework movement is conceived as a syntactic operation driven by feature-checking, a process that has been interpreted in either of two ways: as deletion or as valuation of uninterpretable features.

Lexical items are bundles of phonological, semantic and formal features, all of which have to be interpretable at PF and LF for the derivation to converge. Otherwise, *Full Interpretation* is violated making the derivation crash. In other words, feature-checking is driven by the need to eliminate uninterpretable features from the derivation to guarantee convergence. Under this conception, *Last Resort* is the condition that movement operations are only licensed if they serve the purpose of eliminating uninterpretable (formal) features (Chomsky 1995).

In the case of overt movement operations, it is assumed that strong features would cause the derivation to crash at PF if they are not checked overtly. In order to illustrate the mechanics of overt movement I will come back to the derivation of the sample sentence in (18b) above. In section 3, the derivation was left on stand-by at the point shown in (21) below.

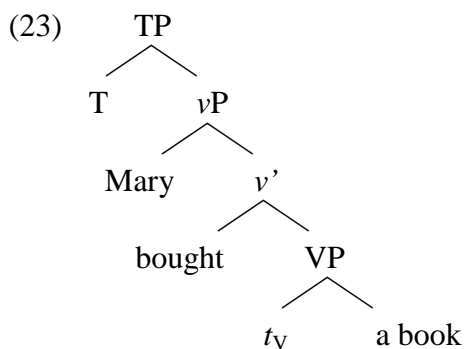


When the T head is merged, an uninterpretable EPP feature (μ EPP) present in the matrix of T is introduced into the derivation. T will search its c-command domain for a constituent with a strong nominal feature compatible with the EPP on T and it finds the DP *a man*. This constituent is copied and merged at the root, as shown in (22). *A man* and T establish a Spec-head relationship as a result of which the uninterpretable feature is checked (i.e. deleted or valued).



The two copies of the moved constituent form a chain <a man, a man> in which the higher link c-commands the lower one. The system will mark the higher copy for pronunciation and the lower one will be silenced, which will yield the final linear sequence *a man arrived yesterday*.

In this derivation, there is only one nominal constituent in VP that can check the uninterpretable feature on T, but in sentences headed by transitive predicates two DPs will be part of the structure. In such cases, economy dictates that the closest compatible constituent be attracted to the Spec to check the EPP feature: the DP *Mary* in the derivation in (23) below. One of the formulations of this economy metric that appears in the literature is the *Minimal Link Condition*, defined in (24) below (Chomsky 1995).



(24) *Minimal Link Condition*

K attracts α only if there is no β , β closer to K than α , such that K attracts β .

In this section, I have basically described the dynamics of overt movement in minimalist syntax. This type of displacement will only take place when a strong uninterpretable feature enters the derivation. If the uninterpretable (unvalued) features are not strong, the system will resort to the operation AGREE to value them.

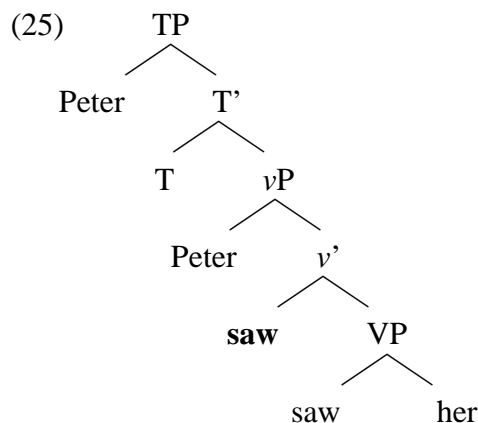
4.2.2. Covert movement: AGREE

In the preceding section it was shown that overt movement is triggered by the need to check uninterpretable strong features. But features can also be weak. In such a case, the checking operation will succeed via AGREE²⁵.

It is a fundamental assumption in the minimalist program that all lexical items enter the derivation fully inflected, i.e. with their morphological specification, including Case and ϕ -features. Some of those features are [+interpretable], while others can be [-interpretable]. Only the former are fully specified in the Lexicon. The latter will acquire their value in the course of the derivation via feature-checking, which in this case succeeds by establishing an agreement relationship with a compatible head.

AGREE is conceived as an operation of the computational system that assigns values to unvalued features, i.e. that renders [-interpretable] features interpretable at the interface. A probe (a head with [-interpretable] features) examines its c-command domain in search of a goal (a constituent with matching [+interpretable] features).

Let me illustrate the operation by means of accusative Case checking in English, an operation which does not trigger overt movement.



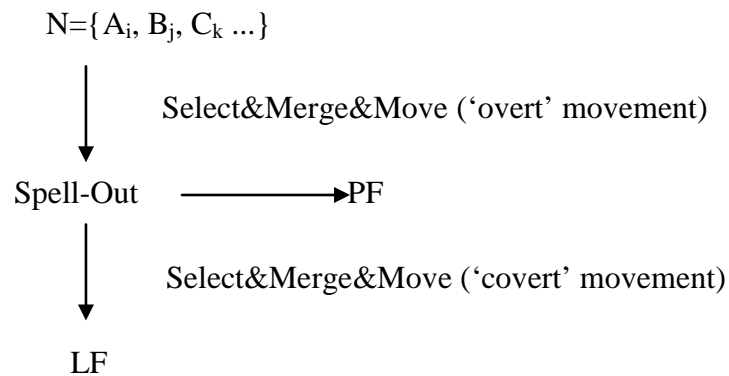
In GB times, it was assumed that accusative Case was assigned by the predicate. Under the AGREE hypothesis, things are different. It is no longer appropriate to speak about

²⁵ Covert movement is also conceptualized as Move-F. Unlike in the case of overt movement, where a strong uninterpretable feature prompts the copy of the whole matrix of features of a compatible constituent, in the case of covert movement only a subset of the matrix is copied. As the phonological matrix is not part of the copied material, no movement is observable on the surface. The operation is congenial to minimalist economy guidelines, as copying fewer features is regarded as more economical than copying the whole matrix.

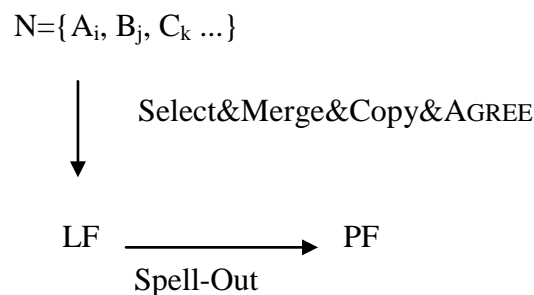
Case assignment as such. Instead, it is assumed that the Case-checker (the light predicate ν) possesses uninterpretable ϕ -features which have to be eliminated / valued for convergence. The predicate will therefore probe its c-command domain (VP) searching for a constituent bearing compatible [+interpretable] features. There it finds the DP complement *her*. Under agreement, the features of the predicate are valued for purposes of morphology and deleted for LF purposes. As a side effect, the Case feature of the pronoun is specified as accusative for morphological purposes and deleted for LF purposes. As there is no constituent with the relevant features closer to the probe, locality is respected, i.e. no minimality effects are induced and feature valuation can proceed without problems. Once all the [-interpretable] features are assigned a value, the probe is rendered inactive and cannot participate in any further AGREE operation.

The model of the computational system that emerges from such a conception departs from the traditional T-model shown in (26). It has rather the form in (27). The two diagrams are drawn from Hornstein, Nunes and Grohmann (2005).

(26) *Minimalist T-model*



(27) *The Computational System under the AGREE approach*



The derivation starts with a numeration, from which the computational system selects lexical items that are combined by *Merge* giving rise to bigger syntactic objects. Successive applications of *Merge* and *Copy* result in the formation of LF. At this point, the numeration has been exhausted and all the features have been checked. Spell-Out applies, shipping all the relevant information to the phonological component. Here further operations can apply to derive PF.

4.3. Rightward movement in a minimalist setting

Given the restrictive version of Move α presented in the preceding sections, the question of the place of rightward movement in the minimalist framework acquires certain relevance first because it is not contemplated in the system just outlined and second because EX, the object of study of this dissertation, is one of the syntactic phenomena that have been analyzed in terms of rightward movement. Chomsky (1995), adopting a distinction made in early transformational grammar, draws a line between core syntactic movement operations, such as subject raising or *wh*-movement, and ‘stylistic’ operations, which do not belong in core grammar²⁶. Among the latter he includes operations like EX, *Right Node Raising* (RNR), or *Heavy NP Shift* (HNPS), all of them involving overt displacement of a constituent to the right.

Core syntactic movement operations are ‘last resort’. They are driven by the need to check some (formal) feature in the derivational path that goes from the numeration to LF ($N \rightarrow \lambda$). Since the only legitimate checking configuration is Spec-head (as has been discussed at some length above) and Specs project to the left, movement is obligatorily upward and leftward. Rightward movement operations, on the other hand, are optional (i.e. they do not seem to obey *Last Resort*). They are not driven by feature-checking of the type that is required by the grammar. The displaced constituent ends up in an adjoined position and the movement operation does not seem to have interpretive effects.

²⁶ “In early transformational grammar, a distinction was sometimes made between ‘stylistic’ rules and others. Increasingly, the distinction seems to be quite real: the core computational properties we have been considering differ markedly in character from many other operations of the language faculty, and it may be a mistake to try to integrate them within the same framework of principles.” (Chomsky 1995:324).

The adjectives ‘stylistic’ and ‘post-cyclic’, traditionally used to describe rightward movement operations like EX, basically refer to the fact that these operations, which lack interpretive effects, have to be ascribed to some post-syntactic domain where they cannot affect the LF representation. What this post-syntactic/post-cyclic domain is is not always clear.

In more modern approaches (see the discussion in Büring 2013), rightward movement is conceived as prosodically-motivated. As it will not be triggered by formal features, the displaced constituent need not target a specifier, which means that movement need not be upward and leftward. As to the domain of application of this type of displacement, two are the lines pursued in recent research. Some consider rightward movement a syntactic operation, while others prefer to ascribe it to the PF side of the derivation. Let me devote some lines to these two alternatives.

Prosodic-movement (p-movement) applying before spell-out has been proposed by Zubizarreta (1998) to derive the VOS order from VSO structures²⁷. In the case of VOS orderings p-movement solves a conflict between two prosodic rules, the *Nuclear Stress Rule* and the *Focus Prominence Rule*. In structures in which the application of these two rules gives rise to contradictory prosodic outputs, p-movement undoes these structures so that subsequent application of the rules on the new configurations yields well-formed outputs. In chapter 7, I offer some discussion on the workings of this type of movement. In the case of rightward movement in general, and EX in particular, some version of ‘end-weight’ (Wasow 2002, Selkirk 2001, and many others) may be exploited to derive the final linearity. For a more detailed discussion of the trigger of EX see chapter 5.

In parallel to this type of conception, a different one has emerged in terms of PF movement. Thus, Göbbel, for example, focusing on EX, has developed a purely PF account in a number of papers (Göbbel 2006, 2013). He bases his assumption that EX takes place on the PF side of the derivation basically on two observations. First, he notices that all the factors usually mentioned as ‘facilitators’ or triggers of RM in general, and EX in particular, are prosodic in nature or are reflected in the prosodic structure. The usual suspects are focus (but see the discussion in chapter 5 below), syntactic complexity and relative weight (the content behind the latter concept is not always clear). Second, he claims that the lack of interpretive effects of EX constitutes

²⁷ Zubizarreta’s (1998) p-movement applies adjoining the displaced constituent to the left. However, the same type of movement could be argued to take place to the right.

evidence that the operation must be confined to PF. In this type of account the displaced constituent (which is also a syntactic constituent) is PF-adjoined – after spell-out – to a maximal projection which is aligned with the edge of a phonological phrase. I am not going into the details of the theory of prosodic movement developed by Göbbel for a question of space and relevance. Suffice it to say that the directionality of the operation, as well as its optionality, is derived from the application of specific prosodic constraints.

5. On derivation by phase

When it is claimed that, for a derivation to converge, it has to be convergent at both PF and LF, it is often implied that convergence is checked on completion of the computation. Chomsky (2000, 2001, 2004, 2008), however, proposes an alternative that implies that convergence is checked in a stepwise fashion, that is, as the derivation proceeds. In this alternative view, the objects inspected for convergence are smaller chunks of structure that Chomsky calls *phases*. In this system, there are two such phases, namely vP (the extended functional projection of VP) and CP.

Once vP is assembled, Spell-Out applies to the complement of the head v , i.e. to VP. If this constituent is legible both at LF and PF, the derivation is allowed to proceed. If, on the contrary, it fails to be interpreted at either interface (or at both), the derivation is cancelled immediately. A spelled-out complement is not accessible for further operations. This fact is formalised in the *Phase Impenetrability Condition* (PIC), provided in (28). The *edge* of a phase is made up of its specifier and adjuncts. Those are the elements that are not spelled-out, and therefore still accessible to further operations.

(28) *Phase Impenetrability Condition (PIC)*

In a phase PH with a head H, the domain of H is not accessible to operations outside PH, only H and its edge are accessible to such operations.

Computation by phase is claimed to reduce computational complexity. By proceeding stepwise, the computational system does not need to work with information outside the phase just built. One step further in the direction of reducing computational complexity is the assumption that numerations are articulated around the heads of phases, i.e. around v and C. In other words, numerations are made up of sub-arrays of lexical and functional items that will be activated in turn to build the phases that constitute the final

syntactic computation. The derivation of sentences like those in (29) indicates that this type of process is basically correct. The discussion that follows is adapted from Hornstein, Nunes and Grohmann (2005).

- (29) a. Someone is wondering whether there is someone here.
b. There is someone wondering whether someone is here.

In a system without phases, both sentences are assumed to start from the (simplified) numeration in (30).

(30) $N = \{C_1, \text{someone}_2, \text{is}_2, v_1, \text{wondering}_1, \text{whether}_1, \text{there}_1, \text{here}_1\}$

After several applications of *Merge*, the syntactic object in (31a) has been created, and the numeration has been reduced as in (31b).

- (31) a. [_{TP} is someone here]
b. $N = \{C_1, \text{someone}_1, \text{is}_1, v_1, \text{wondering}_1, \text{whether}_1, \text{there}_1, \text{here}_0\}$

At this derivational step, a problem arises. Given the items available in the numeration, two options present themselves to check the EPP feature associated with T. The derivation can be continued by either merging *there* or moving *someone*. (32) shows the two options upon completion of CP.

- (32) a. [_{CP} whether [_{TP} there is someone here]]
b. [_{CP} whether [_{TP} someone is t_i here]]

The two syntactic objects in (32) are convergent. Since both derivations start from the same numeration, they should be compared in terms of economy. As already mentioned above, *Merge* is regarded as a more economical option than *Move*. This means that, when the derivation reaches the stage in (31) above, the system has to choose the most economical option, in this case *Merge*; thus, blocking the derivation of (29b). In other words, only the sentence (29a) is derivable. The problem is then that (29b), despite being grammatical, cannot be derived under the assumptions that have been adopted, that is, the system undergenerates.

In a system with phases, the two sentences start from different numerations, and cannot be compared for economy. As a result, both can be generated without problems. (33) and (34) show the two sentences with the numerations they start from.

(33) a. Someone is wondering whether there is someone here.

b. $N = \{ \{C_1, is_1\}, \{someone_1, v_1, wondering_1\}, \{is_1, whether_1, there_1, here_1, someone_1\} \}$

(34) a. There is someone wondering whether someone is here.

b. $N = \{ \{C_1, there_1, is_1\}, \{ v_1, wondering_1, someone_1 \}, \{whether_1, is_1, someone_1, here_1\} \}$

Unlike (30) above, the two numerations in (33b) and (34b) are composed of sub-arrays of lexical items. Each of these subsets contains the items required to build a phase, including its head. It is precisely the distribution of items in these subsets that plays the trick. Now, the two sentences in (29) start from two different numerations. It is true that they contain the same items, but the fact that they are organized in a different manner is crucial.

First, the computational system activates a sub-array σ_1 , (35a) for (33a) and (35b) for (34a).

(35) a. $\{is_1, whether_1, there_1, here_1, someone_1\}$

b. $\{whether_1, is_1, someone_1, here_1\}$

Once the derivation reaches the stage shown in (31a) above, and repeated here for convenience as (36a), the two derivations depart from each other. (36b) and (36c) show the two numerations at this point.

(36) a. $[_{TP} \text{ is someone here}]$

b. $\{is_0, whether_1, there_1, here_0, someone_0\}$

c. $\{whether_1, is_0, someone_0, here_0\}$

The numeration in (36b) contains the lexical item *there*. Since this element can check the EPP feature on T, it will be merged in SpecTP. In (36c), on the other hand, there is

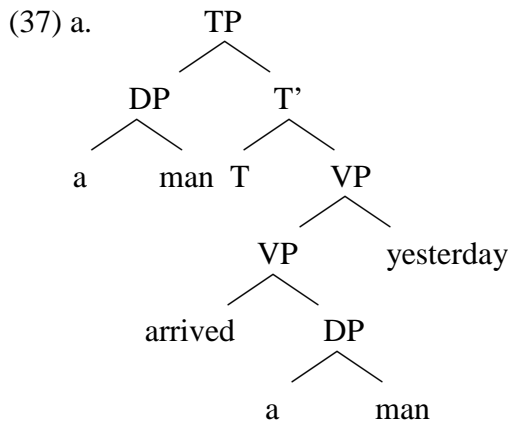
no expletive available, which leaves only the option of moving *someone* to SpecTP. This way both derivations have chosen the most economical alternative available at this step and are allowed to proceed.

Of the two analyses just described, the one in terms of phases is clearly superior in that it guarantees the derivation of the two sentences under consideration, whereas an alternative without phases would block the derivation of a sentence that is perfectly grammatical.

6. On linearization

6.1. Antisymmetry and the LCA

In section 2 above it was simply assumed that the structure in (37a) was linearized as (37b). In this section, the linearization process will be explained in some detail.



b. A man arrived yesterday.

The A-P system cannot deal with (37a) and imposes the requirement that this structure be linearized. Only then will it be readable at PF. Linearization is therefore a process that turns a hierarchical structure like (37a) into a linear (i.e. one-dimensional) string like (37b).

(37a) reflects the series of hierarchical relations established among the constituents of a syntactic structure, whereas (37b) reflects precedence and subsequence (i.e. linear relations). Kayne (1994) proposes a way of mapping the former onto the latter. In his system linear order is read off hierarchical relations; more specifically,

asymmetric c-command maps onto precedence. This is formalized in the algorithm defined informally in (38), known as the *Linear Correspondence Axiom* (LCA).

(38) *Linear Correspondence Axiom (LCA)*

A lexical item α precedes a lexical item β iff α asymmetrically c-commands β .

According to the LCA, an item α precedes another item β , if α c-commands β but β does not c-command α . One possible definition of c-command is provided in (39).

(39) *c-command*

α c-commands β iff

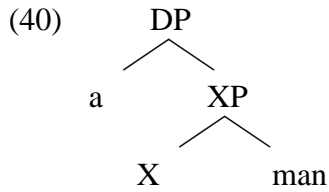
(i) α does not dominate β ; and

(ii) the first branching node dominating α dominates β .

Turning to (37a) above, that structure poses several problems for linearization in terms of the LCA. First, the lexical items *a* and *man* stand in a mutual c-command relationship, which means that they cannot be linearized with respect to each other. Second, neither *a* nor *man* (in SpecTP) c-commands *arrived*, which entails that the structure cannot be linearized as *a man arrived*. This type of difficulty will emerge whenever a complex subject is part of the structure. A third problem concerns the presence of two non-distinct copies of the DP *a man* in the structure in two different positions. These three problems will be addressed in turn in the following paragraphs. In section 6.2 below I will address a fourth question: the linearization of adjuncts.

Configurations with two lexical items in a mutual c-command relationship will be encountered once and again, due to the reduction of intermediate projections in *Bare Phrase Structure*²⁸. In the case of the DP *a man* in (37a), the problem can be solved by assuming a more complex internal structure of the DP, as that shown in (40) below, where X may be a (null) number or gender functional head.

²⁸ The impossibility of linearizing items in a mutual c-command relationship and other structural problems in the application of the LCA arise from the fact that it was defined with respect to the X-bar schema. Now, many intermediate projections have been eliminated, which disrupts asymmetric c-command relationships.



The addition of an intermediate layer between the determiner and the noun (XP) is enough to create the required configuration, in which *a* asymmetrically c-commands *man*. Other solutions to the problem of mutual c-command for linearization have been proposed. For a summary, see Hornstein, Nunes and Grohmann (2005) and the references there.

Although now it is possible to linearize the two lexical items that make up the DP subject in (37), it is still impossible to linearize them with respect to *arrive*. The new configuration in (40) does not change the fact that neither *a* nor *man* asymmetrically c-commands the predicate. An adjustment in the definition of the LCA along the lines in (41) will solve this problem.

(41) *Lexical Correspondence Axiom*

A lexical item α precedes a lexical item β iff

- (i) α asymmetrically c-commands β ; or
- (ii) an XP dominating α asymmetrically c-commands β .

Hornstein, Nunes and Grohmann (2005)

With the amendment in (ii), the DP *a man* can be linearized with respect to *arrived*, precisely because the node DP (which dominates the two lexical items *a* and *man*) asymmetrically c-commands the predicate. It follows then that *a man* precedes *arrived*. However, at this point another problem emerges: there is a second copy of the DP in the structure. The two copies are non-distinct, which means that the computational system cannot distinguish them for the purposes of linearization. Given that the higher copy asymmetrically c-commands the predicate and that the lower copy is asymmetrically c-commanded by the same predicate, the computational system has to deal with two contradictory ordering requirements: the DP *a man* must precede and follow the predicate *arrived*.

The only way out of this dilemma is to assume that only one copy of a moved constituent can survive to PF. A non-improbable assumption is that the higher copy

does, it being the copy with more features checked and, in this sense, optimal in terms of the interfaces (Nunes 1995). The lower copy is then deleted for PF purposes and not considered by the LCA, as this algorithm cannot deal with constituents that have no phonological features. If the lower copy is invisible to the LCA the structure in (37a) above is successfully linearized as *a man arrived*.

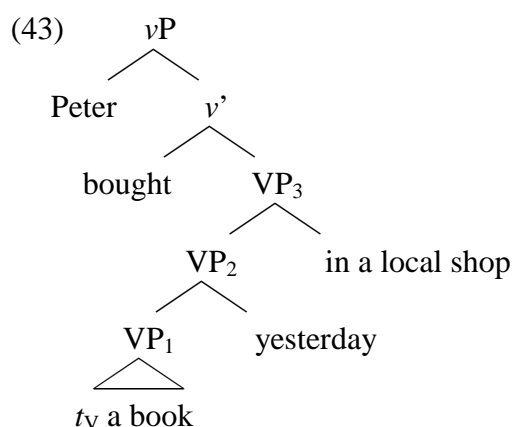
As I will assume right-adjunction, it is necessary to consider in some detail how adjuncts are linearized by the LCA. To this task I turn in the following subsection.

6.2. The linearization of adjuncts

The linearization of adjuncts is highly problematic in the antisymmetry theory outlined in the preceding section. In the paragraphs that follow I will illustrate the problems faced by the LCA when it comes to linearizing right-adjuncts, as those highlighted in italics in (42), and I will present a possible solution.

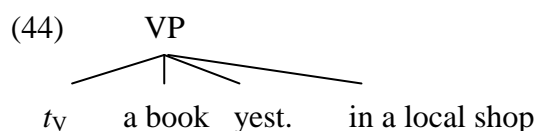
- (42) a. Peter bought a book *yesterday in a local shop*.
 b. He did everything *the usual way*.

The VP of the sentence in (42a), for example, is standardly assigned the structure in (43), where the incorporation of each adjunct into the structure creates a new VP shell.

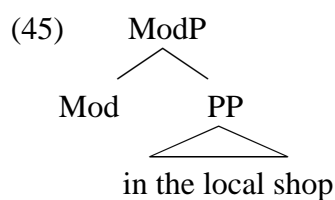


Let me assume for concreteness that only the highest VP layer is visible for the purposes of linearization, i.e. that the lower segments behave as intermediate categories in the computation of antisymmetry (for the invisibility of intermediate categories for the LCA see Kayne 1994, Chomsky 1995, and Hornstein, Nunes and Grohmann 2005,

among many others). If this is so, in the structure in (43) above, the DP *a book*, and the modifiers *yesterday* and *in a local shop* are dominated by VP₃, but not by the other VP nodes. This means that the c-command relationships inside VP in (43) above are the same as those that would be defined in a ‘flat’ structure like (44), where all the constituents integrating the VP are in a mutual c-command relationship.



In order to break this symmetry and allow the LCA to linearize the structure, I will assume Rubin’s (2002) *Mod hypothesis*. This author proposes that all adjuncts – whether clauses, NPs, AdvPs or PPs – project a functional category, Mod(ifier)P, that forms an outer shell around the modifier much in the same way as a DP shell projects on top of NP. The structure of a PP adjunct, for example, would be as represented in (45).



Although phonetically null in English, Rubin (2002) claims that this functional category is overtly realized in other languages. He provides the examples in (46) below to illustrate the point. The elements highlighted in bold, which are called ‘linkers’ in traditional grammars, are materializations of Mod. The sentences below illustrate in order Tagalog, Romanian and Chinese.

(46) a. Binili niya ang bahay **na** nasa probinsya.

bought he Topic house NA in the provinces

‘He bought the house in the provinces.’

b. Cutia **de** la bibliotecă conține niște cărți.

box-the DE in library contains some books

‘The box in the library contains some books.’

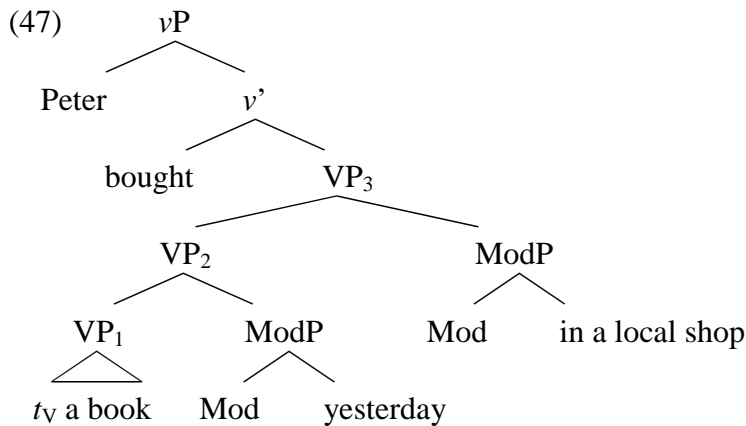
c. Na yiben zai zhuozi-shang **de** shu.

that one at table-top DE_c book

‘That book (on the table).’

Mod is also held responsible for the valuation of the Case feature of bare NP adverbs in English. This functional head, which is assumed to be ϕ -complete, assigns a value/checks the Case feature of its NP complement in sentences like (42b) above.

In Rubin’s system, adjunction in the base is in a sense ‘mediated’ by Mod. This mechanism has the additional advantage that pair-merge (Chomsky 2001) is restricted to applying to ModP, i.e. only ModPs can undergo pair-merge. The structure of VP shown in (43) above would rather look like (47).



This structure can be linearized by the LCA. The DP *a book* is dominated by VP_3 , which also dominates *yesterday*. The internal argument does therefore c-command the adverbial. Due to the presence of ModP, *yesterday* cannot c-command *a book*. By asymmetric c-command, the object precedes the adverb. The same reasoning applies to the second adverbial in the structure.

Notice that the adverbials introduced by the linking particle in (46) above – assumed to be overt instances of Mod by Rubin (2002) – are modifiers of nouns. It appears therefore that adjunction inside nominal phrases is also mediated by Mod. I will assume that VP adjuncts are ModPs in all cases, including those arising via movement.

In this section, I have presented a possible way of linearizing right-adjunction in the framework of antisymmetry. Alternative linearization mechanisms are, of course, conceivable. The main aim of this section has been simply to show that traditional right adjunction can be accommodated in a minimalist system adopting some version of

Kayne's LCA. In the remainder of this dissertation I will continue to represent adjunction as in (43) above for ease of exposition.

7. Conclusion

In this chapter I have presented the guidelines of the *Minimalist Program*, theoretical framework assumed in this dissertation. Special attention was paid to the conceptualization of movement within *Minimalism*. This was necessary because EX has been analyzed as involving movement in many of the accounts available in the literature, as has been shown in the preceding chapter.

As some of the analyses reviewed there used right adjunction (be it base-generated or derived by movement), I have also devoted some lines to the discussion of the place of rightward movement and right adjunction in the new theoretical framework. As it turned out, it has been shown that, making the necessary adjustments to the more strict versions of the theory, both right adjunction and rightward movement can have a place in the minimalist enterprise. This conclusion has interesting consequences for the analysis of EX, as reformulations in terms of leftward movement will not be indispensable.

In the following chapter, I will offer a critical discussion of the analyses presented in chapter 3 which will include the assessment of their feasibility in the framework just outlined. This will lead, among other things, to the presentation of the analysis of EX that will be used in subsequent chapters, as well as to the definition of the main research questions that will be investigated in this dissertation.

CHAPTER 5

EX as movement: triggers and landing sites

1. Introduction

In the immediately preceding chapters I provided a description of EX from DP, the analyses of the construction available in the literature and the theoretical framework I will assume. It is therefore high time to return to the construction in order to refine some aspects of the analysis, a necessary step before exploring the interaction of EX with other syntactic phenomena.

The discussion will be articulated in three parts. The first (section 2) will be devoted to offering a critical review of the accounts presented in chapter 3. The main aim of this part will be to find the most appropriate way to derive EX in the minimalist framework described in chapter 4. This brief review will reveal that EX is best analyzed in terms of movement. It will therefore be necessary to identify a trigger for the operation. To this task I will turn in the second part of this chapter (section 3). I will consider in some detail one of the proposals made in the literature: that EX is driven by a focus feature. Finally, the third part of this chapter (section 4) will deal with the position of the EC. The empirical data indicate that some of the standard assumptions concerning the hierarchical position of the EC have to be qualified. The chapter will be closed with the conclusions in section 5.

The three main topics discussed in this chapter will become the pivots of the discussion in the remainder of this dissertation.

2. Critical review of previous approaches

In this section, I will present some arguments that can be raised against the analyses presented in chapter 3. The list of objections is not intended to be exhaustive but it will provide a clear picture of the shortcomings of the analyses that were proposed to replace the classical account in terms of rightward movement, which – as will be shown – presents problems of its own.

2.1. *Rightward movement accounts*

As mentioned in chapter 3, the earliest analyses of EX were formulated in terms of rightward movement at a time when movement operations were explained by means of transformational rules. In the case of EX a rule was proposed that, taking the non-extrapolated version of the sentence as the starting point, generated the sentence with EX by moving the EC to the right. As the system of transformational rules gave way to a new conception of movement which regarded all transformations as applications of the general rule *Move α* , rightward movement faced the first conceptual problems.

Thus, for example, in the new theory, syntactic movement is invariably triggered by the need to check a formal feature. No such feature has been identified as the trigger of EX. The very optionality of the operation is clearly at odds with this conception. Moreover, feature checking is assumed to take place in a very specific syntactic configuration: a Spec-head relationship has to be established between a head bearing an uninterpretable feature and a constituent with a compatible interpretable feature. In rightward movement, however, the displaced constituent is adjoined to a maximal projection, which is not an appropriate checking configuration.

It has also been observed that rightward movement does not obey the same constraints as leftward movement, an unexpected state of affairs if all displacements are applications of *Move α* . As already explained in chapter 2, section 3.1, leftward movement is cyclic, (1a), whereas rightward movement is subject to the *Right Roof Constraint* (Ross 1967), that is, the rightward-moved constituent cannot abandon the clause where it has its base position, as shown in (1b) for EX.

- (1) a. Who_i did Mary say [_{CP} that John saw a picture of t_i in the newspaper]?
- b. *It was believed [_{CP} that John saw a picture t_i in the newspaper] by everybody [of his brother]_i.

Another asymmetry between EX and leftward extraction is that the former, but not the latter, can take place from a subject, as shown in the contrast in (2). The fact that EX is not sensitive to the islandhood of subjects has been interpreted by some linguists as an indication that the operation does not involve movement at all (see chapter 3).

- (2) a. *[With what color hair]_i did a man t_i come into the room?
b. A man came t_i into the room [with blond hair]_i.

It must be noticed that, although these two asymmetries have usually been held against the rightward movement analysis, they are equally problematic for accounts in terms of leftward movement. In section 4 below, I will show that both asymmetries can be derived naturally – even assuming that EX involves (rightward) movement – once a specific locality restriction is imposed on the operation.

On the empirical side, rightward movement accounts of EX face some problems, too. Culicover and Rochemont (1990) noted that this type of analysis cannot explain empirical data like that in (3)²⁹.

- (3) A man came in and a woman went out who were quite similar.

The relative clause, which exhibits plural agreement, refers to both the man and the woman, even when the two DPs do not form a constituent (i.e. [_{DP} *a man and a woman*]) at any point in the derivation. According to Culicover and Rochemont (1990), the sentence in (3) cannot be derived from (4), where the relative clause is merged with each DP separately yielding ungrammaticality due to agreement mismatch. It has to be noted that, under this argumentation, (3) is problematic for movement accounts in general, independently from the directionality of the displacement. As a matter of fact, Culicover and Rochemont (1990) interpreted this type of data as evidence that EX has to be analyzed in terms of base generation.

- (4) *A man who were quite similar came in and a woman who were quite similar went out.

Notice, however, that the datum in (3) could be derived via *Right Node Raising* (RNR) of the relative clause, with summative agreement emerging as a side effect of the operation in a way parallel to what Postal (1998) proposes for (5).

²⁹ Culicover and Rochemont (1990) attribute the observation that ECs can have split antecedents to Gazdar (1981), following Perlmutter and Ross (1970).

- (5) The pilot claimed that the first nurse, and the sailor proved that the second nurse, were spies/*was a spy.

Capitalizing on this type of problems, linguists like Culicover and Rochemont (1990) proposed analyses in terms of base generation. The logic of their argument was that EX was different from other (leftward) movement operations because it did not involve movement at all.

2.2. *Base generation*

In these accounts, the EC is right-adjoined in the base. As a consequence, no direct relationship is established between the extraposed and the non-extraposed variants. The two sentences are simply regarded as two alternative constructions that can be built by the system. It is not clear, however, why the system should allow for the generation of two alternative structures especially when they both have the same interpretation.

This type of analysis is confronted with the problem of relating the EC with its HN, as they do not form a constituent at any point in the derivation. This type of conception runs afoul of the standard compositional interpretation of sentence structure. Especially problematic in this sense is the case of the EX of arguments, (6), as arguments (as opposed to adjuncts) are required to merge with the heads they are dependent on in the base³⁰.

- (6) a. A picture appeared in the newspaper of Peter's brother.
b. I wrote an article last week about extraposition.

As explained in chapter 3, base generation accounts had to introduce a principle in the grammar that is responsible for establishing the connection between the head noun and its extraposed modifier. This principle, dubbed *Complement Principle (CPr)* in Culicover and Rochemont (1990), is defined in terms of government. Since, in *Minimalism* this structural relationship has lost the central role it played in *Government and Binding*, a reformulation of the *CPr* is – in any case – imperative. See chapter 3 section 2.2 for an account of how this principle works.

³⁰ But see the discussion in chapter 2, section 2.2.2.

As to the datum in (3) above, which advocates of base generation put forward against movement accounts, the problem of plural agreement is solved in their analysis by assuming that the EC is right-adjoined in a position from which it c-commands (governs, in the original formulation) the two singular subjects. In this case, the EC should be adjoined to the two conjoined IPs. The conjunction of the two clauses (whose subjects are the two singular DPs) would license plural agreement on the relative.

(7) [_{&P}[_{&P}[_{IP} A man came in] [_{&P} and [_{IP} a woman went out]]] who were quite similar].

On the debit side, base generation analyses have to find a way to accommodate certain empirical data that indicate that the EC has indeed moved; for example, the sentences in (8), drawn from Fox and Nissenbaum (1999), where the ECs license parasitic gaps (PG). Remember that PGs are licensed by A-bar moved constituents at S-structure (see for instance Chomsky 1995)³¹.

- (8) a. I presented an argument _ before having evidence _ that what you told me was right.
b. I read a book _ before reading an article _ about John.

Similarly, the impossibility of extracting a *wh*-phrase from an EC has been regarded as indicative of the fact that the EC has undergone movement and become an island. The data have been drawn from Guéron (1980).

- (9) a. Who did you read a book by _ last summer?
b. *Who did you read a book last summer by _?

In the preceding paragraphs I have presented some of the objections raised against rightward movement accounts that could justify the proposal of an alternative in terms of base generation. I have also shown that, while some of these objections can be neutralized in an account in terms of movement, the base generation account introduces problems of its own, which are in some cases difficult to overcome.

³¹ It must be noted that the conditions under which PGs are licensed must be redefined, as S-structure is no longer a level of representation in the minimalist framework.

2.3. *Leftward movement accounts*

As already noted, the evolution of movement theory has made it necessary to rethink EX. The need to reformulate the operation in terms of leftward movement is forced especially upon those that adopted Kayne's (1994) *Linear Correspondence Axiom* (LCA) as the linearization algorithm in their theories. Rightward movement, as well as right adjunction, is proscribed in a system that maps hierarchical superiority onto precedence. In this context, two different types of accounts emerge: one involving stranding, the other one remnant movement. As will be shown directly, neither is exempt from problems.

2.3.1 *Stranding (and Distributed Deletion)*

Kayne (1994) derives the linearity of EX by allowing the HN to move alone for Case checking purposes stranding the EC in its base position. As will be shown below, this approach faces some problems under now standard assumptions concerning phrase structure and Case assignment.

As discussed at some length in chapter 3, section 3.1.1, Kayne (1994) has to assume that the internal argument in sentences with EX(OB) is base-generated in a non-Case position which is hierarchically lower than standardly assumed for objects. A sentence like (10) below would be roughly derived in two steps. First, the adverbial PP will move across the internal argument leaving this constituent in sentence final position in what is regarded as a case of HNPS. The need to check the accusative Case of the object will then trigger the movement of the head noun to a designated CasePhrase. The relative clause stays all throughout the derivation in its base position.

(10) a. John ushered somebody into the room who we didn't know.

b. John ushered somebody_{HN} [PP into the room] t_{HN} who we didn't know t_{PP}.

This analysis raises several problems for the version of *Minimalism* adopted in this dissertation. Some of them have to do with object raising, some others with the movement of the adverbial PP. Thus, Kayne's analysis is incompatible with the AGREE theory of Case checking that I am assuming, as in this framework no object raising is required. In addition, for his system to derive the attested linear sequences, Kayne has to

assume that the object enters the derivation in a non-standard (non-Case) position. As to the displacement of the adverbial PP, this movement operation is suspicious at least for two reasons: (i) It is not clear what triggers this movement operation (beyond the need to leave the heavy NP in sentence final position) and (ii) Kayne never clarifies which position is targeted by the PP.

In EX(SU), Kayne assumes again that the subject originates in a non-Case marked position. If this is Spec ν P (as standardly assumed), in (11) below, the VP adverbial *yesterday* and the object, which originate lower than the subject under current assumptions, would have to move to the Specs of some higher functional projections to be linearized preceding the EC. Object raising will be triggered by Case checking (XP in (11b) would be a Case projection), but the movement of the adverbial is more difficult to motivate. The final landing site of the verbal head would also have to be clarified as it could not be ν , which is the position hosting the lexical verb in English under standard assumptions. These operations are followed by subject raising to SpecIP for nominative Case checking.

(11) a. A girl kissed him yesterday who really likes John.

b. [_{IP} *a girl*_{HN} [_{?P} kissed [_{XP} him [_{?P} yesterday [_{VP} *t*_{HN} *who really likes John* [_{v'} *t*_V *t*_{OB} *t*_{Adv}]]]]]]]]

There is, however, evidence that Spec ν P cannot be the canonical position of the subject in Kayne's system. Consider (12), from Rochemont and Culicover (1997), a sentence illustrating serial EX.

(12) A man entered a room last night that I had just finished painting who had blond hair.

In this sentence, the relative clause extraposed from the subject follows the relative extraposed from the object. If the subject were base-generated in Spec ν P and the object inside VP, the reverse order of the ECs would be expected. If, on the other hand, Kayne's logic is applied, the linearity in (12) would indicate that the subject originates lower in the structure than the object, an idea that contravenes all the evidence in the generative tradition. Thus, sentences like those in (13) are usually put forward as evidence that the verb forms a unit with its internal argument. In this case, the two

together determine the theta role of the subject (an *agent* in (13a) but an *experiencer* in (13b)).

- (13) a. Peter broke a vase.
b. Peter broke his arm.

A general problem of Kayne's analysis is that the structure becomes rather complex with the only apparent purpose of deriving the correct linear sequence. One clear example is the derivation of EX from the DP complement of a preposition. As the head noun and the preposition do not form a constituent under standard assumptions, Kayne (1994) has to resort to a number of non-standard movement operations to derive the linearity in (14). In order to avoid repetition the reader is referred to the derivation of this sentence provided in chapter 3.

- (14) John is going to talk *to someone* tomorrow *who he has a lot of faith in*.

In general, where accounts in terms of rightward movement only require one movement operation, Kayne needs to propose a series of displacements and the projection of several functional categories to host the moved constituents. Of course, structural complexity should not constitute a problem *per se*, as long as every move and projection is motivated. But precisely this aspect of Kayne's analysis is usually kept very vague. Case-checking is the only trigger ever mentioned in the context of EX and it justifies only the displacement of the head nouns, never the required movement of adverbials and other constituents.

Wilder (1995) proposed a variant of the stranding analysis in terms of distributed deletion. According to him, the DP (HN and EC) moves as a whole for feature checking. The illusion of EX is created by a non-standard application of *Chain Reduction* (Nunes 1995, see also chapter 4). The HN is phonologically realized in the highest copy and the EC in the lowest. This analysis, however, suffers from many of the shortcomings observed in Kayne's system. Of the problems just mentioned, only one does not arise in Wilder's account, namely the movement of apparent non-constituents in cases of EX from a PP. He derives a sentence like (14) above as in (15), where strike-through indicates that the relevant constituent is not realized phonologically. A note is in order at this point. In the sentences that follow, I will not use labels as the author does

not provide them in the original paper. As a result, it is not always clear what position is occupied by the different copies that participate in distributed deletion.

(15) John is going to talk [*to someone ~~who he has a lot of faith in~~*] tomorrow [~~*to someone who he has a lot of faith in*~~].

Wilder (1995) supports his analysis with some binding data. According to him, the R-expression *John* and the pronoun *him* can be correferential in (16) below because Condition C is computed at LF on the basis of the higher copy. However, this conception of binding runs against the standard assumption that Condition C is computed at LF under reconstruction (cf. Sportiche 2006). Besides, as opposed to Wilder, my informants could not interpret the two DPs in (16) as correferential, which would indicate that the higher copy is not relevant for the computation of Condition C in this sentence.

(16) [A girl ~~who really likes John~~] kissed him_i yesterday [a girl who really likes John_i].

Wilder's (1995) conception of binding predicts that the extraposed and the non-extraposed variants of a sentence will always receive the same interpretation, as Condition C will always be computed on the basis of the highest copy independently from the final deletion pattern. Empirical data where the sentence with EX and its non-extraposed counterpart receive different interpretations would challenge this conception of binding. This type of data does exist, as seen in (17) and (18).

(17) a. I sent her_i many gifts last year that Mary_i didn't like.

b. *I sent her_i many gifts that Mary_i didn't like last year.

(Culicover and Rochemont 1990)

(18) a. *Which portrait did he_i buy that Harry_i likes?

b. Which portrait that Harry_i likes did he_i buy?

(Hornstein, Nunes and Grohmann 2005)

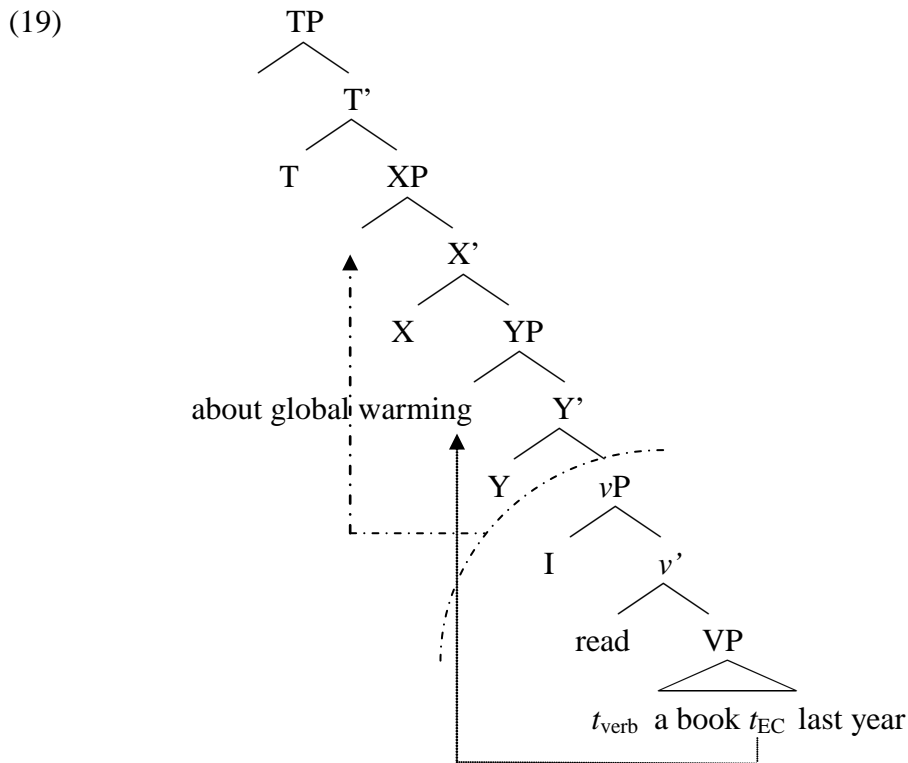
In this section I have shown that both Kayne's (1994) and Wilder's (1995) analyses are very vague in many crucial respects. Besides, the authors have to make several non-

standard (controversial) assumptions concerning, for example, the internal structure of vP and binding theory.

Let me turn now to remnant movement, the other alternative analysis of EX in terms of leftward movement that I will consider here.

2.3.2. Remnant Movement

Remnant movement accounts propose raising of the EC to the Spec of a functional projection followed by remnant movement of the complement of this projection, which contains the head noun, to the Spec of a higher functional category. The operations are illustrated in (19) for EX(OB). See chapter 3 for more details.



An argument that is usually raised against remnant movement is that it creates unbounded traces. Notice that in this tree the trace of the EC ends up in a position where it is not c-commanded by its antecedent. However, this ceases to be a problem if a strictly derivational approach is assumed (Müller 2000, 2002). In such an approach the legitimacy of the trace is calculated upon application of movement of the EC, i.e. on completion of YP. At that point in the derivation, the EC in SpecYP binds its trace.

Another problem arising in the structure presented in (19) is that the subject *I* will have to abandon *vP* when this constituent is in *SpecXP*. This operation should render the sentence ungrammatical, given freezing effects on derived Specs. Wexler and Culicover (1981) noticed that extraction is not possible out of moved constituents (and adjuncts)³².

(20) ??Who do you wonder which picture of _ Mary bought?

(Lasnik and Saito 1992)

By the same token, extraction from a subject in *SpecTP* is prohibited, as shown in (21). This fact is relevant because the first operation in *EX(SU)* in remnant movement accounts is precisely extraction of the EC from the subject; that is to say, if the traditional analysis, in which *EX* targets the DP in its surface position (i.e. in *SpecTP*), is adopted. Why the derivation is not cancelled at this point, making *EX(SU)* impossible, is not clear. I will come back to this problem in section 4 below, where I will argue for a different analysis of *EX(SU)*.

(21) *Which Marx brother did she say that a biographer of _ interviewed her?

(Lasnik and Park 2003)

Something similar occurs in the case of *EX(wh)*. The functional categories involved in remnant movement will project in this case on top of *CP*, in whose *Spec* sits the *wh*-phrase. Extracting the EC from *SpecCP* – a derived *Spec* – is again illicit. I refer the reader once again to section 4 below.

Another shortcoming of remnant movement accounts is that they predict that the EC will always surface in absolute sentence-final position. As shown in (22) below, this is not always the case. It has to be noted that the English translation is also acceptable.

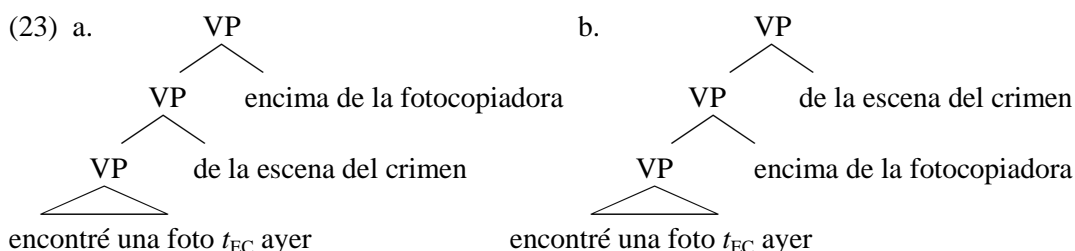
³² This particular problem would disappear if it is assumed that *XP* and *YP* project in the left periphery of the sentence. The EC would raise to *SpecYP* and *TP* to *SpecXP*. In the course of this dissertation it will be shown, however, that the EC cannot occupy such a high position in the structure.

(22) Encontré una fotografía ayer de la escena del crimen encima de la
found(1sg) a picture yesterday of the scene of-the crime on-top of the
 fotocopiadora.

photocopier

‘I found a picture yesterday of the crime scene on the photocopier.’

An analysis in terms of rightward movement would only need to change the timing of EX with respect to the merging operation that introduces the locative in the structure. When the EC surfaces sentence-finally, EX applies on completion of the VP, as in (23b). But EX can also apply before the locative adverbial is assembled, as in (23a), yielding the non-final linearity of the EC.



Another shortcoming of remnant movement is the difficulty in identifying a trigger for the different movement operations that would be required. But even in the case that a trigger could be found for the displacement of the EC, the remnant movement operation that follows would still have to be motivated. The need to find the driving force for this second movement operation becomes more acute when one considers that it is obligatory after application of the first. Notice that the extraction of the clausal or PP modifier from DP is, on its own, unacceptable in English, as witnessed in (24).

(24) a. *Of Turner he left a review on the table.

b. *Who I knew at school a man has just bought this shop.

c. *That he had dated in high school how many girls did John invite to the party?

In spite of the shortcomings mentioned in the preceding paragraphs, this approach fares better than other accounts with respect to certain aspects of EX, e.g. its optionality. It only need be assumed that in the non-extrapolated variant the feature that triggers EX remains absent. The operation is not only triggered by a feature (as any other movement operation) but it also involves a configuration in which that feature can be checked: the

EC moves to the Specifier of a functional head. In these respects, remnant movement complies with current assumptions on movement. However, the problem of identifying triggers and determining the nature of the functional categories involved persists.

As explained in chapter 3, Rochemont and Culicover (1997) reformulate their 1990 analysis of EX in terms of base generation. In their new proposal, the EC is base-generated on a left branch in a structure which is very similar to that just seen for remnant movement. The base position of the EC is the Spec of a functional projection (YP in the tree diagram in (19) above) that occupies a relatively high hierarchical position. Some of the drawbacks of remnant movement just mentioned apply here as well. Only the problems arising from the extraction of the EC will be avoided in this base-generated variant. The shortcomings mentioned above in connection with the earlier accounts in terms of base generation do also carry over.

In this section it has been shown that none of the analyses proposed in the course of several decades to derive EX is exempt from problems. Accounts in terms of base generation can be discarded generally on the grounds that they are at odds with the standard compositional view of interpretation; but also more specifically on the grounds that they cannot explain certain empirical data that point clearly at movement.

Reformulations of EX in terms of LM, on their part, force the introduction of movement operations and/or functional projections in the structure which are not sufficiently motivated. In other words, the derivation of EX in terms of LM complicates the structure with the only apparent aim of deriving the final linearity. In this respect, RM is more appealing due to its simplicity. RM involves fewer derivational steps and is, in this sense, more economical than derivations in terms of LM.

3. The trigger of EX: The role of focus

As seen in the discussion in chapter 3 and in the preceding section, many are the linguists who have argued for a movement analysis of EX. However, only a few have dealt with the issue of the trigger. In this section, I will consider one of the features that have been explicitly proposed as the driving force of EX: [+focus].

EX has often been described as a focus construction of English (see, for instance, Rochemont 1986 or Huck and Na 1990), although the precise nature of the link with focus is not always clear. There is, for example, no consensus concerning the constituent that is associated with this discourse-related feature. In some cases, it seems

to be the EC, whereas in others it appears to be the head noun. In what follows, I will offer a brief critical overview of the debate around the role of focus in EX.

As shown in chapter 2, the least controversial cases of EX are instances of EX(OB), and EX(SU) of unaccusative and passive predicates. They are least controversial in the sense that most speakers accept EX in these environments even in out of the blue contexts. What direct objects of transitive predicates and subjects of unaccusative and passive predicates have in common is the fact that they are internal arguments and that they are the unmarked focus of their sentences (i.e. they are the constituents that are assigned [+focus] by the focus assignment rules of the language). But EX is also possible from external arguments, which are not unmarked foci. In this type of cases, the role of context will be fundamental. In this section, I will illustrate and discuss all these issues.

Sentences headed by unaccusatives, as in (25) below, are basically presentations (in the sense of Guéron 1980) expressing ‘the appearance of X (the entity expressed by the DP subject) in the world of discourse’. In this type of sentences, the subject is the unmarked focus. Underlining is used to mark the constituent that contains the non-contrastive stress.

(25) A man appeared from India.

This sentence contrasts with what Guéron calls predications, illustrated in (26).

(26) a. *A man hit Bill with green eyes.

b. *A man screamed who wasn’t wearing any clothes.

A predication is a sentence in which the unmarked focus is either the VP or an argument of the V and in which the subject is thematic, i.e. a DP which is unstressed or interpreted as a *Name* (i.e. basically, a complete referring expression)³³. In more modern terms, one could say that nuclear stress falls on the most deeply embedded constituent in terms of asymmetric c-command (see Zubizarreta 1998). In (27), underlining shows

³³Guéron (1980) defines a *Name* along the following lines: “A *Name* is a complete referring expression. It designates a unique object or individual (or set of these) in the world of discourse, either directly, through the use of proper names or deictic expressions (*John, that man*), or indirectly, by means of complements containing direct referring expressions (*the girl who sits next to you, some of those books*)” (Guéron 1980: 667).

the place of the unmarked stress in sentences headed by transitive and unergative predicates.

(27) a. A man (with green eyes) hit Bill.

b. A man (who wasn't wearing any clothes) screamed.

From the sentences in (25)-(27) one might conclude that EX is possible from stressed/focused, and impossible from unstressed/unfocused, subjects. This idea seems to be confirmed by the following data from Guéron (1980). The presence of an object in (28) below forces the interpretation of this sentence as a predication; as expected, EX is impossible.

(28) a. A book by Charles delighted Mary.

b. *A book delighted Mary by Charles.

However, if the verb and the object combine to form a verbal complex, as in (29), and the resulting semantic unit is a pragmatic synonym of *appear*, then EX of the PP modifier is permitted.

(29) a. A book by Chomsky was making the rounds.

b. A book was making the rounds by Chomsky.

If the verbal complex does not convey the meaning of 'appearance in the world of discourse', then the output is unacceptable, as shown in (30).

(30) a. A book by Chomsky is causing a stir.

b. *A book is causing a stir by Chomsky.

Although the verbal phrases in both (29) and (30) are idiomatic (i.e. verb and complement form a semantic unit), the former sentence is a presentation whereas the latter is a predication. The divergent syntactic behavior of these sentences with respect to EX seems to arise precisely from this semantic difference, which correlates with the different information status and prosodic prominence of the source DP.

Insisting on this idea, Guéron (1980) provides the sentences in (31) to illustrate the fact that, when the verbal complex is ambiguous between an ‘appearance’ sense and a ‘property’ sense, only the first reading survives PP EX. Notice in passing that the subject is an external argument in both cases, which confirms that EX is not restricted to internal arguments.

(31) a. A book by Chomsky hit the newsstand.

b. A book hit the newsstand by Chomsky.

Göbbel (2006) observes that the acceptability of the sentences in (32) below – which given in isolation are deemed unacceptable – improves when the subject is made prominent, as in (33), where prominence is signaled by capital letters. This happens when the sentences are embedded in a context that requires that stress shifts from the object onto the subject.

(32) a. *A agent_ shouted at me from the FBI.

b. *A man_ shot a lawyer yesterday from the *Cosa Nostra*.

(33) a. AN AGENT_ talked to me from the FBI.

b. A MAN_ shot a lawyer yesterday from the *Cosa Nostra*.

The acquisition of prominence on the part of the subject (i.e. the source DP) also seems to be the necessary condition for EX to be possible in sentences like (34), which are again drawn from Göbbel (2006). In (34a), it appears that the presence of a postverbal adverb is blocking EX from the DP subject. However, when the sentence is embedded in a context such as that provided in (34b), which – apart from the focalization of the subject – involves the defocusing of predicate and adverb, EX becomes available³⁴.

³⁴Guéron (1980) had also noticed that the presence of certain complements and/or adverbials in VP may block EX from the subject. These are the examples that she provided:

(i) a. A man spoke from India.

b. *A man spoke English from India.

c. *A man spoke in favour of Jim’s proposal from India.

d. *A man spoke twice from India.

e. *A man spoke softly from India.

The constituents that surface between the verb and the EC in these sentences are marked as Focus in Guéron’s system. As a consequence, the extraposed PPs are interpreted as the complements of these constituents. Such LF configurations are uninterpretable.

(34) a. ??In 1911, a steamer sank quickly from the Cunard Line.

b. The Cunard Liner *Lusitania* was torpedoed by a U-boat and sank quickly. I'm also pretty sure a steamer sank quickly from the White Star Line. I think it was the *Arabic*.

Culicover and Rochemont (1990) discuss a similar datum, shown in (35a).

(35) a. ??A man screamed who wasn't wearing any clothes.

b. Suddenly there was the sound of lions growling. Several women screamed. Then a man screamed who was standing at the very edge of the crowd.

Again, a sentence that is deviant in isolation becomes perfectly acceptable when in the appropriate context. In this case, the subject *a man* stands in opposition to *several women*, whereas the predicate *scream* is part of the discursive background by virtue of its being mentioned in the preceding sentence. In this context – which involves the subject acquiring prominence and the predicate being deaccented – EX is possible.

Göbbel (2006) further reports that blocking effects like those arising from the presence of certain adverbials in sentences with EX(SU) are also observed when EX targets the DP complement. In other words, it seems that certain VP adverbs, though not all, block EX(OB). Among those that may be 'crossed' by the extraposed constituent are locative, temporal and object-oriented adverbs. Examples are provided in (36). Among those that block EX are manner and rate adverbs. Some relevant examples are shown in (37).

(36) a. I read a magazine on the train about Turner.

b. I read a magazine on Monday about Turner.

(37) a. ?I read a magazine carefully about Turner.

b. ?I read a book slowly of more than 500 pages.

c. ?I hired a man immediately from Tübingen.

According to Göbbel (2006), this contrast arises from the different syntactic behavior of the two classes of adverbs. A peculiarity of those in (37) is that they belong to a class

characterized by being allowed to surface both in pre- and postverbal position. When they occur in preverbal position, they are integrated into a broader focus or are defocused. In postverbal position, by contrast, they are focused or asserted. In the latter case, they are phonologically prominent and tend to be associated with a rising pitch accent. EX is expected to be possible only if the sentences can be embedded in a context which requires the defocalization of the adverbial (for instance, a context in which the adverb is part of the background, as in (34) and (35) above).

The data presented so far seem to indicate that, for EX to be possible, the head noun has to be related to focus. This idea is not new. It was already expressed by Rochemont (1986), who claimed that the head from which material has been extraposed must convey new information and, must therefore be a focus. The question in (38) is provided to prove the point. As expected, EX from a *wh*-moved phrase (a focus under standard assumptions) is allowed.

(38) Who does Mary like that she hasn't been to bed with?

Huck and Na (1990), however, refute Rochemont's argument with the sentence in (39) below. The source DP (the direct object *the kitten*) is not focalized – the focus being the *wh*-object of the matrix clause. A further focus – this time, contrastive – is the subject of the extraposed relative. This sentence is claimed to be acceptable in the context of a discussion about two kittens, one of which was given to Mary by Fred. In such a context, both Fred and the kitten may serve as contrastive foci and contain stress, but the latter may also be unfocused and not contain stress. In either case, EX is allowed.

(39) Who did Mary sell the kitten to that FRED gave her?

The conclusion drawn by Huck and Na (1990) from a sentence like (39) is that, for EX to be possible, at least a phrase in the extraposed constituent has to be focalized. They formalize this constraint by including the following clause in their focus assignment rule³⁵.

³⁵ The rules of *Focus* assignment proposed by Huck and Na (1990) are given in (i).

(i) a. A constituent to which stress is assigned is a focus (Selkirk 1984:207)

b. A constituent may be a focus if either (i) or (ii) is true, or if both are true:

(i) the constituent that is its head is a focus;

(40) A constituent which has been extraposed from NP is necessarily focused.

(40) is, however, not without problems. Huck and Na (1990) themselves provide the datum in (41) as a challenge to their own claim that a constituent inside the EC has to be a contrastive focus. As indicated by capital letters, the contrastively stressed constituent in this sentence is the source DP, not a sub-constituent of the extraposed relative. Notice also that the EC does not contribute new information.

(41) a. Did a guy come in here who was holding a duck?

b. No, but a GIRL came in here who was holding a duck.

In order to explain the acceptability of (41b), Huck and Na (1990) are forced to introduce an amendment to (40) to the effect that the extraposed relative need not contain stress in those contexts in which there is a contrastive stress somewhere else in the sentence. In sum, the data indicate that either the head noun or the EC may be or may contain a focus. This is nothing but a description of the facts and calls the explanatory adequacy of (40) into question.

Notice in passing that, in the case of (41), the head noun is a contrastive focus, whereas the EC provides information repeated from the context question. This feature conflict might be responsible for the split DP. This idea is reminiscent of what has been proposed by Fanselow and Čavar (2002) for certain split DPs in German or by Valmala Elguea (2008) for floating quantifiers. In the case of EX, however, the dichotomy topic (old information) versus focus (new information) does not seem to be enough. Some of the examples that will be discussed in this section (and in the rest of this dissertation) indicate that a finer-grained typology of features would be required to account for all the information structural patterns. See the sentences in (43) and (44) below. A quantitative analysis of EX data would be required to draw reliable conclusions. I leave this question for future research.

There is a difference between (39) and (41) that may be relevant to explain why contrastive stress falls on a constituent inside the extraposed relative in the former but not in the latter: the definiteness of the source DP. In (39), EX has taken place from a definite DP. Huck and Na's (1990) discussion concludes with the claim that contrastive

(ii) a constituent contained within it that is an argument of the head is a focus (Selkirk 1984:207)
c. A constituent which has been extraposed from NP is necessarily focused (Rochemont (1986): 110).

stress inside the EC is required in these cases. (41), on the other hand, shows EX from an indefinite DP. In that type of context, contrastive stress is necessary neither on the head noun nor on the EC, as has been shown in many of the examples provided up to this point. It is my intuition that the contrastive focus in Huck and Na's (1990) examples has more to do with the choice of one of two alternatives provided in the context than with EX itself. The only constituent that distinguishes the two alternatives (*Fred*) can also be contrastively stressed in the non-extraposed variant of the sentence.

(42) To whom did Mary sell the kitten that FRED gave her?

Göbbel (2006) explicitly argues against Huck and Na's (1990) conclusion that the EC has to be a focus. He provides two types of counterexamples, shown in (43) and (44) below. The former illustrates cases of split focus, the latter cases of EX of a defocused constituent.

(43) a. What did he leave on the table?

b. He left [a review] on the table [of Turner].

In (43b), the whole DP *a review of Turner* contributes new information. However, notice that while the head noun seems to be an informational focus, the extraposed constituent is exhaustive. The question in (43a) only provides information to the effect that something has been left on the table. An alternative answer to (43a) would involve HNPS (*He left on the table a review of Turner*), where – instead of extraposing the PP alone – the whole focused DP is placed sentence-finally.

(44) below shows that EX of defocused material from subject and object is also frequent, and optional. This fact contradicts Huck and Na's (1990) initial claim that a constituent in the extraposed phrase must obligatorily bear a contrastive focus. The head noun in this sentence is a focus, while the EC is defocused. Once again, in (43) and (44), a discrepancy in the features with which the two elements of the split are associated might be what eventually triggers EX.

(44) There is apparently a new product from India that would be allowed.

a. But no information on it was given.

b. But no information was given on it.

Göbbel (2006) also shows that EX is possible in broad focus contexts (i.e. answers to the question ‘what happened?’). According to the question-answer test standardly used to identify the focus of a sentence, both head noun and extraposed constituent may convey new information, i.e. they may be part of the broad/informational focus. Again the claim that the EC contains a contrastive stress is falsified. Notice in passing that all the sentences put forward by Göbbel to refute this claim involve EX from an indefinite DP, whereas in Huck and Na’s examples the source DP was headed by a definite D.

- (45) a. What do you want to tell me?
b. You’ll find a review of Turner in your in-tray.
c. You’ll find a review in your in-tray of Turner.

- (46) a. What do you want to tell me?
b. Pictures of every terrorist will be distributed.
c. Pictures will be distributed of every terrorist.

As concerns the prosodic (and semantic) prominence of the head noun, all the sentences discussed so far invite three conclusions. First, the source DP has to be prominent (prosodically and/or semantically) for EX to be possible. If the DP is prominent in its canonical position, EX will be acceptable even when the sentence appears in isolation. Second, if the source DP is not prominent in its canonical position (as is, for instance, the case of the external argument of unergative predicates), EX will only become acceptable when the sentence is embedded in a context in which the DP acquires prominence. This context will necessarily involve the defocalization of the constituent that is the unmarked focus (in the case of sentences headed by unergatives, the predicate itself). However, it does not seem to be the case that the EC is uniformly associated with a focus feature that might be held responsible for the displacement. Third, I tentatively suggested that the trigger of EX might be a discrepancy in features between the head noun and the EC. In the chapters that follow I will try to clarify the relationship of EX and focus. This issue will be dealt with especially in those chapters that investigate the interaction of EX with focus and topic fronting operations.

Let me turn now the last of the controversial questions addressed in this chapter: the structural position of the EC.

4. The position of the EC

As shown in some detail in chapter 3, those that analyze EX in terms of right adjunction, whether attained by movement (Guéron and May 1984, Baltin 1981, 1983) or base generation (Culicover and Rochemont 1990, Rochemont and Culicover 1997), have standardly argued that the adjunction site of the EC is determined by the surface position of the source DP. The summary of possible adjunction sites is provided in (47).

- (47) a. A constituent extraposed from the object is adjoined to VP.
b. A constituent extraposed from the subject is adjoined to IP.
c. A constituent extraposed from a *wh*-phrase is adjoined to CP.

These three assumptions are usually conflated in the generalization in (48).

- (48) An extraposed phrase is adjoined to the first maximal projection that dominates the phrase in which it originates. (Baltin 2006)

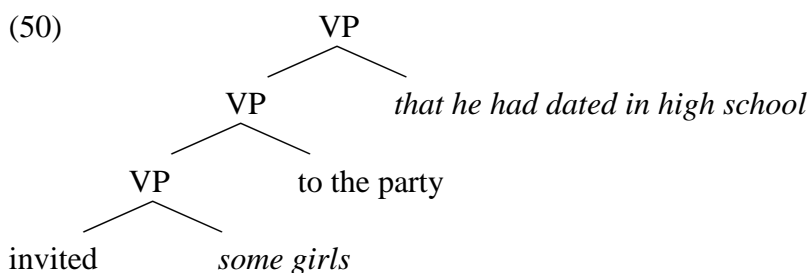
Although some of the data that served as evidence for these positions receive now a different analysis, the generalization in (48) has been generally adopted in the literature. In this section, I intend to subject the evidence put forward for (47) and (48) to critical review. The question that will be explored is whether the same results are obtained once the theoretical framework is updated. I will rely on Culicover and Rochemont (1990) as a source of information, as these authors discuss the question of the adjunction site of the EC at some length.

4.1. *EX(OB) and VP-adjunction*

On the basis of classical constituency tests, Culicover and Rochemont (1990) conclude that a constituent extraposed from a DP object is part of the VP. (50) shows the representation they attribute to the VP of a sentence like (49). Faithful to the original work, I will represent EX as base-generated right adjunction in this and the following tree diagrams. The parser of EX(OB) in an analysis in terms of rightward movement

would look exactly like (50) except for the presence of a trace of the EC in the internal argument [*some girls* t_{EC}].

(49) He invited some girls to the party that he had dated in high school.



The constituency tests used by these authors are VP-ellipsis (51), VP topicalization (52) and pseudo-cleft sentences (53). As the EC cannot survive deletion in (51) and cannot be stranded by VP fronting in (52), it is assumed that it is part of the VP. Similarly, the EC has to be part of the focus in pseudo-cleft sentences, which again indicates that it belongs inside VP.

(51) a. John [_{VP} met a man last week from Philadelphia], and George did, too.

b. *John met a man last week from Philadelphia, and George did from New York.

(52) a. John said he would meet a man at the party from Philadelphia, and [_{VP} meet a man at the party from Philadelphia] he did.

b. *John said he would meet a man at the party from Philadelphia, and meet a man at the party he did from Philadelphia.

(53) a. What John did was [_{VP} draw a picture on the wall of his brother].

b. *What John did of his brother was draw a picture on the wall.

In the case of the data in (51), it has to be noted that the ungrammaticality of (51b) would be unexpected given the conception of VPE in Culicover and Rochemont (1990), where any VP layer in (50) can in principle undergo deletion. But the authors claim that, if the intermediate VP is deleted, the derivation incurs vacuous quantification, hence the ungrammaticality of (51b). It is, roughly, impossible to establish a relationship between the extraposed constituent and a head noun that is not present at S-structure (it being

part of the deleted material). This type of argument presents an important flaw as EX and VPE are S-structure operations, while quantification is an LF phenomenon.

Culicover and Rochemont (1990) use the datum in (54) below to show that a constituent extraposed from an object cannot, in fact, adjoin higher than VP.

(54) *She_i invited many people to the party that Mary_i didn't know.

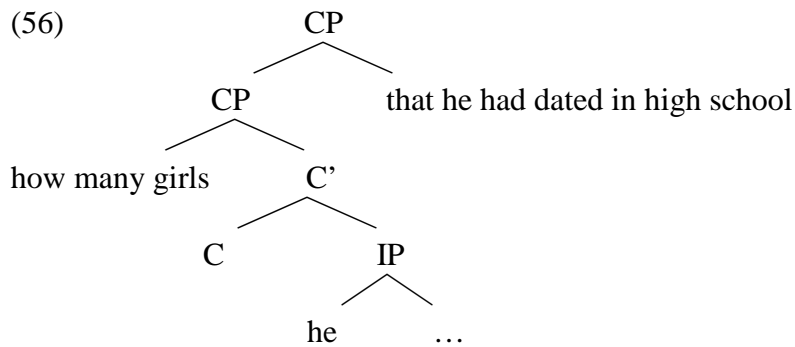
Correferrence between the pronominal subject and the R-expression inside the EC is excluded as a violation of Condition C of the Binding Theory, which establishes that an R-expression cannot be correferential with a c-commanding antecedent. Given the ungrammaticality of (54), the EC has to be adjoined to a category below the position of the subject in SpecIP. This is again consistent with VP-adjunction. It has to be noted that Culicover and Rochemont (1990) did not assume the projection of any category (specifically, *v*P) between IP and VP, i.e. VP is the complement of the I head in their analysis.

4.2. EX(*wh*) and CP-adjunction

If the adjunction site of the EC must be the minimal maximal projection dominating its head noun in its surface position, a constituent extraposed from a *wh*-phrase (in SpecCP) has to adjoin to CP. The partial parser of the sentence in (55) is provided in (56)³⁶.

(55) How many girls did he invite to the party that he had dated in high school?

³⁶Culicover and Rochemont (1990) work with this assumption but also acknowledge the possibility that a constituent extraposed from a *wh*-phrase in SpecCP may adjoin to IP. The two resulting structures would comply with the *Complement Principle*. See chapter 3, section 2.2.



Culicover and Rochemont (1990) explicitly argue against analyzing EX(*wh*) as a case of EX(OB) in sentences like (55) above. They put forward two objections to this type of analysis. First, they assume that the *Complement Principle (CPr)* (roughly, the condition that the head noun govern the EC or *vice versa*) applies at S-structure to lexically filled instances of head noun and EC. If the latter were VP-adjoined the *CPr* would have to be computed with reference to the trace of the head noun inside VP, an empty category. Second, the binding datum in (57) below shows that a constituent extraposed from a *wh*-phrase cannot be adjoined to VP. If this were the case, the R-expression *John* would be in the c-command domain of the subject and coreference would not be possible. The problem with this reasoning is, as already noted in Chapter 3 section 2.2, that it is based on the wrong premise that the two nominals in (57) can be correferential.

(57) How many girls did he_i invite to the party that John_i had dated in high school?

Recall that Culicover and Rochemont marked this sentence as acceptable with the intended reading just because the correferential reading in (57) is slightly more natural than in its declarative counterpart in (58).

(58) *He_i invited several girls to the party that John_i had dated in high school.

The weakness of this argument, together with the fact that some linguists (see for instance Taraldsen 1981) as well the informants consulted during the preparation of this dissertation could not interpret the two DPs in (57) as correferential, leads me to assume that that reading is in fact not possible in this sentence. If this is so, the datum could be used to argue for a low adjunction site of the EC. In other words, the interpretation of

(57) would be consistent with an analysis of EX(*wh*) as EX(OB). Assuming that this reasoning is correct, the two arguments given in Culicover and Rochemont (1990) for a high adjunction site are contradictory. The empirical datum points in one direction (low adjunction site) whereas the conceptual argument goes in the opposite direction (high adjunction site).

Arrived at this point, let us consider the conceptual argument more closely. Culicover and Rochemont (1990) claim that they adopt the assumption that the *Complement Principle* must be computed with reference to a lexically filled head noun from Guéron and May (1984). According to the latter, the *CPr* – originally proposed by these authors – operates at LF and traces, as ‘vacuous’ operators, are proscribed at this level of representation. The only *visible* alternative with respect to which to compute the *CPr* is the lexical head in SpecCP. It is not clear that the same type of reasoning extends naturally to S-structure, the level of application of the *CPr* in Culicover and Rochemont’s system. And it would be even more difficult to maintain this logic today in the framework of the Copy Theory of Movement, which is incompatible with traces. This incompatibility has its roots in what has come to be known as the *Inclusiveness Condition*, which roughly states that a derivation can only be constituted of the elements present in the Numeration (cf. Chomsky 1995). In other words, no syntactic object (e.g. traces) can be added in the course of the computation beyond the elements selected for the initial Numeration. In principle, nothing should stay in the way of computing the *CPr* with reference to either of the non-distinct copies of the head noun involved in a *wh*-construction. Notice further that the whole argument concerning the *CPr* is irrelevant for movement accounts.

The following sentence, involving topic fronting of an internal argument and VPE, also suggests that EX from an internal argument takes place in the VP-domain even when the head noun later moves to SpecCP. To the best of my knowledge this is the first time that this type of data is discussed in the literature.

(59) John managed to find three congressmen who will vote for the amendment, but three senators he didn’t.

This and similar sentences will be analyzed in detail in chapter 10. At this point, suffice it to say that the fact that the *three senators* can be interpreted as voting for the amendment indicates that the relative clause has undergone ellipsis, most probably as

part of the VP that is deleted in the second conjunct. If the relative clause were adjoined to CP, it would have survived VPE³⁷.

Notice also that the analysis of EX from a fronted DP as CP-adjunction would posit an additional problem in movement accounts of EX. The EC would have to be extracted from a derived (A-bar) Specifier, i.e. from an island. See the discussion in section 2.3.2 above. This problem is avoided if EX takes place before the source DP moves to SpecCP.

4.3. EX(SU) and IP-adjunction

Although a constituent extraposed from the subject is standardly assumed to be IP-adjoined, all the evidence presented in Culicover and Rochemont (1990) supports VP-adjunction. It has to be noted that these authors assume that the subject is base generated in SpecIP. The fact that the EC is adjoined in a position which is lower than its head noun is not a problem in their analysis, as Culicover and Rochemont assume base generation and the head noun governs the EC in compliance with the *CP_r*. This configuration would, however, be a problem for movement analyses, as it involves lowering.

Once the VP-internal subject hypothesis and the *vP* projection are introduced into the structure, an interesting picture emerges. In the new analysis, the subject occupies two different positions in the derivation: Spec*vP* (its base position) and SpecTP (where it moves for EPP-checking). If the surface position of the source DP determines the position of the EC, as standardly claimed, then a constituent extraposed from the subject should be TP-adjoined. The fact that Culicover and Rochemont (1990) found evidence that pointed at VP-adjunction instead could be interpreted as an indication that the EC is in fact *vP*-adjoined, i.e. that it is the base position of the source

³⁷ As a matter of fact, the relative clause can escape deletion, as shown in (i) below. In chapter 10, I will argue that this sentence involves pseudogapping, i.e. the relative clause modifier of the topicalized DP abandons the verbal projection before VPE applies. The landing site of the relative will be the Spec of a focus projection in the left periphery of *vP*. See the details of the analysis in chapter 10. Crucially, the relative clause in the second conjunct cannot be identical to the relative in the first, which supports the analysis in terms of raising to focus.

(i) John managed to find three congressmen who will vote for the amendment, but three senators he didn't who will vote against/?for the amendment.

DP that is relevant for determining the adjunction site of the EC. I will examine this possibility in what follows.

The discussion is articulated in three sections. In subsection 4.3.1 I will consider the evidence provided in Culicover and Rochemont (1990) under the new assumption that EX targets the subject in its base position. In subsection 4.3.2 I will add some new evidence that supports this analysis. Finally, in subsection 4.3.3, I will show that *v*P-adjunction (VP-adjunction in the case of unaccusatives) is conceptually more appealing than the alternative in terms of IP-adjunction, as it can derive the asymmetry between leftward extraction from a subject (which is impossible) and EX from a subject (which is acceptable).

4.3.1. Culicover & Rochemont (1990) updated

4.3.1.1. VPE

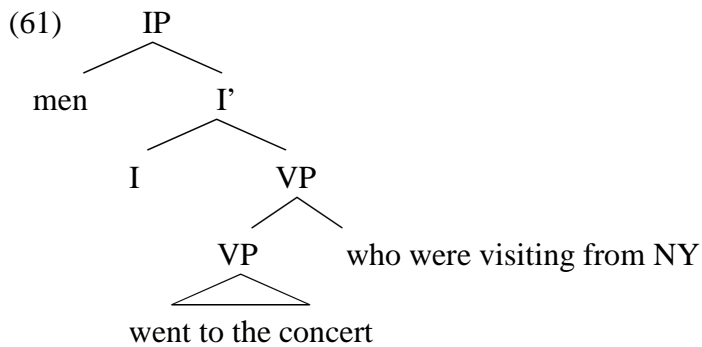
VPE data show that ellipsis of the VP may (but need not) include a relative extraposed from the DP subject, (60).

(60) a. Although none of the MEN did $_$, several of the WOMEN [_{VP} went to the concert who were visiting from Boston].

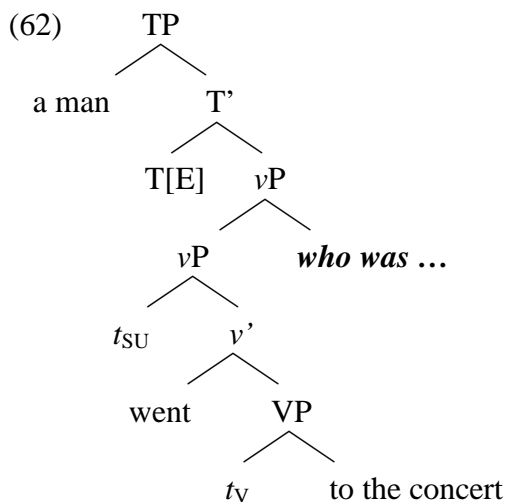
b. Although none of the MEN did $_$ who were visiting from NEW YORK, several of the WOMEN [_{VP} went to the concert] who were visiting from BOSTON.

(Culicover and Rochemont 1990)

These facts follow if the relative clause is adjoined to VP (as in (61) below) and any of the VP layers can be targeted by ellipsis, the analysis adopted by the two linguists. A structure in terms of IP-adjunction could only account for (60b), where the EC survives ellipsis.



This analysis has to be updated in two particulars: (i) ν P has to be projected on top of VP to host the subject and (ii) a more modern theory of ellipsis has to be adopted. I will follow Merchant (2001), and subsequent work, in this respect. I will therefore assume that an E(llipsis)-feature associated with the T head licenses VPE (see chapter 10 of this dissertation for a refinement of this analysis). The new structure, which also incorporates the assumption that EX takes place in the ν P domain, is provided in (62).



As the data in (60) will be analyzed in detail in chapter 10, here I will simply say that the E-feature on T triggers the PF-deletion of the complement of this functional head, i.e. of ν P so that VPE is in fact ν P-E. This operation will derive (60a). For the relative clause to survive deletion, as in (60b), it will have to abandon this constituent before ellipsis applies. Thus, the sentence in (60b) does not constitute an instance of VPE but rather of the operation called *pseudogapping* (see chapter 10 for details).

4.3.1.2. Adverb placement

Additional evidence of adjunction to VP provided in Culicover and Rochemont (1990) involves the placement of VP adverbials with respect to the EC. The two linguists admit that judgments are delicate due to the complexity of the phrasing, but the linear sequences in (63a) and (63b) seem to be grammatical.

(63) a. *Some women* came in (*who were*) *from Chicago* as quickly as possible.

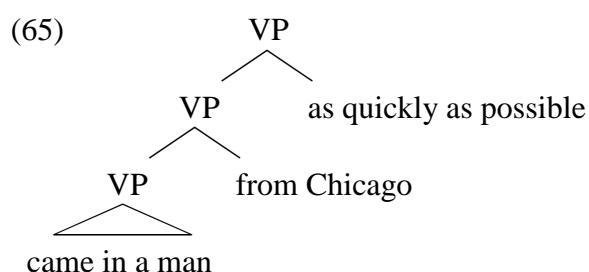
b. *A man* came into the room *that Mary recognized* as quickly as possible.

The fact that the constituent extraposed from the subject can precede a VP adverb indicates that it must also be part of VP. Culicover and Rochemont (1990) further argue that VPE can delete the two constituents, i.e. the adverb and the EC, as in (64), which again indicates that both are part of the VP.

(64) a. *Some women* came in (*who were*) *from Chicago* as quickly as possible, and some men did too.

b. *A man* came into the room *that Mary recognized* as quickly as possible, and a woman did too.

Crucially, these sentences are headed by an unaccusative predicate. Under the assumption adopted in this section that EX applies on the DP when it is in its base position, the sentences in (63) instantiate EX(OB). The EC is therefore VP-adjoined. The structure of VP before the subject raises to SpecTP is shown in (65).



These sentences can be interpreted as evidence that EX from the surface subject of an unaccusative predicate is EX(OB), as I will assume in this dissertation. An analysis in

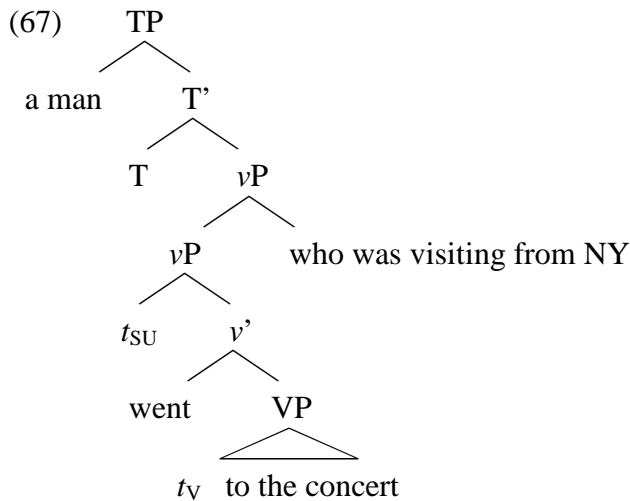
terms of IP/TP-adjunction, on the other hand, would predict that the EC always follows VP adverbs.

4.3.1.3. VP Topicalization

As can be seen in (66) below, the EC must be stranded when the VP is topicalized, which indicates that the EC is outside VP. This datum seems therefore to favor IP-adjunction.

- (66) a. They said that *a man* would go to the concert *who was visiting from New York*,
and [_{VP} go to the concert] *a man* did *who was visiting from New York*.
- b. *They said that *a man* would go to the concert *who was visiting from New York*,
and [_{VP} go to the concert *who was visiting from New York*] *a man* did.

This first impression may, however, be misguided, as there is another possibility: that the extraposed relative adjoins to *vP*, as shown in (67).



The derivation of (66b) would involve *vP* topicalization. Assuming that this operation is allowed, the ungrammaticality of (66b) would be due to some type of constraint that bans the linear ordering in which a post-nominal modifier (PP or relative clause) precedes the head noun it modifies. This linearity would subvert the canonical sequence, a state of affairs that the computational system does not seem to allow. (66b) would be ungrammatical for the same reasons as a sentence like (68) is ungrammatical in English.

(68) *From NY a man came in.

4.3.1.4. Pseudo-cleft sentences

Similarly, a constituent extraposed from the subject cannot appear with VP in the focus position of a pseudo-cleft sentence, which would indicate that the EC is adjoined to a higher projection.

(69) a. ?What someone did who had lived in Boston was [_{VP} come into the room].

b. *What someone did was [_{VP} *come into the room who had lived in Boston*].

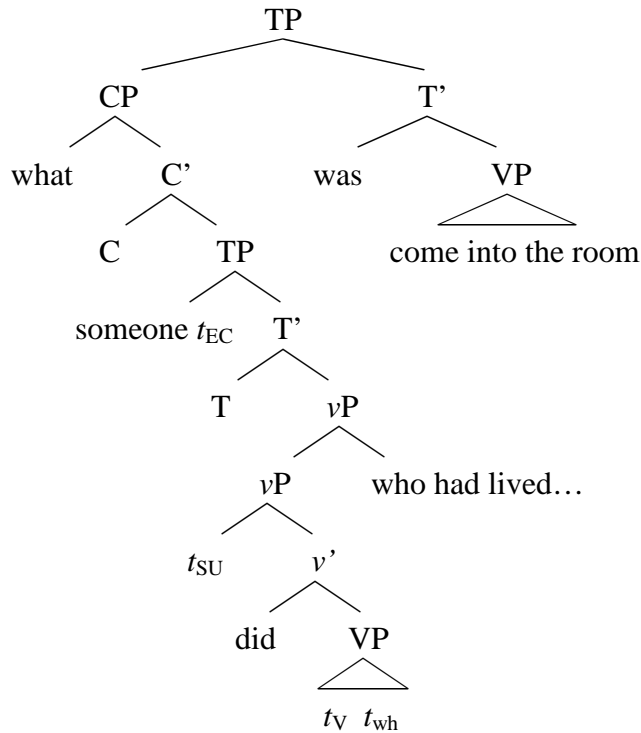
This datum is only relevant for the present discussion if the pseudo-cleft is assumed to be derived via VP movement to some focus position in the right periphery of the sentence, as represented schematically in (70). If the EC were adjoined to VP, (69b) would be expected to be acceptable.

(70) *What someone did t_i was [come into the room who had lived in Boston]_i.

However, (70) is very unlikely to be the correct analysis of pseudo-cleft sentences. The structure of (69a) would rather be as represented in (71) below, where the copula links a clausal subject with a VP.

In this structure, EX(SU) takes place within the clausal subject of the copula verb. In order to derive the linearity in (68b), the EC would have to cross a clause-boundary in violation of the *Right Roof Constraint* (Ross 1967). The unacceptability of this sentence is correctly derived from the structure in (71). Notice that an analysis of EX(SU) in terms of TP-adjunction would yield the same results in this particular case. The EC would surface in the same position if it were adjoined to the TP in the clausal subject. In other words, pseudo-clefts do not help us determine the adjunction site of the EC. It only excludes adjunction to the matrix TP.

(71)



4.3.1.5. Binding

Binding data like that in (72) below have been used as evidence of the relatively high adjunction site of constituents extraposed from the subject. As the R-expression in the extraposed relative (*Rosa*) can be interpreted as coreferential with the internal argument of the matrix predicate (*her*), the EC has to be outside the c-command domain of the pronominal. The example has been drawn from Reinhart (1983).

(72) Nobody would ever call her_i before noon who knows anything about Rosa_i's weird sleeping habits.

It has to be noted that coreferentiality is also compatible with adjunction of the EC to vP – which I propose for EX(SU) – as this position is also outside the c-command domain of VP internal constituents.

4.3.2 Additional arguments

In this section I will provide some additional arguments in favor of a low adjunction site for constituents extraposed from the subject.

4.3.2.1. Adjunction to ν P/VP is independently required

My first argument relies on the fact that ν P/VP-adjunction has to be independently available for constituents extraposed from subjects. Let me show why. When the subject surfaces postverbally, it is assumed that it occupies its base position (see e.g. Ordoñez 1997 for Spanish, see also chapter 7). Postverbal subjects are the exception in English, yet they are possible in structures of *there*-insertion as that illustrated in (73). See also chapter 8 on *Locative Inversion*.

(73) There arrived a man that I didn't know yesterday.

EX is possible from this post-verbal subject, as shown in (74).

(74) There arrived *a man* yesterday *that I didn't know*.

Since this sentence is headed by an unaccusative predicate, it has to be assumed that EX in this case operates on an internal argument. In other words, this sentence has to be analyzed as a case of EX(OB), rather than EX(SU). Consequently, the EC is VP, rather than IP, adjoined. This type of data shows that EX from the subject of an unaccusative predicate can operate in the VP domain, i.e. when the source DP is in its base position. What I propose is that EX also takes place before subject raising in a sentence like (75), where the subject appears pre-verbally.

(75) *A man* arrived yesterday *that I didn't know*.

Romance languages like Spanish and Italian provide some interesting evidence pointing in the same direction, i.e. that EX can target the subject in its base position. The Italian examples have been drawn from Chesì (2009).

- (76) a. *Trabajan dos inmigrantes en esta obra que no tienen los papeles en regla.*
work(3pl) two immigrants in this building site who not have(3pl) the papers in order
 ‘Two immigrants work in this working site who do not have their papers in order.’
- b. *Llegaron unos paquetes ayer por la tarde que contenían las pruebas forenses.*
arrived(3pl) some parcels yesterday in the afternoon which contained(3pl) the evidence forensic
 ‘Some parcels arrived yesterday afternoon which contained the forensic evidence.’
- (77) *Ha parlato un amico ieri di Gianni.*
has spoken a friend yesterday of John
 ‘A friend has spoken yesterday of John.’

As the subject never raises to SpecTP in these sentences, EX(SU) has to operate in the VP/vP domain. Further discussion on EX from pre- and postverbal subjects is provided in chapter 7.

4.3.2.2 Negative polarity items

Guéron (1980) provides the examples below to show that EX has an impact on interpretation, in particular that the output of EX can be input for the rules determining the logical scope of negation and polarity items.

- (78) a. *The names of any of those composers weren’t called out yet.
 b. *The names weren’t called out yet of any of those composers.*
- (79) a. *M. thinks that the EX transformation which has the slightest effect on LF hasn’t been found yet.
 b. *M. thinks that the EX transformation hasn’t been found yet which has the slightest effect on LF.*

The NPIs contained in the PP in (78) and in the relative clause in (79) – *any* and *the slightest effect*, respectively – are in the c-command domain of (and, therefore, under the scope of) NEG only when EX has taken place. This means that the EC cannot be IP-

adjoined. As the two sentences are headed by passive predicates whose subjects are base-generated internal arguments, it is my contention that EX operates before subject raising adjoining the EC to VP.

This type of analysis does also have conceptual advantages. To one of them I turn in the following subsection.

4.3.3. *LM versus RM*

Although the subject is a well-known island for extraction, EX is allowed to take place from this constituent (for the islandhood of SpecTP, see Ormazabal, Uriagereka and Uribe-Etxebarria 1994, Takahashi 1994, Stepanov 2001, Lasnik and Park 2003, Rizzi 2006, among many others). This asymmetry, illustrated in (80), has constituted a puzzle for linguists working on EX for decades. The problem has traditionally been dealt with in two different ways. It was either assumed that rightward movement was different from leftward movement (which is conceptually undesirable), or that EX did not involve movement at all. See the discussion in section 2 above.

- (80) a. *Who did you say a picture of _ was hanging on the wall?
 b. A man _ came in who I didn't know.

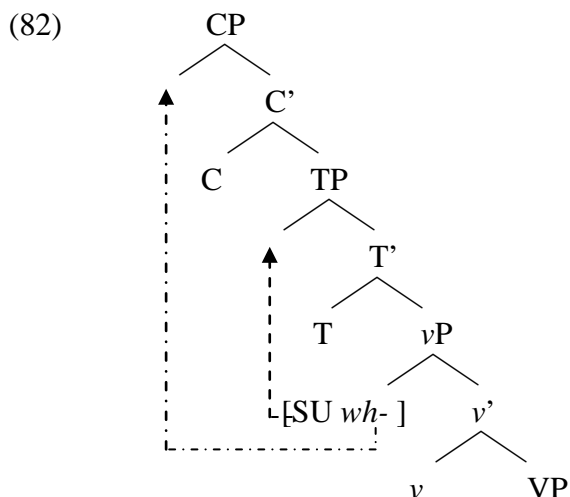
The data in (81), on the other hand, show that extraction is allowed from a post-verbal subject both in English and Spanish. The English datum has been drawn from Lasnik and Park (2003), the Spanish one from Uriagereka (1988).

- (81) a. Which candidate were there posters of _ all over the town?
 b. ¿De qué conferenciantes te parece que me van a impresionar
of what speakers to-you seem(3sg) that me go(3pl) to to-impress
 las propuestas _?
the proposals
 'Which speakers does it seem to you that the proposals will impress me?'

If EX applies when the subject is in its base-position, a generalization emerges. Both leftward extraction and EX are possible from SpecvP (which is the base position of the

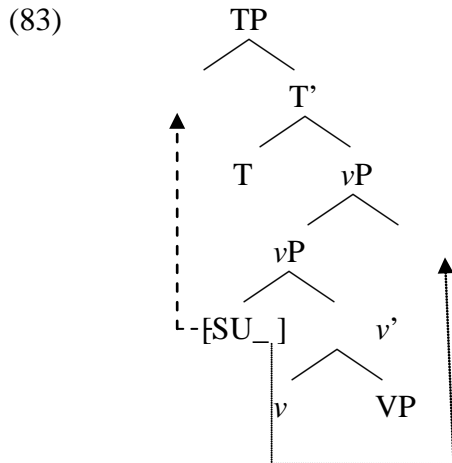
subject and therefore transparent for extraction), but neither is possible from SpecTP (a derived Spec, hence an island).

Let me first consider the derivation of *wh*-extraction from a subject as in (80a) and (81a). (82) shows the abstract derivation of this type of sentence.



Two movement operations are relevant for the discussion at this point: subject raising from Spec v P to SpecTP and *wh*-raising of a sub-constituent of the DP subject to SpecCP. If subject raising takes place first in this derivation, extraction of the *wh*-constituent will not be possible due to the islandhood of SpecTP. The alternative derivation does not throw better results. If *wh*-extraction takes place first, structure will have to be projected (in this case, TP) that will only be ‘used’ later (i.e. an important look ahead problem arises). Besides, after *wh*-raising, the subject would have to move to SpecTP, which would violate the *Extension Condition* (i.e. the requirement that structures be extended at the root) (Chomsky 1995). Put differently, the movement operation would place the moved constituent in a position that had been created beforehand.

In the case of EX this problem does not arise as long as it is assumed that the operation takes place before subject raising. Otherwise, the islandhood of SpecTP would block EX, as it blocked extraction in the derivation above. In (83), I provide the abstract derivation of a sentence with EX(SU).



The EC is adjoined to vP before the subject raises to its final landing site in SpecTP. A potential problem for this structure is the fact that the trace of the EC will end up in a position which is higher than the EC itself. In other words, the trace is unbounded. However, if strict cyclicity is adopted, the trace is licensed upon application of EX, i.e. in the vP domain, where it is c-commanded by the EC (see Müller 2000, 2002).

The analysis of EX(SU) in terms of VP/ vP -adjunction derives the well-known asymmetry between rightward and leftward movement from independently required constraints and conditions on structure building, and in so doing it is superior to the traditional analyses in terms of IP/TP-adjunction.

4.3.4. Potential problems

There are, however, two kinds of problems for the assumption that EX is confined to the vP/VP domain, one comes from serial EX and the second from EX from inside a PP. The two will be tackled in turn in this subsection.

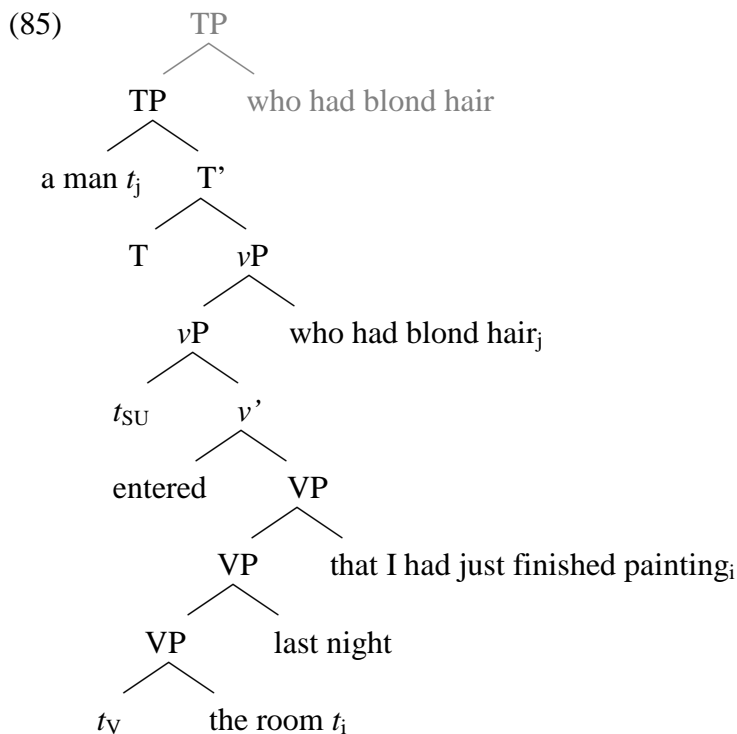
4.3.4.1. Serial EX

In English, EX can apply twice in one sentence, as in (84), where one of the relative clauses is construed with the subject, the other with the object. The example has been drawn from Rochemont and Culicover (1997).

- (84) a. A man entered a room last night that I had just finished painting who had blond hair.

- b. *A man entered a room last night who had blond hair that I had just finished painting.

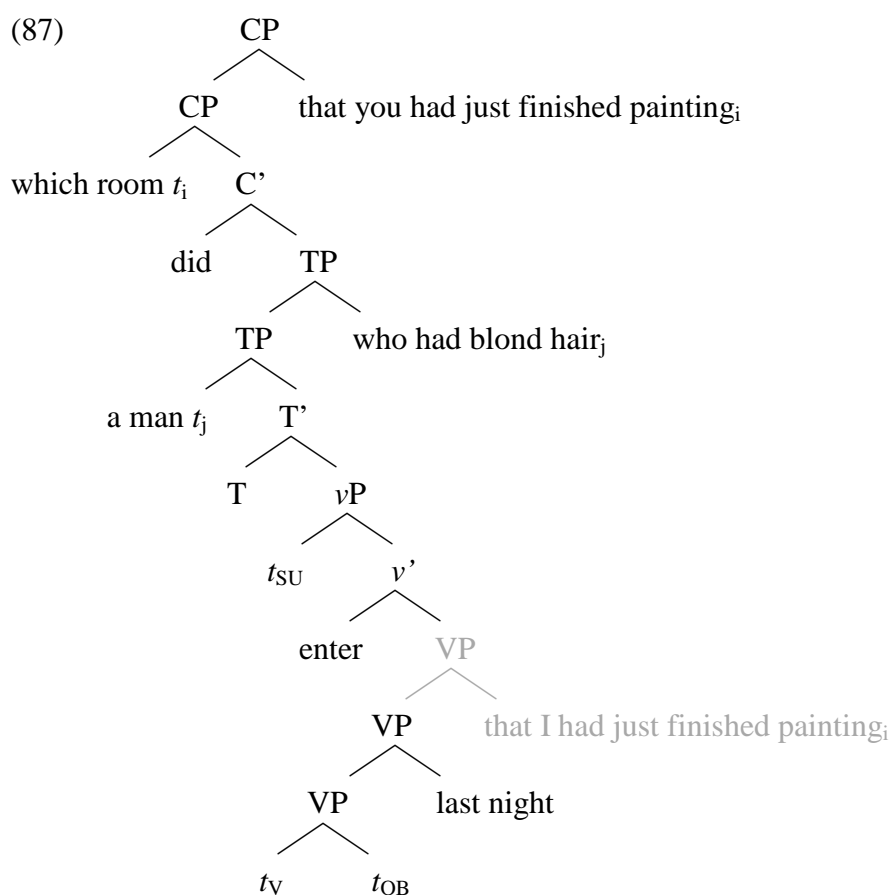
It has been observed that, in sentences with more than one application of EX, the constituent extraposed from the object must precede the constituent extraposed from the subject (i.e. a nesting pattern emerges). The structure of (84a) is as shown in (85). Notice that adjunction of the EC(SU) to TP, represented in grey, would yield the same linearity.



The problem for a structure that takes the base position of the head noun as the source of EX comes when the object is a *wh*-constituent, as in (86). The examples are again from Rochemont and Culicover (1997).

- (86) a. (?) Which room did a man enter last night who had blond hair that you had just finished painting?
 b. *Which room did a man enter last night that you had just finished painting who had blond hair.

As can be seen in these examples, fronting of the internal argument (a *wh*-phrase) triggers the reordering of the ECs in such way that the nesting pattern prevails. It would seem that the surface position of the head noun is, after all, what determines the position of the EC. Thus, the linear sequence of the constituents in (86a) can be easily derived with an analysis of EX(*wh*) in terms of CP-adjunction, as shown in (87) below, not so with an analysis in terms of VP-adjunction (represented in grey). The latter would predict that the interrogative should display the same relative ordering of the ECs as the declarative.



Although some of the data considered in this section pointed clearly in the direction of considering EX(*wh*) as a case of EX(OB) (when the *wh*-phrase is the internal argument), serial EX cases as those in (86) pose a problem for this assumption. Nevertheless, it has to be noted that the contrast in (84) above is not perceived by all speakers. Some find (84b), with an intersecting pattern, just as grammatical as (84a), which displays a nesting pattern. See the discussion in Hornstein and Weinberg (1981) and Shiobara (2004), where other (pragmatic) factors are held responsible for the choice of nesting over intersecting patterns and vice versa.

Notice further that the two analyses that are being compared here (high versus low adjunction sites for the EC) would have problems to derive the intersecting pattern in (84b). A solution would come from the proposal of additional operations whose function would be to reorganize multiple extraposed constituents (probably) to make processing easier in the relevant context of utterance. If this type of operation has to be proposed to derive intersecting patterns, it could also be available in the case of the interrogatives in (86), when VP-adjunction of the EC is assumed. At this point, I cannot propose a more specific and convincing solution to this problem. The question is left for future research.

I will now turn to the second source of potential problems for the assumption that EX has its domain of application restricted to *vP/VP*.

4.3.4.2. EX from PP

The relevant data, first noted by Baltin (1981), involve EX from PP. The contrast in (88) illustrates the case. The sentences are drawn from Baltin (2006), who uses them to argue that EX cannot apply before *wh*-raising.

- (88) a. **In which magazine* did you see it *which was lying on the table*?
b. I saw it *in a magazine* yesterday *which was lying on the table*.

Baltin (2006) claims that, if EX(*wh*) takes place before *wh*-raising, the two sentences in (88) should be equally grammatical. According to him, the locative PP is only L-marked, and therefore transparent for extraction, when in postverbal position³⁸. The fact that (88a) is ungrammatical suggests that EX operates after *wh*-movement. Since the PP in SpecCP is not L-marked, it is opaque for extraction.

Although the contrast in (88) is real, an argument based on these examples is problematic because EX from a fronted PP is not ruled out in the general case. Thus, the sentences in (89) are provided by Strunk and Snider (2008) as authentic examples.

- (89) a. *To whom* can I speak *who might know a solution*?

³⁸ (i) below displays the definition of *L-marking* in Chomsky (1986).
(i) α is L-marked iff it is θ -marked by a lexical head.

- b. *In what noble capacity* can I serve him *that would glorify him and magnify his name?*
- c. If you need to manage your anger, *in what ways* can you do that *which would allow you to continue to function?*

If Baltin's (2006) account were on the right track, the data in (89) would also be expected to be ruled out, contrary to fact. In the light of the acceptability of these sentences, one could wonder whether the unacceptability of (88a) could have a different source. The speakers consulted during the preparation of this section felt uncomfortable with the presence of the pronoun *it* next to the relative clause, which suggests some sort of *closeness* effect (Stucky 1987, Inaba 2007, and chapter 7 section 3.1), i.e. the extraposed relative tends to be construed with the closest nominal – in this case, the pronoun. When an adverb was inserted between the pronoun and the extraposed relative, as in (90), the degree of acceptability of the sentence among the speakers consulted increased³⁹.

(90) *?In which magazine* did you read it yesterday *that was lying on the coffee table?*

Whatever the explanation for the contrast between (88a) and (89) turns out to be, what is clear is that the acceptability of the latter weakens Baltin's argument and leaves the door open to the possibility that EX can take place when the DP is in its base position.

In this section, I have shown that the proposal that the application of EX be restricted to the *vP* domain is supported by empirical data. As the two potential problems just presented are not robust enough I will continue to assume that this is basically right. Although this assumption will be one of the ingredients of my analysis, I will look for further supporting evidence in the interaction of EX with other syntactic phenomena.

³⁹ This sentence has to be pronounced with a specific intonation contour that includes the insertion of a slight pause (or intonational inflection) before the EC. Changing the relative pronoun with the more informal *that* also improves things.

5. Conclusion

In the first part of this chapter, the main analyses of EX available in the literature were subjected to critical review. From the discussion I concluded that, in the face of the problems introduced by the new analyses, EX is still best analyzed as a rightward movement operation. Once this decision is made, the problem of the specificity of EX when compared with other materializations of *Move α* becomes the center of the discussion. Abstracting away from contexts in which the extraposed variant is clearly preferred (see chapter 9), one of the defining characteristics of EX is its optionality (paired with the lack of impact on the semantic interpretation of the sentence). The idiosyncratic properties of EX can be made to follow from the fact that no formal (or EPP) feature is checked by the operation. Instead, some ‘end-weight principle’ can be invoked as the driving force behind EX (see chapter 3). This is the classical trigger proposed for rightward movement generally and appears in different guises in the literature. One of them is the *Principle of End Weight* proposed by Wasow (2002), according to which phrases will appear in order of increasing weight, measures of weight being length, syntactic complexity and prosodic prominence. See also Selkirk (2001), Francis (2010) and Quirk et al. (1985) for similar principles. Under this conception, EX would be a reordering rule which seeks to establish a balance in the ν P domain with the (plausible) final aim of easing the load of processing. The directionality of the operation as well as the fact that the EC need not end up in a Spec position derive from this specific trigger, which is different from the trigger of LM. In the course of the investigation, another possible trigger has emerged, namely a discrepancy in the features associated with head noun and EC. Association of the former with a focus feature while the latter is associated with a topic feature could be responsible for EX. In this respect, I concluded that the feature distinction will have to be finer-grained than just suggested (in other words, it is unlikely that focus and topic are the only features involved), and that a quantitative analysis will be required before we are able to settle this issue.

In other respects EX is not different from other instances of *Move α* . Thus, it has been shown to be an extremely local operation which is restricted to the confines of ν P. A constituent extraposed from DP cannot move beyond the boundaries of the minimal maximal projection containing the base position of its head noun. From this restriction, all the asymmetries between rightward and leftward movement reported in the literature

on EX follow without appeal to the idiosyncratic behavior of RM. If a constituent extraposed from the internal argument has to adjoin to VP, and a constituent extraposed from a subject has to adjoin to *v*P, the RRC follows immediately. Similarly, if EX(SU) targets the DP subject when it is in its base position, the lack of islandhood effects in this case, as opposed to leftward extraction (which is illicit, as it will necessarily take place from the subject in SpecTP) can be made to follow from independent constraints on structure building. Apart from these conceptual advantages, the assumption that EX takes place when the source DP is in its base position is also supported empirically. In this particular respect my analysis departs from previous ones, which generally assume that the surface position of the source DP determines the adjunction site of the EC.

Finally, a whole section has been devoted to the question of the trigger of EX; in particular, to the role played by focus in the derivation of EX. The possibility has often been considered that the EC occupies a focus position. This conclusion is, however, not supported by the empirical data. In this chapter it has been shown that the link of the construction with focus cannot be defined in terms of triggers. This perception will be confirmed in subsequent chapters when the interaction of EX with some focus-driven operations is analyzed.

In summary, EX will be analyzed in what follows as a rightward movement operation that takes place in the *v*P domain and adjoins the EC to the minimal maximal projection in which the source DP has its base position. The operation will be triggered by some version of ‘end-weight’, presumably before spell-out (in what could be regarded as a case of prosodically motivated movement). However, the circumscription of the operation to the PF component cannot be completely discarded (see the brief discussion in chapter 3). This conception of EX will be used as the starting point of my analysis. The data presented in subsequent chapters will be examined with the aim to ascertain if they lend support, or if (well on the contrary) they refute, this view of EX.

Chapter 6

The interaction of EX and topicalization

1. Introduction

It is a well-known fact that sentences always contain a more informative part – usually called *focus* or *rheme* – and a less informative part, the *topic* or *theme*. Although many linguists have attempted to provide a precise definition of the term *topic*, it has remained evasive⁴⁰. For the present purposes, a very intuitive conception will be adopted: a topic expresses *what the sentence is about* (see for instance Comrie 1989). Although topics can appear in different positions, this chapter will focus on those topicalized constituents that surface sentence-initially. Some examples are provided in (1) for Spanish and (2) for English.

- (1) a. Pedro, no he visto a ese idiota desde ayer.
Peter not have(1sg) seen to that idiot since yesterday
'Peter, I haven't seen that idiot since yesterday.'
- b. A Pedro no lo he visto desde ayer.
to Peter not CL_{ACC} have(1sg) seen since yesterday
'Peter, I haven't seen him since yesterday.'
- c. Dinero no tengo ahora mismo.
money not have(1sg) now right
'Money I don't have right now.'

- (2) a. Peter, I can't stand that idiot.
b. Peter I love.
c. Money I don't have.

All the sentences in (1) and (2) predicate something of the sentence-initial direct object, the topic. But in spite of this similarity, the three are not instances of the same syntactic construction. Thus, (1a) and (2a) are examples of what has been called *Left Dislocation* (LD), a type of topicalization that is available both in English and Spanish. In this case,

⁴⁰ The interested reader is referred to Casielles-Suarez (2004) for a comprehensive review of the different terminological alternatives and definitions of *topic* available in the literature.

the sentence-initial topic correlates with a referential DP (*el idiota/the idiot*) in the canonical position of the fronted constituent (i.e. in V-complement position). (1b) illustrates the construction known since Cinque (1990) as *Clitic Left Dislocation* (CLLD). As can be seen, the topic in this sentence correlates with a clitic pronoun in sentence-internal position (*lo*, in the example). This type of topicalizing construction does not exist in English, a language whose pronominal system lacks clitics altogether. Finally, in sentences (1c) and (2b,c), the topic correlates with a gap. The term *topicalization* will be reserved for this type of construction. Although clear in English, the availability of this construction in Spanish is disputed. Thus, some linguists consider that (1c) is like (2c), whereas others claim that (1c) is more correctly analyzed as a case of CLLD with a null clitic (cf. Casielles-Suarez 2004 for a review and references; see also section 2 below).

This chapter will explore the availability of EX from a topicalized DP in each of these constructions. At this point the discussion will be restricted to topicalized objects. The case of pre-verbal subjects – which are known to behave as topics at least in Spanish – will be delayed until chapter 7. Two are basically the aims I will pursue here. First, I will try to find out if the interaction of EX with topic fronting reveals any property of either of the two construction; second, I will try to obtain information concerning the trigger of EX. In other words, I will attempt to confirm or refute the relationship of EX with focus.

This chapter is organized as follows. Before introducing and discussing some relevant EX data in section 3, a brief description of the three topicalizing constructions just presented will be provided in section 2. The presentation of data will be organized in three sub-sections, one devoted to each of the constructions described in section 2. Section 4 will close this chapter with the conclusions.

2. Topicalization

Topics have often been described as characterizing what a sentence is ‘about’, where the notion of *aboutness* is based on the presuppositions shared by speaker and hearer (see, for example, Comrie 1989). In other words, at a given point in a discourse, certain background information is selected and brought to the foreground. One way of materializing this discourse function syntactically is by placing the constituent that

conveys the salient information in sentence-initial position⁴¹. The rest of the sentence is predicated of the fronted constituent. This predication is known as the *comment*.

In the following subsections, the three types of topicalizing constructions mentioned in the introduction will be described in more detail. Sections 2.1 to 2.3 will deal in turn with *Left-Dislocation*, *Clitic Left Dislocation*, and *Topicalization*.

2.1. *Left-Dislocation (LD)*

The brief presentation in this section follows Zubizarreta (1999), Zagona (2002) and Bosque & Gutiérrez-Rexach (2008). Most of the examples have been drawn or adapted from these works.

The sentences in (3) and (4) below provide examples of the construction dubbed *Left-Dislocation* in English and Spanish. This type of topic is also known as *Hanging Topic*. Since this topicalizing construction displays the same behavior in the two languages, I will mostly rely on Spanish data to illustrate the discussion.

(3) a. (En cuanto a) Juan, no quiero volver a ver a ese idiota.

as-for John not want(1sg) to-go-back to to-see to that idiot
 ‘(As for) John, I don’t want to see that idiot again.’

b. Mi hermana, no sé qué le pasa a la pobre.

my sister not know(1sg) what CL_{DAT} happens to the poor
 ‘My sister, I don’t know what’s wrong with the poor.’

(4) a. Peter, I can’t stand that idiot.

b. (Talking about) Mary, I’ll kill her!

⁴¹ Obviously, the topic need not be fronted. In the context of informational questions like that in (i), for instance, the fact that the topic does not appear in the left periphery of the sentence does not hinder its interpretation as such. The example has been drawn from Zagona (2002).

(i) a. ¿Qué pasó con José?

what happened(3sg) with José
 ‘What happened to José?’

b. Eligieron presidente a José.

elected(3pl) president to José
 ‘They elected José as president.’

c. José se fue.

José CL_{refl} went(3sg)
 ‘José left.’

José is the known information in both answers – by virtue of him having been mentioned in the previous question –, but only in (ic) does this DP surface sentence-initially. In that sentence the DP *José* is both the topic and the subject.

Left-dislocated topics (LDTs) are used to introduce a new discourse topic and do often, though not necessarily, include such expressions as *en cuanto a* ('as for/to'), *por lo que respecta a* ('concerning'), *con respecto a* ('with respect to/as far as X is concerned'), or *hablando de* ('speaking/talking about'). This topic is marked phonologically by a pause, indicated in the sentences above by means of a comma. It also tends to have a very specific phonological contour in which the topic has a rising intonation similar to that of interrogative constituents.

LDTs are restricted to matrix sentences, as witnessed in the contrast in (5).

(5) a. *Estoy segura de que, Bernardo, nadie confía en ese idiota.

am sure of that Bernard nobody trusts in that idiot

Lit. '*I'm sure that, Bernard, nobody trusts that idiot.'

b. Bernardo, estoy segura de que nadie confía en ese idiota.

Bernard am sure of that nobody trusts in that idiot

'Bernard, I'm sure that nobody trusts that idiot.'

(Zubizarreta 1999)

There is no grammatical dependency between the LDT and the verb of the sentence. This feature is patent when the verb subcategorizes for a PP complement. In such cases, the preposition is systematically absent from the fronted constituent. Put differently, only DPs can undergo *Left-Dislocation*⁴².

(6) (*En) Bernardo, sin embargo, estoy segura de que nadie confía en ese idiota.

in Bernard however am sure of that nobody trusts in that idiot

'Bernard, however, I'm sure that nobody trusts that idiot.'

(Zubizarreta 1999)

Furthermore, the fronted DP has to be referential, as witnessed in the contrast in (7).

(7) a. Pedro, no he hablado con él todavía.

Peter not have(1sg) talked with him yet

'Peter, I haven't talked to him yet.'

⁴² However, some speakers seem to accept sentences like (6) with the whole PP fronted.

- b. *Alguien, no he hablado con él todavía.
someone not have(1sg) talked with him yet
 Lit. ‘*Someone, I haven’t talked to him yet.’

In all the sentences above, there is a constituent in the canonical position of the object that is correferential with the dislocated DP. This constituent may be an overt phrase (8a), a strong pronoun (8b) or an epithet (8c). The relationship between the two elements is purely referential (i.e. no grammatical or selectional connectivity is required). Compare (8) with (9).

- (8) a. *El baloncesto, ese deporte le encanta a tu hijo.*
the basketball that sport CL_{DAT} loves to your son
 ‘Basketball, your son loves that sport.’
- b. *Miles Davis, él sí que me fascina.*
Miles Davis he yes that me fascinates
 ‘Miles Davis, I really find him fascinating.’
- c. *Pedro, parece que el desgraciado se lleva bien con todo el mundo,*
Peter seems that the swine CL_{refl} brings good with all the world
incluso con el enemigo.
even with the enemy
 ‘Peter, it seems that the swine gets on well with everyone, even with the enemy.’
 (Zagona 2002)

- (9) a. *Nosotros, nadie nos ha visto.*
We nobody us has seen
 ‘Us, nobody saw.’
- b. *El ordenador, yo odio esas máquinas infernales.*
the computer I hate(1sg) those machines hideous
 ‘The computer, I hate those hideous machines.’
 (Zagona 2002)

As can be seen in (9), the dislocated phrase need not agree in ϕ -features (case, number and gender) with its correlate within the clause. Thus, in (9a), for instance, *nosotros* (‘we’) is a nominative pronoun, whereas the correferential *nos* (‘us’) is in the accusative Case. In (9b), on its part, the two correferential expressions differ with respect to gender

and number. *El ordenador* ('the computer') is masculine singular, while the DP *esas máquinas infernales* ('those hideous machines') is feminine plural.

A LDT may be construed with a constituent inside a relative clause (10a), a clausal adjunct (10b), or a clausal subject (10c). In other words, LDTs are insensitive to syntactic islands, which strongly disfavors an account in terms of movement.

(10) a. El señor González, conocemos a la mujer que traicionó al desdichado.

the mister González know(1pl) to the woman who betrayed(3sg) to-the wretch

'Mr. González, we know the woman who betrayed the wretch.'

b. El señor González, terminaremos la tarea antes de llamar al desdichado.

the mister González will-finish(1pl) the task before of to-call to-the wretch

'Mr. González, we will finish the task before we call the wretch.'

c. El señor González, que María haya invitado al desdichado sorprendió

the mister González that Mary has(subj) invited to-the wretch surprised(3sg)

a todo el mundo.

to all the world

'Mr. González, it surprised everyone that Mary invited the wretch.'

(adapted from Zubizarreta 1999)

Finally, LDTs are not recursive, as shown in the following example.

(11) *(En cuanto a) Juan, (en cuanto a) el ordenador, él odia ese trasto.

as for John as for the computer he hates that piece-of-junk

Lit. '*(As for) John, (as for) the computer, he hates that piece of junk.'

The syntactic behavior just described suggests an analysis of LD in terms of base generation of the LDT in the left periphery of the sentence. In particular, the lack of connectivity effects between the left-dislocated DP and its correlate in sentence-internal position, together with the insensitivity of the construction to well-established islands, makes it difficult to argue for a derivation in terms of movement.

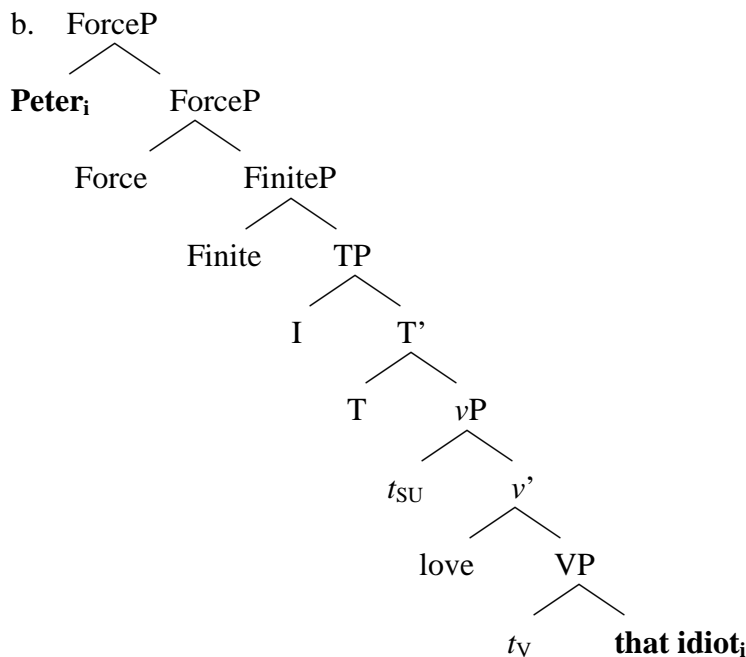
Cinque (1997) interprets these two facts as indicating that the relationship between the two nominal elements is not regulated by any sentence grammar rule, but rather by some discourse principle. He suggests the same principle that regulates the connection between a full DP and a pronominal in adjacent sentences. (12) reproduces

the example provided in Cinque (1997) to illustrate the case. In this datum, the DP *he/the little bastard* is correferential with *John*, a DP in the preceding sentence.

(12) I like *John*. I do think however *he/that little bastard* should be quieter.

I will assume that Cinque is basically right and that the LDT is not an integrating part of the syntactic structure of the sentence, but rather a juxtaposed element that provides the discourse background for the sentence. One way of materializing this idea syntactically is by adjoining the LDT to the outermost layer in the CP domain, i.e. to ForceP. (13a) shows the configuration of the split CP proposed in Rizzi (1997b) and subsequent work, (13b) the derivation of LD⁴³.

(13) a. ForceP>TopicP*>FocusP>TopicP*>FiniteP>TP (Rizzi 1997b)



Of all the functional categories in (13a), only ForceP and FiniteP project obligatorily. FocusP and TopicP will only be present if required to check a strong [+topic] or [+focus] feature. The asterisk next to the topic projection means that this category can

⁴³Alternatively, one could assume that the LDT and the sentence are respectively Specifier and complement of a functional category (similar to CoordP) whose empty head mediates the relationship between the two elements. This functional projection would project on top of ForceP. A solution along these lines has been proposed in Benincà (2001), who calls this category DiscourseP.

appear potentially in any number. Notice also that there are two places in the structure of the CP domain where TopicPs can project. These topics are obviously not LDTs.

The reader is referred to Rivero (1980), Hernanz and Bruccart (1987), Cinque (1997), Benincà (2001), Benincà and Poletto (2001), Rizzi (2001), Frascarelli and Hinterhölzl (2007), Casielles-Suarez (2004) and Haegeman (2004), among many others, for interesting discussion and further references.

2.2. *Clitic Left Dislocation (CLLD)*

In this topic-fronting construction, the correlate of the sentence-initial topic is a clitic in sentence-internal position. Given that English lacks clitics altogether (and therefore CLLD), this section will deal exclusively with Spanish.

The syntactic behavior of CLLD constituents departs from that of LDTs in all the respects reviewed in the preceding section. To begin with, as just mentioned, the CLLD topic correlates with a clitic, never with a strong pronoun or an epithet – (14a) – nor with a gap – (14b,c).

(14) a. *Estoy segura de que **a María**, Pedro habla por teléfono **a esa idiota/ ella**

am sure of that to Mary Peter speaks by telephone to that idiot/ her
 todos los días.

all the days

Lit. ‘*I’m sure that with Mary Peter speaks on the phone with that idiot/her every day.’

b. **A María**, Pedro *(**le**) habla por teléfono todos los días.

to Mary Peter CL_{DAT} speaks by telephone all the days

‘With Mary Peter speaks on the phone every day.’

c. **Los libros**, *(**los**) compré ayer.

the books CL_{ACC} bought(1sg) yesterday

‘The books, I bought yesterday.’

This type of topic cannot be preceded by any sort of “topicalizing” expression, nor is it restricted to DPs. These two aspects are illustrated in (15). Notice that there is no clitic correlate in (15a). This is due to the fact that Spanish has a defective clitic system. I will come back to this issue below.

- (15) a. (*En cuanto a) de Juan, no me acuerdo.
As for of John, not me remember
 ‘(*As to) John, I can’t remember.’
- b. (*Con respecto a) a Juan, no lo vimos en la fiesta.
with respect to to John not CL_{ACC} saw(1pl) at the party
 ‘(*As concerns) John, we didn’t see at the party.’

CLLD is not restricted to matrix clauses, either.

- (16) a. Ya te he dicho que, de Juan, no me acuerdo.
already you have(1sg) said that, of John, not me remember(1sg)
 ‘I’ve already told you that John, I can’t remember.’
- b. Te repito que, a Juan, no lo vimos en la fiesta.
you repeat(1sg) that to John not CL_{ACC} saw(1pl) at the party
 ‘I repeat it to you that John I didn’t see at the party.’

The grammatical dependency between the dislocated constituent and the predicate is shown in the fact that a preposition selected by the predicate has to be present in the fronted constituent. This aspect has already been illustrated in the preceding sentences, where *ver* (‘see’) in (16b) selects a PP complement introduced by the preposition *a* (‘to’), and *acordarse* (‘remember’) in (16a) selects a PP headed by *de* (‘of’). In (17) further illustration is provided.

- (17) Estoy segura de que *(de) María, Pedro siempre habla bien.
am sure of that of Mary Peter always speaks well
 ‘I’m sure that of Mary, Peter always speaks well.’

Unlike LDTs, CLLD topics are sensitive to syntactic islands. In the sentences in (18) below, it can be seen that the dislocated constituent cannot correlate with a clitic inside a relative clause, a clausal adjunct, or a subject.

- (18) a. *Estoy segura de que a Pedro, conocemos a la mujer que lo traicionó.
am sure of that to Peter know(1pl) to the woman who CL_{ACC} betrayed(3sg)
 Lit. ‘*I’m sure that Peter we know the woman who betrayed.’

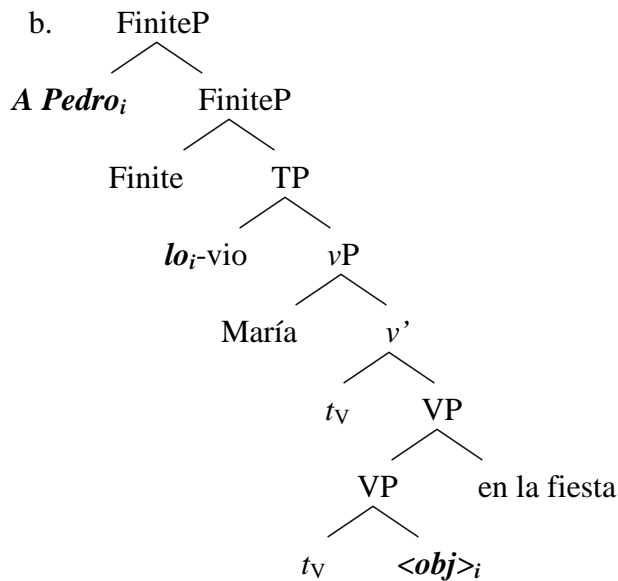
- b. *Me parece mejor que a Pedro, terminemos la tarea antes de llamarlo.
me seems better that to Peter finish(subj1pl) the task before of to-call-CL_{ACC}
 Lit. ‘*It seems better to me that Peter we finish the task before calling.’
- c. *Estoy segura de que a Pedro, que María lo haya invitado sorprendió
am sure of that to Peter that Mary CL_{ACC} has(subj) invited surprised(3sg)
 a todo el mundo.
to all the world
 Lit. ‘*I’m sure that Peter that Mary has invited surprised everyone.’

Even though sensitivity to islands is standardly interpreted as an indicator of movement, Cinque (1990) claims that, in the case of CLLD, it has to be understood as a constraint on representations. Roughly, the CLLD constituent cannot form a chain with a clitic inside an island. Although not created by movement, this type of chain – called by Cinque a *base-generated dependency* – shares some of the properties of movement chains.

In this chapter, I will basically adopt Cinque’s (1990) proposal that CLLD constituents are base-generated in the left periphery of the sentence. I will assume for concreteness that CLLD is adjunction to FiniteP, the lowest layer of the C-domain (see (13a) above). In this particular respect, I follow a proposal by Haegeman (2004) and others that CLLD constituents in Romance are low topics, as opposed to LD constituents and English topics, which are assumed to occupy a higher, external position (presumably in the orbit of ForceP). For different incarnations of the idea that there is an external and an internal topic position in the left periphery of the sentence, see Haegeman (2004), Benincà (2001), Benincà and Poletto (2001), Rizzi (2001) and Frascarelli and Hinterhölzl (2007). For English topicalization, see also section 2.3 below.

(19b) shows the partial parser of a sentence like (19a).

- (19) a. A Pedro lo vio María en la fiesta.
to Peter CL_{ACC} saw(3sg) Mary at the party
 ‘Peter Mary saw at the party.’



According to Cinque (1997), the CLLD constituent (*a Pedro*), which is base-generated as an adjunct of FiniteP, is coindexed with a categorially identical sentence internal phrase (represented above as *<obj>*), which is an empty category that can be bound by a clitic incorporated into the verb. These three elements (i.e. CLLD constituent, clitic and empty category) form a chain which is, for all intents and purposes, equivalent to chains formed by movement.

The proposal of an analysis of CLLD in terms of base-generated adjunction relies basically on two observations. First, CLLD is recursive, as shown in the sentences in (20). Multiple topics are allowed because no formal feature is checked in CLLD. The relationship between the sentence-initial topic and the clitic is one of agreement (Delfitto 2002).

- (20) a. Ese libro a Pedro no se lo dio nadie.
that book to Peter not CL_{DAT} CL_{ACC} gave(3sg) nobody
 Lit. ‘*That book to Peter nobody gave.’
- b. A María esa película no le interesa.
to Mary that film not CL_{DAT} find-interesting(3sg)
 ‘In that film Mary is not interested.’

Second, in sentences with more than one CLLD topic, they enjoy a rather free distribution. Consider the sentences in (21), together with those in (20) above.

(21) a. A Pedro ese libro no se lo dio nadie.

to Peter that book not CL_{DAT} CL_{ACC} gave(3sg) nobody

Lit. ‘*To Peter that book nobody gave.’

b. Esa película a María no le interesa.

that film to Mary not CL_{DAT} finds-interesting

‘In that film Mary is not interested.’

Recursivity and free distribution with respect to other elements of the same category are two defining properties of adjuncts.

Finally, the pragmatic function of CLLD topics is different from that of LDTs. Whereas LD promotes a constituent which was not a topic to topical status, CLLD dislocates a constituent that was already a topic. Moreover, according to Casielles-Suarez (2004), the operation can have a double function in Spanish, namely the topicalization of an object and the focalization of the subject (in sentence-final position after application of CLLD). Proof of this is the fact that the sentence in (22b) can be a felicitous answer to the question in (22a), where the subject is unknown.

(22) a. ¿Quién lavó el coche?

who washed(3sg) the car

‘Who washed the car?’

b. El coche lo lavamos nosotros.

the car CL_{ACC} washed(1pl) we

‘We washed the car.’

Before closing this section, I would like to come back to the question of the clitic correlate, as clitic doubling is more restricted than the discussion above might suggest. In the case of Spanish, only fronted definite internal arguments correlate with a clitic in sentence-internal position, not so fronted bare nominals and indefinites in general. Some examples are provided in (23). Spanish departs from other Romance languages in this respect, (24). This contrast is attributed to the defective clitic system in Spanish, which does not possess a partitive clitic. The sentences in (24) are drawn from Bosque & Gutiérrez-Rexach (2008), who attribute the Italian sentence to Cinque (1990), the French to Zubizarreta (1999) and the Catalan to Hernanz and Brucart (1987).

- (23) a. Dinero no (*lo) tenemos.
money not CL_{ACC} have(1pl)
 ‘Money we don’t have (*it).’
- b. Patatas no (*las) hemos comprado.
potatoes not CL_{ACC} have(1pl) bought
 ‘Potatoes we haven’t bought.’
- (24) a. Di questa faccenda, no **ne** voglio più parlare.
about this matter not CL want more speak
 ‘About that, I do not want to speak any more.’ (Italian)
- b. Je suis certaine que, des pommes, Pierre **en** mange tous les jours.
I am sure that of apples Peter CL eats all the days
 ‘I am sure that, apples, Peter eats every day.’ (French)
- c. De l’examen ningú no **n**’ha parlat encara.
about the-exam nobody not CL’has spoken yet
 ‘About the exam, nobody has spoken yet.’ (Catalan)

Similarly, as Spanish lacks nominative clitics, pre-verbal subjects (which are assumed to be topics; see chapter 7) are not doubled by a clitic, either. Sheehan (2007) reports that two Italian dialects – Trentino and Fiorentino – do possess a subject clitic, (25).

- (25) a. Le tu’ sorelle **I**’hanno telefonato iere.
the your sisters CL_{FemPl}-have(3pl) telephoned yesterday
 ‘Your sisters telephoned yesterday.’
- b. **L**’hanno telefonato iere.
CL_{FemPl}-have(3pl) telephoned yesterday
 ‘They telephoned yesterday.’

Another case in point is that of locative adverbials, which (again due to a defective pronominal system in Spanish) do not correlate with a clitic when they are fronted. In other Romance languages (like Italian, French and Catalan), locative clitics do exist and must appear in CLLD constructions. Thus, the sentences that follow are unacceptable without the clitic. These data are drawn again from Bosque and Gutiérrez-Rexach (2008).

- (26) a. A casa, non **ci** sono stato ancora.
at home, not CL_{LOC} have(1sg) been yet
 ‘I was not home yet’ (Italian)
- b. Je suis certaine qu’au marché, Pierre **y** va tous les jours.
I am sure that-to-the market Peter CL_{LOC} goes all the days
 ‘I’m sure that, to the market, Peter goes every day.’ (French)
- c. Al jardí els nens **s’hi** diverteixen molt.
in-the garden the children CL_{LOC}-have fun much
 ‘In the garden, the children have a lot of fun.’ (Catalan)

There are two different types of approaches in the literature to cases of topic fronting without a clitic correlate in Spanish. In one of them, the sentences are assumed to be instances of CLLD with a null clitic pronoun in sentence-internal position (see, for example, Casielles-Suárez 2004, Bosque & Gutiérrez-Rexach 2008, and the references quoted there). For advocates of this hypothesis, there are only two types of topic fronting in Spanish: LD and CLLD.

Laca (2011) points at a flaw in this line of argumentation. She argues that if Spanish possessed null (object) clitics, a sentence like (27) below should be grammatical, contrary to fact.

- (27) ¿Asistió algún obispo? – No, no asistió *(ninguno).
attended(3sg) any bishop no, not attended(3sg) none
 ‘Did any bishop attend? – No, none did.’

In the following quotation, from Laca (2011), she speaks about the nature of the correlate in a topicalization construction involving a fronted bare plural and a gap in sentence-internal position:

I would like to argue that in BPL [bare plural] Topicalization there is an element of category N/NP and of semantic type <e,t> sitting in the relevant (“gapped”) argument position, and that this element triggers the existential type-shift of the verbal predicate. This element is, however, not pronounced. It is not a trace, nor a null-clitic, but a case of N’ deletion/NP-ellipsis, of which there are other instances in Spanish. (Laca 2011: 13).

The second line of research assimilates cases like those in (23) above – with fronted bare nominals – with English topicalization (see for example Rivero (1980) for Spanish, and Cinque (1997) for Italian). In this approach, Spanish would display three topic fronting constructions: LD, CLLD and Topicalization. LD- and CLLD-topics are assumed to be base-generated in the left periphery of the sentence; topicalization, on the other hand, is the result of movement, as will be shown in the following subsection for English.

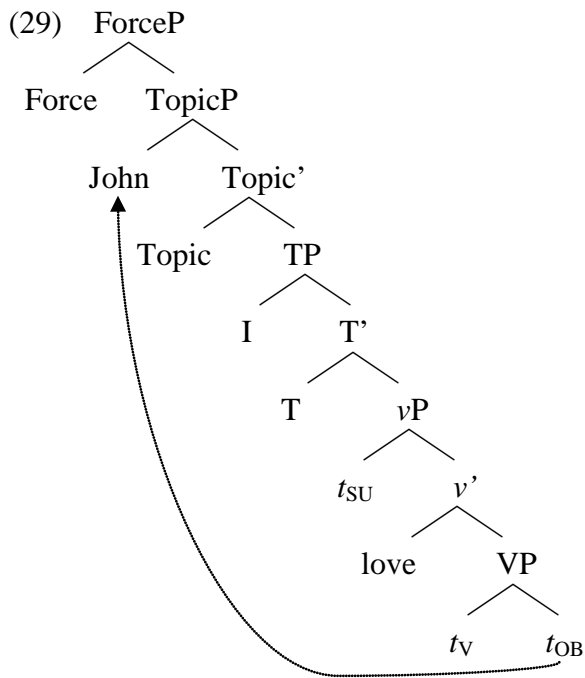
2.3. Topicalization

Topicalization in English is characterized by the fact that the fronted topic correlates with a gap in sentence-internal position, as in the examples in (28).

- (28) a. John, I love _.
 b. This morning, I saw Peter _.
 c. At the party, I met Laura _.

All topic constructions in English present this superficial pattern independently from the category of the fronted constituent. Since, as shown in the preceding subsection, only a subset of Spanish topics correlate with a gap, I will initially focus on English and come back to Spanish briefly at the end of this section.

English topicalization is standardly analyzed as an A-bar movement operation that takes a constituent bearing a [+topic] feature to the Spec of a TopicP in the left periphery of the sentence. According to Haegeman (2004), the projection of this category is contingent on the presence of ForceP, i.e. it is hierarchically high in the structure (higher than the position of CLLD topics). The simplified structure of (28a) would be as in (29).



Evidence that movement is involved comes from the island sensitivity of the operation; thus, the data in (30) show that the topic cannot be related to a gap inside a relative clause, a clausal adjunct or a subject.

- (30) a. *Peter we know the woman who killed _.
 b. *Peter we should finish our homework before we call _.
 c. *Peter it surprised everybody that Mary invited _.
 d. *Peter that Mary invited _ surprised everybody.

An analysis in terms of movement would also explain why the correlate is obligatorily a gap: it is in fact the silenced copy of the moved object in VP-internal position. Even though there is a wide consensus in the literature that English topicalization be analyzed as a case of A-bar movement, the island-sensitivity effects in (30) are also compatible with an analysis in terms of CLLD as that proposed in Rizzi (1997b). Roughly, he proposes that English topicalization be analyzed along the same lines as Romance CLLD. In the absence of clitics in the English pronominal system, a null operator (OP) assumes the same functions as clitics in Romance. This null operator binds a null constant (*nc*) in sentence-internal position. The topicalized constituent is base-generated in SpecTopicP. The three elements build a chain in the sense of Cinque (1990), see (31) below. Recall from the preceding section that the same conditions are imposed on this

chain as on chains formed by movement. Particularly, no link can be established between a fronted topic and a *nc* inside an island. Compare (30) with (18) above.

(31) [_{TopicP} John_i OP_i [_{TP} I [_{VP} t_{SU} love nc_i]]]

Turning to potential cases of topicalization in Spanish, sentences like those in (32) – with bare nominals in sentence-initial position – are argued, in Rivero (1980), to depart syntactically from CLLD. The first obvious difference is that there is no clitic correlate in these sentences.

(32) a. Dinero no tenemos.

money not have(1pl)

‘Money we don’t have.’

b. Lingüistas hay por todas partes.

linguists there-is in all parts

‘Linguists there are everywhere.’

Given that the construction is sensitive to islands, (33), it could be assumed that movement is involved. However, I have already shown that this argument for movement loses weight if the same conditions are imposed on base-generated dependencies and on movement chains. The sentence in (33a) below, due to Rivero (1980), constitutes a violation of the *Complex NP Constraint*. (33b), on its part, illustrates extraction from an adjunct.

(33) a. *Dinero aceptó la pretensión de que tienen _.

money accepted(3sg) the pretension of that have(3pl)

‘*Money he accepted the pretension that they have.’

b. *Dinero, me voy antes de que me pida.

money CL_{refl} go(1sg) before of that CL_{DAT} asks(subj)

‘*Money, I leave before he asks me for.’

The reader is referred to Rivero (1980) for a complete discussion of the differences between CLLD and those sentences in which the topic is not doubled by a clitic. At this

point, I will remain neutral as to the analysis of sentences like those in (32) above. I will briefly address this issue again in section 3 below.

Recapitulating, three are the types of topic fronting constructions presented in this section: LD, CLLD and Topicalization. With respect to the first, both English and Spanish behave similarly. The construction involves base-generation of the topic in the periphery of the sentence (probably, adjunction to ForceP). This constituent correlates with a DP or a strong pronoun in the canonical position of the internal argument.

As for CLLD, the construction is standardly analyzed as a base-generated dependency in which the topic (FiniteP-adjoined by first merge), the clitic (incorporated into the verbal head) and a null element in sentence-internal position form a chain subject to the same constraints as movement chains. This type of analysis is extended by some authors to cases of topic fronting without a clitic in Spanish, which forces the introduction of a null-clitic. Rizzi (1997b) extends the same analysis to English, where the absence of clitics is compensated with the introduction of a null operator.

Concerning topicalization, the view that English topicalization is reducible to CLLD is not generally shared. The most widely adopted analysis is one in terms of A-bar movement: the fronted constituent is base-generated in sentence-internal position and displaced to the Spec of a dedicated functional projection in the left periphery (TopicP). This analysis of topicalization has been extended by some authors to those cases of Spanish topics that do not correlate with a clitic. Instead of assuming the presence of a null clitic in the structure, these authors propose an analysis in terms of movement parallel to that put forward for English.

The discussion can now proceed on to the interaction of EX with these three topic fronting constructions.

3. The interaction of EX and topic fronting

In the three topic fronting constructions discussed in the preceding section, the topic appears either in an adjunction site (LDTs are ForceP-adjoined, CLLDTs are FiniteP adjuncts) or in a derived Spec (topicalization). As the two syntactic configurations just described are well-established islands for extraction, standard analyses, which claim that EX targets the DP in its derived position, would predict that EX from a topicalized DP necessarily leads to ungrammaticality. However, a set of examples will be presented

below that indicate that the structural configuration of topic constructions is not the only factor determining the acceptability of EX from a topicalized DP.

My proposal, in which EX takes place from the DP in its base position, predicts that EX should be possible in those cases of topicalization that involve movement. In such cases, EX from a topicalized object should be as acceptable as EX from an object in its base position. The data that will be analyzed in this chapter should help us choose one of these analyses.

In what follows, I will discuss in turn data involving EX from a sentence-initial topic in each of the constructions presented in section 2. To the best of my knowledge, most of these data are discussed here for the first time.

3.1. EX from LDTs

Recall that one of the defining characteristics of LD is that it is restricted to DPs. Given the definiteness effects on EX discussed in chapter 2 section 2.1.2, and illustrated again in (34) below, the cases that will be relevant for the present discussion are those involving the topicalization of a bare nominal. By restricting the discussion to indefinites that can be topicalized I intend to avoid other potential sources of ungrammaticality, as the definiteness effects just mentioned.

- (34) a. *Pedro saludó *al hombre* ayer *al que no conocía*.
Peter greeted(3sg) to-the man yesterday to-the who not knew(3sg)
Lit. ‘*Peter greeted the man yesterday that he didn’t know.’
- b. Pedro saludó *a un hombre* ayer *al que no conocía*.
Peter greeted(3sg) to a man yesterday to-the who not knew(3sg)
‘Peter greeted a man yesterday that he didn’t know.’

Examples of EX in a LD construction are provided in (35) for English and in (36) for Spanish.

- (35) a. (Talking about) *books*, I read {some/three} last year {*about global warming/that dealt with global warming*}.
- b. *Houses*, I saw none yesterday *with the big garden I want*.

- (36) a. *Pisos con terraza, hemos visto tres esta mañana que nos han gustado mucho.*
flats with balcony have(1pl) seen three this morning which us have(3pl) liked
mucho.
much
 ‘Flats with a balcony, we have seen three this morning that we liked a lot.’
- b. *Libros, hemos leído varios este verano sobre el calentamiento global.*
books have(1pl) read several this summer about the warming global
 ‘Books, we’ve read some this summer about global warming.’

The acceptability of these sentences might be taken to indicate that EX from a LDT is indeed allowed. Assuming that EX involves movement of the modifier, the sentences in (37) would show an earlier stage in the derivation of (35) and (36)⁴⁴.

- (37) a. (Talking about) books {that deal with global warming/about global warming}, I read {some/three} last year.
- b. Houses with the big garden I want, I saw none yesterday.
- c. *Pisos con terraza que nos hayan gustado realmente, hemos visto tres esta mañana.*
flats with balcony which us have(3pl.subj) liked really have(1pl) seen three
esta mañana.
this morning
 ‘Flats with a balcony that we really liked, we have seen three this morning.’
- d. *Libros sobre el calentamiento global, hemos leído varios este verano.*
books about the warming global have(1pl) read several this summer
 ‘Books about global warming, we have read several in the summer.’

The interpretation of these sentences is, however, not the same as the interpretation of the sentences in (35)/(36). In (37), the referent of the dislocated DPs is a proper subset of the referent of the LDTs in (35)/(36). Thus, for example, while in (35a) the discussion is about books in general, in (37a) the object of discussion is narrowed down to books about global warming. The same reasoning applies to the other data in this set.

⁴⁴ (37c) is a modified version of (36a). The mood of the verb has been shifted to the subjunctive and the adverbial *mucho* (‘a lot’) has been substituted with a more emphatic adverbial like *realmente* (‘really’). These two changes have been introduced to improve the acceptability of the sentence, which would be degraded without these changes.

(i) ??*Pisos que nos han gustado mucho, hemos visto tres esta mañana.*
flats which us have(3pl) liked a-lot, have(1pl) seen three this morning.
 ‘Flats that we liked a lot, we have seen three this morning.’

The fact that the sentences in (37) cannot receive the same interpretation as those in (35)/(36) indicates that the two sets of sentences are not related by EX. Judging by the interpretation assigned to them, the sentences in (35) and (36) are rather the extraposed counterparts of the sentences in (38) below. In other words, they constitute instances of EX(OB). The structure of (37a) – the extraposed variant of (38a) – is shown in (39).

(38) a. Books, I read three that dealt with global warming last year.

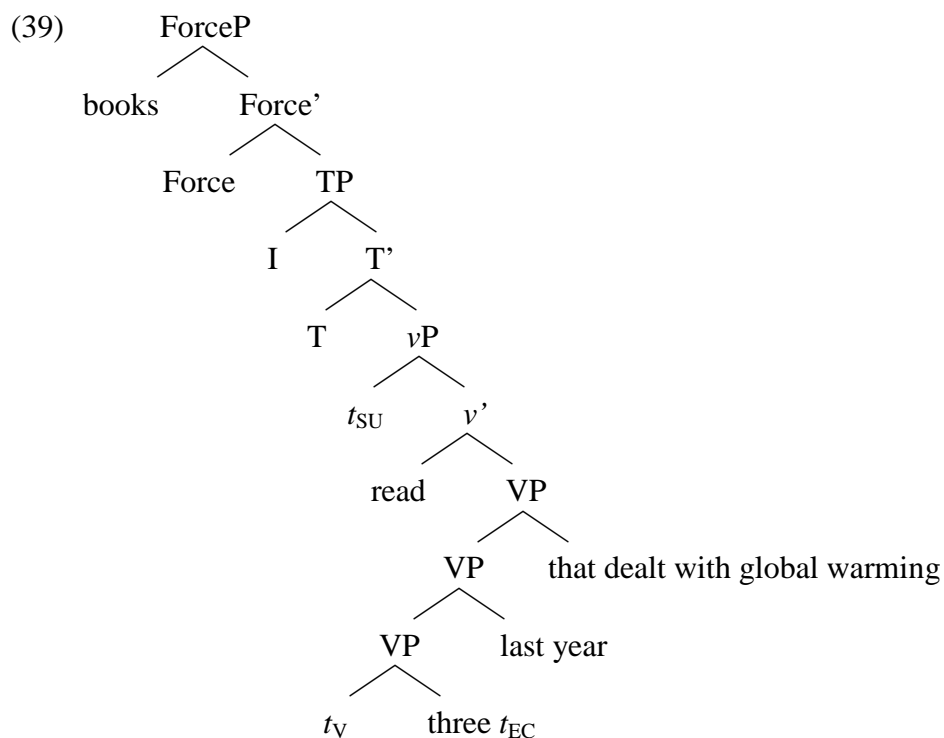
b. Houses, I saw none with the big garden I want yesterday.

c. Pisos con terraza, hemos visto tres que nos han gustado mucho esta mañana.
flats with balcony have(1pl) seen three that us have(3pl) liked much this morning

‘Flats with a balcony, we saw three that we liked a lot this morning.’

d. Libros, hemos leído varios sobre el calentamiento global este verano.
books have(1pl) read several about the warming global this summer

‘Books, we read several about global warming this summer.’



In what follows I will provide further evidence that the EC is interpreted as a modifier of the correlate rather than of the left-dislocated constituent. Recall that in LD no

connectivity is observed between the two elements. Thus, for instance, the correlate can be a singular nominal even when the LDT is a plural, (40).

(40) a. Pisos con terraza, he visto uno que me ha gustado mucho.

flats with balcony have(1sg) seen one that me has(3sg) liked much

‘Flats with a balcony, I’ve seen one that I liked a lot.’

b. Books, I’m reading one that deals with global warming.

Consider now (41) and (42).

(41) a. Pisos con terraza, he visto sólo uno esta tarde que me ha gustado

flats with balcony have(1sg) seen only one this afternoon that me has liked

mucho.

much

‘Flats with a balcony, I’ve seen only one this afternoon that I liked a lot.’

b. *Pisos con terraza que me ha gustado mucho, he visto sólo uno esta tarde.

flats with balcony that me has liked much have(1sg) seen only one this afternoon

‘Flats with a balcony that I liked a lot, I’ve seen only one this afternoon.’

c. Pisos con terraza, he visto sólo uno que me ha gustado mucho esta tarde.

flats with balcony have(1sg) seen only one that me has liked much this afternoon

‘Flats with a balcony, I’ve seen only one that I liked a lot this afternoon.’

(42) a. Books, I will start reading one tomorrow that deals with global warming.

b. *Books that deals with global warming, I will start reading one tomorrow.

c. Books, I will start reading one that deals with global warming tomorrow.

The (b) sentences in these two sets of examples are ungrammatical due to the lack of agreement between the head noun *pisos con terraza* (‘flats with a balcony’) / *books* and the relative pronoun and embedded verb (cf. *pisos con terraza que me han* (third person plural) *gustado mucho* / *books that deal with global warming*). The ungrammaticality of these sentences shows that the extraposed relative cannot be the modifier of the LDT. The link with the VP-internal correlate, on the other hand, is confirmed by the facts in (a)/(c).

Further indication of the fact that the source of the EC is not the LDT comes from sentences like (43a) and (44a), which can be ruled out as violations of the *Right Roof Constraint* (RRC) only if the EC originates inside the embedded clause⁴⁵.

- (43) a. *Pisos con terraza, he oído el anuncio de que se venderán tres flats with balcony have(1sg) heard the news of which CL_{pass} will-sell(3pl) three **en la radio** que están tasados muy por debajo de su precio. on the radio that are(3pl) valued very by below of their price
Lit. ‘*Flats with a balcony, I’ve heard the news that three will be sold on the radio that are valued way below their price.’
- b. Pisos con terraza, he oído el anuncio de que se venderán tres flats with balcony have(1sg) heard the news of which CL_{pass} will-sell(3pl) three **en Vitoria** que están tasados muy por debajo de su precio. in Vitoria that are(3pl) valued very by below of their price
‘Flats with a balcony, I’ve heard the news that three will be sold in Vitoria that are valued way below their price.’
- (44) a. *Books, I heard the rumor that you read three **in the department** that dealt with global warming.
- b. Books, I heard the rumor that you read three **in the summer** that dealt with global warming.

The fact that the EC follows the locative PP *en la radio* (‘on the radio’) / *in the department*, a modifier of the matrix predicate, indicates that the extraposed relative has crossed a clause boundary in violation of the RRC. In (43b)/(44b), on the other hand, the locative PP modifies the embedded predicate, which means that EX has taken place inside the embedded clause. Since no clause boundary has been crossed, the sentence is acceptable.

Summarizing the discussion up to this point, evidence has been presented that shows that EX from a LDT is not possible in English or Spanish. Sentences that, at first sight, appeared to be cases of EX from a LDT have proved to be instances of EX(OB), with the EC construed with the correlate rather than with the LDT. In other words, EX and LD are independent phenomena that do not interfere with each other. This result is

⁴⁵ The *Right Roof Constraint* is a constraint on EX that formalizes the ban on a rightward moved constituent crossing a clause boundary. It is due to Ross (1967). See chapter 2, section 3.1.

consistent with the assumption that left-dislocated DPs are outside the structure of the sentence (cf. Cinque 1997 and section 2.1 above).

3.2. EX from CLLD DPs

In section 2.2 above it was shown that CLLD is a topicalizing construction in which a sentence-initial constituent is doubled by a clitic pronoun in sentence-internal position. The absence of this type of pronouns in English makes the construction unavailable in this language (but see the analysis of topicalization in Rizzi 1997b). This section will therefore explore the availability of EX from CLLD DPs in Spanish. In (45) some data are provided.

- (45) a. **Al lingüista no lo encontrarás aquí que habla/ hable tres lenguas balcánicas.*
to-the linguist not CL_{ACC} will-find(2sg) here who speaks/ speaks(subj) three languages Balkan
 Lit. ‘*The linguist you won’t find here who speaks three Balkan languages.’
- b. **Los libros no los busques en mi casa sobre la crisis económica.*
the books not CL_{ACC} look-for (imp.2sg) in my house about the crisis economic
 Lit. ‘*The books don’t look for (them) in my house about the economic crisis.’
- c. **Al hombre le envié los documentos ayer que nos compró el coche.*
to-the man CL_{DAT} sent(1sg) the documents yesterday who us bought(3sg) the car
 Lit. ‘*To the man I sent the documents yesterday who bought our car.’

As mentioned in section 2.2 above, clitic doubling is only obligatory in Spanish when the topicalized DP (whether a direct or an indirect object) is definite. Given the definiteness effects arising from the application of EX, it is not unexpected that the operation cannot apply in the context of CLLD. The sentences in (45) could be ruled out on the same grounds as their non-CLLD counterparts in (46).

- (46) a. **No encontrarás al lingüista aquí que habla / hable tres lenguas balcánicas.*
not will-find(2sg) to-the linguist here who speaks / speaks(subj) three languages Balkan
 Lit. ‘*You won’t find the linguist here who speaks three Balkan languages.’

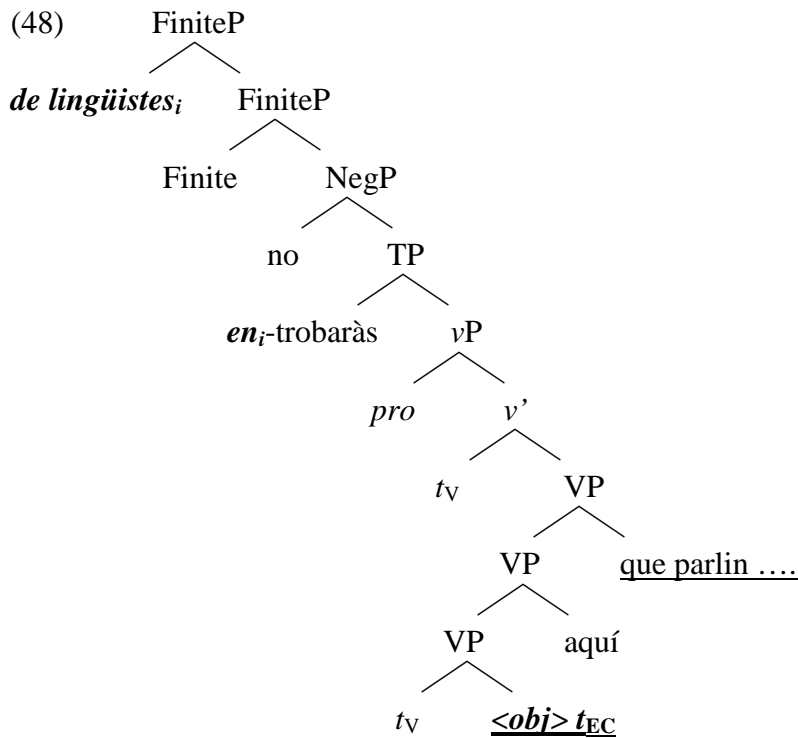
- b. *No busques *los libros en mi casa sobre la crisis económica.*
not look-for(imp2sg) the books in my house about the crisis economic
 Lit. ‘Don’t look for the books in my house about the economic crisis.’
- c. *Le envié los documentos *al hombre ayer que nos compró el coche.*
CL_{DAT} sent(1sg) the documents to-the man yesterday who us bought(3sg) the car
 Lit. ‘*I sent the documents to the man yesterday who bought our car.’

That an account in terms of definiteness effects might be on the right track – and particularly that the presence of the clitic does not interfere with EX – is suggested by the fact that the operation is possible from the Catalan example in (47), where the dislocated constituent, an indefinite DP, is doubled by a partitive clitic⁴⁶.

- (47) *De lingüistes, aquí no en trobaràs que parlin tres llengües balcàniques.*
of linguists here not CL_{part} will-find(2sg) who speak(3pl) three languages Balkan
 Lit. ‘*Linguists you won’t find here who speak three Balkan languages.’

But the acceptability of (47) raises a problem. Given that the CLLD constituent is an adjunct and therefore an island, EX should not be possible. This problem would be neutralized if EX is assumed to be a VP phenomenon, as discussed in chapter 5, section 4. Were this the case, the derivation of (47) would be similar to the derivation of LD sentences. Specifically, the EC would be a modifier of the correlate in the base. Its interpretation as a modifier of the fronted topic emerges from the relationship of the clitic correlate with this constituent, i.e. from the fact that the clitic and the topic are two links of the same base-generated chain. (48) shows the derivation of (47), given Cinque’s (1997) analysis of CLLD.

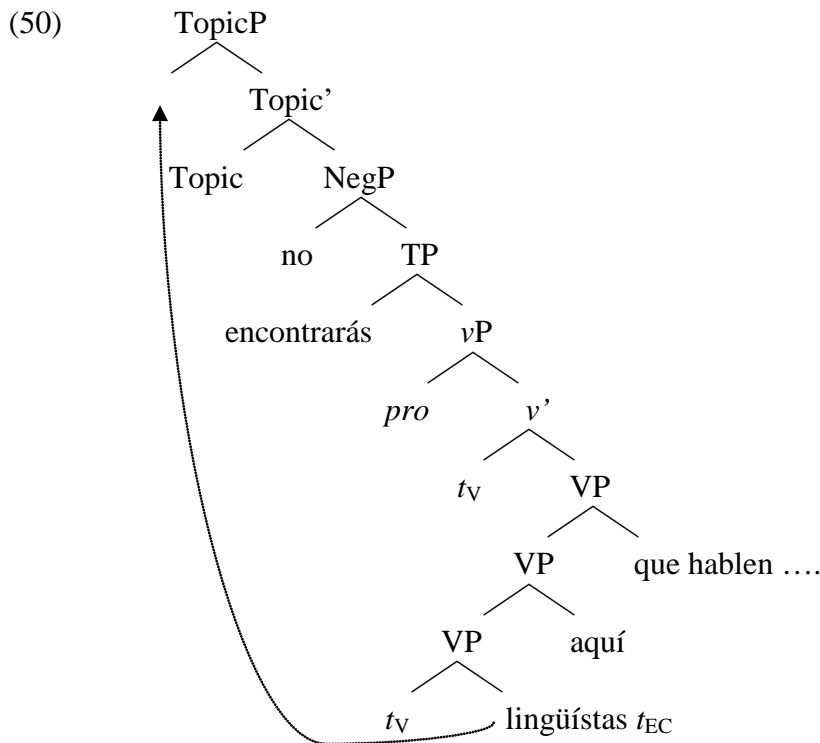
⁴⁶ Thanks to Francesc Roca for providing this example and relevant comments.



Let me turn now to the Spanish counterpart of the Catalan datum in (47).

- (49) *Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.*
linguists not will-find(2sg) here who speak(3pl.subj) three languages Balkan
 Lit. ‘*Linguist you won’t find here who speak three Balkan languages.’

Given that Spanish does not possess a partitive clitic corresponding to the Catalan *en*, this type of sentence has been analyzed by some in terms of CLLD with a null clitic, and as a case of English-like topicalization by others. See the discussion in section 2 above. If the former analysis of CLLD is adopted, EX would have to be as shown in (48) above, with the EC starting up as the modifier of the null internal argument and a coindexed null clitic in the structure. As noted above, EX cannot take place from the sentence-initial constituent because this is an adjunct. Notice that this sentence is also derivable with the alternative analysis in terms of movement. Given the freezing effects on derived Specs, EX would have to take place in the VP-domain, as represented in (50). Subsequent movement of the head noun to SpecTopicP will complete the derivation.



A problem arises at this point. If EX can proceed as represented in (50), the computational system would be able to derive the English counterpart of (49), shown in (51), which is clearly unacceptable, as will be discussed at some length in section 3.3 below.

(51) **Linguists*, you won't find here *who speak three Balkan languages*.

But the sentences in (49) and (51) are not identical. Only in the case of Spanish does the fronted bare nominal receive a contrastive interpretation. Notice also that the acceptability of the datum in (49) depends on the presence of a polarity item, be it negative, as in the example, or positive, as in (52)⁴⁷.

⁴⁷ Some native speakers insert a clitic in sentence internal position even when the fronted DP is an indefinite DP or a bare nominal.

- (i) a. Un político no **lo** vas a encontrar aquí que se interese por los problemas de
a politician not CL_{ACC} go to find here who CL_{refl} interest(3sg) by the problems of
 los ciudadanos.
the citizens
 Lit. 'A politician you will not find here who shows any interest in the problems of the citizens.'
- b. Lingüistas no **los** tenemos en el departamento que hablen tres lenguas balcánicas.
linguists not CL_{ACC} have(1pl) in the department who speak(3pl.subj) three languages Balkan
 Lit. 'Linguists we do not have in the department who speak three Balkan languages.'

(52) *Lingüistas* ^{??}(sí) encontrarás aquí *que hablen* *tres lenguas balcánicas*.
linguists *yes will-find(2sg) here who speak(3pl.subj) three languages Balkan*
 Lit. ‘*Linguist you will indeed find here who speak three Balkan languages.’

An appropriate context of utterance for sentences like these is one in which someone expresses their desire or need to find linguists who speak three Balkan languages. (49) and (52) are possible answers: the former negates the possibility of finding linguists that fulfill the condition expressed by the relative, the latter asserts such a possibility. In other words, when these sentences are uttered, both the head noun and the EC constitute background information. In the context just described, even the content of the matrix predicate is easily deducible from the information provided.

Notice further that, although salient in the discourse situation, the fronted constituent is interpreted as emphatic in (49)/(52). Evidence is found in the possibility of inserting adverbials like *justamente*, *precisamente* or *propiamente*, all of them meaning ‘exactly, precisely’.

(53) *Lingüistas* *precisamente* no encontrarás aquí *que hablen* *tres lenguas balcánicas*.
linguists *precisely* *not will-find(2sg) here who speak(3pl.subj) three languages Balkan*
 Lit. ‘Precisely linguists, you won’t find here who speak three Balkan languages.’

This sentence can also be paraphrased along the lines in (54), i.e. by means of a sentence containing ‘restrictive repetition’.

This clitic has to be interpreted as indefinite, since it correlates with an indefinite DP. As such it has to be similar to the partitive clitic of the Catalan datum in (ii). The sentences in (i) and (ii) are amenable to the same analysis, shown in (48) in the main text.

(ii) De *lingüistes*, aquí no en trobaràs *que parlin* *tres llengües balcàniques*.
of linguists *here not CL will-find(2sg) who speak(3pl) three languages Balkan*
 Lit. ‘*Linguist you won’t find here who speak three Balkan languages.’

- (54) Lingüistas lo que se dice lingüistas no encontrarás aquí que
linguists pron(neut) which CL_{pass} says(3sg) linguists not will-find(2sg) here who
 hablen tres lenguas balcánicas.
speak(subj3pl) three languages Balkan
 ‘Linguists linguists you won’t find here who speak three Balkan languages.’

In the light of these facts, Leonetti (2013) remarks that fronted bare nouns in Spanish cannot be non-contrastive themes. I will interpret this fact as indicating that the fronted constituent is associated with two discourse related features: [+topic] and [+contrast], where contrast need not be understood literally but could also be attributed a confirmative/emphatic sense (see Neeleman et al. 2009 for the [+contrast] feature and its compatibility with [+topic]). I propose that it is the presence of this contrastive feature in the matrix of the fronted constituent that contributes to making EX possible.

To sum up, the Spanish data analyzed in this section suggest that EX applies on the correlate of the CLLD constituent in the VP domain. Given the definiteness effects observed in EX, it is not unexpected that the operation is allowed only when the head noun is an indefinite. Another factor that might have some bearing on the availability of EX is the association of the head noun with a [+contrast] feature. In the following subsection, I will show that the English and the Spanish data can receive a unified account if the interpretation of the head noun (and specifically the presence of [+contrast]/[+focus]) is held responsible, at least to some extent, for the availability of EX.

3.3. EX and topicalization

The sentences in (55) to (57) below show that an EC cannot be construed with a fronted topic in English. This is quite generally the case, even when the fronted DPs are indefinites or bare nominals, as in the examples. In this respect, English departs very clearly from Spanish. As sentences with EX from definite DPs can be discarded as cases of definiteness effects, I will continue to focus basically on derivations with bare plurals.

- (55) a. Micro brews that are located around the Bay Area, I like (very much).
b. **Micro brews*, I like (very much) *that are located around the Bay Area*.
(Kiss 2003)

- (56) a. A soldier that she really LIKES she met at the party.
b. **A soldier* she met at the party *that she really LIKES*.
(Culicover and Rochemont 1990)

- (57) a. You won't find *linguists* here *who speak three Balkan languages*.
b. **Linguists*, you won't find here *who speak three Balkan languages*.

For the (b) sentences to be acceptable the fronted DP should be heavily stressed and interpreted as a contrastive focus. These cases will be discussed in chapter 9.

- (58) a. *MICRO BREWS* I like (very much) *that are located around the Bay Area* (not restaurants).
b. *LINGUISTS* you won't find here *who speak three Balkan languages* (not engineers).

If the availability of EX from a fronted constituent is linked to the presence of a [+contrast] feature, as suggested above for Spanish, the unavailability of EX in the English sentences above may be due to the different interpretation of fronted bare nominals in the two languages. The (b) sentences in (55) to (57) are perceived as unacceptable, because topicalized bare plurals are not necessarily contrastive in English. Once the sentence is inserted in a context that forces the contrastive interpretation, EX becomes acceptable, (59). If this is true, the correct generalization is not that EX is incompatible with topicalization in English, but rather that EX is incompatible with non-contrastive topicalization in English.

- (59) Peter managed to find three engineers who speak Chinese, but *linguists* he didn't find *who speak three Balkan languages*.

Let me now turn briefly to the derivation of a sentence like (55b). If English topicalization does involve movement, standard analyses of EX, which take the surface position of the head noun to be the source of the EC, can explain the unacceptability of

this sentence by appealing to the structural configuration alone. Derived Specs (as SpecTopicP in this construction) are islands for extraction. However, this can barely be the only factor barring EX, as then the sentences in (58) and (59) above should be equally unacceptable.

My analysis in terms of VP-adjunction, on the other hand, can provide a unified account of the interaction of EX with topicalization and focalization, once the interpretation of the fronted constituent (particularly, the role of [+focus]/[+contrast]) is acknowledged as a factor determining the (un)availability of EX. Under this type of account, the presence of a strong topic feature in the matrix of the head noun blocks EX(OB) in cases of topicalization, i.e. such a feature would render the DP impermeable to extraction. In focus fronting contexts, on their part, the presence of a strong focus feature (or the absence of a strong [+topic] feature) makes EX possible. In the Spanish cases discussed in the preceding section, the feature involved was [+contrast], which is compatible with the [+topic] feature of the base-generated CLLD constituent (see Neeleman et al. 2009). The same reasoning goes through if the relevant Spanish examples (sentences with a fronted bare nominal or indefinite) are analyzed as English topicalization, as proposed by some linguists.

4. Conclusion

This chapter has analyzed the interaction of EX with three different types of fronted topics in Spanish and English: LD, CLLD and topicalization. The data presented to illustrate these phenomena have revealed that EX is only possible from the topicalized DP in two types of constructions: Spanish CLLD structures in which the dislocated constituent is an indefinite (preferably a bare nominal) and contrastive topic constructions in English. What they both have in common is the contrastive interpretation of the fronted constituent.

I have shown that, although EX from a LDT is not possible, the two syntactic operations (LD and EX) can coexist in a sentence, as shown in (60) below. I provided evidence that, in constructions like this, the EC is assembled in the structure as a modifier of the correlate rather than of the topic itself. Sentences like (60a,b) are then instances of EX(OB), as shown in the abstract representation provided in (60c) for English, (60d) for Spanish. As can be seen, the two languages behave alike with respect to this construction.

(60) a. Houses, I saw *none* yesterday *with the big garden I want*.

b. Pisos con terraza, hemos visto *tres* esta mañana *que nos han gustado*
flats with balcony have(1pl) seen three this morning which us have(3pl) liked
mucho.
much

‘Flats with a balcony, we have seen three this morning that we liked a lot.’

c. [_{ForceP} LDT_i [_{ForceP} ... [_{TP} SU [_T T [_{vP} t_{SU} [_v verb [_{VP} [_{VP} [_{VP} t_V [_{DP} correlate t_{EC}]_i]
 Adv] EC]]]]]]]]

d. [_{ForceP} LDT_i [_{ForceP} ... [_{TP} T-verb [_{vP} SU [_v t_V [_{VP} [_{VP} [_{VP} t_V [_{DP} correlate t_{EC}]_i]
 Adv] EC]]]]]]]]

As to CLLD constructions, the adjunct status of the topic should preclude EX from the fronted constituent in all cases of CLLD. The unacceptability of (61) seems to confirm this expectation.

(61)**Los libros no los busques en mi casa sobre la crisis económica.*

the books not CL_{ACC} look-for (imp.2sg) in my house about the crisis economic

Lit. ‘*The books don’t look for (them) in my house about the economic crisis.’

There is, however, a set of examples that allow EX. This is the case of Spanish sentences with fronted bare nominals and no clitic in sentence internal position, (62). The whole range of data can receive a unified account if it is assumed that the EC is a modifier of the correlate (a null nominal category) and EX adjoins it to VP. The contrast between (61) and (62a) can then be attributed to definiteness effects. The bracketed representation of the derivation is provided in (62b). The parallelism with (60d) above is clear.

(62) a. *Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.*

linguists not will-find(2sg) here who speak(3pl.subj) three languages Balkan

Lit. ‘*Linguist you won’t find here who speak three Balkan languages.’

b. [_{FiniteP} CLLDT_i [_{FiniteP} [_{TP} T-CL_i-verb [_{vP} SU [_v t_V [_{VP} [_{VP} [_{VP} t_V [_{DP} <obj> t_{EC}]_i]
 Adv] EC]]]]]]]]

In all the unacceptable cases of EX in CLLD constructions, the head noun is a definite DP which correlates with a definite clitic pronoun incorporated onto the verb and a definite null-correlate. As a first approximation, I attributed the ungrammaticality of these sentences to the definiteness effects that generally arise in EX. When all the DPs in the chain (LDT, clitic and correlate) are indefinite, EX is licit. However, the analysis of the English data made me reconsider this analysis.

I have assumed the standard analysis of English topic fronting in terms of A-bar movement. The rather general unacceptability of EX from a sentence-initial topic in this language, illustrated by the sentence in (63a), seems to challenge my analysis of the operation as a *v*P/VP phenomenon. In other words, given my analysis, EX should be as possible in (63a) as it is in (63b).

(63) a. **Linguists*, you won't find here *who speak three Balkan languages*.

b. You won't find *linguists* here *who speak three Balkan languages*.

Notice that standard analyses of EX, which claim that EX takes place from the derived position (in this case, when the DP has already undergone topicalization) would have no problem to explain the unacceptability of (63a), as a derived Spec is an island for extraction. Sentences like those in (64), however, would pose a serious problem for standard accounts of EX, as they involve EX from a fronted topic.

(64) John managed to find three congressmen who will vote for the amendment, but *three senators* he didn't find *who will vote against it*.

The contrast between (63a) and (64) indicates that something beyond the syntactic configuration must be at play when it comes to allowing or blocking EX from a fronted topic. Comparison of the topics of these two sentences will offer the key to identifying the relevant factor. The two topics receive different interpretations, so that only in (64) is the fronted DP contrastive. In this chapter I hypothesized that it is the presence of a [+contrast] feature – together with the [+topic] feature – that makes EX possible in (64). The absence of such a feature in (63a), on the other hand, precludes EX. In other words, extraction is prohibited from constituents associated with a strong [+topic] feature. Informally, when the hearer receives the sentence in (63a), with the direct object in sentence-initial position, he interprets that the speaker is going to say something about

linguists in general. This referent cannot be narrowed down later on by adding a relative clause. The referent of the DP *linguists who speak three Balkan languages* is just a subset of the referent of *linguists*.

Notice that this analysis carries over to Spanish CLLD, as among all the fronted topics considered, only bare nominals receive a contrastive interpretation. The presence of the [+contrast] feature in the matrix of the topic in (62) above may be held responsible for the availability of EX in this case.

If the interpretation of the fronted constituent is relevant to the availability of EX in the sense just described the assumption that EX applies in the domain of VP/vP can be maintained. The results obtained in the analysis of focalization in chapter 9 will come to confirm the analysis just proposed.

CHAPTER 7

The interaction of EX and subject raising

1. Introduction

English and Spanish are both SVO languages. In English there is consensus in the literature that the sentence-initial subject moves from its VP-internal base position to SpecTP. As will be discussed below, this analysis has been extended to Spanish by some linguists. Others, however, focus on the topic-like behavior of non-focal preverbal subjects in this language and propose a different type of account (the details of which will be offered below). The analysis of subject raising as an instance of leftward movement together with the topic properties of Spanish preverbal subjects justifies the inclusion of a chapter devoted to the interaction of EX with subject raising at this point. Before I proceed, a note of clarification is in order. Unless stated otherwise, the phrase *preverbal subject* has to be understood as *non-focal preverbal subject*.

The rather free distribution of subjects in Spanish has been (and still is) a matter of intense debate in the literature. As is well-known, while the subject DP surfaces obligatorily in preverbal position in English, (1), it may optionally occur postverbally in Spanish, (2)⁴⁸. Special interest has been aroused by preverbal subjects in this language, as their syntactic behavior clearly departs from that of preverbal subjects in non pro-drop languages like English. Thus, while clearly an A constituent in English, they have been argued to display mixed A and A-bar properties in Spanish. I will address these two issues in turn in section 2 below, where the syntax and the interpretation of pre- and postverbal subjects in English and Spanish will be analyzed in some detail.

- (1) a. Mary bought a book.
b. *bought Mary a book.

⁴⁸English allows postverbal subjects in two types of constructions: *Locative Inversion*, illustrated in (i) and discussed in chapter 8 of this dissertation, and *there*-insertion, illustrated in (ii) – see below.

(i) Down the road came a man.
(ii) There arrived a man yesterday.

(2) a. *María compró un libro.*

Mary bought(3sg) a book

‘Mary bought a book.’

b. *Compró María un libro.*

The relevance of the discussion of preverbal subjects for the research on EX becomes clear in the light of the two contrasts shown in (3) and (4).

(3) *A man came in who I didn't know.*

(4) a. *??/*Un hombre llegó ayer al que nadie conocía.*

a man arrived(3sg) yesterday to-the who nobody knew(3sg)

‘A man arrived yesterday that nobody knew.’

b. *Llegó un hombre ayer al que nadie conocía.*

(3) illustrates the fact that EX from a preverbal subject is possible in English. A similar sentence in Spanish is, however, unacceptable, (4a)⁴⁹. The unacceptability of this sentence cannot be attributed to a hypothetical general ban on EX from a DP subject in Spanish. If such a prohibition existed, (4b) should also be unacceptable, contrary to fact. The contrast in (4) above shows that only EX from preverbal subjects is deviant, a fact which is not totally unexpected given the topic-like behavior of these constituents. Spanish postverbal subjects, on the other hand, are A-constituents, just like English subjects generally. For this reason, it is not surprising that EX is allowed in both cases. In section 2.2.2, I will show that this parallelism is not exclusive of this operation but is also common to certain scope phenomena. It will likewise be shown that Spanish preverbal subjects behave as topics (at least in some contexts). It is, therefore, not totally unexpected that EX from a preverbal subject patterns with fronted topics. In this respect, it is interesting to compare (4a) with (5).

⁴⁹ EX from preverbal subjects is possible when the head noun is a focused or an emphatic DP, as in (i).

(i) a. *UN HOMBRE llegó ayer al que yo no conocía (no una mujer).*

a man arrived(3sg) yesterday to-the who I not knew(3sg) (not a woman)

‘A MAN arrived yesterday who I didn't know (not a woman).’

b. *OTROS vendrán después que lo harán mejor.*

others will-come(3pl) later who CL_{ACC} will-do(3pl) better

‘Others will come after that will do it better.’

For a discussion of data like (i), see below and chapter 9.

(4a) is also ameliorated, at least for some speakers, if a pause is inserted before the extraposed relative.

- (5) a. **Un restaurante no hay en esta calle que abra los domingos.*
a restaurant not there-is in this street which opens(subj) the Sundays
 ‘There isn’t a restaurant in this street that opens on Sundays.’
- b. **A linguist you’ll never find here who can speak three Balkan languages.*

The sentences in (5) illustrate that EX from a topicalized internal argument yields unacceptable results both in English and in Spanish, just as EX from a preverbal subject in the latter language. A full account of the interaction of EX with topicalization was provided in chapter 6.

In the light of the contrasts just reviewed, it is reasonable to assume that the derivation of preverbal subjects is different in the two languages under consideration. If Spanish subjects are indeed topics when they precede the verb, EX from this constituent should receive the same analysis proposed in the preceding chapter for EX from topics. This issue will be dealt with in section 4 below. But before addressing this question, it will be necessary to introduce the syntactic analysis of preverbal and postverbal subjects. This will be tackled in section 2. In the same section, evidence will be provided of the topic-like character of preverbal subjects in Spanish, as opposed to English. The chapter will continue with the presentation and discussion of EX data from the two languages, starting with English in section 3 and going on to Spanish in section 4. It has to be noted that an important part of the EX data that will be discussed (especially, the Spanish) have not been analyzed before. Finally, section 5 will close the discussion with the conclusions.

2. The syntax of subjects in English and Spanish

There is total consensus in the literature concerning the typology of English and Spanish: both are regarded as SVO languages. However, it is a well-established fact that preverbal subjects display different syntactic behaviors in the two languages. Thus, while preverbal subjects are very clearly A constituents in English, they have been argued to exhibit mixed A and A-bar properties in Spanish.

In this section, I will present the syntactic derivation standardly assigned to pre- and postverbal subjects both in English (section 2.1) and Spanish (2.2). In the process, different issues will be raised. One is the fact that the underlying structure of the SVO

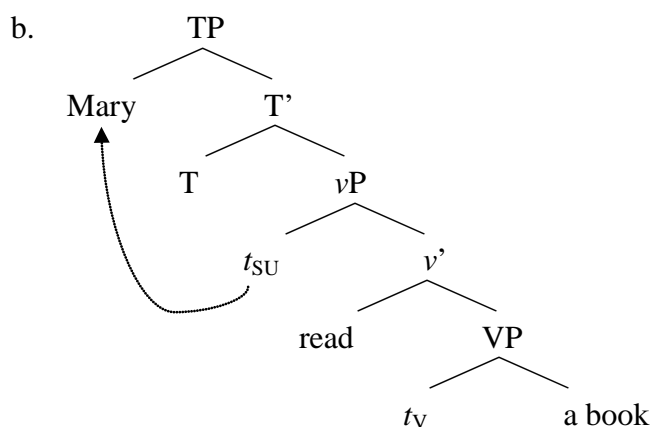
linearity in English is different from that of Spanish. This results from the parameterization of EPP checking. A related issue is the free distribution of subjects in Spanish and the fact, just mentioned, that preverbal subjects behave as topics.

2.1. English

2.1.1. English preverbal subjects

The claim that English is a SVO language is not surprising, given that this linear sequence is obligatory in declarative sentences. A sample derivation is shown in (6).

(6) a. Mary read a book



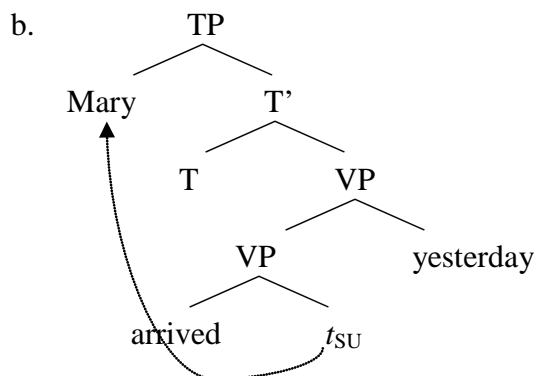
Base-generated in Spec v P, the DP subject moves to SpecTP to check the EPP feature on T. Following proposals in Emonds (1976) and Pollock (1989), it is standardly assumed that the lexical verb does not rise to T⁵⁰. The derivation of sentences headed by unergative and ditransitive predicates differs from (6) only in the internal structure of VP. Unergative predicates lack the internal argument (or possess an abstract object – see the analysis of unergatives as covert transitives in Hale and Keyser 1993), whereas ditransitives have a second object.

Sentences headed by unaccusative and passive predicates are different in as far as the base position of the subject is concerned, but not with respect to its final landing site. Thus, the subject of this type of predicates is base generated as a VP-internal argument and subsequently moves to SpecTP to check the EPP. The derivation is

⁵⁰Only *have* and *be* are assumed to rise to T.

illustrated in (7) with an unaccusative. Notice also that, in the absence of an external argument, no vP is projected.

(7) a. Mary arrived yesterday.



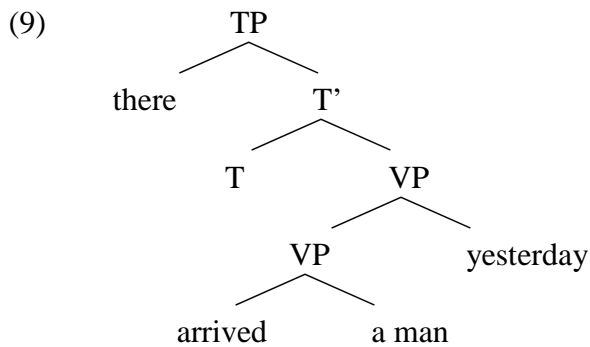
Although the subject is most often preverbal in English, there are at least two constructions in which it surfaces postverbally: *there*-insertion and *locative inversion* (LI). To them I turn directly.

2.1.2. English postverbal subjects

In constructions with *there*-insertion, the logical subject of the sentence – the DP *a man* in the datum in (8) – does not raise to SpecTP for EPP checking. The expletive *there* is inserted instead to satisfy this requirement.

(8) There arrived a man yesterday.

The derivation of this sentence is provided in (9). It is a standard assumption that the DP internal argument remains *in situ*. The case requirements of the lexical DP and the expletive are satisfied via an AGREE relationship with T (cf. chapter 4).



As to LI, illustrated in (10) below, the construction is characterized by the presence of an adverbial expressing place or direction in the leftmost position in the linear sequence. Fronting of this constituent, which is an argument, triggers inversion of the subject and the lexical verb. The derivation of LI is a matter of debate in the literature. I will not dwell on the idiosyncrasies of this construction at this point, as chapter 8 will be devoted to it.

(10) a. Along the road came a strange procession.

b. On the grass sat an enormous frog.

(Swan 1995)

After this brief presentation of the syntax of English subjects, I turn now to Spanish.

2.2. Spanish

The syntax of Spanish subjects is complicated by the free distribution they enjoy. The data in (11) show some distributional alternatives. Together with the SVO pattern, Spanish displays VSO, and VOS.

(11) a. *María compró el pan.* (SVO)

Mary bought(3sg) the bread

‘Mary bought bread’

b. *Compró María el pan.* (VSO)

c. *Compró el pan María.* (VOS)

SVO and VSO, shown respectively in (11a) and (11b), represent the two unmarked linear sequences of constituents in Spanish declarative sentences⁵¹. The sentence final subject in (11c) is necessarily stressed and interpreted as a narrow focus. Other linear sequences are also possible, as the internal argument can be fronted to achieve diverse discourse related effects, as shown in (12).

(12) a. EL PAN compró María.

the bread bought(3sg) Mary

‘THE BREAD Mary bought.’

b. El pan lo compró María.

the bread CL_{ACC} bought(3sg) Mary

‘The bread, Mary bought.’

In (12a), the fronted object is in a focus position – consequently, it is pronounced with heavy stress, as indicated by capital letters; in (12b), the object has been clitic-left-dislocated, hence the presence of the accusative clitic *lo* preceding the verb. In both sentences, the subject surfaces postverbally⁵².

The asymmetry in the positioning of the subject observed between English and Spanish (which is characteristic of null versus non-null subject languages quite generally) has sometimes been attributed to the parameterization of EPP checking, i.e. the two languages use different mechanisms to check the EPP feature on T. This issue will be analyzed in some detail in the following subsections.

⁵¹In other words, of all the linear sequences allowed in Spanish, only SVO and VSO can be appropriate answers to the question “*what happened?*”.

⁵²Notice also that the two arguments can be fronted for discourse related purposes.

(i) a. María, EL PAN compró (no los huevos).

Mary THE BREAD bought(3sg) not the eggs

‘Mary bought THE BREAD (not the eggs).’

b. El pan, María lo compró.

the bread Mary CL_{ACC} bought(3sg)

‘The bread Mary bought.’

A discussion of the syntax underlying these linear sequences is beyond the scope of this section. The interested reader is referred to Zubizarreta (1998) and Ordoñez (1997).

2.2.1. Postverbal subjects

In this section I will discuss the different linearities in which the subject follows the verb in Spanish. I will start with the one that represents – together with preverbal subjects – the unmarked linear ordering in the language: VSO.

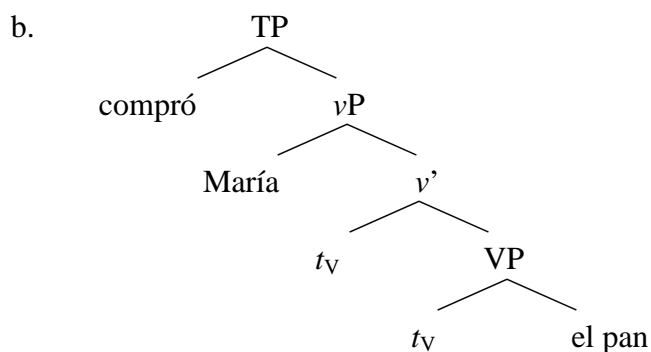
2.2.1.1. VSO

In the VSO linearity, the postverbal subject is assumed to occupy its base position: Spec_vP in the case of unergative, transitive and ditransitive predicates; V-complement position in the case of unaccusative and passive predicates (see, for instance, Rizzi 1997a and Bosque and Gutiérrez-Rexach 2008, who also consider alternative analyses). The derivation of these constructions is illustrated in (13) and (14) respectively.

(13) a. Compró María el pan.

bought(3sg) Mary the bread

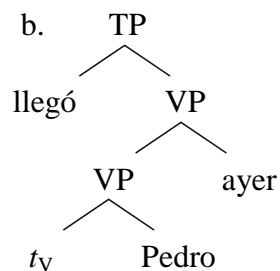
‘Mary bought the bread.’



(14) a. Llegó Pedro ayer.

arrived(3sg) Peter yesterday

‘Peter arrived yesterday.’



These tree diagrams differ from those representing the corresponding English sentences above ((6) and (7)) in that the verb reaches a higher position in Spanish – the T head – and the subject stays in situ⁵³. But if this derivation is on the right track and the subject does not abandon its base position, at least two questions emerge: (i) how is the EPP checked in Spanish? and (ii) how is the SVO order derived?

The answer to the first question is in the rich agreement (AGR) morphology expressed overtly on the verbal head in Spanish. I will assume (following Alexiadou and Anagnostopoulou 1998 and Ordoñez 1997, among many others) that EPP-checking succeeds via AGR raising (hence, V-raising) to T. In this type of analysis AGR is conferred pronominal status. According to Kempchinsky (2001), the AGR morphology has to include a D feature that will be responsible for EPP-checking, interpretable ϕ -features, and potentially Case. The verb will also discharge the external theta role on this pronominal AGR⁵⁴.

If the EPP is checked by AGR when the verb merges with the T head, raising the DP subject to SpecTP for the same purpose is not necessary. Given economy, a movement operation that is not required for feature checking will not take place. Consequently, the subject in (13) and (14) above has to stay in its base position.

⁵³ Evidence of the high position of V in Spanish is provided by adverb placement – as in (i) and (ii), from Ojea-López (1994) – and floating quantifiers – illustrated in (iii).

(i) a. El chico desarrolló lógicamente el argumento.

the boy developed(3sg) logically the argument

‘The boy developed the argument logically.’

b. *El chico lógicamente desarrolló el argumento.

Manner adverbs have been shown to occupy a relatively low position in the structure (see, for instance, Cinque 1999). The fact that the verb has to precede them indicates that it is in a high position. Higher adverbials (IP-adverbs), on the other hand, are allowed to precede the verb.

(ii) a. Juan inmediatamente llamó al director.

John immediately called(3sg) the principal

‘John called the principal immediately.’

b. Ese chico siempre llega a la misma hora.

that boy always arrives at the same hour

‘That boy always arrives at the same time.’

Taken together, these two facts locate the verb in the IP/TP-domain. Floating quantifiers point in the same direction.

(iii) Los alumnos vieron todos a la profesora.

the students saw(3pl) all to the teacher

‘All the students saw the teacher.’

If the quantifier is stranded in the canonical position of the subject (SpecvP), the verb (which precedes it) must have vacated the vP projection (cf. Sportiche 1988).

⁵⁴ Notice, however, that there is another line of research that advocates subject raising as the universal mechanism of EPP checking. This type of account has to explain how it is possible that subject raising is apparently optional, i.e. why SVO and VSO coexist in Spanish. One potential explanation would be that the subject in VSO orders raises covertly to SpecTP. The problem is that if subject raising can be covert, economy dictates that it will not be allowed to be overt. Another explanation is that *pro* is merged in SpecTP when the subject stays in postverbal position. For interesting discussion, see Sheehan (2007) and the references quoted there.

However, it is a fact that the subject can precede the verb in Spanish, i.e. that the SVO ordering exists in the language. Having just discarded the EPP as the driving force of subject raising, the question arises as to what triggers the movement operation that places the subject in sentence-initial position. I postpone the discussion of this issue to section 2.2.2 below, where I will deal with preverbal subjects.

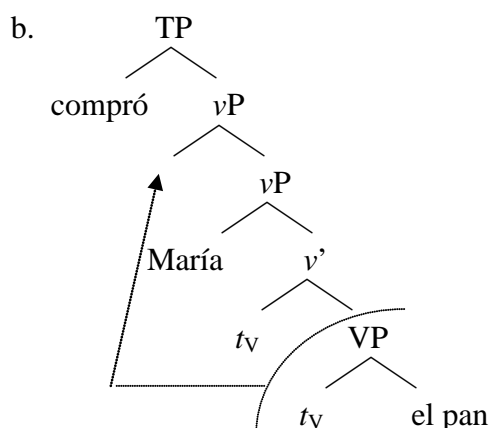
2.2.1.2. VOS

The subject in a sentence like (15a) below is obligatorily stressed and interpreted as a narrow focus. Given these two properties, Zubizarreta (1998) proposes that the linearity VOS is derived from VSO by a reordering rule dubbed *p-movement* (for ‘prosodic movement’). The tree diagram, adapted from Zubizarreta (1998), is provided in (15b).

(15) a. Compró el pan María.

bought(3sg) the bread Mary

‘Mary bought the bread.’



According to Zubizarreta (1998), VP moves to the left and adjoins to vP. The trigger of this movement operation is prosodic in nature. Zubizarreta (1998) regards *p-movement* as a mechanism that solves a conflict between the NSR (*Nuclear Stress Rule*) and the FPR (*Focus Prominence Rule*). Roughly, a focus constituent has to be stressed by the NSR, but stress is assigned under (asymmetric) c-command to the most deeply embedded constituent of the sentence. If the object stays in its base position, it receives NS in detriment of the subject. In order to correct this situation, the reordering mechanism is activated. The *p-movement* rule operates prior to Spell-Out in a very local

domain. What is interesting for the purposes of the present discussion is that the postverbal subject stays in its base position.

2.2.1.3. VS with object fronting

The sentences in (12) above, repeated here as (16), illustrate two different patterns of object fronting. In the first one, the object has been focalized, (16a), and in the second it has been clitic-left-dislocated, (16b).

(16) a. EL PAN compró María.

the bread bought(3sg) Mary

‘THE BREAD Mary bought.’

b. El pan lo compró María.

the bread CL_{ACC} bought(3sg) Mary

‘The bread, Mary bought.’

Just as I did above for other postverbal subjects, I will assume here that the subject is in its base position (SpecvP). In (16a), the verb raises to Focus via the T head, whereas the object occupies the SpecFocusP in the left periphery of the sentence (for the syntax of focus fronting, see chapter 9). In (16b), on the other hand, the verb raises only to T and the object is base-generated as a FiniteP adjunct (cf. the derivation of CLLD in chapter 6, section 2.2 of this dissertation). (17) shows the bracketed structures of these constructions.

(17) a. [_{FocusP} EL PAN [_{Focus'} compró [_{TP} t_V [_{vP} María [_{v'} t_V [_{VP} ...]]]]]]]]

b. [_{FiniteP} el pan [_{FiniteP} [_{TP} lo-compró [_{vP} María [_{v'} t_V [_{VP} ...]]]]]]]]

After discussing briefly the syntax of the different patterns of distribution of postverbal subjects, I turn now to Spanish preverbal subjects.

2.2.2. Preverbal subjects: SVO

In spite of surfacing in the same position, Spanish and English preverbal subjects do not behave syntactically alike. As mentioned above, only in English do they display the

properties of A-constituents. In Spanish, on the contrary, preverbal subjects are like topics. In sections 3 and 4 below I will show that this asymmetry extends to EX constructions. But now let me review some evidence of the A-bar status of preverbal subjects available in the literature (section 2.2.2.1). In section 2.2.2.2, I will provide a plausible syntactic derivation of the SVO linearity.

2.2.2.1. Spanish preverbal subjects are topics

The topic-like behavior of preverbal subjects in Spanish (and other null subject languages) has been stressed in the literature. In this section, I will review some evidence that shows that preverbal subjects are different from postverbal subjects (assumed to occupy an A-position) from a syntactic and an interpretive point of view. Consider first the following data from Uribe-Etxebarria (1995).

- (18) a. ¿A quién dices que amaba cada senador?
to whom say(2sg) that loved(3sg) each senator
‘Who do you say that every senator loved?’
b. ¿A quién dices que cada senador amaba?

The sentence in (18a), with a postverbal subject, may have either of the two interpretations in (19). Thus, the subject can take scope over the interrogative constituent giving rise to the reading in (19a); or *vice versa*, i.e. the *wh*-object can take scope over the quantified subject yielding the interpretation provided in (19b).

- (19) a. Every senator loves a different person. [subject wide scope]
b. All senators love the same person. [subject narrow scope]

When the subject surfaces preverbally, as in (18b), the reading in (19a) is no longer available. In other words, a preverbal subject can only receive a narrow scope reading in Spanish^{55,56}. Things are different in English. See (20), drawn from May (1985).

⁵⁵ Suñer (2003) argues against such a claim, a sign that scope facts in Spanish are complex and judgements unstable. According to Suñer (2003), preverbal subjects in Spanish are as ambiguous as they are in English. Thus, the sentence in (ia) may be assigned the two interpretations in (ib) and (ic). It is acknowledged, however, that the narrow scope reading in (ib) is preferred.

Preverbal subjects – the only option in this language – are ambiguous, just like postverbal subjects in Spanish (but see footnote 55).

(20) Whom do you say that every senator loves?

Interestingly, English topics pattern with preverbal subjects in Spanish in not allowing the wide scope reading. The sentence in (21a) can only have the interpretation in (21b). These sentences are taken from Fernández Fuertes (2001), quoting Lasnik and Uriagereka (1988).

(21) a. Someone thinks that *every problem* Mary solved.

b. Mary solved all problems. [narrow scope]

In (21a), the direct object has undergone topicalization in the embedded clause, which reduces the interpretation possibilities of the sentence to the narrow scope reading paraphrased in (21b). When the object surfaces in its canonical (postverbal) position, the sentence is ambiguous. The fact that Spanish preverbal subjects pattern with English topics (not with English subjects) has been taken to indicate that the two constituents have undergone similar processes, i.e. topicalization. The similarity between subjects in English and postverbal subjects in Spanish, on its part, has been interpreted as indicative of the A-status of the two constituents.

Abounding in the asymmetries between pre- and postverbal subjects, consider (22), discussed in Sheehan (2007).

(22) a. Todos los jugadores están convencidos de que ganarán ellos.

all the players are convinced of that will-win(3pl) they

‘All the players are sure that they will win.’

(i) a. Algún estudiante sacó prestado cada libro.

some student took (3sg) borrowed each book

‘Some student borrowed each/every book.’

b. Each book was borrowed by some student (or other).

c. Some (particular) student borrowed each book.

⁵⁶ It has to be noted that this result contradicts Alexiadou and Anagnostopoulou’s (1998) claim that preverbal subjects in Spanish are CLLD constituents. According to the two linguists, one of the main characteristics of CLLD constructions is that the dislocated phrase has unambiguously wide scope. This, however, does not seem to be true of preverbal subjects in Spanish, as discussed in the main text and in the preceding footnote. See Sheehan (2007) for a detailed discussion on the status of preverbal subjects in different Romance languages.

- b. Todos los jugadores están convencidos de que ellos ganarán.

These two sentences, which differ only in the position of the subject *ellos* ('they') in the embedded clause, receive different interpretations. Overt subjects in postverbal position (as in (22a)) are ambiguous between the two readings in (23)⁵⁷.

- (23) a. All the players think that they as a team will win. [correferential reading]
 b. For all players, it is true that x thinks x will win. [bound variable reading]

Preverbal subjects, on the other hand, are different in this respect, too. The sentence in (22b) can only be interpreted along the lines of (23a), i.e. preverbal subjects only admit the correferential reading. Just as topics, they cannot be bound. This asymmetry is readily captured by analyses that advocate the A-bar status of preverbal subjects.

In spite of all the pieces of evidence reviewed in this section, the fact cannot be overlooked that Spanish preverbal subjects have also been argued to display some properties of A-constituents. In the remainder of this section I will comment on some of them. Let me start with the sentences in (24) below, drawn from Goodall (1999). For the A-status of preverbal subjects in Romance, see also Rizzi (1982) and Koopman and Sportiche (1982).

- (24) Ayer fui al festival de cine, y vi una película acerca de
yesterday went(1sg) to-the festival of cinema and saw(1sg) a film about of
 Almodóvar₁.

Almodóvar

'Yesterday I went to the film festival and saw a film about Almodóvar.'

- a. Al director₂, lo vi una hora más tarde en un bar.

to-the director, CL_{ACC} saw(1sg) one hour more late at a bar

'The director, I saw an hour later at a bar.'

⁵⁷ Sheehan (2007) reports certain speaker-variation when it comes to accepting the bound reading of postverbal subjects.

b. El director_{1/2} es muy conocido⁵⁸.

the director is very known

‘The director is well-known.’

According to Goodall (1999) and Kempchinsky (2001), the topicalized DP in (24a) can only refer to the director of the film about Almodóvar. By contrast, the preverbal subject in (24b) can refer both to the director of the film about Almodóvar and to Almodóvar himself. This difference is, they say, unexpected if the preverbal subject is a topic. It is, however, not clear to me that the DP *el director* ('the director') can have the second interpretation just mentioned. This perception is shared by other native speakers I consulted, who could only understand the DP subject in (24b) as referring to the director of the film about Almodóvar. In conclusion, the contrast between (24a) and (24b) is not so robust as the discussion in Goodall (1999) and Kempchinsky (2001) seems to imply. At best, the interpretation of the sentences is subject to speaker-variation.

Another argument against the topic status of the preverbal subject put forward in Goodall (2001) is based on the contrast in (25).

(25) ¿Qué pasó?

what happened(3sg)

‘What happened?’

a. Juan me regaló el anillo en el parque.

John me gave(3sg) the ring in the park

‘John gave me the ring in the park.’

b. #En el parque me regaló el anillo.

in the park me gave(3sg) the ring

‘In the park he gave me the ring.’

While a sentence starting with a preverbal subject may be used as an appropriate answer to the question ‘*what happened?*’, a sentence with a topicalized XP cannot. If the subject in (25a) were a topic, one would expect this sentence to be as infelicitous in this

⁵⁸ Kempchinsky (2001) suggests the alternative in (i) for (24b) arguing that the context of a copula may not be entirely appropriate to obtain the required interpretation. I can see, however, no difference between the two examples as concerns the interpretation of the subject. In the two cases, the only interpretation readily available to me is the one in which the DP refers to the director of the film about Almodóvar.

(i) El director_{1/2} ganó un premio muy importante.

the director won(3sg) a prize very important

‘The director was awarded a very important prize.’

context as (25b), contrary to fact. Although it is true that the sentence in (25b) is not an appropriate answer to this question, it is also true that sentences with topicalized constituents are not completely excluded in this type of context. One case in point is (26) (Valmala Elguea, p.c.).

(26) a. ¿Qué ha pasado?

what has happened

‘What happened?’

b. Que a Luis lo ha atropellado un coche.

that to Luis CL_{ACC} has run-over a car

‘That Luis has been run over by a car.’

The acceptability of (26b) shows that a sentence with a topicalized constituent can be used in this type of context, which weakens Goodall’s argument for the A-status of the preverbal subject. It has to be noted that answers to the question ‘*what happened?*’ in Spanish are usually introduced by a complementizer, as in the preceding example. The absence of this element in (25) makes even the (a) example sound unnatural.

Consider finally topic-island effects as those illustrated in (27). The examples have been drawn again from Goodall (2001).

(27) a. *¿A quién crees que el premio se lo dieron?

to whom think(2sg) that the prize CL_{DAT} CL_{ACC} gave(3pl)

Lit. ‘?/?*To whom do you think that the prize they gave?’

b. ¿A quién crees que Juan le dio el premio?

to whom think(2sg) that John CL_{DAT} gave(3sg) the prize

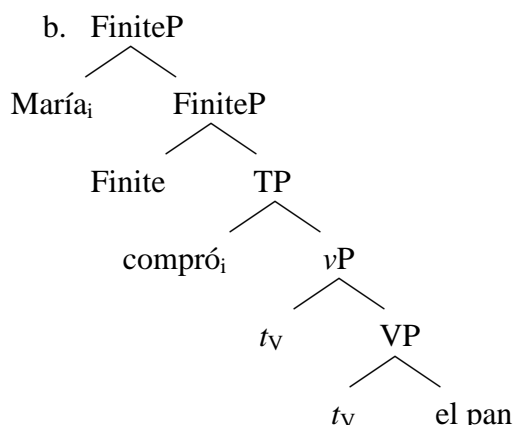
‘Who do you think that John gave the prize to?’

According to him, clauses with fronted topics are islands for extraction, whereas clauses with preverbal subjects are not. This fact indicates that the two constituents cannot have the same status. If it is the presence of an A-bar constituent that blocks extraction in (27a), the subject in (27b) must have A-status. The sentence in (28) is, however, a counterexample to Goodall’s data.

- (30) a. Los libros los compró María.
the books CL_{ACC} bought(3sg) Mary
 ‘The books, Mary bought.’
- b. A Pablo le regaló María una flor.
to Paul CL_{DAT} gave(3sg) Mary a flower
 ‘Peter, Mary gave a flower to.’

As was discussed in the preceding chapter, CLLD objects are doubled by a clitic pronoun that surfaces preceding the verb. However, since Spanish lacks nominative clitics, following Alexiadou and Anagnostopoulou (1998), I will assume that the correlate of the dislocated DP is the agreement morphology on the verb, which is conferred pronominal status, as mentioned above⁵⁹. The two elements form a base-generated dependency in the sense of Cinque (1990). This relationship is marked with sub-indices in the representation in (31) below. See section 2.2 in the preceding chapter for more details concerning CLLD. The representation of a simple SVO sentence is provided in (31b). I will continue to represent CLLD topics as adjuncts to the FiniteP projection, as I did in chapter 6.

- (31) a. María compró el pan.
Mary bought(3sg) the bread
 ‘Mary bought bread.’



⁵⁹ As far as the correlate of the fronted subject is concerned, three are the proposals available in the literature: (i) AGR, expressed morphologically on the verb (see the strong hypothesis of Alexiadou and Anagnostopoulou 1998), (ii) a null pronominal in SpecvP, and (iii) a combination of (i) and (ii) (see for example, Barbosa 1995 and the weak version of Alexiadou and Anagnostopoulou 1998). The partial structure is represented in (i), where we can see the three elements involved: preverbal subject, verbal head with AGR morphology and null pronoun.

(i) [_{FiniteP} María_i [_{FiniteP} compró_i [_{vP} pro_i [_v t_v ...

Analyses of preverbal subjects in terms of CLLD argue against the projection of the SpecTP on the grounds that it is not necessary, once it is assumed that the EPP feature is checked by head-to-head movement of the verbal head to T (cf. Contreras 1991, Olarrea 1996, Ordoñez 1997, for Spanish, and Alexiadou and Anagnostopoulou 1998 for Greek). Similarly, SpecvP will only be projected in those analyses that posit the presence of a null pronominal correlate in that position (see footnote 59 above).

After this brief presentation of the syntactic configurations of all the subjects (pre- and postverbal) in Spanish and English, we can turn to consider EX data. For ease of exposition, I will discuss the two languages separately. In section 3 I will deal with EX from English subjects, in section 4 with EX from Spanish subjects.

3. EX from DP subjects in English

3.1. *The data*

The sentences in (32) and (33) illustrate EX from the subject of declarative sentences headed by different types of predicates: monoargumental predicates in (32) – which includes an unaccusative (32a), a passive (32b) and an unergative (32c) – and pluriargumental predicates in (33) (transitive). (32c) has been drawn from Culicover and Rochemont (1990), (33) from Göbbel (2006). The reader will notice that some of the examples that follow have already been discussed in chapter 5 section 3, where they were used to assess the role of focus as the potential trigger of EX. For this reason, I will be concise here and refer the reader to chapter 5 for details.

(32) a. *A man came in with blue eyes.*

b. *A book was published last week that dealt with global dimming.*

c. *??A man screamed who wasn't wearing any clothes.*

(33) a. **A man shot a lawyer from the Cosa Nostra.*

b. **A agent shouted at me from the FBI.*

Given the grammaticality judgments in (32) and (33), a line can be drawn that separates sentences headed by unaccusative and passive predicates, which are perfectly acceptable, from sentences headed by other types of predicates (basically, unergatives

and transitives), which are degraded. At this point it has to be clarified that the grammaticality judgments provided for (32c) and (33) are those assigned to these sentences by the authors who discussed them originally. As will be shown below, the perception of these sentences – as opposed to those in (32a) and (32b) – is not uniform across speakers and seems to be dependent on extra-syntactic factors such as context of utterance and familiarity.

In the extensive literature on EX in English, it has often been noted that EX(SU) is particularly felicitous when the VP is headed by an unaccusative predicate, as in (32a). As already discussed in chapter 5, Guéron (1980) explained this state of affairs by appeal to the presentational character of such sentences. Thus, (32a) expresses the appearance of the entity designated by the DP subject (*a man with blue eyes*) in the world of discourse. The subject is the informational focus and is marked with intonational prominence. These semantic and intonational properties seem to build the perfect environment for EX⁶⁰.

The following examples from Guéron (1980) seem to point in the same direction: it is not the internal structure of the predicate that matters but rather its semantics (and/or intonational properties).

(34) a. A book by Chomsky was making the rounds.

b. *A book* was making the rounds *by Chomsky*.

The acceptability of (34b) contrasts with the degraded status of (33) above. In both cases, the sentences are headed by transitive predicates. It seems, therefore, that the contrast in acceptability cannot be attributed to the internal structure of the predicate. What is different in (34), with respect to (33), is that the verb and the object combine to

⁶⁰ The contrast observed between (32a,b) and (32c) was, at a certain point, attributed to the different internal structure of the predicates involved. The DP source of the EC is the internal argument of unaccusative/passive predicates (generated as V-complement), but the external argument of unergatives (generated in SpecvP). In the light of this structural difference and the contrast in acceptability illustrated in the main text, Coopmans and Roovers (1986) and Rapoport (1984), among others, claimed that EX(SU) had to be analyzed as EX(OB). Another implication of this type of proposal is that EX(SU) as such does not exist. This conclusion was contested, among others, by Culicover and Rochemont (1990), who showed that EX can actually target an external argument. This point will be confirmed by the data presented in the remainder of this section. It has to be noted, however, that Culicover and Rochemont (1990) do not provide evidence against the claim that EX from the surface subject of passive and unaccusative predicates is EX(OB), an assumption that I adopt in this dissertation.

form a verbal complex and the resulting semantic unit is a pragmatic synonym of *appear*. This is, according to Guéron (1980), what makes EX available in this case. From the argumentation in Guéron (1980), it can be concluded that the conditions that determine the availability of EX go beyond syntax into the realms of discourse context. The same conclusion is pervasive in the literature.

Turning now to sentences headed by unergative predicates, Culicover and Rochemont (1990) show that the deviance of (32c) above – repeated here for convenience as (35a) – disappears when the sentence is embedded in a context such as (35b). Embedding the sentence in an appropriate context forces the assignment of a marked intonational contour which involves, in this case, contrastive stress on the subject and distressing of predicate and adverb. It has to be noted that some informants consulted during the preparation of this dissertation could accept (35a), and similar sentences, even in out of the blue contexts.

(35) a. ??*A man screamed who wasn't wearing any clothes.*

b. Suddenly there was the sound of lions growling. Several women screamed. Then
a man screamed who was standing at the very edge of the crowd.

The conclusion that can be drawn from sentences like (35) is that their degraded status is due to the fact that EX is incompatible with the neutral stress pattern assigned to these sentences in out-of-the-blue contexts, where the nuclear stress falls on the predicate. When the sentences are embedded in a suitable context, stress shifts to the subject. The new contour departs from the unmarked one and is crucially very similar to that of presentational sentences such as that in (32a). By the same token, sentences headed by unaccusative predicates are acceptable even when provided in isolation because stress falls on the subject in the unmarked case. The relationship between stress and EX has been explored in a number of papers, among them Guéron (1980), Rochemont (1986), Culicover and Rochemont (1990), Huck and Na (1990), Truckenbrodt (1995, 1999), Göbbel (2006), and Maynell (2008). See also chapter 5 section 3.

The relevance of stress is also perceived in sentences headed by transitive predicates, but it will be shown that other factors conspire in this case to allow or ban EX. Consider the sentences in (36).

- (36) a. *A MAN/*A man shot a lawyer yesterday from the Cosa Nostra.*
b. *AN AGENT/*An agent shouted at me from the FBI.*

These data are provided by Göbbel (2006) to illustrate that EX from the subject of transitive predicates is unacceptable only with a neutral (unmarked) intonation. Thus, once the subject is stressed in the appropriate context, the sentences become acceptable. The facts do not seem to be so straightforward, though. A certain amount of speaker-variation arises when it comes to accepting EX in these constructions. While some speakers are ready to accept EX from external arguments, as in the three sentences in (35a) and (36a,b) above, others are more reluctant⁶¹. There are speakers that do not accept or reject the three sentences *en bloc*. Thus, (36a), for example, was judged unacceptable by speakers that could accept (36b). In order to make sure that it was not the easier construal with the object that was blocking the intended interpretation, I modified the sentences along the lines shown in (37).

- (37) a. *A man shot a DA / Peter yesterday from the Cosa Nostra.*
b. *A man shot Peter yesterday that was hired by his wife.*

In (37a), construal of the extraposed PP with the object produces the rather incoherent phrases *a DA from the Cosa Nostra* and *Peter from the Cosa Nostra*. It was expected that the problematic link with the closest DP (the object in this case) would force the intended construal with the subject. However, degradation persists and the link with the subject cannot be established. As to (37b), since the relative heaviness of the extraposed constituent and the intervening material has sometimes been mentioned as a factor playing a role in the availability of EX, the extraposed PP was substituted with a relative clause in this sentence. This change, however, did not affect the perception of acceptability of those speakers that rejected the sentence (nor that of the speakers that accepted it).

The familiarity of the phrase *an agent from the FBI*, together with the impossible construal with the object (**me from the FBI*), probably contributes to facilitating the link with the stressed subject in (36b), making the sentence acceptable even to those that reject the structurally identical (in the relevant respects) (36a). This type of variability is

⁶¹ The results reported here were obtained in informal consultation with native speakers. Quantitative research is required to clarify the issue.

a clear indication that factors other than the purely syntactic are at play in these constructions. Stucky (1987) speaks of an *adjacency* effect in the interpretation of post-head modifiers to the effect that these tend to be construed with the nearest potential antecedent. A similar constraint is presented in Altman (1981) and Inaba (2007). From this point onwards, I will refer to Stucky's *adjacency* effects as *closeness effects* to avoid confusion with more standard uses of the term 'adjacency'.

Notice also that a sentence like (38) below (provided by Valmala Elguea, p.c.) is fully acceptable, in spite of the fact that the relative extraposed from the subject is adjacent to the internal argument. In this case, however, the relative pronoun *who* (i.e. the form that requires a [+human] antecedent) cannot refer back to *the message* ([-human]). The interpretation of the sentence would also be deviant, as a message cannot receive any training. The relative length of the extraposed constituent, when compared with the intervening material, may also facilitate the acceptability of EX(SU) in this case. It is possible that the combination of these (and perhaps other, non-syntactic) factors is responsible for the acceptability of (38) even out of a context.

(38) *Three women* deciphered the message *who had never received any training in code-breaking techniques*.

Ditransitive predicates are rarely present in the discussion of EX(SU). To the best of my knowledge data like those in (39) and (40) below are discussed here for the first time. Despite the intervention of the direct object, the sentence in (39) is acceptable. Some speaker variation was found in this case, too, but no speaker felt inclined to reject the sentence completely. It is true that the presence of the adverbial increased its acceptability, as did the insertion of a slight pause (or some prosodic inflection) before the relative, which conferred the EC an afterthought flavor.

(39) *A man* gave me a book (yesterday) *who liked Steinbeck*.

In (40) below, two passive sentences headed by a ditransitive predicate are provided. In the first, the direct object has become the subject of the passive, in the second the indirect object. As can be seen, in both cases it is possible to apply EX(SU).

- (40) a. *A book* was given to Peter yesterday *about global warming*.
b. *Someone* was given an interesting book last week *who liked Steinbeck*.

Before closing this section, it is worth looking at EX(SU) in one of the few contexts in which the subject follows the verb in English: *there-insertion* constructions. A relevant example is provided in (41). Its acceptability shows that EX from postverbal subjects in English is acceptable.

- (41) There arrived *several reports* yesterday *that clearly support your analysis of the facts*.

Summarizing the results in this section, the data indicate that the lexical constraint on EX(SU) to the effect that this operation is only possible when the sentence is headed by certain types of predicates (initially, only unaccusative and passive) does not have an empirical basis. Thus, it has been shown that EX can also target the subject of other predicates (unergative, transitive and ditransitive) but in these cases extra-syntactic factors were shown to play a role in the acceptability of the final sentence. In other words, it appears to be the case that EX(SU) is, in principle, available in all sentences, acceptability being determined by a series of factors that go beyond syntax proper, among them are the context of utterance, the prosodic contour, familiarity and questions relating to parsing (e.g. *closeness effects*).

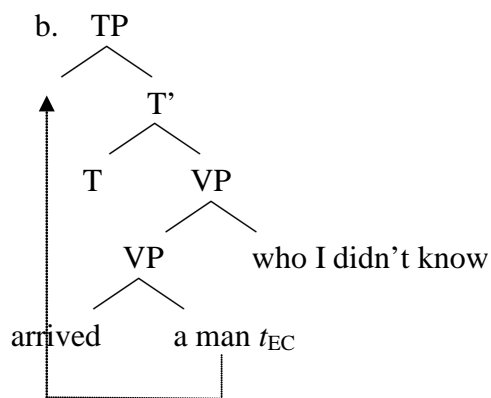
3.2. *The syntax*

In traditional analyses of EX, the EC(SU) is assumed to be right-adjoined to IP/TP, which is the minimal maximal projection containing the source DP (Baltin 2006). When the subject was assumed to be base generated in SpecIP/TP this was the only possibility. However, things changed when the VP-internal subject hypothesis entered the picture (see Zagana 1982, Speas 1986, Contreras 1987, Sportiche 1988 and Koopman and Sportiche 1991, among many others). If a subject is base generated in SpecvP (or V-complement position, in the case of unaccusatives and passives) to later move to SpecTP, the question arises as to whether EX operates on the position of first merge or on the derived position. Even though there is clear evidence that EX can target a DP in

its base position (this is what happens in EX(OB)), the assumption that EX(SU) takes place when the subject is in SpecTP has not been questioned.

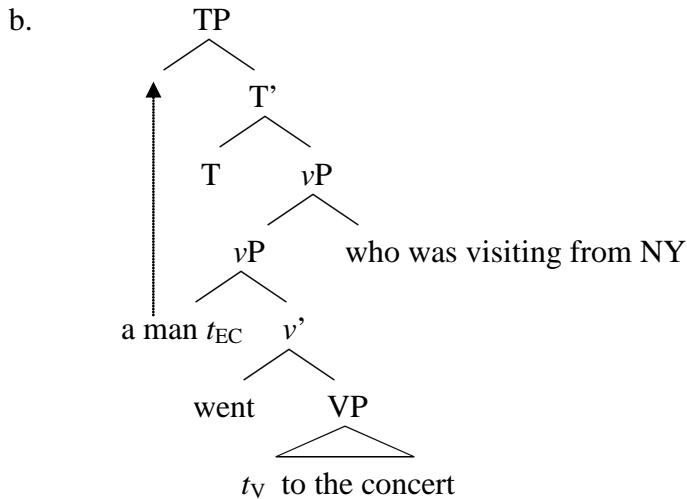
As SpecTP is a freezing position (cf. Ormazabal, Uriagereka & Uribe-Etxebarria 1994, Takahashi 1994, Stepanov 2001, Rizzi 2006, among many others), in chapter 5 section 4, I concluded that EX operates in the domain of vP/VP . For EX(SU) this means that the modifier abandons the DP before this raises to SpecTP. One consequence of this conclusion is that, in sentences headed by unaccusative and passive predicates, EX from the DP subject has to be analyzed as an instance of EX(OB). The derivation of a simple sentence would be roughly as in (42). As can be seen, the EC remains in the VP domain, which is the local domain of the head noun.

(42) a. *A man arrived who I didn't know.*



The subject of predicates other than unaccusatives and passives is base-generated as Specifier of vP , the extended projection of VP. (43) provides illustration of a sentence headed by an unergative predicate.

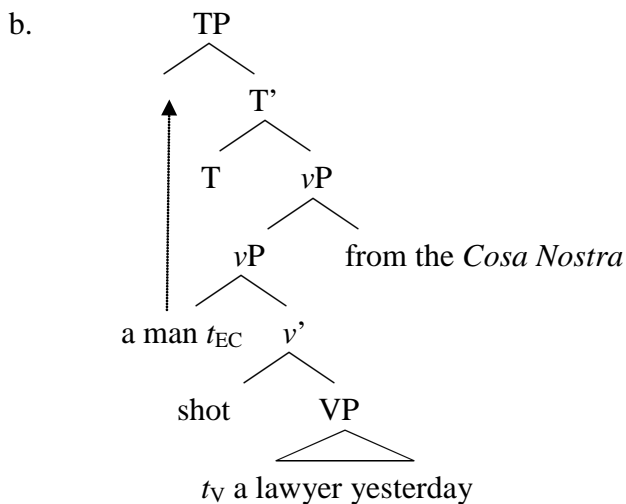
(43) a. *A man went to the concert who was visiting from NY.*



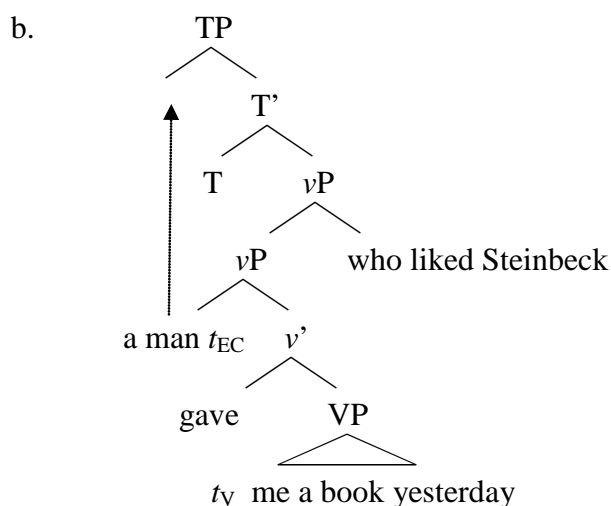
Again the EC remains in the same domain as the head noun, in this case vP . Notice that, after application of EX, in both (42) and (43), the subject (containing a trace of the EC) has to raise to SpecTP to check the EPP feature on T. As strict cyclicity is being assumed, the fact that the silenced copy of the EC (t_{EC}) ends up in a higher position than the pronounced copy is not problematic. This is due to the fact that this copy/trace is licensed in vP/VP , i.e. before the DP moves to SpecTP. From its VP/ vP -adjoined position the EC c-commands the DP sister of V/ v , thus licensing the trace (or silenced copy).

(44) and (45) illustrate EX from the subject of a transitive and a ditransitive predicate, respectively.

(44) a. *A man shot a lawyer yesterday from the Cosa Nostra.*



(45) a. *A man gave me a book yesterday who liked Steinbeck.*

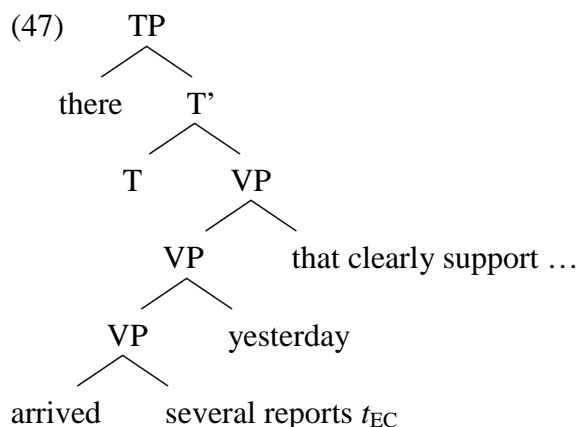


I will assume that EX is freely available from the DP in its base position. Other – often extra-syntactic – factors may intervene, yielding unacceptable sentences. Recall for instance that the presence of other DP arguments between the EC and its head noun may lead to unacceptability (*closeness effects*). Such intervention effects appear to be related, in some cases, to the presence of [+focus] on a specific DP. Thus, when a sentence like (44) is uttered with neutral intonation out of a context, the EC tends to be interpreted as a modifier of the closest DP (the direct object in (44)), which is the constituent associated with a [+focus] feature in the informationally neutral variant of the sentence. The clause will, consequently, be parsed as a case of EX(OB), with the EC adjoined to VP, and the interpretation *a lawyer from the Cosa Nostra*. When the sentence is embedded in a context that requires a focalized subject, construal of the EC with this constituent becomes possible. Similarly, in (45), the EC would be construed with *a book* yielding an incoherent reading (in which a book likes Steinbeck) and a grammatical mismatch (the relative *who*, [+human], cannot have a [-human] antecedent). Again, focalization of the subject makes the intended construal of the EC with the DP subject possible.

Let me now turn briefly to the derivation of EX from postverbal subjects. The example used in (41) above to illustrate the relevant construction is repeated here for convenience.

(46) *There arrived several reports yesterday that clearly support your analysis of the facts.*

As this sentence is headed by an unaccusative predicate, the subject is generated VP internally. Since *there* is inserted in SpecTP to check the EPP, the DP subject will remain in its base position throughout the derivation. The parser is shown in (47).



In this section, I have assumed that EX(SU) operates in the VP/vP domain adjoining the EC to VP in the case of unaccusative and passive predicates, to vP in the case of other predicate types. It has also been my contention that EX(SU) is freely available. The sentences that are perceived as deviant can be ruled out on the basis of a variety of factors, one of them being *closeness effects*.

4. EX from DP subjects in Spanish

Let me start this section by recalling some of the results obtained up to now. In section 2.2 above, it was shown that Spanish DP subjects enjoyed a rather free distribution in the sentence. It was also shown that, when they precede the verb they are interpreted as A-bar topics. When they follow the verbal head, on the other hand, they are A-constituents. In what follows, I will show that this asymmetry has a bearing on EX.

In chapter 6, I concluded that EX from topicalized constituents is excluded both in English and Spanish (unless the fronted DP bears a [+contrastive] feature). This is illustrated in (48).

(48) a. **A soldier she met at the party that she really likes.*

b. **Al lingüista no lo encontrarás aquí que habla/ hable tres lenguas
to-the linguist not CL_{ACC} will-find(2sg) here who speaks/ speaks(subj) three languages
balcánicas.
Balkan*

Lit. ‘*The linguist you won’t find here who speaks three Balkan languages.’

Finally, in the preceding section, we saw that EX from DP subjects in English – which are overwhelmingly preverbal and behave as A-constituents – is generally possible. In the light of the facts just reviewed, several expectations arise concerning the availability of EX(SU) in Spanish. First, given that preverbal subjects are topics in this language, EX is expected to be impossible from this constituent. Second, as postverbal subjects are A-constituents, EX should be possible. It is the aim of this section to find out whether these expectations are borne out by the data. All the examples that I will use to illustrate EX(SU) in Spanish are discussed here for the first time. The first set of data that I will consider is made up of sentences headed by monoargumental predicates. Thus, (49a) through (49c) illustrate respectively EX from the subject of an unaccusative, a passive and an unergative predicate.

- (49) a. **Unos paquetes* llegaron ayer por la tarde *que contenían todas*
some parcels arrived(3pl) yesterday in the afternoon which contained(3pl) all
las pruebas forenses.
the evidence forensic
‘Some parcels arrived yesterday afternoon which contained all the forensic evidence’
- b. **Un libro* se ha publicado / fue publicado el año pasado *que escribió*
a book CL_{PASS} has published / was published the year past which wrote(3sg)
Chomsky en los años 70.
Chomsky in the years 70
‘A book was published last year which Chomsky wrote in the 70s.’
- c. **Varios inmigrantes* trabajan en esta obra *que no tienen los papeles*
several immigrants work(3pl) in this building site who not have(3pl) the papers
en regla.
in order
‘Some immigrants are working in this building site who do not have their papers in order.’

All three sentences are unacceptable, a result that is in tune with the unacceptability of EX from topics in both Spanish and English. Recall that, in chapter 6, the unacceptability of EX from a topicalized constituent was put down to the presence of a

strong [+topic] feature in the matrix of the sentence-initial DP. The same account extends to Spanish preverbal subjects. EX facts could therefore be interpreted as confirmation of the topic-like character of preverbal subjects in Spanish. The deviance of the (a) and (b) examples is all the more significant because sentences headed by unaccusatives and passives have been shown to be ‘EX-friendly’ environments.

The question that arises now is whether the parallelism between Spanish postverbal and English preverbal subjects (both A-constituents) is also observed. If this is the case, EX is expected to be as possible from Spanish postverbal subjects as it is from English preverbal subjects. The expectation is borne out by the data, as shown in (50)⁶².

- (50) a. Llegaron *unos paquetes* ayer por la tarde *que contenían todas*
arrived(3pl) some parcels yesterday in the afternoon which contained(3pl) all
las pruebas forenses.
the evidence forensic
 ‘Some parcels arrived yesterday afternoon which contained all the forensic evidence.’

⁶² Uriagereka (1988) reports similar asymmetries in the case of leftward extraction from a subject DP. He notices (a) that extraction from the subjects of unaccusatives is better than from the subjects of (in)transitives and (b) that extraction from postverbal subjects is better than from preverbal subjects. The examples he provides are given in (i) and (ii).

- (i) a. ¿De qué artistas han llegado ya las obras _?
of what artists have(3pl) arrived already the works
 ‘Which artists have the works of arrived?’
 b. ?? ¿De qué artistas han herido tu sensibilidad las obras _?
of which artists have(3pl) hurt your sensitivity the works
 ‘Which artists have the works of hurt your sensitivity?’
- (ii) ¿De qué conferenciantes te parece que ...
of what speakers to-you seems that ...
 ‘Which speakers does it seem to you that ...’
 a. ... me van a impresionar las propuestas _?
me go(3pl) to to-impress the proposals
 ‘... the proposals will impress me?’
 b. ?*las propuestas _ me van a impresionar?
the proposals me go(3pl) to to-impress
 ‘... the proposals will impress me?’

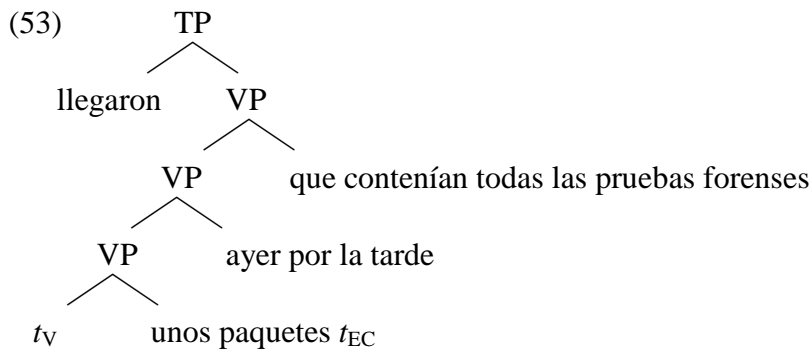
These results suggest that the asymmetry between pre- and postverbal subjects with respect to extraction is a general property of the language.

- b. Se ha publicado / Fue publicado *un libro* el año pasado *que escribió*
CL_{PASS} has published / was published a book the year past which wrote(3sg)
Chomsky en los años 70.
Chomsky in the years 70
 ‘A book was published last year which Chomsky wrote in the 70s.’
- c. Trabajan *varios inmigrantes* en esta obra *que no tienen los papeles*
work(3pl) some immigrants in this building site who not have(3pl) the papers
en regla.
in order
 ‘Some immigrants are working in this building site who do not have their papers in order.’

The same contrast between pre- and postverbal subjects is reported in Chesi (2009) for Italian, as illustrated in (51) and (52).

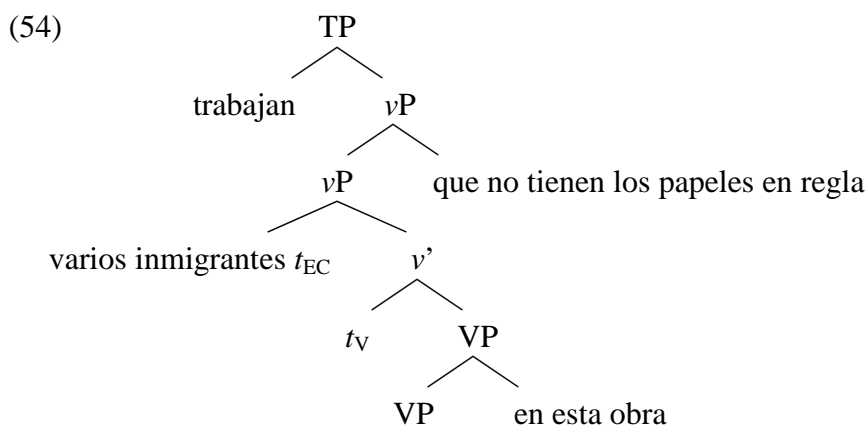
- (51) a. **Un libro è uscito di Chomsky /che è stato scritto da Chomsky.*
a book has appeared of Chomsky / which has been written by Chomsky
 ‘It appeared a book yesterday by Chomsky/which was written by Chomsky.’
- b. **Un libro è stato pubblicato ieri che è stato scritto da Chomsky.*
a book has been published yesterday which has been written by Chomsky
 ‘A book was published yesterday that was written by Chomsky.’
- c. **Un amico ha parlato di Gianni/ che ho visto ieri.*
a friend has spoken of John whom have(1sg) seen yesterday
 ‘A friend spoke yesterday of John/whom I have seen yesterday.’
- (52) a. *È uscito un libro ieri di Chomsky/che è stato scritto da Chomsky.*
 b. *È stato pubblicato un libro ieri che è stato scritto da Chomsky.*
 c. *Ha parlato un amico ieri di Gianni.*

If EX takes place when the DP is in its base position, as I proposed in chapter 5, adjoining the EC to the minimal maximal projection containing the head noun, the parser of a sentence like (50a) would be as in (53) below.



This representation is different from its English counterpart in (42) above in two respects: (i) the AGR morphology in V checks the EPP via V-raising to T, and (ii) since the subject does not have to rise for this purpose, the Spec of TP is not projected. Apart from this, the two languages behave alike in as far as EX is concerned.

As to the other monoargumental predicates considered above, unergatives, their subject is standardly analyzed as a true external argument, i.e. it is base-generated in Spec_vP. EX will therefore apply in this domain adjoining the EC to _vP, as illustrated in the parser in (54), which represents the structure of (50c).



From the data on monoargumental predicates in Spanish, it can be concluded that EX is allowed from the postverbal subject of unaccusative and unergative predicates, but not from preverbal subjects, a fact that comes to confirm their different status. It has to be noted, however, that, although unacceptable in many cases, EX from a preverbal subject is not totally excluded in Spanish. Compare (49) above with (55).

- (55) a. *Algunos aparecieron después que no dijeron más que mentiras.*
some appeared(3pl) later who not said(3pl) more than lies
 ‘Some appeared later who told nothing but lies.’

b. *Otros vendrán que lo harán mejor.*

others will-come(3pl) who CL_{ACC} will-do(3pl) better

‘Others will come who will do it better.’

c. *Otros vinieron que cruzaron las líneas más radicales de la atrocidad y*

*others came(3pl) who crossed(3pl) the lines more radical(pl) of the atrocity and
la barbarie⁶³.*

the barbarism

‘Others came who crossed the most radical lines of atrocity and barbarism.’

The subjects of the sentences in (55) are, however, different from those in (49). The difference that is relevant for the availability of EX is the fact that the subjects in (55) are either contrastively focused (56b,c) or emphatic (56a). As will be seen at some length in chapter 9, EX is possible from such preverbal subjects.

Turning now to pluriargumental predicates, it is expected that the same asymmetry between pre- and postverbal subjects arises in this case. Besides, the presence of another argument in the structure can be expected to have some effect on the application of EX (that is, if anything like the *closeness effects* detected by Stucky 1987 exists in Spanish). Consider in this respect the data in (56) to (58), where each set of sentences illustrates a different linear sequence: (56) SVO, (57) VSO and (58) VOS.

(56) a. **Un alto cargo presentará mañana su dimisión (su dimisión*

*a high-ranking official will-tender(3sg) tomorrow his resignation (his resignation
mañana) que está implicado en un escándalo de corrupción.*

tomorrow) who is involved in a scandal of corruption

‘A high-ranking official will resign tomorrow who is involved in a scandal of corruption.’

b. **Un estudiante dio ayer una conferencia de último año de doctorado/*

*a student gave(3sg) yesterday a lecture of last year of PhD
que se encuentra en su último año de doctorado.*

who CL_{refl} finds in his last year of PhD.

‘A student gave a lecture yesterday (who is) in the final year of his PhD.’

⁶³ From <http://blogs-lectores.lavanguardia.com/colaboraciones/tiempo-para-la-paz>
[Last accessed on 14/1/2013]

(57) a. *Mañana presentará un alto cargo su dimisión que está implicado
 tomorrow will-tender(3sg) a high-ranking official his resignation who is involved
 en un escándalo de corrupción.

in a scandal of corruption

b. *Ayer dio un estudiante una conferencia de último año de doctorado/
 yesterday gave(3sg) a student a lecture of last year of PhD
 que se encuentra en su último año de doctorado.

who CL_{refl} finds in his last year of PhD.

(58) a. ?Presentará su dimisión un alto cargo mañana que está implicado
 will-tender(3sg) his resignation a high-ranking official tomorrow who is involved
 en un escándalo de corrupción.

in a scandal of corruption

b. ?Dio una conferencia un estudiante ayer de último año de doctorado/
 gave(3sg) a lecture a student yesterday of last year of PhD
 que se encuentra en su último año de doctorado.

who CL_{refl} finds in his last year of PhD.

As in the case of sentences headed by monoargumental predicates, EX(SU) is not allowed when the subject precedes the verb⁶⁴. Notice, however, that unacceptability persists when the subject appears in postverbal position in sentences like (57). The problem here arises from the intervention of the direct object. Thus, the EC tends to be interpreted as a modifier of this DP, which is linearly closer than the intended head

⁶⁴ It has to be noted, however, that the sentences in (56) are unacceptable even with a focal subject, (i).

(i) a. *UN ALTO CARGO presentará mañana su dimisión (su dimisión mañana)
 a high-ranking official will-tender(3sg) tomorrow his resignation (his resignation tomorrow)
 que está implicado en un escándalo de corrupción.

who is involved in a scandal of corruption

‘A high-ranking official will resign tomorrow who is involved in a scandal of corruption.’

b. *UN ESTUDIANTE dio ayer una conferencia de último año de doctorado /que se
 a student gave(3sg) yesterday a lecture of last year of PhD who CL_{refl}
 encuentra en su último año de doctorado.

finds in his last year of PhD.

‘A student gave a lecture yesterday (who is) in the final year of his PhD.’

In these sentences some factor (other than the topichood of the source DP) has a bearing on the unacceptability of EX(SU). I propose that this factor is no other than the *closeness effects* arising from the presence of the object between the head noun and the EC. That this explanation may be on the right track is supported by the data in (57) in the main text, where EX is impossible even from a postverbal subject (which is an A-constituent).

noun. This yields incoherent readings and, consequently, unacceptability. Thus, in (57a) the resignation is understood as being involved in the corruption scandal, and in (57b) the lecture is assumed to be about to complete its PhD. Once the internal argument is removed from the segment between the head noun and the EC, the sentences improve notably. The degraded status of (58) can be due to the rather unnatural linear sequence. In this type of sentences, the linearity with the temporal adverbial in sentence initial position would be preferred, (59).

- (59) a. Mañana presentará su dimisión un alto cargo que está implicado
tomorrow will-tender(3sg) his resignation a high-ranking official who is involved
 en un escándalo de corrupción.
in a scandal of corruption
 ‘Tomorrow a high-ranking official will tender his resignation who is involved in a corruption scandal.’
- b. Ayer dio una conferencia un estudiante de último año de doctorado/
yesterday gave(3sg) a lecture a student of last year of PhD
 que se encuentra en su último año de doctorado.
who CL_{refl} finds in his last year of PhD.
 ‘Yesterday a student gave a lecture (who is) in the final year of his PhD.’

Chesi’s (2009) data from Italian, shown in (60) below, confirm that the position of the subject with respect to a transitive predicate affects EX, which is only allowed from the postverbal subject.

- (60) a. **Un amico ha raccontato questa storia di Gianni/ che ho visto ieri.*
a friend has told this story of John whom have(1sg) seen yesterday
 ‘A friend has told this story of John/whom I have seen yesterday.’
- b. *Ha raccontato questa storia un amico ieri di Gianni/che ho visto ieri.*

The presence of an additional internal argument in ditransitive constructions is not expected to add much to the discussion. Since it has already been shown that the presence of an object can block EX from the postverbal subject, it is logical to suppose

that the presence of two objects (a direct and an indirect object) will not change things for the better nor for the worse. The data in (61) corroborate this expectation⁶⁵.

- (61) a. **Un hombre* envió un mensaje al presidente ayer *que no estaba en su sano juicio*.
a man sent(3sg) a message to-the president yesterday who not was(3sg) in his sane mind
 ‘A man sent a message to the president yesterday who was not in his right mind.’
- b. *Envió *un hombre* un mensaje al presidente ayer *que no estaba en su sano juicio*.
sent(3sg) a man a message to-the president yesterday who not was(3sg) in his sane mind
- c. *Envió *un hombre* al presidente un mensaje ayer *que no estaba en su sano juicio*⁶⁶.
sent(3sg) a man to-the president a message yesterday who not was(3sg) in his sane mind

The three sentences are unacceptable probably due to the fact that the extraposed relative cannot be successfully construed with its intended antecedent: the DP *un hombre* (‘a man’). In all three sentences it is easier to interpret the extraposed relative as a modifier of the closest DP, which leads to the incoherent readings in which the president (in (61a) and (61b)) and the message (in (61c)) are understood to be insane.

In the sentences in (61) above, two DPs are closer to the EC than its intended head noun. The linear sequence of the constituents can be rearranged to eliminate the potential *closeness effects*. Next to each sentence in (62a) through (62d) the new linear

⁶⁵ And again these sentences are unacceptable even with a focal subject. See footnote 64.

⁶⁶ Each object in turn could be placed in the left periphery of the sentence, but this move would also fail to make EX possible, because the other object has to remain postverbally (recall that the ordering VSO is being considered).

- (i) a. *Al presidente le envió *un hombre* un mensaje *que no estaba en su sano juicio*.
to-the president CL_{DAT} sent(3sg) a man a message who not was(3sg) in his sane mind
 Lit. ‘?To the president a man sent a message who was not in his right mind.’
 b. *Un mensaje le envió *un hombre* al presidente *que no estaba en su sano juicio*.

In (ia) it seems that the letter was not sane, an incoherent interpretation, and in (ib) the president is taken to be insane, which would be coherent, but is not the intended interpretation and would not involve EX. The relative is interpreted as modifying the closest DP.

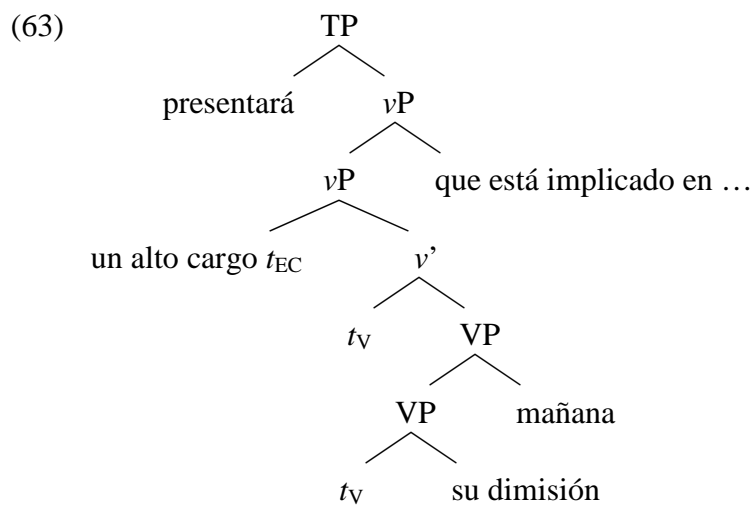
sequence is provided in brackets. (62e) involves cliticization of both direct and indirect object, an operation that sends them to sentence-initial position.

- (62) a. Al presidente le envió un mensaje *un hombre* ayer *que no estaba*
to-the president CL_{DAT} sent(3sg) a message a man yesterday who not was(3sg)
en su sano juicio. (IO V O S)
in his sane mind
- b. *Al presidente le envió *un hombre* un mensaje ayer *que no estaba*
to-the president CL_{DAT} sent(3sg) a man a message yesterday who not was(3sg)
en su sano juicio. (IO V S O)
in his sane mind
- c. *El mensaje se lo envió *un hombre* al presidente ayer *que no*
the message CL_{DAT} CL_{ACC} sent(3sg) a man to-the president yesterday who not
estaba en su sano juicio. (O V S IO)
was(3sg) in his sane mind
- d. El mensaje se lo envió al presidente *un hombre* ayer *que no*
the message CL_{DAT} CL_{ACC} sent(3sg) to-the president a man yesterday who not
estaba en su sano juicio. (O V IO S)
was(3sg) in his sane mind
- e. Se lo envió *un hombre* ayer *que no estaba en su sano juicio.*
CL_{DAT} CL_{ACC} sent(3sg) a man yesterday who not was(3sg) in his sane mind
 ‘A man sent it to him yesterday who was not in his right mind.’

Although the sentences in (62) are complex and their acceptability is not always easy to assess, the contrasts are robust. Unacceptability persists only in those sentences in which a DP intervenes between the EC and its head noun. But *closeness effects* do not seem to be syntactic in nature. Let us see why. Consider for example the data in (62a) and (62d). In these sentences the two internal arguments have been removed from the linear segment between the EC and its intended head noun. One of the DPs is CLLD, the other has undergone some sort of scrambling (p-movement, see section 2.2.1.2 above). As mentioned in the preceding chapter a CLLD topic correlates with a sentence-internal null element (<obj>). Even though this constituent is present in the structure, it does not seem to cause any intervention. In the case of the constituent that moves to the left, a copy should occupy its base position, but this copy does not give rise to intervention, either. What seems crucial for *closeness effects* is the phonological

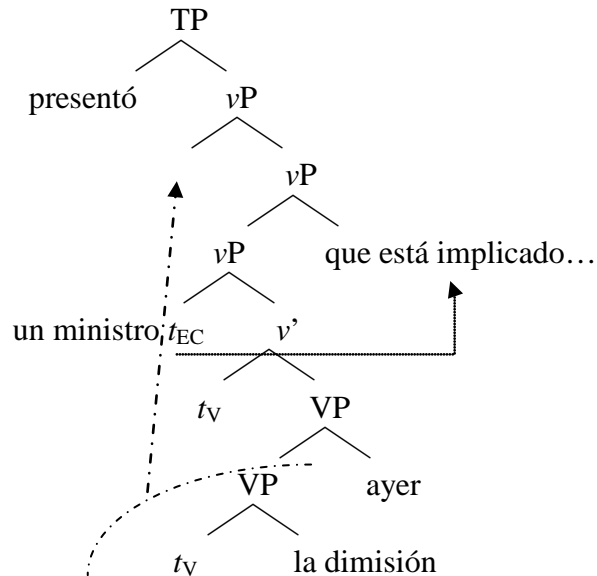
realization of the intervening element rather than its presence in the structure. For this reason, I am inclined to think that *closeness* is more related to parsing than to syntax. Further research is required to clarify the true nature of this phenomenon.

In the light of these facts, I will claim that EX(SU) in sentences headed by transitive predicates is syntactically possible. The derivation of a VSO sentence is provided in (63). As can be seen, the EC is adjoined to *vP*, the minimal maximal projection containing the head noun. The deviance of some of the sentences presented above would arise from extra-syntactic factors, as just commented.



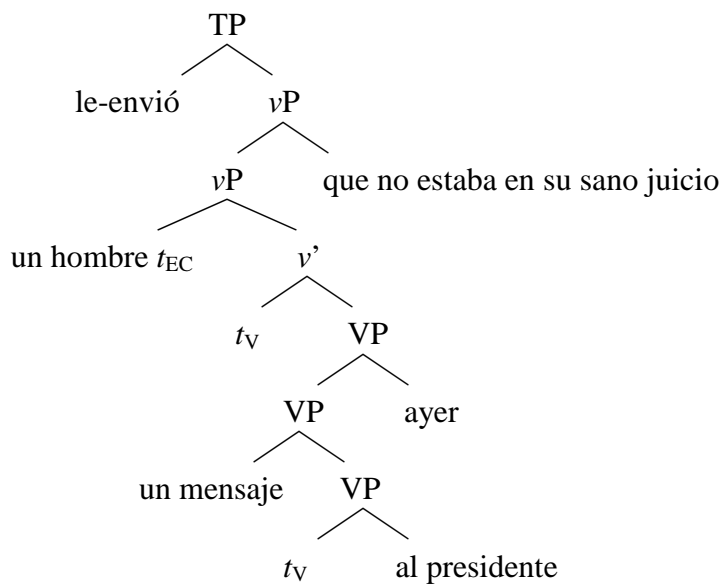
In the case of VOS, the additional scrambling of the object to a position preceding the subject has to be proposed. I will assume that the operation involved is some version of Zubizarreta's *p*-movement. A plausible derivation is shown in (64), where the application of EX proceeds exactly as in (63) above.

(64)



The same type of reasoning just applied to constructions with transitive predicates extends to EX(SU) in sentences headed by ditransitive predicates, of which a derivation is provided in (65).

(65)



Additional movement operations (such as focus fronting) will be responsible for the different linear sequences discussed above, but the structure of EX will always be basically that shown in (65), with the operation applying in the vP domain.

In conclusion, the Spanish data discussed in this section show that the linear position of the subject with respect to the verbal head is relevant for the availability of EX(SU) across predicate types. Thus, EX is possible from postverbal subjects of all

types of predicates when *closeness* is not violated, which means that in transitive predicates EX is only acceptable from subjects that follow the object, i.e. VOS and OVS (a linearity in which the object is fronted).

5. Conclusion

The EX data analyzed in this chapter have shown that the operation is generally available from English subjects, whether pre- or postverbal. In Spanish, however, an interesting asymmetry has been observed: while possible from postverbal subjects, EX is banned from preverbal subjects. This result is consistent with the interpretation of the latter constituents as topics.

Focusing on English, certain variation in the acceptability of EX has been detected across predicate types. Thus, it has been shown that in clauses with unaccusative and passive predicates EX is most acceptable. This might be due to the fact that, in this type of derivation, the subject is the unmarked focus of the sentence and has a presentational interpretation. When the clause is headed by an unergative predicate, the acceptability of EX is dependent on context. This has been argued to be due to the fact that the subjects of this type of predicates are not focused in the unmarked case. However, it has been shown that embedding these sentences in an appropriate context can make EX acceptable. Crucially, an appropriate context involves focus shift from the predicate to the subject. Something similar is observed in the case of transitive and ditransitive predicates. In these cases, the presence of the internal argument(s) tends to block the correct interpretation of sentences with EX(SU). The EC is usually interpreted as a modifier of the closest DP, which is the internal argument, i.e. the constituent that is the unmarked focus. When focus is shifted to the subject, EX(SU) becomes available. Once again, the data indicate that this feature plays a role in the availability of EX, although not as a trigger of the operation.

In the case of Spanish, the relatively free distribution of the subject complicates the analysis of the different patterns of EX(SU). In spite of this complexity, a clear asymmetry emerges related to the position of the subject with respect to the verb: EX is available when the subject follows, but not when the subject precedes, the verbal head. In the former case, the subject has been analyzed as staying in its base position throughout the derivation, which would explain why extraction is possible. Recall that I am assuming that EX is, in principle, freely available from a DP in its base position.

In this chapter, I have also shown that the impossibility of extraposing from preverbal subjects in Spanish is linked to the fact that this constituent is a topic. The contrast with English preverbal subjects, from which EX is allowed, supports the thesis that – in spite of a common linearity – preverbal subjects are different in the two languages. Thus, if Spanish preverbal subjects were, just as their English counterparts in SpecTP, one would expect EX to be possible in this language, too. The fact that this is not the case points at a different analysis, one which reflects the topic-like character of the constituent in Spanish. The impossibility of extraposing would be linked to the presence of a strong [+topic] feature in the matrix of the DP, as discussed in chapter 6.

The analysis of data presented in this chapter has also confirmed that the domain of application of EX is VP/vP. More specifically, EX(SU) adjoins the EC to VP in sentences headed by unaccusative and passive predicates, and to vP in the case of all other predicate types.

Chapter 8

EX and locative inversion

1. Introduction

The term *locative inversion* (LI) is applied to English constructions in which the fronting of a locative argument is held responsible for the inversion of the lexical verb and the subject. Some examples are provided in (1).

- (1) a. Under a tree was lying one of the biggest men I had ever seen.
- b. On the grass sat an enormous frog.
- c. Directly in front of them stood a great castle.
- d. Along the road came a strange procession.

(Swan 1995)

Another phenomenon that is standardly analyzed as a sub-case of LI is illustrated in (2).

- (2) a. Hanging on the wall were two pictures of John.
- b. Killed in action was a soldier from my hometown.

These sentences also involve inversion of the subject and the verb, the copula in this case. This time, however, the fronted constituent is not a locative, as in (1), but a verbal projection headed by a participle. As this construction – referred to as *predicate inversion* or *participle inversion* in the literature – is standardly analyzed along the same lines as LI, it will be discussed in this chapter.

The PP-V-S linearity is also attested in Spanish, (3). As a matter of fact, this is a very common linear sequence in the language. Since EPP checking – one of the ingredients in the derivation of LI, as will be shown below – takes place by raising the verbal head to T in Spanish, it is not clear that one can speak about LI in this language. I will assume, with Kempchinsky (2001), that the sentences in (3) are typical cases of plain topicalization. But see, for instance, Fernández-Soriano (1999) and Ortega-Santos

(2005) for a different view. In this chapter I will therefore focus on the English construction.

(3) a. Por la carretera venía María.

by the road came(3sg) Mary

‘Along the road came Mary.’

b. María venía por la carretera.

In the sections that follow I will explore the availability of EX from the fronted locative (EX(LOC)) and from the postverbal theme (EX(TH)). The results obtained will favor one of the competing analyses of LI proposed in the literature.

The chapter is structured as follows. In section 2, I will introduce the basic properties of LI (§2.1). In sections 2.2 and 2.3, I will deal respectively with the syntactic behavior of the fronted locative and the inverted theme DP. To close this section, I will introduce the basic properties of predicate inversion (§2.4). The discussion will turn then to the analyses of LI available in the literature (§3). Two are basically the lines of research that have been followed: the unaccusative hypothesis (§3.1) and the topicalization approach (§3.2). To complete the picture, in section 3.3, I will provide a revised version of the unaccusative hypothesis which incorporates certain aspects of the topicalization approach. After providing a brief sketch of the analyses, I will extend the latter account to predicate inversion (§3.4). Then the discussion will proceed on to the interaction of LI and EX with the presentation of relevant data, which – to the best of my knowledge – are discussed here for the first time (§4). In this section I will discuss in turn EX(LOC), EX(TH) in LI constructions and EX(TH) in predicate inversion constructions (4.1 to 4.3). The chapter is closed with the conclusions (section 5).

2. Locative inversion: the construction

Throughout this chapter, I will keep the discussion of LI and predicate/participle inversion separate for simplicity. As many of the properties of the two constructions coincide, I will focus first on the former and delay the discussion of the latter until section 2.4 below, where I will mention some properties that are characteristic of predicate inversion.

2.1. *Some general properties of the construction*

LI is optional, as seen in the fact that the non-inverted counterparts of the sentences in (1) are equally grammatical, (4).

- (4) a. One of the biggest men I had ever seen was lying under a tree.
b. An enormous frog sat on the grass.
c. A great castle stood directly in front of them.
d. A strange procession came along the road.

The information structure of the sentences in (1) and (4) is, however, very different. Only in (1) is the subject interpreted as a narrow focus, while the fronted locative provides background information. The verb in LI constructions cannot contribute new information, either. It has to be derivable from previous discourse.

Birner (1994) further notices that the postverbal subject can constitute the topic of the sentence that follows in the discourse, whereas the locative cannot, (5) versus (6).

- (5) a. In a little house lived *two rabbits*.
b. *They /The rabbits* were named Flopsy and Mopsy.

- (6) a. *In a little house* lived two rabbits.
b. *#It / #The house* was the oldest one in the forest.

Compare these sentences with those in (7) below, which show that, when there is no inversion, either the subject or the locative can become the topic of the following sentence.

- (7) Two rabbits lived in a little white house.
a. *It / The house* was the oldest one in the forest.
b. *They /The rabbits* were named Flopsy and Mopsy.

The conclusion drawn from this fact is that inversion has an obligatory topic-changing effect. Bresnan (1994) regards predicate inversion as a syntactic device whose purpose is to assign focal structure and a narrow focus interpretation to the subject of the

inverted predicate. For more details, see the discussion in Levin and Rappaport-Hovav (1995), who capitalize on the information status of the different constituents to account for the idiosyncratic properties of LI.

Notice also that LI does not trigger *do*-support. It is the lexical verb itself that undergoes inversion with the subject. The sentences in (8) are drawn from Bresnan (1994).

- (8) a. Down the hill rolled the baby carriage.
b. *Down the hill did the baby carriage roll.

For some time, it was thought that LI was restricted to sentences headed by unaccusative predicates. In the meanwhile, this claim has been shown to be inaccurate and now it is well-established that the operation is also possible when the sentence is headed by (some) unergative, as well as passive, predicates. Illustrative data are provided in (9) and (10), both from Bresnan (1994).

- (9) a. Among the guests of honor was sitting my friend Rose.
b. Down the hill rolled the baby carriage.

- (10) In this rainforest can be found the reclusive lyrebird.

LI is excluded from sentences with direct objects, however.

- (11) a. *Into the room rolled John a ball.
b. *Down the street walked the old nanny her dog.

The generalization that emerges from these data is that LI can only occur when the verb has a theme and a locative argument and the former is the most prominent of the two. It is important to notice that the sentence-initial locative has to be an argument of the predicate. Fronted adjuncts do not trigger subject-verb inversion, as witnessed in the contrast between (12a) and (12b), from Salzmänn (2004).

- (12) a. Into the room walked John with great care.
b. *With great care walked John into the room.

2.2. *Properties of the fronted locative*

In this section it will be shown that the locative PP in sentence-initial position exhibits certain properties that are characteristic of subjects and others that are typical of topics. As can be seen in (13) below, questioning the locative does not trigger subject-auxiliary inversion, which suggests that this constituent is a subject. Thus, (13) patterns with (15), where the *wh*-phrase is the subject, rather than with (14), where the interrogative pronoun is an object.

- (13) a. On which wall hung a portrait of the artist?
b. *On which wall did hang a portrait of the artist?

- (14) a. Whom did you see?
b. *Whom saw you?

- (15) a. Who came to the town?
b. *Who did come to the town?

(Bresnan 1994)

The sentence-initial locative also displays the behavior of a subject in sentences headed by raising predicates. Just like subjects, the fronted PP can undergo raising in these sentences. Compare (16), where a subject undergoes raising, with (17), where the locative is fronted.

- (16) Peter_i seems t_i to have killed John.

- (17) a. Over my windowsill_i seems t_i to have crawled an entire army of ants t_i .
b. On the hill_i appears t_i to be located a cathedral t_i .

(Bresnan 1994)

Base-generated VP-internally, the locative PP rises through the subject of the embedded infinitival clause to its final landing site.

Similarly, extraction of the fronted locative across the complementizer *that* gives rise to so-called *that*-trace effects, (19). In this respect, LI patterns with subject extraction, illustrated in (18). The data are from Culicover and Levine (2001).

(18) That bunch of gorillas, Terry claims (*that) _ walked into the room.

(19) a. Into the room Terry claims (*that) _ walked a bunch of gorillas.

b. Into which room does Terry claim (*that) _ walked a bunch of gorillas?

The strong definiteness restriction on the inverted locative, on the other hand, suggests that this constituent is a topic. The contrast in (20) shows that an indefinite cannot be fronted in this construction and trigger subject-verb inversion. This observation – as well as the example used to illustrate it – is due to Schachter (1992), quoted in Salzmann (2004).

(20) a. A child was found somewhere.

b. *Somewhere was found a child.

In a similar vein, the sentences in (21) below show that a *wh*-constituent cannot be extracted from an embedded clause with LI, (21a). A fronted topic in an embedded clause is also known to block extraction, (21b).

(21) a. *In which park did you say that in the foliage fluttered a number of gray birds?

b. *I wonder what on the table John put.

(Salzmann 2004)

Consider finally *Exceptional Case Marking* (ECM) contexts. Just as topicalization, LI is banned from ECM sentences, (22a) and (22b). In this particular respect, the behavior of the locative departs from that of subject DPs, as can be seen in the contrast between (22a) and (22c).

(22) a. *I wouldn't expect behind the tree to stand a large building of some kind.

b. *I wouldn't expect a book John to buy.

c. I would expect John to buy a book.

2.3. *Properties of the postverbal theme*

The postverbal DP, which is interpreted as a theme even in the case of unergative predicates (where one would expect an agent theta role), is the logical subject of the sentence. In this section, it will be shown that it displays some of the characteristics of a grammatical subject, though not others. It will likewise be shown that this DP also exhibits some properties that are more typical of objects than of subjects. Among the latter the very fact that it is assigned the theme theta role, the fact that it is a focus, and the fact that it can undergo *Heavy NP Shift*.

The postverbal theme displays two unequivocal properties of subjects: (i) it exhibits agreement with the verb, as shown in (23), and (ii) it bears nominative case, as shown in (24).

(23) a. In the garden stand/*stands two fountains.

b. Down through the hills and into the forest flows/*flow the little brook.

Levine (1989)

(24) a. Under the garden wall sat I (, waiting for my friends to appear). (Levine 1989)

b. In the garden is HE. (Salzmann 2004, quoting Green 1992)

There is also certain evidence that the postverbal theme is not a subject. Thus, for example, it is well-known that the pronoun in a tag question matches the features of the subject. The fact that the expletive is used in the following datum instead of a personal pronoun referring back to *a beautiful statue* indicates that the theme is not the subject of this sentence.

(25) In the garden is a beautiful statue, isn't there /*it? (Salzmann 2004)

Similarly, the fact that the theme follows a VP-adverb in (26) below indicates that it has undergone *Heavy NP Shift*, an operation that affects objects but not subjects in English. In this respect, then, the theme behaves as an object, rather than as a subject⁶⁷.

⁶⁷ But see Culicover and Levine (2001) for a different view.

(26) a. In this village was located _ for many years after the war [a church which the Germans bombed].

b. Over the windowsill crawled _ every day [an entire army of ants].

(Bresnan and Kanerva 1992)

From this brief overview, the following facts emerge. First, the sentence-initial locative behaves, on some counts, as if it were the grammatical subject of the sentence; on some others, as if it had the status of an A-bar moved topic. Second, the logical subject of the sentence – which appears postverbally and is interpreted as a narrow focus – shows agreement with the verb, but does not behave as a subject in a number of other respects. The analyses proposed in the literature have tried to account for these dualities and have done it with different degrees of success. In section 3, I will sketch the two main lines of research on LI within the generative framework. But before turning to this issue, I will devote some lines to predicate inversion.

2.4. Predicate inversion

The sentences in (2) above, repeated here as (27), illustrate the construction.

(27) a. Hanging on the wall were two pictures of John.

b. Killed in action was a soldier from my hometown.

In these sentences, a verbal projection consisting of a participle and its complement appears in sentence-initial position. This constituent seems to have been fronted around the semantically empty copula. The DP in postverbal position is interpreted as the subject of the sentence and agrees in number with the copula. In this respect, the construction does not differ from LI.

Again as in the case of LI, the non-inverted version of the sentences is acceptable. And again the information structure of the inverted and the non-inverted variants is different. Only when inversion takes place is the postverbal subject interpreted as a narrow focus.

- (28) a. Two pictures of John were hanging on the wall.
b. A soldier from my hometown was killed in action.

The postverbal DP receives its theta role (theme) from the participle, which indicates that they must be in a subject-predicate configuration at some point in the derivation.

3. The analyses

As mentioned above, two are basically the hypotheses that have been explored in the literature. They have come to be known as the *unaccusative* and the *topicalization hypotheses*. In what follows, I will present the two analyses in some more detail. The discussion will necessarily remain sketchy and will only focus on the derivational paths followed by the fronted locative and the postverbal theme. Although the examples used to illustrate the presentation are all of LI constructions, the same analysis extends in each case to predicate/participle inversion.

3.1. The unaccusative approach

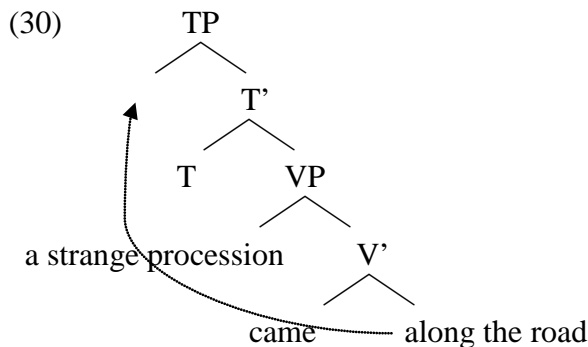
This analysis capitalizes on the subject-like properties of the fronted locative and places this constituent in SpecTP, where it checks the EPP feature on T. Advocates of this approach claim that the logical subject of a sentence with LI is in fact the object of an unaccusative predicate that remains in VP internal position all throughout the derivation. Different incarnations of this basic idea are found in Coopmans (1989), Hoekstra and Mulder (1990), Kempchinsky (2001) and Culicover and Levine (2001).

That the postverbal theme in LI constructions does indeed occupy a low position in the structure is shown by the fact that it cannot control a null subject (PRO) inside a non-finite adjunct clause. The contrast in (29) shows that the VP-adjunct *without talking* is inside the c-command domain of the preverbal subject but outside the c-command domain of the postverbal theme.

- (29) a. Two sheiks lay near the oasis [without PRO talking].
b. *Near the oasis lay two sheiks [without PRO talking].

(Coopmans 1989)

The parser in (30) shows the derivation of LI under this analysis.



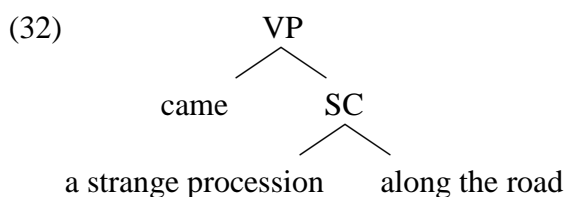
In this type of accounts, it is generally assumed that the locative forms a unit with the predicate in the base and that the theme DP sits in the Spec of the verbal projection. Since the two VP constituents are equidistant from SpecTP, either of them could in principle undergo raising to this position to check the EPP feature on T. If the DP does, the sentence without inversion arises, (31a). Raising of the locative, on its part, should yield the inverted variant, (31b). The problem with this rationale – which we find, for instance, in Kempchinsky (2001) – is that movement of the locative alone does not yield the linear sequence in (31b), but rather that in (31c). In order to obtain (31b), the position of the two arguments in (30) should be reversed, i.e. the locative should be in SpecVP and the theme DP in V-complement position. However, such a structure would fail to represent the subject-predicate relationship between the DP and the locative. This relationship will eventually lead to the proposal of the small clause analysis that I will introduce below.

- (31) a. A strange procession came along the road.
 b. Along the road came a strange procession.
 c. Along the road a strange procession came.

Assuming therefore that the LI construction starts with a structure like (30), the correct linearity can only be derived if movement of the locative is followed by movement of the verb to a position that c-commands the theme DP. The only candidate in the parser in (30) is T, but lexical verbs do not rise to T in English (see for instance Pollock 1989). Alternatively, the functional domain between VP and TP could be exploited. The target

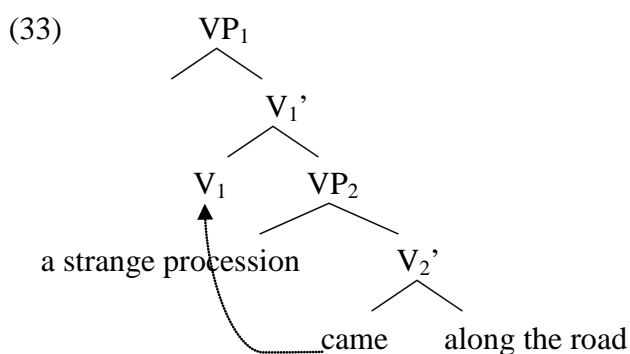
of the movement operation could be a functional head with verbal features such as Aspect.

This type of problem does not arise in analyses in terms of small clauses, as those proposed, for example, in den Dikken (1998) and Hoekstra and Mulder (1990). See also a different incarnation of this analysis in den Dikken (2006). Instead of the VP in (30), LI would start with the VP shown in (32), where the theme DP and the locative are, respectively, subject and predicate of a small clause (SC). Small clauses are conceived as subject-predicate structures lacking tense.



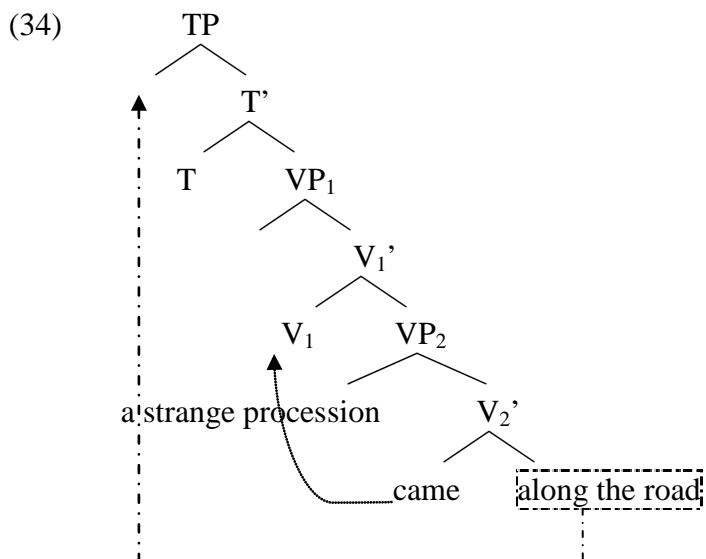
As the verb c-commands into the SC, it will precede the constituent that remains *in situ* throughout the derivation. At the same time, it will be preceded by the constituent that moves into SpecTP.

One of the problems of this parser is that SC is not a valid label in X-bar theory. After some discussion that I will not elaborate on here for reasons of space and relevance, Salzmann (2004) proposes the structure in (33) as an updated version of the small clause analysis. His contention is that SC is in fact a verbal projection.



As can be seen, VP₂ has the same structure as the VP in (30) above. What is different in Salzmann's proposal is that in LI constructions a second VP layer is projected: VP₁. V₁ is regarded as a functional head that takes a VP complement. This analysis crucially provides a position for the verb outside the core VP, from which it will c-command the theme DP, which will remain inside VP₂. This is the configuration that is required to

derive the correct linear orders. If the verb raises to V₁, the locative to SpecTP and the theme remains in situ, the linearity *along the road came a strange procession* is obtained.



As nothing hinges on the particular label of the SC, I will assume that Salzmann's analysis of the VP projection is basically right. The structure in (34) can also be extended to VPs headed by passive and unergative predicates, as those in (35).

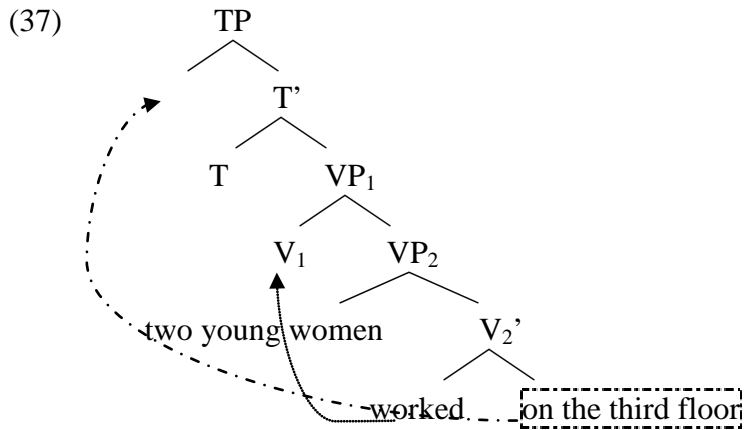
- (35) a. On the third floor worked two young women.
 b. In this rainforest can be found the reclusive lyrebird.

(Kempchinsky 2001)

Following Kempchinsky (2001), I will assume that in LI constructions unergative predicates do not project a *vP* layer. This assumption does not immediately imply that the analysis of unergatives as covert transitives (Hale and Keyser 1993) has to be abandoned. It simply means that in some cases (LI being one such case) the covert object is not syntactically projected. This proposal does not seem implausible, if it is taken into account that the DP subject in a LI construction is not an agent but a theme, as indicated by the ungrammaticality of (36). This sentence – from Kempchinsky (2001) – shows that an agentive purpose clause cannot occur in contexts of LI.

- (36) *In this office works the President's personal secretary (in order) to take notes on everything which is discussed.

(37) shows the derivation of (35a). The passive in (35b) would be derived along the same lines in this type of analysis.



The unaccusative approach is not exempt from problems. One of them is that derivations along the lines of (30) or (37) do not account for the specific information structure of the LI construction, i.e. that the locative is interpreted as a topic and the postverbal theme as a focus. In an account in terms of equidistance one would expect the inverted and the non-inverted variants to be informationally neutral, which is not the case. For a fully-fledged critical overview of the different analyses, see Salzmann (2004).

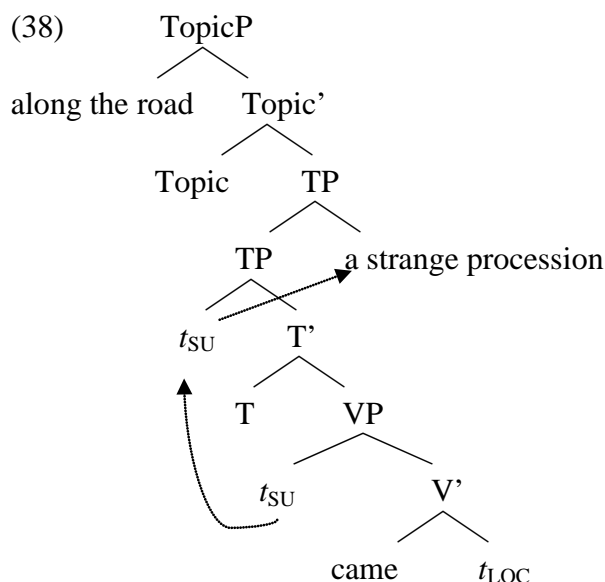
In the following subsection, the discussion turns to a type of account that tries to overcome this problem: the topicalization approach.

3.2. *The topicalization approach*

As its name suggests, this analysis places the emphasis on the topic-like character of the locative. Advocates of this type of account (among them, Bowers 1976, Newmeyer 1987, Rochemont and Culicover 1990, and den Dikken 2006) claim that the locative raises overtly to SpecCP (SpecTopicP in more modern proposals). Just as in any other derivation, the subject is held responsible for EPP checking⁶⁸.

⁶⁸ Den Dikken (2006) proposes that the locative is base-generated in SpecTopicP. It will be coindexed with a (phonologically null) pro-predicate in SpecTP that occupies this position after raising from inside a SC in the VP domain. I will not go into the details of this analysis. The interested reader is referred to the original work for details.

In the analyses of LI that were proposed before the predicate internal subject hypothesis (Zagona 1982, Speas 1986, Contreras 1987, and many others), the subject was base-generated in SpecIP (now TP) and moved later to adjoin to VP or TP (see Bowers 1976 and Coopmans 1989, for instance⁶⁹) – a position that was assumed to be associated with focus. As now the predicate internal subject hypothesis has become standard, the theme DP will have to move twice: once to SpecTP to check the EPP and, subsequently, to adjoin to TP, say for focus purposes. Notice that adjunction to VP of a constituent that is base-generated in SpecIP involves lowering, a possibility that is proscribed from *Minimalism*. I will therefore not consider it here. A possible representation of this analysis is provided in (38).



The sentences in (39) below challenge this type of analysis. Right-adjunction of the DP subject to TP would predict that this constituent will always surface sentence-finally, i.e. following VP-adjuncts, as in (40). However, the sentences in (39) show that this is not necessarily the case. The examples are drawn from Kathol and Levine (1992). As a matter of fact, my informants expressed a clear preference for the sentences in (39). The alternants in (40) could only be accepted if the subject was interpreted as a contrastive focus. I will come back to these sentences below.

⁶⁹ Coopmans (1989) proposes an alternative in which the theme DP remains inside VP. In this case, the SpecTP (IP in his terms) position is occupied by an empty subject that is somehow licensed by the locative. English is regarded as a semi-pro-drop language, i.e. a language that displays pro-drop in a reduced number of contexts, when compared with Italian and other Romance languages. As a matter of fact, LI seems to be the only context in English in which an empty subject would be licensed. This very fact makes the account lose its explanatory adequacy and acquire an *ad hoc* flavor.

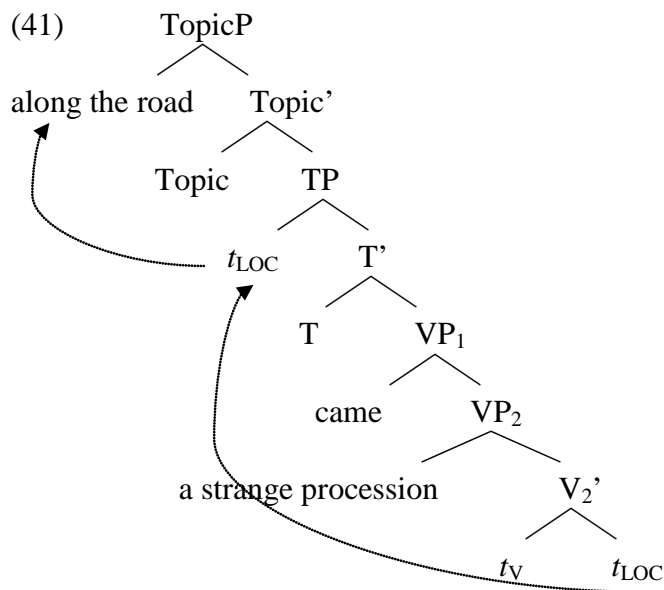
- (39) a. Into the room strode Robin boldly.
b. In front of us walked Dana proudly.

- (40) a. Into the room strode boldly Robin.
b. In front of us walked proudly Dana.

3.3. *The unaccusative hypothesis revisited*

In the meantime, some approaches have appeared that supplement the unaccusative hypothesis with one further step: raising of the locative to SpecTopicP (as in the topicalization approach). Thus, Salzmann (2004), for instance, assumes that the theme DP (the logical subject of the sentence) stays in its base-position all throughout, whereas the locative raises to SpecTP – where it checks the EPP feature on T – and further to SpecTopicP to check a [+topic] feature. The parser is provided in (41) below. The SC analysis has been incorporated into this representation.

The new analysis captures the differing information structural properties of the inverted sentence as compared to its non-inverted counterpart. Inversion is dependent on the presence of a discourse feature, [+topic], on the locative. The fact that this constituent moves through SpecTP on its way to its final landing site in SpecTopicP would account for its mixed subject-like and topic-like properties. The focalization of the postverbal subject might be the result of its staying inside the VP projection, where it receives the most prominent stress in the sentence (see the stress assignment rules proposed in Cinque 1990 and Zubizarreta 1998).



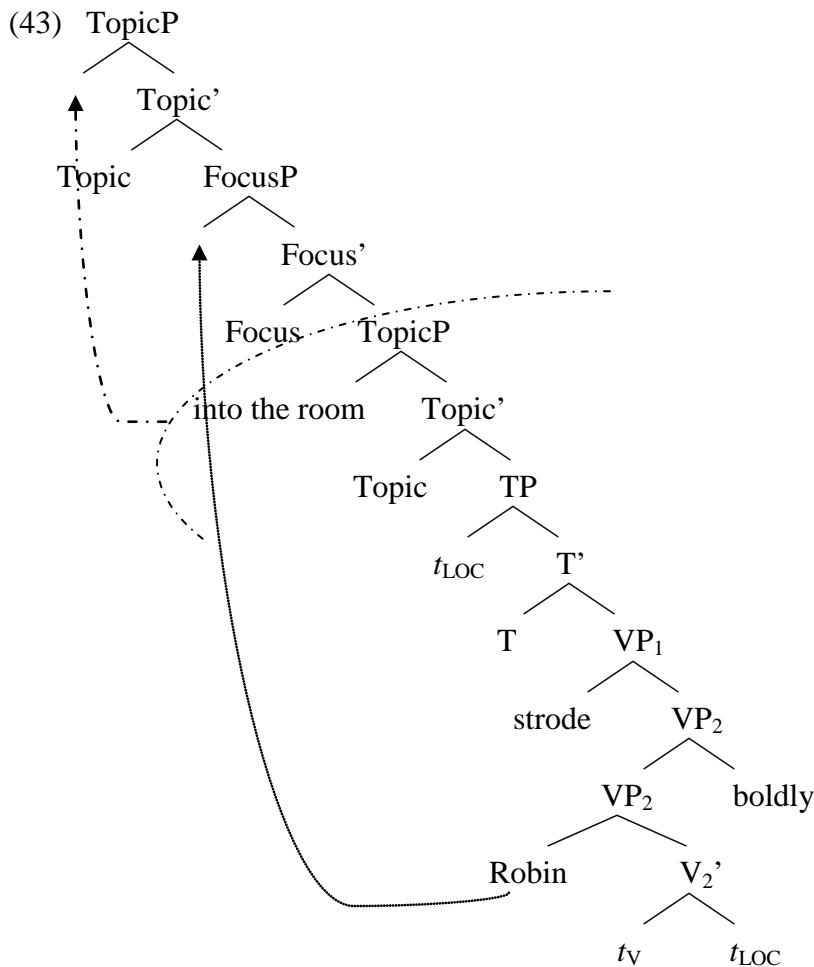
Salzmann (2004) explains the focus interpretation of the postverbal subject in a different manner. He proposes that the subject moves to a right-branching SpecFocusP. In my view, this alternative is problematic at least on two counts. First, it would be difficult to justify the directionality of this Spec when the rest of Specs in the language project uniformly to the left. Second, under the assumption that *wh*-movement is raising to SpecFocusP, sentences like those in (42) would involve the projection of two foci, a situation that would contravene the observation that focus is unique (Rizzi 1997b).

- (42) a. In which garden stood a fountain?
 b. On which wall hung a portrait of the artist?

An account in terms of a rightward focus looks like the resuscitation of an analysis like that represented in (38) above and of the problems associated with it. That analysis predicted that the subject had to appear in sentence-final position, as in (40), and failed to account for its non-final position in (39). The representation in (41) presents the reverse problem, however. Assuming that VP-adverbs are right-adjoined to VP, they are expected to surface following the subject (in its base-position). In other words, (41) can qualify as the parser of (39) but not of (40).

I suggest that in (39) the subject remains in its base position, whereas in (40) it rises to SpecFocusP. Focalization is then followed by remnant movement of the complement of the focus head to the Spec of a higher functional projection (presumably,

TopicP). This would account for the contrastive interpretation of the sentence-final subject. The derivation is shown in (43).

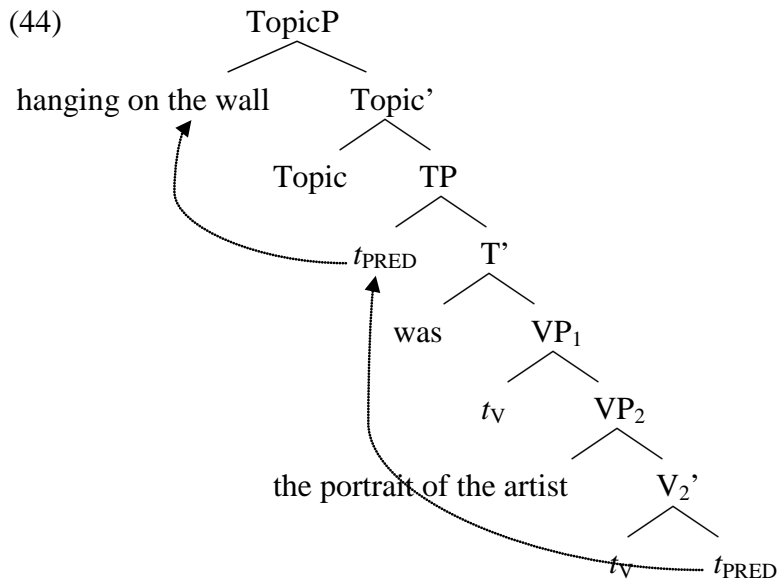


If the theme DP is not associated with a [+focus] feature, and the derivation reaches its end with the projection of the lower TopicP, sentences like those in (39) obtain.

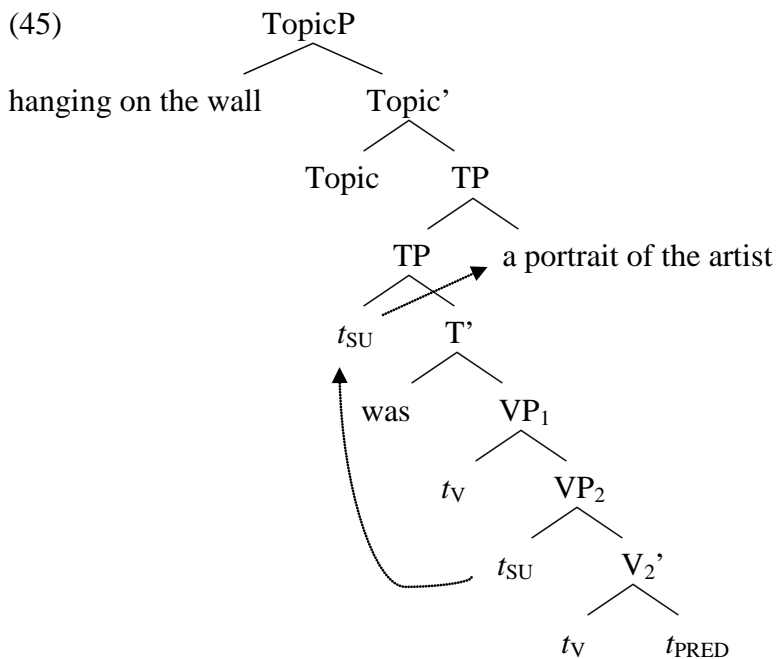
3.4. A note on the analysis of predicate inversion

In this section I will briefly provide illustration of the analysis of predicate inversion in the two guises just described for LI, that is, the unaccusative and the topicalization hypotheses.

If predicate inversion is a sub-case of LI, as standardly assumed, the parser in (44) should represent the derivation of this construction under the unaccusative hypothesis. The only difference with the tree representation in (41) above is that the copula rises to T. The EPP feature on T is checked by the fronted predicate phrase.



In a similar vein, the parser of the same sentence under the topicalization hypothesis would look like (45). Remember that in this account the fronted predicate phrase raises directly to SpecTopicP, while the EPP feature is checked by the subject in SpecTP, which later adjoins to TP to receive a focus interpretation.



One of the aims of the following section will be to see if EX data favor one of the two analyses of locative/predicate inversion presented in this section over the other.

4. EX in locative inversion constructions

This section explores the compatibility of LI and EX. In particular, I will check whether EX is possible from the fronted locative and from the postverbal subject. Let me start with the locative in sentence-initial position.

4.1. EX from the fronted locative / EX(LOC)

As discussed at some length above, the fronted locative behaves syntactically not only as a topic but also as a subject. This dual behavior is potentially interesting for the analysis of the interaction of LI with EX because EX is banned from fronted topics in English, (46), but allowed from preverbal subjects, (47). The sentences in (46) are discussed in chapter 6 of this dissertation; those in (47) in chapter 7.

(46) a. **Micro brews I like that are located around the Bay Area.*

b. **Linguists you won't find here who speak two Balkan languages.*

c. **A soldier she met at the party that she really likes.*

(47) a. *A man came in that I didn't know.*

b. *Two reports arrived yesterday that support your assessment of the current situation.*

The question now is whether EX(LOC) patterns with EX from a topic or with EX(SU). If the former is the case, EX should be excluded; if the latter, it should be permitted. The data in (48) show that EX from the fronted locative is unacceptable.

(48) a. **On a bench were sitting two girls that was nailed to the ground.*

b. **Under a tree were sleeping the boys that was in front of the house.*

c. **Into a room walked Peter that was completely empty.*

Given the grammaticality of (49) below – the non-inverted variants of the sentences in (48) –, where a relative clause has been extraposed from a PP, the deviance of the data in (48) cannot be attributed to a potential ban on extraposing from the DP complement

of a PP (some kind of *Subjacency* effect). For an account of *Subjacency* effects in the context of EX see chapter 2, section 3.2 of this dissertation⁷⁰.

- (49) a. Two girls were sitting *on a bench* yesterday *that was nailed to the ground*.
b. The boys were sleeping *under a tree* when I arrived *that was in front of the house*.
c. Peter walked *into a room* this morning *that was completely empty*.

The unacceptability of EX(LOC) shows that the fronted locative patterns with topics in not allowing EX. I suggest that the sentences in (48) above should be ruled out on the same grounds as (46). A strong [+topic] feature on the locative should be held responsible for the unacceptability of EX(LOC). In chapter 6 I hypothesized that extraction from a constituent bearing a strong topic feature is excluded.

Summarizing, the unacceptability of EX(LOC) is consistent with some of the results achieved in preceding chapters; particularly, with the ban on extraposing from a topic. This fact can be interpreted as evidence in support of the analyses that place the fronted locative in SpecTopicP; at the same time that it disfavors those analyses that place the locative in subject position. If the locative were in SpecTP one would expect EX(LOC) to be as possible as EX(SU).

I will now turn to the theme DP, the logical subject of the sentence.

4.2. EX from the postverbal theme / EX(TH)

The data provided in (50) show that EX from the postverbal theme in LI constructions is acceptable⁷¹.

- (50) a. On this wall was hanging *a picture* yesterday *that nobody had ever seen*.
b. Under the tree was sleeping *a guy* when I arrived *who I didn't know at all*.
c. On that chair sat *a guy* yesterday *that I didn't know*.

⁷⁰ The contrast between (48) and (49) is reminiscent of the contrast observed in Baltin (1981) between (ia) and (ib). These sentences have been discussed in chapter 5, section 4.3.4.2.

(i) a. I saw it in a magazine yesterday which was lying on the coffee table.

b. *In which magazine did you see it which was lying on the coffee table?

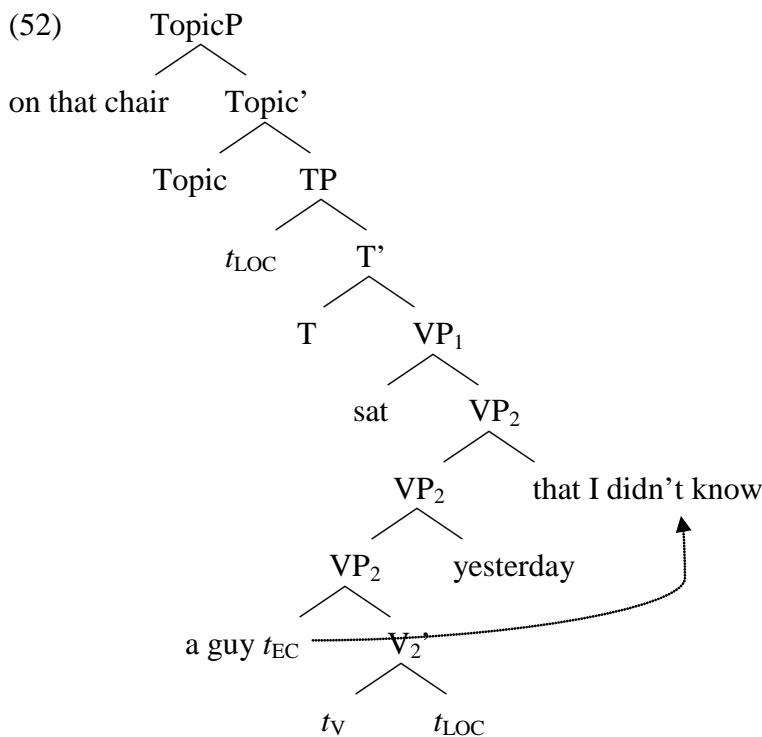
⁷¹ I found some speaker variation concerning (50a). Those who were skeptical about its acceptability were also reluctant to accept (i), which indicates that the problem has nothing to do with EX.

(i) On this wall was hanging a picture yesterday.

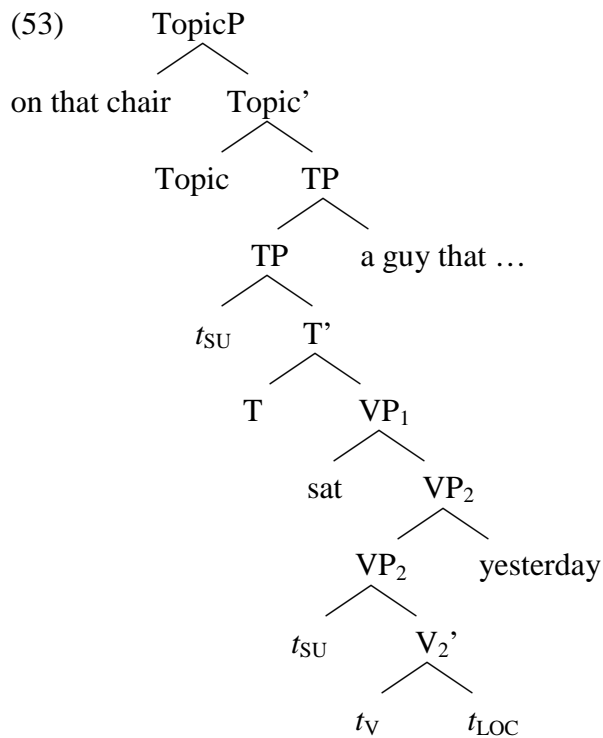
The pattern of sentences introduced by presentational *there* (illustrated in (51) and discussed in chapter 7) is repeated in LI. In the two constructions EX from the postverbal subject is possible. In chapter 7 it was suggested that the postverbal DP subject in sentences with *there*-insertion occupies its base position.

(51) There arrived *several reports yesterday that clearly supported your analysis of the facts.*

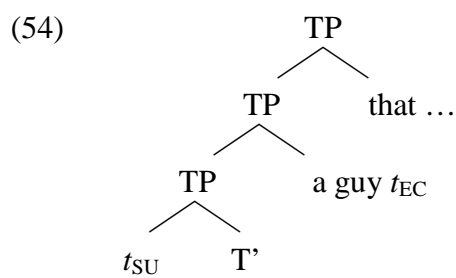
If it is assumed that, in the case of LI the subject is in its base position as well, EX in (50) and (51) would receive a uniform analysis: the operation would apply in the VP domain in the two derivations. The representation of (50c) under the unaccusative hypothesis is shown in (52).



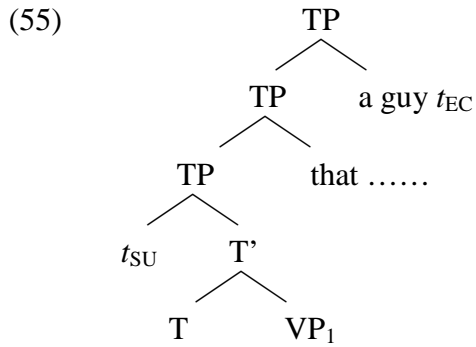
The fact that EX is available from the postverbal theme in LI constructions can be regarded as evidence against traditional topicalization analyses. In those accounts it is assumed that the EPP is checked by raising the theme DP to SpecTP. Later on, the DP undergoes TP adjunction. The structure representing this derivation for (50c) is provided in (53).



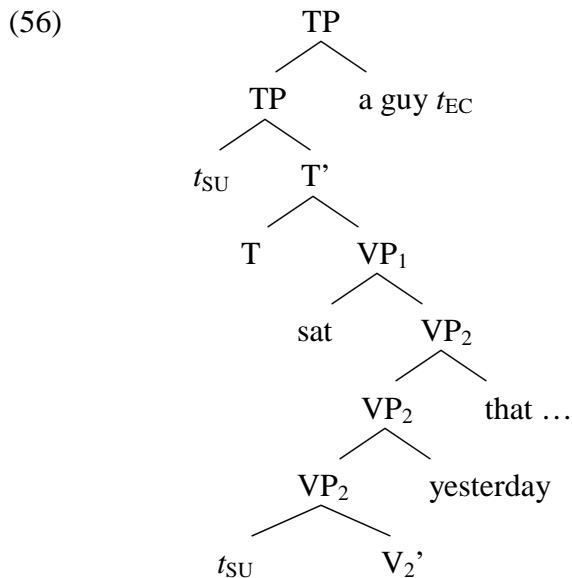
EX cannot apply when the theme DP has reached its final landing because at this point the DP is an adjunct, i.e. an island for extraction. Even if the operation could apply, the result would be vacuous as the relative would have to adjoin to TP (following standard assumptions concerning the adjunction site of the EC). The partial representation is shown in (54).



As SpecTP is a freezing position, EX cannot apply before the theme DP adjoins to TP, either. Even if it could, the wrong linear order would be derived, as shown in the partial representation in (55).



Since the head noun has to move to adjoin to TP after the application of EX, the ungrammatical linearity **On a chair sat yesterday that I didn't know a guy* is obtained. The same situation arises if EX takes place inside VP₂, as I am assuming throughout. Notice that, after EX, the head noun has to raise to SpecTP and later adjoined to TP yielding the same unacceptable linearity. The partial tree representation is provided in (56).



It has to be noted that the trace of the EC in (55) and (56) need not posit a problem if strict cyclicity is adopted, as I have done throughout.

It can be concluded that the linearity of the sentences in (50) is only derivable in those analyses of LI that assume that the subject remains in its base position all throughout the derivation (i.e. the unaccusative hypothesis). Similarly, EX from the postverbal theme in LI constructions supports my claim that the operation has a very limited domain of application: *vP/VP*.

Before closing the discussion I would like to consider EX in the context of predicate inversion.

4.3. *EX and predicate inversion*

For completeness, I will discuss in this section EX from the postverbal subject in predicate inversion constructions. Consider the sentences in (57). The non-inverted counterparts of these sentences are provided in (58).

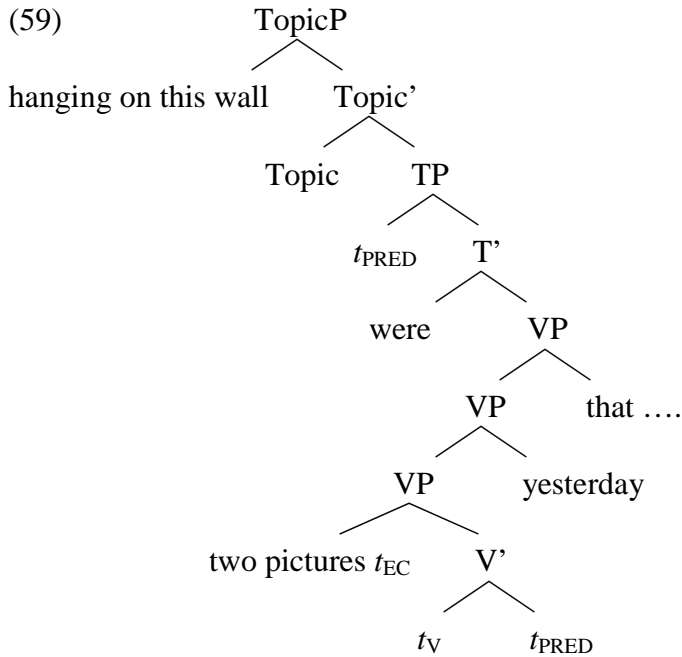
(57) a. Hanging on this wall were *two pictures* yesterday *that I had never seen before/of my favorite actress*.

b. Killed in action were *three soldiers* yesterday *who took part in 'Operation Enduring Freedom'/from my hometown*.

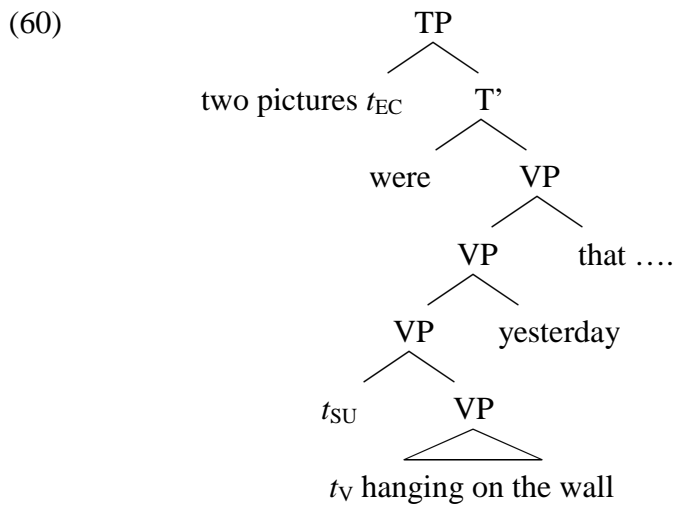
(58) a. *Two pictures* were hanging on this wall yesterday *that I had never seen before/of my favorite actress*.

b. *Three soldiers* were killed in action yesterday *who took part in 'Operation Enduring Freedom'/from my hometown*.

EX(SU) is possible in both cases: when the subject is postverbal and when it is in SpecTP. The parser representing (57a) would be as in (59). As was the case in LI, the DP *two pictures that I had never seen before* enters the derivation as the subject of the –*ing* predicate, with which it forms a small clause. The copula mediates the relationship between the two constituents of the small clause/VP (in the sense of den Dikken 2006). After merging of the VP-adverb *yesterday*, and on completion of VP, EX takes place adjoining the relative clause to the highest layer of this category. The copula raises then from its base position to end up under T, while the predicate moves through the SpecTP and checks the EPP on its way to SpecTopicP.



The non-inverted counterpart of (57a) – provided in (58a) above – would be derived as represented in (60). The two derivations coincide in the domain of application of EX. As throughout the trace of the EC is licensed under strict cyclicity on application of EX.



5. Conclusion

In this chapter I have explored the interaction of EX with a very specific topicalizing construction of English: *locative inversion*. The results have shown that a modifier cannot be extraposed from the fronted locative, which is consistent with the general ban on extraposing from a fronted topic revealed in chapter 6, where it was concluded that the interpretation of the topic – i.e. the presence of a strong [+topic] feature rather than

the syntactic configuration – plays a crucial role when it comes to allowing or banning EX. The fact that EX from the fronted locative patterns with EX from topics rather than with EX from preverbal subjects provides one further argument for the topic-like character of the locative and supports those analyses that place this constituent in SpecTopicP.

As to the postverbal subject, the data reveal that EX from this constituent is acceptable. It has been shown that this fact cannot be derived in standard analyses of LI in terms of topicalization, which usually assume that the subject ends up in a right-adjoined position. As adjuncts are islands, it is not clear how the modifier could be extracted. Even under the assumption that EX takes place before subject raising, the attested linearities could not be derived. Only if the subject is assumed to stay in its base position throughout the derivation can the availability of EX be accounted for. This configuration is only compatible with the unaccusative hypothesis. The syntactic behavior of the postverbal subject with respect to EX together with the topichood of the fronted locative point at a mixed approach, as that proposed in Salzmann (2004), as the correct analysis of LI.

If the analysis proposed here is close to the mark, it would confirm that EX is a VP phenomenon. Notice likewise that the link between the operation and focus/contrast has emerged once again: the postverbal subject, source of the EC, is a focus in LI constructions. But, again, the focus feature is not responsible for the displacement of the EC itself. The fronted locative, on its part, is associated with a strong [+topic] feature, which blocks EX from this constituent.

Chapter 9

The interaction of EX with focus preposing and *wh*-movement

1. Introduction

In preceding chapters the sentence-initial constituents that have been considered in their interaction with EX were topics and preverbal subjects. The discussion turns in this chapter to a different type of fronted constituent: focalized and *wh*-phrases. They are illustrated in (1) and (2) for Spanish and English.

(1) a. UN LIBRO escribió Pedro el año pasado (no un artículo).

a book wrote(3sg) Peter the year past not an article.

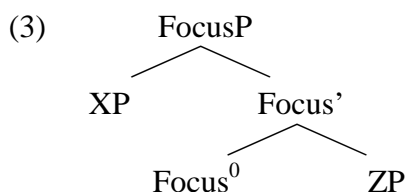
b. A BOOK Peter wrote last year (not an article).

(2) a. ¿Qué escribió Pedro el año pasado?

what wrote(3sg) Peter the year past

b. What did Peter write last year?

A focalized constituent is standardly assumed to reach its sentence-initial position by movement. I will assume that a strong [+focus] feature on a Focus head in the left periphery of the sentence attracts a compatible XP to its Specifier. The tree diagram representing this structure is provided in (3). Recall from chapter 6 that, in Rizzi's system, the split CP domain is made up of the sequence of functional projections shown in (4). Of those categories, only ForceP and FiniteP are obligatorily projected. FocusP, on its part, will only be projected in the presence of a [+focus] feature in the structure.



(4) ForceP>TopicP*>FocusP>TopicP*>FiniteP> TP (Rizzi 1997b)

Following Rizzi (1997b) and others, I will assume that *wh*-movement is a sub-case of focalization and will therefore include the discussion of EX from *wh*-constituents in this

chapter. *Wh*-raising will consequently be analyzed as involving movement of the *wh*-constituent to SpecFocusP. This assumption will be substantiated in section 4.1 below, where I will also provide an analysis of Spanish *wh*-constructions and a brief description of the operation in English and Spanish. Although, in principle, any constituent in a sentence (arguments and adjuncts alike) can be questioned by means of a *wh*-phrase, in this chapter only arguments will be considered.

The interaction of focus fronting/*wh*-raising and EX will be interesting to determine the role played by focus in EX constructions (see chapter 5) and, more specifically, it will serve to clarify if a focus feature triggers the movement operation that places the EC in sentence-final position.

It is also important to notice that, although EX(*wh*) has always been part of the discussion, this is the first time that a systematic analysis of the interaction of EX and focus fronting has been undertaken in the literature. Most of the English, and all the Spanish, data presented in this chapter are, consequently, new.

The chapter is organized as follows. Before presenting EX data, a section will be devoted to introducing the syntactic and informational properties of the different types of foci that have been identified in the literature (§2). Section 3 will present a wide range of EX data both from English and Spanish. The information will be presented by organizing the sample sentences in groups attending to the syntactic function played by the source DP in the sentence. Thus, section 3.1 will deal with EX(SU), section 3.2 with EX(OB) and section 3.3 with EX(IO). At the end of each section, I will propose a syntactic analysis. In section 4 I will turn to EX(*wh*). As mentioned above, I will first provide evidence for the analysis of *wh*-movement in terms of focus fronting (§4.1) to turn afterwards to present data illustrating EX from the *wh*-constituent and a potential syntactic analysis of the phenomenon both in English and Spanish (§4.2). This will be done in two sub-sections. First, I will consider EX in sentences headed by monoargumental predicates, (§4.2.1). Later, I will turn to pluriargumental predicates, (§4.2.2). The chapter will be closed with the conclusions in section 5.

2. About focus

The main goal of this section is to introduce some general notions concerning the interpretive import of focalization (considering both focus *in situ* and focus preposing), as well as the syntactic representation of this operation in Spanish and English. The

examples that will be used to illustrate the construction will be basically Spanish. Only when it becomes relevant will comparative cross-linguistic data be provided.

As already mentioned in chapter 6, in every sentence, there is a part that is informative and a part that is presupposed. The latter conveys the information that hearer and speaker interpret as true at the moment of utterance. The non-presupposed part of the sentence – known as the *focus* – typically introduces new information and is usually, though not necessarily, associated with intonational prominence.

Since Chomsky (1971, 1976) and Jackendoff (1972), it has become standard practice to use the question/answer test to establish the partition of the sentence in focus and presupposition. This is illustrated in (5) to (7) by means of examples adapted from Zubizarreta (1998).

(5) a. What did John eat?

b. John ate **an apple**.

c. There is an x such that John ate x . (x = an apple)

(6) a. Who ate an apple?

b. **John** ate an apple.

c. There is an x such that x ate an apple. (x = John)

(7) a. What did John do?

b. John **ate an apple**.

c. There is an x such that John did x . (x = ate an apple)

In the (b) sentences the constituent that substitutes for the *wh*-phrase is the focus. In each example, the constituents that make up the rest of the sentence are part of the question, so that in the answer, they already constitute background information, i.e. shared knowledge. The interpretation of the (b) sentences may be represented in terms of existential quantification, as in (c). Focus introduces a variable (represented by x in the examples) with an associated value (provided in brackets). This type of focus is referred to as *informational focus* in the literature. In Spanish and English, it tends to appear sentence-finally, the position that receives nuclear stress.

But the focalized constituent can also surface sentence-initially. This linearity is assumed to be derived by a movement operation standardly known as *focus fronting* or *focus preposing*. According to Caselles-Suarez (2004), the trigger of focus fronting may be the desire to unambiguously mark the preposed constituent as a narrow focus.

With the exception of focalized subjects in English, sentence-initial foci are contrastive/exhaustive both in English and Spanish⁷².

A contrastive focus is not simply informative, but rather negates the hearer's presupposition and introduces a variable and its associated value. Some examples are provided in (8). Following standard practice, capitalization is used to highlight the constituent that has been focalized.

(8) a. PETER I could trust (not Bill).

b. UN COCHE me voy a comprar (no una moto).

a car me go(1sg) to to-buy (not a motorbike).

'A CAR I am going to buy (not a motorbike).'

In these sentences the focalized constituent contrasts with an element that has been mentioned in the discourse; in the examples, it is provided in brackets⁷³. In (8b), for instance, by focalizing the DP *un coche* ('a car'), the speaker negates the previous statement that she is going to buy a motorbike and assigns a new value to the focus variable (i.e. she is buying a car, not a motorbike). This type of contrastive reading is, however, not obligatory. A fronted focus may simply emphasize the information it introduces, as in (9) and (10) – drawn from Bosque & Gutiérrez-Rexach (2008).

(9) a. Fíjate en los zapatos que he comprado en las rebajas.

look(imp2sg) at the shoes which have(1sg) bought in the sales

'Look at the shoes I've bought in the sales.'

b. ALGO ASÍ tendría que comprarme yo.

something alike would-have-to(1sg) that to-buy-me I

'SOMETHING LIKE THAT I should buy.'

⁷² For a complete description of terminological and typological questions related to the category focus, see Casielles-Suarez (2004) and the references quoted there.

⁷³ Notice that, unlike CLLD in (ib), focus fronting – as in (ia) – does not prompt the insertion of a clitic in Spanish.

(i) a. LAS BEBIDAS compró Pedro (no los aperitivos).

the drinks bought(3sg) Peter (not the snacks)

'THE DRINKS Peter bought (not the snacks).'

b. Las bebidas las compró Pedro.

the drinks CL_{ACC} bought(3sg) Peter

'The drinks Peter bought.'

(10) a. En la boda había gente muy elegante.

at the wedding there-was people very elegant

‘There were very elegant people at the wedding.’

b. Es verdad. MUY BONITO me pareció el traje de la novia.

is true very beautiful me appeared(3sg) the dress of the bride

‘It’s true. In my opinion, the wedding dress was very beautiful.’

According to Zubizarreta (1998), emphatics negate or reassert part of the hearer’s presupposition, but unlike contrastively focused phrases, they do not introduce a variable with an associated value. Thus, *algo así* (‘something like that’) in (9b) refers back to the shoes mentioned in the previous statement. Emphatics in Spanish are very often bare negative phrases (the so-called *n*-words), as in (11), and bare indefinites like *algo/alguien* (‘something/somebody’), as in (12). The examples are from Zubizarreta (1998).

(11) a. A NADIE le devolvió María su manuscrito.

to nobody CL_{DAT} returned(3sg) Mary his manuscript

‘Mary returned his manuscript to nobody.’

b. Con NADIE compartió María su secreto.

with nobody shared(3sg) Mary her secret

‘Mary shared her secret with nobody.’

(12) a. ALGO debe haberte dicho María para que te hayas enojado tanto.

something must(3sg) to-have-you said Mary for that you have(subj2sg) angry so

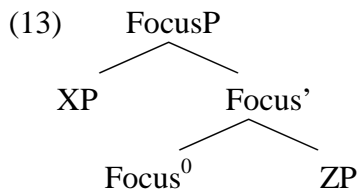
‘Mary must have said something for you to be so angry.’

b. Con ALGUIEN debe haber hablado Pedro acerca de esto.

with someone must(3sg) to-have spoken Peter about of this

‘Peter must have spoken with someone about this.’

In spite of displaying certain differences in interpretation (as explained above), the fronted foci identified in the preceding paragraphs are usually assigned the syntactic structure in (3) above, repeated for convenience as (13).



For the purposes of this dissertation, I will assume, following Rizzi (1997b), that the fronted constituent moves to the Specifier of a Focus projection in the left periphery of the sentence to check a [+focus] feature against a focus head. That movement is involved is assumed on the basis of the fact that focalization is sensitive to islands. The examples provided in (14) to illustrate the point are taken from Zubizarreta (1999).

- (14) a. *A PEDRO conocemos a la mujer [que traicionó _] (y no a JUAN).
to Peter know(1pl) to the woman who betrayed(3sg) and not to John
 ‘*PETER we know the woman who betrayed (and not John).’
- b. *A PEDRO terminaremos la tarea [antes de llamar _] (y no a JUAN).
to Peter will-finish(1pl) the task before of to-call and not to John
 ‘*PETER we will finish the task before we call / before calling (and not John).’
- c. *A PEDRO [que María haya invitado _] sorprendió a todo el mundo.
to Peter that Mary has(subj) invited surprised(3sg) to all the world
 ‘*PETER that Mary invited surprised everyone.’

In (14a), the focalized PP has been extracted from a relative clause; in (14b) from a clausal adjunct and in (14c) from a subject. It is well-established that extraction from these three domains leads to ungrammaticality.

In the case of Spanish, focus fronting triggers obligatory subject-verb inversion. The contrast in (15) below shows that the subject cannot appear between the focalized phrase and the verb; neither can a topic, for instance, intervene between the sentence-initial focus and the verb, (16). These facts have been interpreted as indicative of a Spec-head relation between the focalized constituent and the verb, which is assumed to move to the focus head⁷⁴. See Bosque and Gutiérrez-Rexach (2008), Zagana (2002), Zubizarreta (1998) and the references quoted there.

⁷⁴ Before the split CP-domain was adopted, the focalized constituent was assumed to move to SpecCP and the verb to C. See for example, Hernanz & Brucart (1987) or Campos & Zampini (1990).

(15) a. EL PERIÓDICO compró María.
the newspaper bought(3sg) Mary
'THE NEWSPAPER Mary bought.'

b. *EL PERIÓDICO María compró.

(16) a. En la fiesta, A PEDRO vimos.

at the party to Peter saw(1pl)

'At the party, PETER we saw.'

b. *A PEDRO en la fiesta vimos.

The situation is different in English, where no subject-verb inversion takes place, (17).

(17) a. THE NEWSPAPER Peter bought.

b. *THE NEWSPAPER bought Peter.

c. *THE NEWSPAPER did Peter buy.

There are two notable exceptions to this state of affairs in English: *negative inversion*, illustrated in (18), and *only-inversion*, (19). In these two emphatic constructions, the subject obligatorily follows the verb.

(18) a. Under no circumstances are you allowed to leave before noon.

b. Not a single word did he utter.

(19) a. Only after she left did we notice that something was missing.

b. Only then did I realize what was happening.

Up to this point the discussion has concentrated on matrix sentences, but FocusPs may also project in the left periphery of embedded clauses. Some relevant examples are provided in (20) and (21)⁷⁵.

⁷⁵The availability of focalization in embedded contexts seems to be restricted by the matrix predicate. Compare (i) with the examples provided in the main text.

(i) a. *Preferiría que a DOS CHICAS hubieras invitado a la fiesta (no a dos chicos).
would-prefer(1sg) that to two girls would-have(2sg) invited to the party (not to two boys)

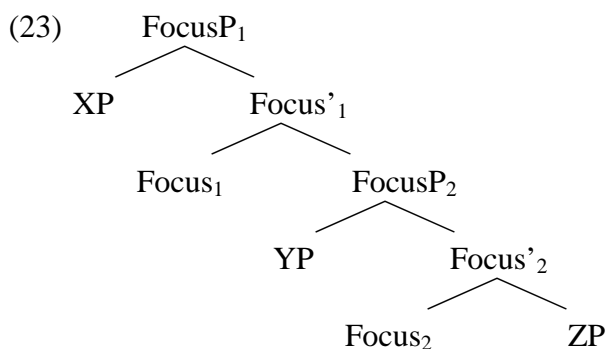
b. *I would prefer that TWO GIRLS Peter had invited to the party (not two boys).

- (20) a. Creo que las ARAÑAS le dan miedo a Pedro (no las ratas).
think(1sg) that the spiders CL_{DAT} give(3pl) scare to Peter not the rats
 ‘I think that OF SPIDERS Peter is scared (not of rats).’
- b. Me han dicho que a NADIE le devolvieron el dinero.
me have(3pl) said that to nobody CL_{DAT} gave-back(3pl) the money
 ‘They told me that to NO ONE they gave the money back.’
- c. María me ha confirmado que ALGO (sí) le han regalado (pero no me ha querido decir qué).
Mary me has confirmed that something yes CL_{DAT} have(3pl) given but not me has wanted to-tell what
 ‘Mary has told me that SOMETHING they gave to her, but she refused to tell me what.’
- (21) a. I think that TWO GIRLS Peter invited to the party (not two boys).
 b. Mary said that PETER she would trust.
 c. Alison said that at no time would she agree to visit Joe.
 d. Mandy wonders why in no way would her husband agree.
 e. Mary claimed that only then did she realize what was happening.

One final characteristic of foci is that they are unique. i.e. only one constituent may undergo focalization per sentence, as illustrated in (22). The example is from Zubizarreta (1999).

- (22) *Estoy segura de que la MANZANA, a EVA le dio Adán (y la PERA a MARÍA).
am sure of that the apple to Eve CL_{DAT} gave(3sg) Adam (and the pear to Mary)
 ‘I am sure that the APPLE, to EVE Adam gave (and the PEAR to MARY).’

Several explanations are available in the literature for the non-recursivity of the focus projection. Rizzi (1997b), for instance, appeals to the discourse function of focus. The structure of the left periphery of a sentence with two focus projections would look like (23).



The fact that a focalized constituent (YP) – that is, a constituent conveying new information – appears in the presupposition of FocusP₁, which should express background information, leads to a semantic/interpretive inconsistency⁷⁶.

It has to be noted that two foci may appear in the same sentence. An example follows in (24). However, in such cases, only one of them can be fronted.

(24) a. The CIRCUS I want to see in THIS town.

b. El CIRCO quiero ver en ESTA ciudad.

the circus want(1sg) to-see in this town

‘THE CIRCUS I want to see in THIS town.’

In this type of sentences, a reading is imposed akin to the pair-list reading of multiple questions. This fact suggests that the language admits only one focus per sentence and that this focus may be constituted by a pair of individuals, as in (25).

(25) El CIRCO quiero ver en ESTA ciudad (no los fuegos artificiales en aquella).

the circus want(1sg) to-see in this town not the fireworks in that

‘THE CIRCUS I want to see in THIS town (not the fireworks in that one).

After this brief presentation of focus constructions, the remainder of this chapter will be devoted to exploring the availability of EX from a fronted focus.

⁷⁶Zubizarreta (1999) claims that the strict adjacency between the fronted focus and the verb in Spanish may be at the core of an account of the uniqueness of focus, i.e. only one constituent may be adjacent to V. However, the fact that adjacency is not obligatory in English, where focus is also unique, makes an account along these lines doubtful.

3. Focus preposing and EX

As mentioned above, the two sentence-initial foci identified in the preceding section (contrastive and emphatic) are alike in that they negate (or reassert) part of the hearer's presupposition. They differ in that only the former additionally introduces a variable and its associated value. In spite of this difference in their interpretation, these two foci display the same syntactic behavior in their interaction with EX, as will become clear in the course of this section. For this reason, they will be discussed in parallel. I will use the term *focus* as a cover term to refer to both.

Any DP – be it a subject, a direct object or an indirect object – may appear in sentence-initial position as a (contrastive or emphatic) focus. Some relevant examples are provided in (26).

(26) a. UN HOMBRE entró en la habitación (no una mujer).

a man entered(3sg) in the room not a woman

‘A MAN entered the room (not a woman).’

b. UNA MOTO se compró Pedro (no un coche).

a motorbike CL_{refl} bought(3sg) Peter not a car.

‘A MOTORBIKE Peter bought (not a car).’

c. A MARÍA le envió Juan aquellas flores por su cumpleaños (no a Julia).

to Mary CL_{DAT} sent(3sg) John those flowers on her birthday not to Julia

‘TO MARY John sent those flowers on her birthday (not to Julia).’

d. NADIE me va a decir lo que tengo que hacer.

nobody me goes(3sg) to to-tell the what have(1sg) that to-do

‘NOBODY is going to tell me what I have to do.’

e. ALGO se le ocurrirá a tu madre.

something CL_{refl} CL_{DAT} will-occur(3sg) to your mother

‘SOMETHING will occur to your mother.’ / ‘Your mother will think about something.’

f. ALGUNA EXCUSA tendréis que inventar.

some excuse will-have(2pl) that to-invent

‘SOME EXCUSE you will have to think about.’

The data in (27) illustrate the same construction in English.

- (27) a. A MAN came into the room (not a woman).
 b. A CAR Peter wants to buy (not a motorbike).
 c. MARY I sent a book to (not Peter)⁷⁷.
 d. NO ONE will tell me what I have to do.
 e. Not a single word did he utter at the meeting.
 f. Only a few words could we exchange before he was forced to leave.

In the Spanish sentences in (26a) through (26c) above the fronted constituent is a contrastive focus (a possible contrastive element is provided in parentheses). In (26d) through (26f), the sentence-initial constituent is an emphatic (in the sense of Zubizarreta 1998). Similarly, the English sentences in (27a) to (27c) illustrate preposing of a contrastive focus, while those in (27d) to (27f) show the two emphatic constructions dubbed, respectively, *negative inversion* and *only-inversion* in traditional grammars of English.

In order to organize the presentation of data, the syntactic function of the focalized DP will be used as a structuring device. Thus, the first subsection, 3.1, will be devoted to exploring the EX possibilities from a fronted subject. The discussion will then move on to EX from a direct object in section 3.2 to finish with EX from an indirect object, in section 3.3.

3.1. EX from a focalized subject

The first sets of data that will be presented in this section involve EX from a focalized DP that functions as the surface subject of passive and unaccusative predicates, (28) and (29). Recall that, in these sentences, the surface subject is generated as an internal argument. Given the hypothesis that EX takes place when the source DP is in its base position, these sentences have to be analyzed as cases of EX(OB). Notice that a focalized constituent occupies a derived Spec, i.e. a freezing position. For this reason, EX cannot be assumed to take place after focus fronting. I will come back to this issue below.

⁷⁷ In cases of focalization of the indirect object, the construction involving P-stranding – as in the main text – is preferred over that in (i).
 (i) TO MARY I sent a book (not to Peter).

- (28) a. *UN LIBRO* se ha publicado *sobre el calentamiento global* (no un artículo).
a book CL_{pass} has published about the warming global not an article
 ‘A BOOK has been published about global warming, not an article.’
- b. (*Sólo*) *DOS MUJERES* fueron admitidas en el curso *que carecían de*
only two women were(3pl) admitted in the course who lacked(3pl) of
conocimientos previos (no tres mujeres / no dos hombres).
knowledge previous not three women / not two men).
 ‘(Only) two women were admitted to the course who had no previous
 knowledge (not three women/not two men).’
- c. *ALGO* se habrá dicho en la reunión *que podamos publicar*.
something CL_{pass} will-have(3sg) said at the meeting which can(subj1pl) to-publish
 ‘SOMETHING must have been said at the meeting that we can publish.’
- d. *NADIE* será admitido en el proyecto *que no acredite su cualificación*.
no one will-be(3sg) admitted to the project who not prove(subj3sg) his qualification
 ‘NO ONE will be admitted to the project who can’t provide evidence of their
 qualification.’
- e. *NI UN SOLO LIBRO* se ha publicado / ha sido publicado este año *sobre la*
not one single book CL_{pass} has published / has been published this year about the
polución marina.
pollution sea
 ‘Not a single book has been published this year about sea pollution.’
- (29) a. *UN HOMBRE* entró en la reunión *que me resultaba familiar*.
a man came(3sg) in the meeting who me looked(3sg) familiar
 ‘A MAN came into the meeting who looked familiar to me.’
- b. *NINGÚN PROFESOR/NADIE* ha llegado todavía *que no tenga una*
no professor / nobody has arrived yet who not have(subj3sg) a
ponencia a primera hora.
talk at first hour
 ‘NO PROFESSOR / NO ONE has arrived yet who doesn’t have a talk early in
 the morning.’
- c. *OTROS* vendrán después *que lo harán mejor*.
others will-come(3pl) afterwards who CL_{ACC} will-do(3pl) better
 ‘OTHERS will come later who will do it better.’

These Spanish sentences are perfectly acceptable, as are similar English clauses, (30) and (31).

- (30) a. *A BOOK* was published last year *about global warming* (not an article).
b. *ONLY TWO PEOPLE* were arrested *that had confessed to having taken part in the plot*.
c. *NOTHING* was said *of any relevance*.
- (31) a. *A MAN* came in *who I didn't know* (not a woman).
b. *ONLY ONE MAN* came in *that I didn't know*.
c. *NOBODY* arrived *that was not expected*.

It seems that EX from a focalized subject is possible both in English and Spanish. There is, however, an interesting difference between the two languages: defocusing of the preverbal subject renders the sentences unacceptable only in Spanish. This is consistent with the results obtained in chapter 7. The same type of situation arises in the case of unergatives, as witnessed in (32). Without intonational prominence on the subject, these sentences are unacceptable.

- (32) a. *DOS HOMBRES* trabajan en esta obra *que no tienen los papeles en regla*.
two men work(3pl) in this building site who not have(3pl) the papers in order
'TWO MEN are working in this building site who do not have their papers in order.'
- b. *UNA MUJER* telefonó anoche *que dijo que quería hablar contigo*.
a woman phoned(3sg) yesterday evening who said(3sg) that wanted(3sg) to-talk with-you
'A WOMAN phoned yesterday evening who said that she wanted to talk to you.'
- c. *ALGUIEN* llamó anoche *que necesitaba tu número de móvil*.
someone phoned(3sg) yesterday evening who needed(3sg) your number of mobile
'SOMEONE phoned yesterday evening who needed your mobile number.'

d. *NADIE* trabajará en este proyecto *que no acredite debidamente su*
no one will-work(3sg) in this project who not proves(subj) appropriately their
capacitación.

training

‘No one will work in this project who cannot provide adequate evidence of their training.’

The acceptability of EX in the Spanish sentences in (28), (29) and (32) appears therefore to be related to focalization. This effect is reminiscent of that described in Guéron (1980) for English unergatives which related EX with stress prominence and focus.

(33) a. ??*A man* screamed *who wasn't wearing any clothes.*

b. Suddenly there was the sound of lions growling. Several women screamed. Then
a man screamed *who was standing at the very edge of the crowd.*

As discussed in chapter 7, (33a) is perceived as deviant in isolation, but deemed grammatical when embedded in a context such as the one described in (33b), which involves defocusing of the predicate and focalization of the subject. In (33b), the subject *a man* stands in opposition with *several women* in the preceding sentence.

After showing that EX can target the focalized subjects of monoargumental predicates, the discussion turns to sentences headed by pluriargumental predicates. The Spanish sentences in (34) and (35) illustrate EX from the subject of transitive and ditransitive predicates. (36) and (37) show similar examples in English.

(34) a. */??*UN CHICO* ha comprado el último ejemplar esta mañana *que vive a la*
a boy has bought the last copy this morning who lives at the
vuelta de la esquina (no tu primo).

turn of the corner not your cousin

‘A BOY bought the last copy this morning who lives around the corner (not your cousin).’

b. ?*NADIE / NINGÚN ESTUDIANTE* ha leído tu libro *que no esté*
no one / no student has read your book who not is(subj3sg)
interesado en el calentamiento global.
interested in the warming global
 ‘NO ONE / NO STUDENT has read your book who is not interested in global warming.’

c. *MUCHOS ESTUDIANTES* han solicitado la beca este año *que no cumplen*
many students have(3pl) applied-for the grant this year who not fulfill(3pl)
los requisitos económicos.
the requirements economic
 ‘MANY STUDENTS have applied for the grant this year who do not fulfill the economic requirements.’

(35) a. ??*UN HOMBRE* me envió una felicitación ayer *al que yo no*
a man me sent(3sg) a note of congratulations yesterday to-the whom I not
conocía (no una mujer).
knew(3sg) not a woman

‘A MAN sent me a note of congratulations yesterday who I didn’t know.’

b. ?*ALGUIEN* le ha regalado un gato a María *que no sabe que es alérgica*⁷⁸.
someone CL_{DAT} has given a cat to Mary who not knows that is allergic
 ‘SOMEONE gave a cat to Mary who doesn’t know that she is allergic.’

c. *NADIE* me ha dado nunca nada *que no quisiera algo a cambio.*
no one me has given never nothing who not wanted(subj3sg) something in exchange
 ‘No one has ever given anything to me who did not expect something in exchange.’

(36) a. *AN AGENT* talked to me *from the FBI*.

⁷⁸ Changing the linear sequence of direct and indirect object in (35b) brings about the degradation of the sentence, as shown in (i).

(i) ??/**ALGUIEN* le ha regalado a María un gato ayer *que no sabe que es alérgica.*
someone CL_{DAT} has given to Mary a cat yesterday who not knows that is allergic
 ‘SOMEONE has given Mary a cat yesterday who doesn’t know that she is allergic.’

In this sentence, the extraposed relative tends to be interpreted as construed with the direct object; thus, producing the incoherent reading in which the cat did not know that Mary was allergic. This is reminiscent of the *closeness* effects alluded to in preceding chapters. Although the interpretation is not completely excluded in (35b), in that sentence it is easier to interpret the extraposed relative as a modifier of the sentence-initial focus.

Since the two internal arguments do not appear in their canonical order – which could eventually have some interpretive effect that interacts with focalization and EX – the sentences are not considered in the discussion in the main text. For the different interpretations of the alternative linear sequences of internal arguments, see the discussion in section 3.3 below.

- b. A *MAN* shot a lawyer yesterday *from the Cosa Nostra*.
 - c. Don't worry. *Nobody* saw you *that could report you/it to the police*.
- (37) a. A *FRIEND* gave a book to me *who knew that it was my birthday*.
- b. *TWO DIFFERENT PEOPLE* gave me a photo of your mother yesterday *who I didn't know*.
 - c. (Not only ONE but) *TWO POLICEMEN* showed me a photo of yours yesterday *who are investigating the robbery*.

In what follows I will focus first on the Spanish data in (34) and (35) to turn later briefly to the English examples in (36) and (37). Since all the sentences in (34), on the one hand, and (35), on the other, have the same syntactic structure (a relative clause has been extraposed from the focalized subject of a transitive or a ditransitive predicate) the same degree of (un)acceptability would be expected in all of them. However, when EX takes place from a fronted DP headed by an indefinite – as in (34a) and (35a) – the sentences are degraded.

It is not clear to me why different degrees of acceptability arise in these examples. One possible explanation might come from the syntactic complexity of the sentences and, in particular, of the string between HN and EC. Thus, the clauses in (34a) and (35a), for instance, improve notably when one of the arguments precedes the focalized constituent, as in (38).

- (38) a. ?El último comic, *UN CHICO* lo ha comprado esta mañana *que vive aquí mismo, a la vuelta de la esquina*.
right at the turn of the corner
 ‘The last comic, A BOY bought this morning who lives right here around the corner.’
- b. Esa felicitación, *UN HOMBRE* me la envió ayer *al que yo no conocía* (no una mujer).
not knew(3sg) not a woman
 ‘That note of congratulations, A MAN sent to me yesterday who I didn't know (not a woman).’

In these sentences, the direct object has undergone topicalization (in (38b), the indirect object has additionally been cliticized), which reduces the complexity of the linear segment between head noun and EC. The immediate effect of this operation is a clear improvement in the acceptability of the sentences. But topicalization and cliticization have another consequence: they eliminate potential *closeness effects* by removing a possible antecedent of the EC from the linear sequence between the latter and its head noun. Notice that, whatever the correct explanation of these *closeness effects* turns out to be, the fact that they do not appear uniformly (i.e. they do not seem to follow a pattern) disfavors a syntactic account.

Notice further that the acceptability of EX in the context of focalization of indefinites improves when the emphatic adverb *sólo* ('only') is added. In the sentences in (39) below the adverbial restricts the possible number of referents to one, so that the DP headed by the indefinite article behaves, with respect to EX, exactly like DPs headed by numerals, where EX is also felicitous.

- (39) a. *SÓLO UN HOMBRE* me envió una felicitación ayer al que
only a man me sent(3sg) a note of congratulations yesterday to-the whom
yo no conocía.
I not knew(3sg)
 'ONLY A/ONE MAN sent me a note of congratulations yesterday who I didn't know.'
- b. *SÓLO UNA PERSONA* me hizo un regalo ayer que no debería
only a person me made(3sg) a present yesterday who not should(3sg)
haberlo hecho.
to-have-CL_{ACC} done
 'ONLY ONE PERSON gave me a present yesterday who shouldn't have done it.'
- c. Ni uno ni dos, *TRES hombres* me enviaron una felicitación ayer
not one not two three men me sent(3pl) a note of congratulations yesterday
a los que yo no conocía de nada.
to the who I not knew(3sg) of nothing
 'Not one not two, (but) THREE men sent me a note of congratulations yesterday who I didn't know at all.'

d. *DOS PERSONAS* me hicieron un regalo ayer *que no deberían haberlo*
two people me made(3pl) a present yesterday who not should(3pl) have-CL_{ACC}
hecho.

done

‘TWO PEOPLE gave me a present yesterday who shouldn’t have done it.’

In summary, the unacceptability of (34a) and (35a) seems to arise from factors that go beyond the particular syntactic configuration. Some of these factors (like the *closeness effects*) seem to be related to processing and interpretation rather than to syntax. What is important for the purposes of this chapter is that EX is allowed from the focalized subject of transitive and ditransitive predicates (at least under certain circumstances).

Before turning to EX from focalized direct objects, a brief comment on the English data in (36) and (37) – repeated for convenience as (40) and (41) – is in order.

(40) a. *AN AGENT* talked to me *from the FBI*.

b. A *MAN* shot a lawyer yesterday *from the Cosa Nostra*.

c. Don’t worry. *Nobody* saw you *that could report you/it to the police*.

(41) a. A *FRIEND* gave a book to me *who knew that it was my birthday*.

b. *TWO DIFFERENT PEOPLE* gave me a photo of your mother yesterday *who I didn’t know*.

c. (Not only ONE but) *TWO POLICEMEN* showed me a photo of yours yesterday *who are investigating the robbery*.

The sentences in (40a) and (40b) were discussed in chapter 7, where it was concluded that EX from a preverbal subject in English is possible in the general case. Focalization of this constituent seems to facilitate the link between EC and head noun. When the DP subject is a negative indefinite (as in (40c)) no special stress prominence is required to establish a connection with the extraposed relative. The sentences in (41) – headed by a ditransitive predicate – are rather difficult to judge given their complexity. However, they seem to be quite acceptable if the subject is contrastive and the relative clause is separated from the rest of the sentence by some prosodic inflection, which will confer the EC an afterthought interpretation.

The overall conclusion that can be drawn from the examples discussed in this section is that EX from a subject that has undergone focus preposing is possible both in

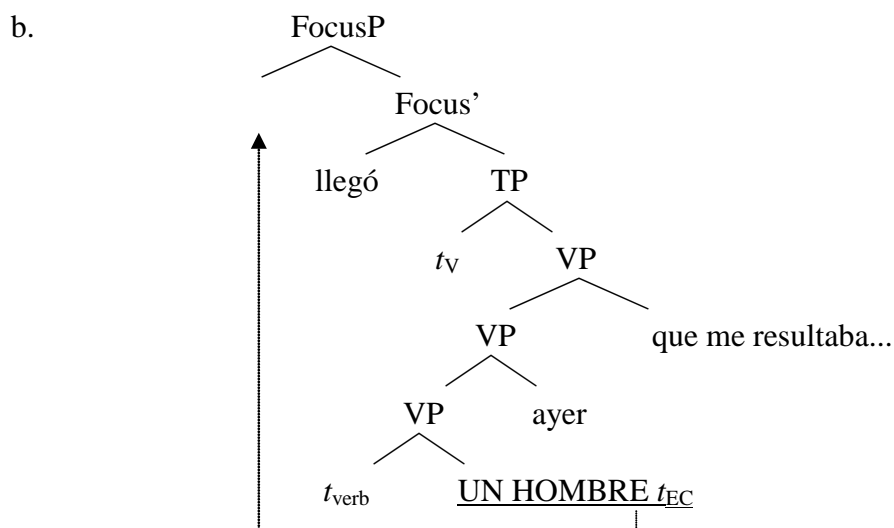
English and in Spanish. The compatibility of the two movement operations is quite clear in the case of monoargumental predicates. The presence of other arguments between head noun and EC in sentences headed by pluriargumental predicates leads to the degradation of some sentences. It has also been shown that once the argument is removed from the intervening position, the degree of acceptability increases.

The structure of Spanish sentences headed by unaccusative and passive predicates is provided below. EX adjoins the relative clause to VP. Subsequent focalization of the head noun will place this DP in SpecFocusP. When the focalized constituent is the subject, the obligatory inversion attested in Spanish focus fronting constructions is vacuous.

(42) a. *UN HOMBRE* llegó ayer que me resultaba familiar.

a man arrived(3sg) yesterday who me looked(3sg) familiar

‘A MAN arrived yesterday who looked familiar to me.’

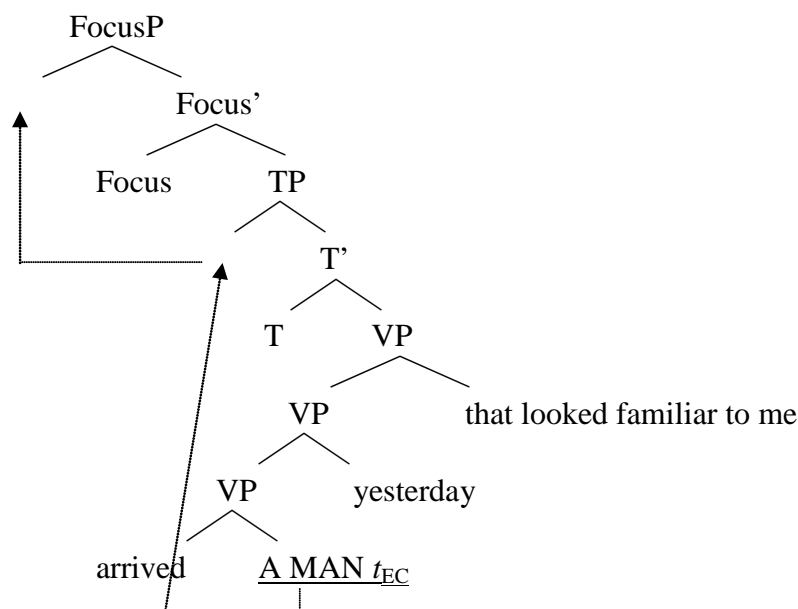


Notice that I am assuming that EX takes place before focus fronting and that the head noun will later move to SpecFocusP. If the second movement operation is triggered by [+focus], the same feature cannot be held responsible for EX. Recall that we have shown in section 2 above that only one constituent can undergo focus movement in a sentence. The same observation applies to all the derivations in this chapter.

The analysis of the English counterpart of this sentence differs from (42) in certain respects. First, the verb will not raise from its base position, as no inversion is observed in English. Second, the subject will raise to SpecTP in the usual manner to check the EPP and later to SpecFocusP to check a strong [+focus] feature. As concerns

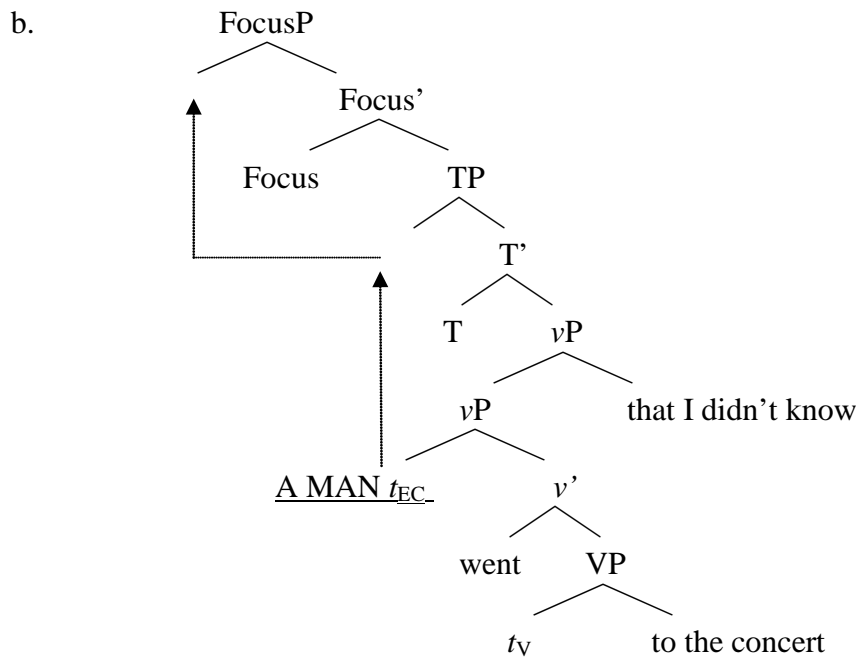
EX, English does not differ from Spanish in its domain of application. In both languages, the EC is VP-adjoined. Recall that I am assuming that EX takes place before raising to Focus, because SpecFocusP is a freezing position. The parser of the English derivation is provided in (43).

(43)

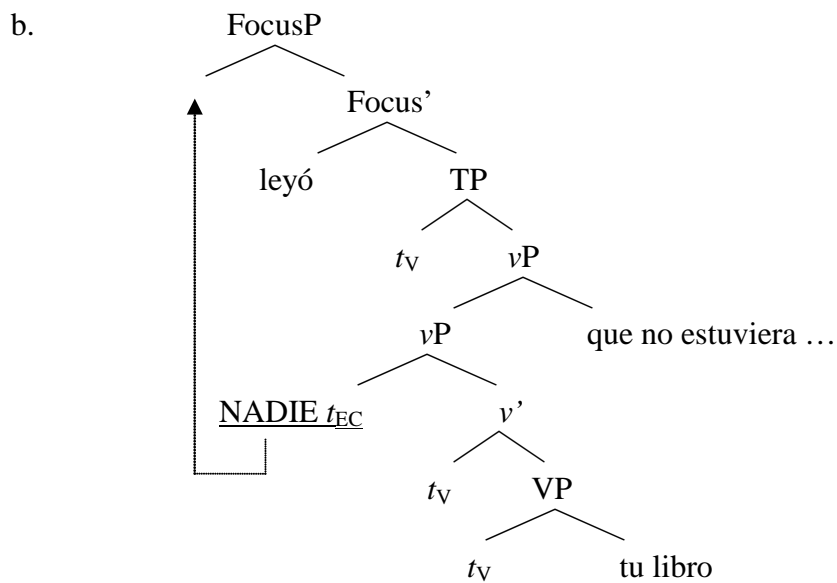


In sentences headed by unergative, transitive and ditransitive predicates, the subject is an external argument base-generated in the Spec v P. Correspondingly, the EC will adjoin to v P. In the case of Spanish, the subject will raise directly to the SpecFocusP to check its [+focus] feature. In the case of English, it will go through the SpecTP where it checks the EPP. The position of the verb is again different in the two languages. While in English it will not raise beyond v , in Spanish it will reach the Focus head via T. (44) illustrates the derivation of an unergative predicate in English, (45) that of a transitive in Spanish. The same derivation extends in each language to the rest of predicate types, the only difference across predicates being the internal structure of VP.

(44) a. *A MAN* went to the concert *that I didn't know* (not a woman).



- (45) a. *NADIE* leyó tu libro *que no estuviera* interesado en el calentamiento global.
no one read your book who not was(subj3sg) interested in the warming global
 'NO ONE read your book who was not interested in global warming.'



I will now turn to EX from focalized direct objects.

3.2. EX from a focalized direct object

EX from a DP object is generally possible both in Spanish, (46) and (47), and in English (48) and (49). The sentences in (46) and (48) are headed by transitive predicates, those in (47) and (49) by ditransitive predicates.

- (46) a. He leído *dos artículos* este mes *sobre la contaminación marina*.
have(1sg) read two articles this month about the pollution sea
'I have read two articles this month about sea pollution.'
- b. Conozco *a dos personas* ya *que han empezado a leer esa novela* y no
know(1sg) to two people already who have(3pl) started to to-read that novel and not
han conseguido terminarla.
have(3pl) managed to-finish-CL_{ACC}
'I know two people already who have started reading that novel and didn't manage to finish it.'
- c. El exesorero no ha dicho *nada* todavía *que comprometa al partido*.
the former treasurer not has said nothing yet that compromise(subj3sg) to-the party
'The former treasurer hasn't said anything yet that compromises the party.'
- d. No hemos encontrado *a nadie* aún *que hable mal de Laura*.
not have(1pl) found to no one yet who speaks(subj) bad of Laura
'We haven't found anyone yet who says a bad word about Laura.'
- e. Habrá comido *algo* en el banquete *que le ha sentado mal*.
will-have(3sg) eaten something at the banquet that CL_{DAT} has done wrong
'He must have eaten something at the banquet that made him feel ill.'
- (47) a. Le ha regalado (*un libro*) Juan (*un libro*) a María *sobre el calentamiento global*.
CL_{DAT} has given a book John a book to Mary about the warming global
global
'John gave a book to Mary about global warming.'
- b. Le ha hecho (*una oferta*) Pedro (*una oferta*) a María *que nadie podría rechazar*.
CL_{DAT} has made an offer Peter an offer to Mary that nobody could(3sg) to-reject
'Peter has made an offer to Mary that no one could reject.'

- c. No me dijeron *nada* mis compañeros *que me hiciera* *cambiar de opinión.*
not me said(3pl) nothing my colleagues that me made(subj3sg) to-change of opinion
 ‘My colleagues told me nothing that could make me change my mind.’
- d. Le han dicho *algo* a Pedro *que no le ha sentado nada bien.*
CL_{DAT} have(3pl) said something to Peter that not CL_{DAT} has done nothing good
 ‘They told Peter something that he didn’t like at all.’

- (48) a. I read *a book* last week *about global warming.*
 b. Peter met *a man* yesterday *that is being investigated by the police.*
 c. I talked *to two people* yesterday *that started reading this novel twice but didn’t manage to read it to the end.*
 d. I’m sure I haven’t said *anything* yet *that could have offended her.*
- (49) a. The company made *an offer* to Peter *that he couldn’t reject.*
 b. Laura sent *a present* to Peter on his birthday *that made him incredibly happy.*
 c. Laura told Peter *something* yesterday *that made him angry.*
 d. I haven’t said *anything* to Mary *that could have offended her.*

The question that I will explore in this section is whether EX is still possible when the object has undergone focus fronting. But before going on to transitive predicates, the case of Spanish *haber* (‘there to be’) will be considered. *Haber* is an impersonal predicate whose only argument functions as a direct object. As can be seen in (50), EX is possible from the object in its base position.

- (50) a. Hay *tres sillas* en el pasillo *que antes estaban en el aula.*
there-is three chairs in the corridor that before were(3pl) in the classroom
 ‘There are three chairs in the corridor that were earlier in the classroom.’
- b. Hubo *un número de magia* en la fiesta *que nos encantó.*
there-was a show of magic at the party that us loved(3sg)
 ‘There was a magic show at the party that we loved.’
- c. Habrá *algo* todavía *que podamos hacer.*
there-will-be(3sg) something yet that can(subj1pl) to-do
 ‘There must still be something that we can do.’

- d. No hay *nada* ya *que se pueda hacer por él*.
not there-is nothing yet that CL_{impers} can(subj3sg) to-do for him
 ‘There is nothing left that can be done for him.’
- e. Ya *habrá* *alguien* en toda la ciudad *que pueda ayudarnos*
already there-will-be(3sg) someone in all the city that can(subj3sg) to-help-us
a resolverlo.
to to-solve-CL_{ACC}
 ‘There must be someone in the whole city that can help us solve it.’

The object of *haber* can only appear pre-verbally if focalized, and EX is again possible.

- (51) a. *TRES SILLAS* hay *ahora* en el *pasillo que antes estaban en el aula*.
three chairs there-is now in the corridor that before were(3pl) in the classroom
 ‘THREE CHAIRS are in the corridor now that were earlier in the classroom.’
- b. *UN NÚMERO DE MAGIA* hubo *en la fiesta que nos encantó* (no una
a show of magic there-was at the party that us loved(3sg) (not a
actuación musical).
performance musical)
 ‘A MAGIC SHOW there was at the party that we loved (not a musical performance).
- c. *ALGO* *habrá* *que podamos hacer*.
something there-will-be(3sg) that can(subj1pl) to-do
 ‘SOMETHING there must be that we can do.’
- d. *NADA* hay *ya que se pueda hacer por él*.
nothing there-is already that CL_{imper} can(subj3sg) to-do for him
 ‘NOTHING there is left that can be done for him.’
- e. *ALGUIEN* *habrá* *en toda la ciudad que pueda ayudarnos a*
someone there-will-be(3sg) in whole the city that can(subj3sg) to-help-us to
resolverlo.
to-solve-CL_{ACC}
 ‘SOMEONE there must be in the whole city that can help us solve it.’

Turning now to transitive and ditransitive predicates, in the sentences below, it can be seen that EX is possible from the focalized direct object of both predicate types. The

presence of another argument (the indirect object and/or the subject) between the head noun and the EC does not block EX (i.e. no *closeness effects* are attested).

- (52) a. *DOS ARTÍCULOS* he leído este mes *sobre la contaminación marina* (no tres).
two articles have(1sg) read this month about the pollution sea (not three)
 ‘TWO ARTICLES I’ve read this month about sea pollution (not three).’
- b. A *DOS PERSONAS* conozco ya *que han empezado a leer esa novela* y
to two people know(1sg) already who have(3pl) started to read this novel and
no han conseguido terminarla.
not have(3pl) managed to-finish-it
 ‘TWO PEOPLE I know already who have started to read that novel and could not finish it.’
- c. *NADA* ha dicho el exesorero *que pueda comprometer al partido.*
nothing has said the former-treasurer that can(subj3sg) to-compromise to-the party
 ‘NOTHING the former treasurer has said that can compromise the party.’
- d. A *NADIE* hemos encontrado nosotros *que hable mal de Laura.*
to nobody have(1pl) found we that speak(subj3sg) bad of Laura
 ‘NO ONE we have found that says a bad word about Laura.’
- e. *ALGO* habrá comido Pedro *que le ha sentado mal.*
something will-have(3sg) eaten Peter that CL_{DAT} has done wrong
 ‘SOMETHING Peter must have eaten that made him ill.’
- (53) a. *UN LIBRO* le ha regalado Juan a María *sobre el calentamiento global.*
a book CL_{DAT} has given John to Mary about the warming global
 ‘A BOOK John has given to Mary about global warming.’
- b. *UNA OFERTA* le ha hecho Pedro a María *que ella no ha podido rechazar.*
an offer CL_{DAT} has made Peter to Mary that she not has been-able to-reject
 ‘AN OFFER Peter made Mary that she could not reject.’
- c. *NADA* me dijeron (mis compañeros) *que me hiciera cambiar de opinión.*
nothing me told(3pl) (my colleagues) that me made(subj3sg)to-change of opinion
 ‘NOTHING my colleagues told me that could make me change my mind.’
- d. *ALGO* le han dicho a Pedro *que no le ha sentado nada bien.*
something CL_{DAT} have(3pl)told to Peter that not CL_{DAT} has done nothing well
 ‘SOMETHING they must have told Peter that he didn’t like at all.’

English displays the same patterns. EX from the fronted (contrastive) focus is possible in this language, too. Some of the sentences that follow involve negative and *only*-inversion. With the exception of (54a), which has been drawn from Kiss (2003), the rest of the sample sentences in (54) and (55) have been constructed and tested for the present discussion, as were the Spanish examples just considered.

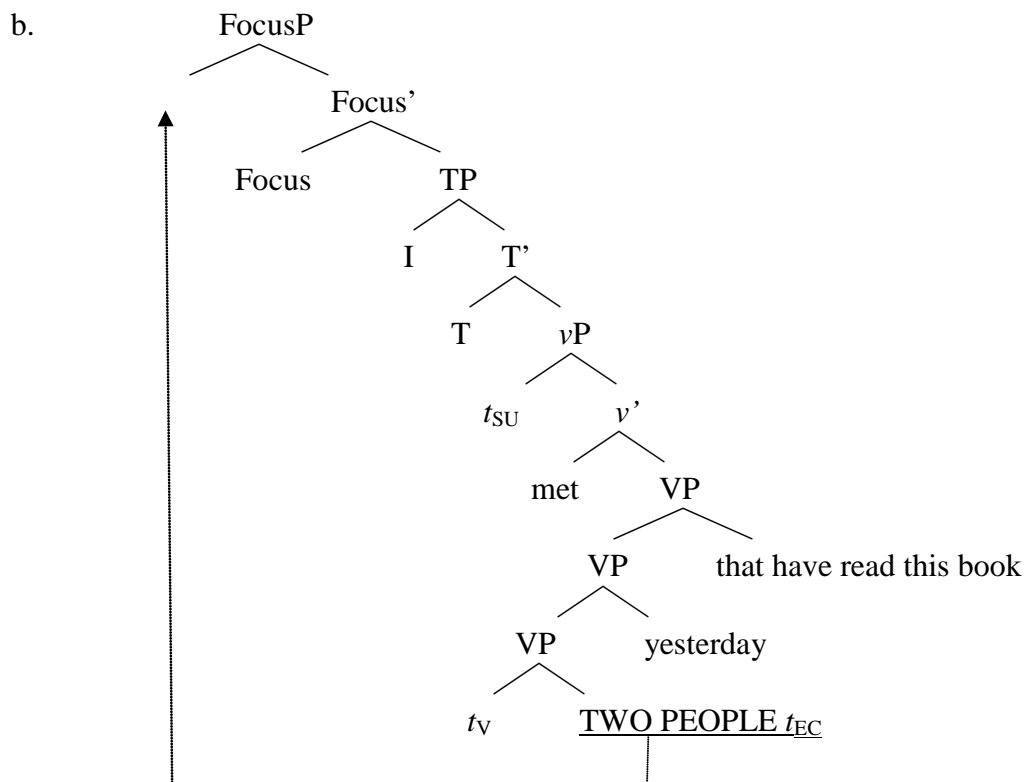
- (54) a. *MICRO BREWS* I like *that are located at the Bay Area*.
b. A *LINGUIST* you'll never find here *who can speak three Balkan languages*.
c. *TWO PEOPLE* I met yesterday *that started reading this novel twice but didn't manage to read it to the end*.
d. *ONLY A FEW WORDS* could we exchange *that were absolutely necessary*.
e. *NOBODY* did I see among the guests *that I could recognize*.
f. *NOT EVEN AN INTERESTING BOOK* did I find *that we can buy for her*.
- (55) a. *NOT EVEN AN OFFER* did the company make to Peter in ten years *that was worth considering*.
b. *ONLY TWO PEOPLE* I sent to your department yesterday *that wanted to work as sales assistants*.
c. A *DIAMON RING* Peter gave to Ann *that he bought when he was in Amsterdam*.
d. *NOT A SINGLE THING* did I tell her *that could have offended her*.

Two interesting facts emerge from the examples presented in this section. First, the data show that EX from an internal argument is not hindered by the presence of the subject or of another internal DP. In this respect, EX(OB) is different from EX(SU), where *closeness effects* have been detected in some cases. The second fact that emerges from the data just discussed is that English and Spanish display the same behavior with respect to the interaction of EX(OB) with focus preposing. The fact that subject-verb inversion is obligatory in Spanish, as opposed to English, does not have any effect on the availability of EX.

Under the assumption that EX(OB) is a VP phenomenon, the structure of a sentence with a focalized direct object is as represented in (56) for English. The Spanish counterpart of this sentence would be derived in an analogous manner. EX proceeds exactly as in the English example in (56), but the verb will have to raise to T and further

to Focus (as shown in (45) above), and the subject will remain in SpecvP (for the position of postverbal subjects, see chapter 7).

(56) a. *TWO PEOPLE* I met yesterday *that have read this book*.



In sentences headed by a ditransitive predicate there is a second internal argument that can potentially be targeted by EX, namely the indirect object. To this constituent, the discussion turns directly.

3.3. EX from a focalized indirect object

Only a subset of ditransitive predicates enters the construction known as the *dative alternation*⁷⁹. As far as the syntactic structure of these predicates is concerned, Spanish and English display different patterns. While Spanish allows for the free distribution of the two internal arguments, (57), without changing the categorial status of the

⁷⁹ The discussion in this section will basically focus on those predicates that enter the dative alternation. There is a subset of ditransitive predicates that do not allow the two structures. One example is *donate*, a predicate that takes a DP and a PP complement. EX(OB) and EX(IO) are possible, as shown in (i).

- (i) a. Peter donated *some books* to a charity last year *that he will never read again*.
 b. Peter donated all his old books *to a charity* last year *that helps people without resources*.

constituents involved, English presents the well-known alternative linearities illustrated in (58). (58a) shows the [V NP PP] sequence, (58b) the [V NP NP] alternant.

(57) a. Pedro le regaló un libro a María.

Peter CL_{DAT} gave(3sg) a book to Mary

‘Peter gave a book to Mary (as a present).’

b. Pedro le regaló a María un libro.

(58) a. Peter gave a book to Mary.

b. Peter gave Mary a book.

Even though their categorial status does not change, the informational status of the two internal arguments in (57) is different. The question-answer pairs in (59) and (60) show that in the two sentences the sentence-final internal argument is a focus. For this reason, the (c) examples in the two sets are not appropriate answers to the questions in (a). This fact is consistent with the observation that informative focus is sentence-final in Spanish (Zubizarreta 1998).

(59) a. ¿A quién le regaló Pedro un libro?

to whom CL_{DAT} gave(3sg) Peter a book

‘Who did Peter give a book to?’

b. Pedro le regaló un libro a María.

Peter CL_{DAT} gave(3sg) a book to Mary

‘Peter gave a book to Mary.’

c. #Pedro le regaló a María un libro.

(60) a. ¿Qué le regaló Pedro a María?

what CL_{DAT} gave(3sg) Peter to Mary

‘What did Peter give to Mary?’

b. Pedro le regaló a María un libro.

Peter CL_{DAT} gave(3sg) to Mary a book

‘Peter gave Mary a book.’

c. #Pedro le regaló un libro a María.

As far as English is concerned, it is well-known that the internal arguments of the two variants of the dative alternation behave differently on a number of counts (see the

discussion in Krifka 1999, and Czepluch 1982, 1988). Thus, for example, the dative DP in (58) can become the subject of a passive, (61a), while the accusative cannot, (61b). The opposite situation arises in the case of the [V NP PP] structure, where only the accusative can be the subject of a passive, (61c) vs. (61d).

- (61) a. Peter was given a book.
b. *A book was given Peter.
c. A book was given to Peter.
d. *Peter was given a book to.

(62b) and (62c) show that both the goal and the theme can be questioned in the [V NP PP] variant, neither in the double object construction, (62a,d).

- (62) a. *What did you give Peter?
b. What did you give to Peter?
c. Who did you give a book to?
d. *Who(m) did you give a book?

In the light of (62d), and assuming that *wh*-movement is a sub-case of raising to focus, it could be expected that focus preposing of the dative DP is also excluded in English. The expectation is borne out by the data, as shown in (63).

- (63) a. *JOHN they gave the book.
b. JOHN they gave the book to.
c. TO JOHN they gave the book.

The impossibility of focalizing a dative DP is, however, not limited to cases of focus fronting. The examples in (64) and (65) – showing respectively contrastive focus *in situ* and cleft sentences – indicate that this constituent cannot be the focus of the sentence quite generally.

- (64) a. *They gave JOHN the book (not Mary).
b. They gave the book TO JOHN (not to Mary).

- (65) a. *It was John that they gave the book.
 b. It was John that they gave the book to.
 c. It was to John that they gave the book.

In the light of the syntactic facts just reviewed, one could wonder whether similar asymmetries will be found in the availability of EX from the indirect object in the two variants of the dative alternation. Similarly, the question arises as to whether EX will be possible from sentence-initial focalized indirect objects, which – given the contrast in (64) – will only be of the category PP.

Consider first the linear sequence that is standardly assumed to be more basic, less marked, i.e. that in which the direct object precedes the indirect object. (66) shows Spanish, (67) English, examples.

- (66) a. El jurado concedió el primer premio *a una película* el año pasado *que había sido financiada íntegramente con dinero público.*
the jury awarded(3sg)the first prize to a film the year past that had(3sg) been financed entirely with money public
 ‘The jury awarded the first prize to a film last year that had been entirely financed with public funds.’
- b. Le entregaron mi paquete *a un chico* ayer *que se apellida igual que yo.*
CL_{DAT} delivered(3pl) my parcel to a boy yesterday that CL_{refl} has-surname like as I
 ‘They delivered my parcel to a boy yesterday that has the same surname as me.’
- c. Le hicieron esa misma oferta *a un amigo mío* ayer *que no tiene ni la más mínima idea de contabilidad.*
CL_{DAT} made(3pl) that same offer to a friend mine yesterday who not has not the most minimal idea of accountancy
 ‘They made the very same offer to a friend of mine yesterday who hasn’t got the slightest knowledge of accountancy.’

- (67) a. I gave an interesting book *to someone* last week *who liked Steinbeck.*
 b. Peter sent a present *to a friend* last week *who had just won the Pulitzer.*

The acceptability of these sentences shows that EX can target the PP indirect object of a ditransitive verb in the unmarked linear sequence. The situation is, however, rather different when the alternative linearity is considered.

- (68) a. ??El jurado concedió a una película el primer premio (el año pasado) que
the jury awarded(3sg) to a film the first prize the year past that
había sido financiada íntegramente con dinero público.
had(3sg) been financed entirely with money public
 ‘The jury awarded a film the first prize (last year) that had been entirely
 financed with public funds.’
- b. ??Le entregaron a un chico el paquete ayer que se apellida igual
CL_{DAT} delivered(3pl) to a boy the parcel yesterday that CL_{refl} has-surname like
que yo.
as I
 ‘They delivered a boy my parcel yesterday that has the same surname as me.’
- c. *Le hicieron a un amigo mío esa misma oferta ayer que no tiene
CL_{DAT} made(3pl) to a friend mine that same offer yesterday who not has
ni la más mínima idea de contabilidad.
not the most minimal idea of accountancy
 ‘They made to a friend of mine the very same offer yesterday who hasn’t got
 the slightest knowledge of accountancy.’

(69) a. ??/*I gave *someone* an interesting book last week *who liked Steinbeck*.

b. ??/*I sent *a friend* a present last week *who had just won the Pulitzer*.

In the Spanish sentences, the extraposed relative tends to be interpreted as modifying the direct object, which is linearly closer than the intended head noun (*closeness effects*). In the case of English, the impossibility of extraposing from the dative DP is in tune with the special syntactic behavior of this constituent. It seems that it cannot be the target of any syntactic operation.

In section 3.1 above, I showed that removing the intervening DP from the linear segment between head noun and EC played the trick in some Spanish sentences. The data in (70) below show that the same type of effect is produced in EX(IO). Given the right intonation, these sentences are more acceptable than those in (67) above. A certain degree of deviance persists probably due to the complexity and length of the sentences.

- (70) a. ?El primer premio se lo concedieron a una película el año pasado que
the first prize CL_{DAT} CL_{ACC} awarded(3pl) to a film the year past that
había sido financiada íntegramente con dinero público.
had(3sg) been financed entirely with money public
 ‘The first prize they awarded to a film that had been financed entirely with
 public funds.’
- b. ?El paquete se lo entregaron a un chico ayer que se apellida
the parcel CL_{DAT} CL_{ACC} delivered(3pl) to a boy yesterday who CL_{refl} has-surname
igual que yo.
like as I
 ‘The parcel they delivered to a boy yesterday who has the same surname as
 me.’
- c. ?Esa misma oferta se la hicieron a un amigo mío el año pasado que
that same offer CL_{DAT} CL_{ACC} made(3pl) to a friend mine the year past who
no tiene ni la más mínima idea de contabilidad.
not has not the most minimal idea of accountancy
 ‘That same offer they made to a friend of mine last year who hasn’t got the
 slightest knowledge of accountancy.’

Focus fronting of the IO will place the head noun in sentence-initial position, while the extraposed modifier will surface sentence-finally. Both the subject and the direct object will be part of the intervening linear segment. As a result, *closeness effects* as those just described are expected to arise. However, somehow surprisingly, acceptability judgments are not uniform. In the case of English, the double object construction will not be considered, given that the dative DP cannot be focalized (see (63) above).

- (71) a. ??/*A UNA PELÍCULA le concedió el jurado el primer premio (el año
to a film CL_{DAT} awarded the jury the first prize the year
pasado) que había sido financiada íntegramente con dinero público.
past that had(3sg) been financed entirely with money public.
 ‘TO A FILM the jury awarded the first prize last year that had been financed
 entirely with public funds.’

- b. ?A UN CHICO le entregaron el paquete ayer *que se apellida*
to a boy CL_{DAT} delivered the parcel yesterday who CL_{refl} has-surname
exactamente igual que yo.
exactly like as I
 ‘TO A BOY they delivered the parcel yesterday who has exactly the same
 surname as me.’
- c. SÓLO A TRES ESTUDIANTES les han dado beca este año *cuya nota*
only to three students CL_{DAT} have(3pl) given grant this year whose mark
media era inferior a 7.
mean was(3sg) inferior to 7
 ‘ONLY TO THREE STUDENTS they gave a grant this year whose mean was
 lower than 7.’
- d. ?A UN AMIGO MIO le hicieron esa misma oferta ayer *que no tiene ni*
to a friend mine CL_{DAT} made(3pl) that same offer yesterday who not has not
idea de contabilidad.
idea of accountancy
 ‘TO A FRIEND OF MINE they made the very same offer who has no
 knowledge of accountancy.’

(72) a. TO A FRIEND I gave an interesting book last week *who liked Steinbeck.*

b. TO A COLLEAGUE Peter sent a present last week *who had just won the Pulitzer.*

The English sentences in (72) are acceptable only if the focus is contrastive and the relative clause has an afterthought interpretation. This effect is achieved by inserting a prosodic pause immediately before the relative. The deviant Spanish examples above also improve (in some cases, significantly) with this prosodic contour.

In Spanish, acceptability increases when the fronted constituent is an emphatic focus.

- (73) a. A NADIE le hemos contado nada *que pueda utilizarlo contra ti /*
to no one CL_{DAT} have(1pl) told nothing who can(subj3sg) to-use-CL_{ACC} against you /
que no tuviera que estar enterado.
who not had(subj3sg) that to-be aware
 ‘TO NO ONE have we told anything that could use it against you / who should
 not know it.’

- b. A *NINGÚN TRABAJADOR* le dieron permiso sus jefes *que no lo*
to no worker CL_{DAT} gave(3pl) permission their bosses who not CL_{ACC}
hubiera solicitado con 24 horas de antelación.
had(subj3sg) applied with 24 hours of advance
 ‘TO NO WORKER did their bosses give a permission who had not applied for it
 24 hours in advance.’
- c. A *NADIE* le concedieron una beca *que no la mereciera.*
to no one CL_{DAT} gave(3pl) a grant who not CL_{ACC} deserve(subj3sg)
 ‘TO NO ONE did they give a grant who didn’t deserve it.’
- d. A *ALGUIEN* le enviaremos los regalos *que los aprecie más*
to someone CL_{DAT} will-send(1pl) the presents who CL_{ACC} appreciate(subj3sg) more
que tú.
than you
 ‘TO SOMEONE we will send the presents who appreciates them more than you.’
- e. A *NINGÚN ESTUDIANTE* le han concedido una beca este año *que no*
to no student CL_{DAT} have(3pl) given a grant this year who not
cumpliera los requisitos económicos.
fulfill the requirements economic
 ‘TO NO STUDENT have they given a grant this year who does not meet the
 economic requirements.’

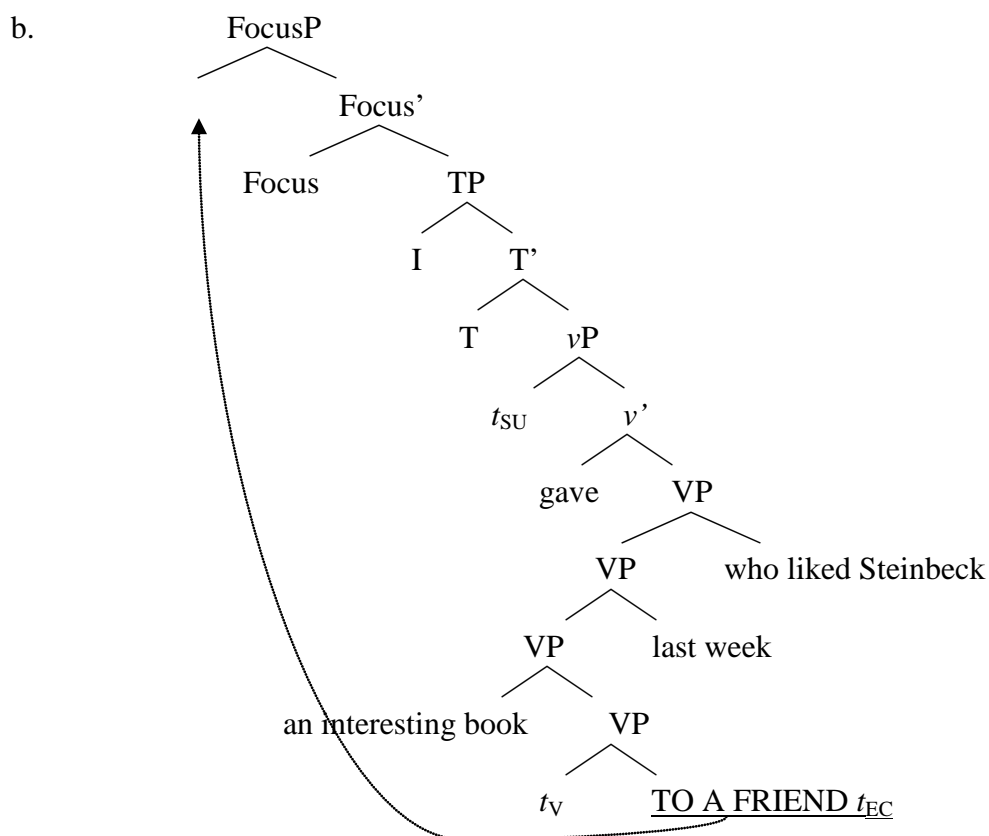
Acceptability also improves when the direct object is topicalized, as in (74).

- (74) a. Esa misma oferta, A *UN AMIGO MIO* se la hicieron *que no tiene ni*
that same offer to a friend mine CL_{DAT} CL_{ACC} made(3pl) who not has not
idea de contabilidad.
idea of accountancy
 ‘That very offer, TO A FRIEND OF MINE they made who has no knowledge of
 accountancy.’
- b. ¿Mi paquete? A *UN CHICO* se lo enviaron (ayer) *que se apellida*
my parcel to a boy CL_{DAT} CL_{ACC} sent(3pl) yesterday who CL_{refl} has-surname
igual que yo.
same as I
 ‘My parcel? TO A BOY they delivered (yesterday) who has the same surname
 as me.’

- c. ¿Al final, qué hiciste con los discos de vinilo? ¿Se los diste a tus
in-the end what did(2sg) with the records of vinyl CL_{DAT} CL_{ACC} gave(2sg) to your
 padres? No, A UN AMIGO se los regalé *que disfruta un montón con*
parents no to a friend CL_{DAT} CL_{ACC} gave(1sg) who enjoys a lot with
la música clásica.
the music classical
 ‘In the end, what did you do with your vinyl records? Did you give them to your
 parents? – No, TO A FRIEND I gave them who loves classical music.’
- d. Las becas, A NADIE se las han concedido este año *que no*
the grants to no one CL_{DAT} CL_{ACC} have(3pl) given this year who not
cumpliera los requisitos económicos.
fulfilled(subj3sg) the requirements economic
 ‘The grants, TO NO ONE did they give them who did not fulfill the economic
 requirements.’
- e. Las horas extra, A NINGÚN TRABAJADOR se las han pagado
the hours extra to no worker CL_{DAT} CL_{ACC} have(3pl) paid
que no lo haya solicitado por escrito.
who not CL_{ACC} has(subj) applied in writing
 ‘The overtime, TO NO WORKER have they paid who has not applied in
 writing.’
- f. A NADIE se lo hemos contado *que pudiera perjudicarte.*
to no one CL_{DAT} CL_{ACC} have(1pl) told who could(subj3sg) to-harm-you
 ‘TO NO ONE did we tell it who could do you any harm.’

The derivation of EX(IO) is like EX(OB) in that it takes place in the VP domain. Again as in the preceding sections, the fronted constituent (this time the IO) will move to SpecFocusP to check a strong [+focus] feature. The derivation is illustrated in (75).

(75) a. *TO A FRIEND* I gave an interesting book last week *who liked Steinbeck*.



As was the case in section 3.1, the lack of uniformity in the acceptability judgments of the sentences in (71) above calls the syntactic character of *closeness effects* into question. Something beyond the syntactic configuration must be at stake in the unacceptable data presented in this section. See also the discussion of similar effects in chapter 7. For the present purposes, what is interesting is that the data on EX from a focalized IO come to confirm the results obtained in the preceding sections. All in all, the data indicate that – once intervening factors (like *closeness effects*) are controlled for – EX can target any focalized DP independently from its syntactic function. The question is now whether the same results obtain in cases of *wh*-movement. To this issue I turn directly.

4. EX from *wh*-moved constituents

If *wh*-movement is indeed a sub-case of focus-fronting, similar results can, in principle, be expected from the interaction of EX with the two phenomena. The data that will be discussed in this section will come to confirm this expectation to a great extent.

4.1. The syntax of *wh*-movement

Rizzi (1997b) interprets the incompatibility of a fronted focus and a *wh*-phrase in one and the same sentence as an indication that the two constituents compete for the same position, namely SpecFocusP. The Spanish sentences in (76) illustrate the point.

- (76) a. *¿Quién EL PAN va a comprar? (no la leche)
who the bread goes to to-buy not the milk
'*Who THE BREAD is going to buy (not the milk)?'
- b. *EL PAN ¿quién va a comprar? (no la leche)
the bread who goes to to-buy not the milk
'*THE BREAD who is going to buy (not the milk)?'

Recall from the discussion in section 2 above that a sentence can contain two foci. When this is the case, only one of them is allowed to undergo focus fronting. The contrast, repeated here as (77), was used to illustrate the point ((22) above). The same restriction applies to *wh*-phrases, (78).

- (77) a. The CIRCUS I want to see in THIS town.
b. *The CIRCUS in THIS town I want to see.

- (78) a. Who said what to whom?
b. *Who what to whom said?

Similarly, a *wh*-phrase can coexist with a focus but the same restriction holds, (79).

- (79) a. Who will see JOHN?
b. *Who JOHN will see?
c. *JOHN who will see?

Parallel examples from Spanish are shown in (80) to (82) below.

(80) a. El CIRCO quiero ver en ESTA ciudad.

the circus want(1sg) to-see in this town

‘THE CIRCUS I want to see in THIS town.’

b. *El CIRCO en ESTA ciudad quiero ver.

(81) a. ¿Quién compró qué?

who bought(3sg) what

‘Who bought what?’

b. *¿Quién qué compró?

(82) a. ¿Quién va a ver a JUAN? (no a Pedro)

who goes to to-see to John not to Peter

‘Who is going to see JOHN? (Not Peter)’

b. *¿Quién a JUAN va a ver?

c. *A JUAN, ¿quién va a ver? (no a Pedro)

Questions with multiple interrogative phrases, as those in (78a) and (81a), impose a pair-list reading on their answers. Thus, an appropriate answer for (81a) would be (83).

(83) Juan compró el pan, María la leche, Pedro los huevos, ...

John bought(3sg) the bread, Mary the milk, Peter the eggs

‘John bought bread, Mary milk, Peter eggs...’

Recall that the same effect appears in sentences with two foci (one of them *in situ*). The datum discussed in section 2 is repeated in (84).

(84) El CIRCO quiero ver en ESTA ciudad (no los fuegos artificiales en aquella).

the circus want(1sg) to-see in this town not the fireworks in that

‘THE CIRCUS I want to see in THIS town (not the fireworks in that one).

Another important syntactic characteristic of *wh*-constructions is that *wh*-raising triggers obligatory subject-verb inversion in Spanish (85), subject-auxiliary inversion in English (86).

- (85) a. ¿Cuándo volverá Juan de la fiesta?
when will-come-back(3sg) John from the party
 ‘When will John be back from the party?’
 b. *¿Cuándo Juan volverá de la fiesta?

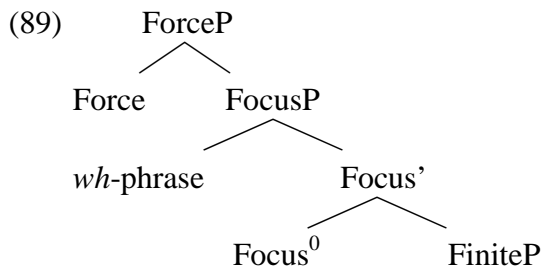
- (86) a. What did Peter buy? / What will Peter buy?
 b. *What bought Peter? / *What Peter will buy?

If *wh*-movement is a sub-case of focalization, the fact that inversion is obligatory in Spanish interrogatives is not surprising, as it is also obligatory in focus fronting constructions, as shown above. The situation is different in English, where inversion does only take place in questions (and very specific emphatic constructions: *negative* and *only inversion*). Another related difference between the two languages is found in embedded contexts. While subject-verb inversion is obligatory in Spanish embedded interrogatives, this is not the case in English, as witnessed in the contrast between (87) and (88).

- (87) a. Aún no sé cuándo volverá Juan de la fiesta.
still not know(1sg) when will-come-back(3sg) John from the party
 ‘I still don’t know when John will be back from the party.’
 b. *Aún no sé cuándo Juan volverá de la fiesta.

- (88) a. *I still don’t know who did John invite to the party.
 b. I still don’t know who John invited to the party.

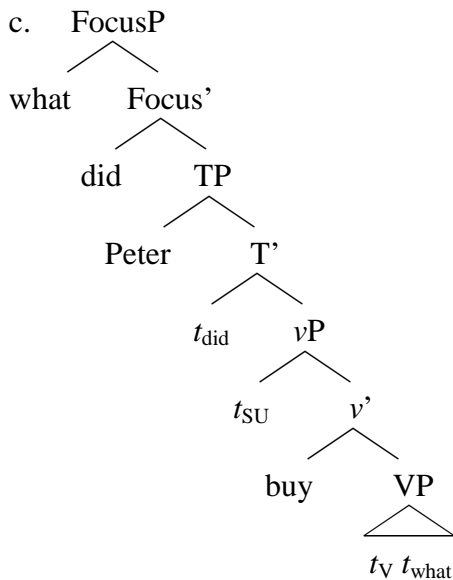
In Rizzi’s split CP-domain, the structure of the left periphery of an interrogative sentence is like the left periphery of a focus fronting construction. The parser is repeated in (89) below. The landing site of a *wh*-constituent will be SpecFocusP, a functional category that projects between ForceP and FiniteP.



The question that I will address next concerns the position of the verb and the subject. By means of illustration, I will use a sentence with a *wh*-direct object. In English, it is generally assumed that the subject and the lexical verb occupy their canonical positions: respectively, SpecTP and *v*. In the pre-split-CP times, it was assumed that the fronted *wh*-phrase (in SpecCP) and the auxiliary were in a Spec-head configuration because nothing could intervene between them. In particular, the subject is not allowed between the *wh*-phrase and the auxiliary, as shown in (90b) below. If this constituent is in SpecTP, the auxiliary has to occupy a structurally higher position. T-to-C raising was proposed. Translated into the split-CP analysis, this means that the auxiliary moves to the focus head. A simple question as (90a) has the (simplified) structure in (90c).

(90) a. What did Peter buy?

b. *What Peter bought?/*What Peter did buy?



As far as Spanish is concerned, the position of the verbal head and the subject in interrogatives is a matter of debate. Bosque and Gutiérrez-Rexach (2008) report two proposals available in the literature. The schematic structures are provided in (91).

- (91) a. [_{CP} Qué [_C dijo [_{IP} María [_{VP} t_V t_{qué}]]]]
what said(3sg) Mary
 ‘What did Mary say?’
 b. [_{CP} Qué [_C C [_{IP} dijo [_{VP} María t_V t_{qué}]]]]

The first analysis, which is similar to the one just proposed for English, is due to Torrego (1984), who argues for V raising to C and base generation of the subject in SpecIP. In favor of this structure, she provides the following evidence involving adverb placement.

- (92) ¿Qué dice siempre María?
what says always Mary
 ‘What does Mary always say?’

In (92), a sentence-adverb precedes the subject. If these adverbs are IP-adjoined, the verb cannot be under I, as in (91b). It has to be higher in the structure, i.e. under C. As to the position of the subject, although Torrego (1984) assumes it to be in SpecIP, the datum in (92) is also consistent with its occupying a VP-internal position. Suñer (1994), proponent of the analysis in (91b) above, presents the data in (93) below against Torrego’s analysis and in favor of her own. These sentences show that sentence-adverbs can in fact precede the verb. If they are IP-adjoined, the verb cannot have reached the C position, but must rather be under I. Consequently, the subject – which linearly follows the verb – has to be in its base-position.

- (93) a. ¿Qué película nunca iría a ver tu padre?
what film never would-go(3sg) to to-see your father
 ‘What film would never go to see your father?’
 b. ¿En qué lugares de la costa mediterránea todavía quedan playas sin
in which places of the coast Mediterranean still there-are(3pl) beaches without
rascacielos?
skyscrapers
 ‘Where on the Mediterranean coast are there still beaches without skyscrapers?’

Bosque and Gutiérrez-Rexach (2008) argue that these sentences cannot constitute reliable data to determine the position of subject and verb. The problem is that these interrogatives (so-called *quiz questions*) are heavily dependent on the context of utterance and their syntax is not like that of standard *wh*-questions⁸⁰. Notice that a sentence like (94) – a standard question – is ungrammatical.

(94) *¿Qué siempre dice María?

what always says Mary

‘What does Mary always say?’

EX may help in this respect. Recall that in chapter 7 an asymmetry was revealed between pre- and postverbal subjects in Spanish with regard to the availability of EX. There, it was shown that the operation can target postverbal but not preverbal subjects. The former were shown to be topics base-generated in a FiniteP-adjoined position; the latter were argued to remain in their base position throughout the derivation.

My argument is that interrogative sentences with EX from the postverbal subject would constitute evidence in favor of the SpecvP position. In (95), I provide some relevant data.

(95) a. ¿A qué hora (dices que) llamó alguien ayer que quería hablar
*at what time (say(2sg) that) phoned(3sg) someone yesterday who wanted(3sg) to-talk
conmigo?*

with-me

‘At what time do you say that someone phoned yesterday that wanted to talk to me?’

b. ¿Cuándo ha trabajado alguien aquí que no tuviera los papeles en regla?
when has worked someone here who not had(subj3sg) the papers in order
‘When has anyone worked here who didn’t have their papers in order?’

c. ¿Cuándo comenzó a circular el rumor entre sus seguidores de que
when started(3sg) to to-circulate the rumor among his followers of that
Jesús había resucitado?

Jesus had(3sg) resuscitated

⁸⁰ Thus, for instance, the *wh*-constituent in *quiz questions* is assumed to occupy a higher position than in standard questions.

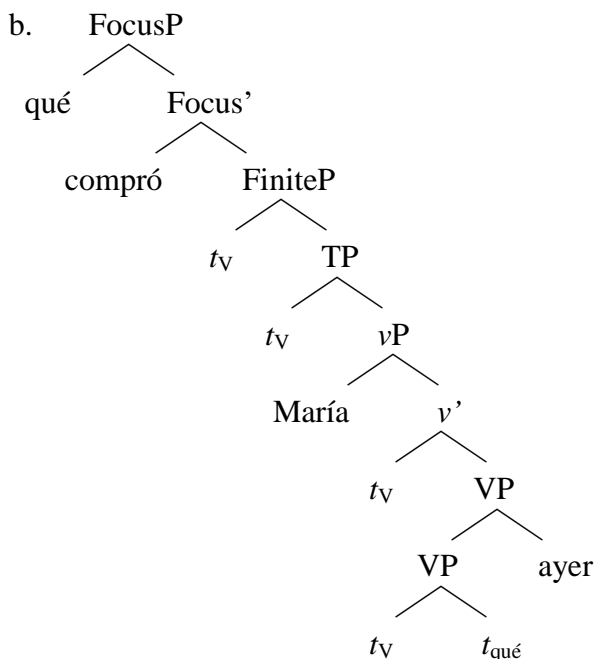
‘When did the rumor start to circulate among his followers that Jesus had resuscitated?’

d. ¿A quién le llegaron unos paquetes ayer que contenían todas las pruebas forenses?
to whom CL_{DAT} arrived(3pl) some parcels yesterday which contained(3sg) all the evidence forensic

‘Who received some parcels yesterday that contained all the forensic evidence?’

In the light of these data, I will assume – with Suñer (1994) and against Torrego (1984) – that the postverbal subject is in its base position. Apart from this particular, Spanish is like English in that the *wh*-phrase moves to SpecFocusP and the verb to Focus. What I am assuming *de facto* is an updated version of Torrego’s analysis coupled with Suñer’s (1994) insight that the subject remains in situ. The structure of the simple interrogative in (96a) would be as represented in (96b).

(96) a. ¿Qué compró María ayer?
what bought(3sg) Mary yesterday
 ‘What did Mary buy yesterday?’



After this brief presentation of the dynamics of question formation in English and Spanish, it is high time to turn our attention to the main topic of this section: the interaction of EX with *wh*-raising.

4.2. The interaction of *wh*-movement and EX

The starting point of the discussion in this section is the fact that all the constituents in a sentence – complements and adjuncts alike – can be questioned by means of a *wh*-constituent that will surface as the linearly leftmost element of the clause. The aim of this section is to determine whether EX is possible from any of those preposed *wh*-phrases. It has to be noted that, since the *wh*-phrase – source of the EC – is sentence-initial and the EC itself is sentence-final, all other constituents will be part of the intervening lexical segment. Given this distribution, the possibility cannot be excluded that *closeness effects* as those detected in preceding sections arise.

I will start the presentation of data with sentences headed by predicates that require the presence of one argument.

4.2.1. Monoargumental predicates

The Spanish sentences in (97) through (102) show in this order the following types of constructions: unaccusative, intransitive, *se*-passive, regular passive, impersonal *haber* ('there to be'), and impersonal *se*. All the sentences are acceptable with EX from the *wh*-phrase.

(97) a. *¿Cuántas personas vinieron ayer que querían trabajar para nosotros?*

how many people came(3pl) yesterday who wanted(3pl) to-work for us

'How many people came yesterday who wanted to work for us?'

b. *¿Quiénes aparecieron ayer que querían hablar conmigo?*

who(pl) appeared(3pl) yesterday who wanted(3pl) to-talk with-me

'Who appeared yesterday that wanted to talk to me?'

(98) a. *¿Cuántos inmigrantes trabajan en esta obra que no tienen los papeles*

how many immigrants work(3pl) in this building site who not have(3pl) the papers

en regla?

in order

'How many immigrants work in this building site who do not have their papers in order?'

b. *¿Quién trabaja en esta obra que no tiene los papeles en regla?*
who works in this building site who not has the papers in order
‘Who works in this building site that does not have his papers in order?’

(99) a. *¿Qué libro se ha publicado este año que estabas deseando leer*
which book CL_{pass} has published this year that were(2sg) willing to-read
(desde que supiste que iba a salir a la venta)?
since that found-out(2sg) that was to to-go-out to the sale
‘Which book has been published this year that you were willing to read (since you knew that it was going to be on sale)?’

b. *¿Cuántos libros se han publicado este año sobre la crisis económica*
how many books CL_{pass} have(3pl) published this year about the crisis economic
en Europa?
in Europe
‘How many books have been published this year about the economic crisis in Europe?’

(100) a. *¿Quién fue visto en la escena del crimen que (dices que) se comportaba*
who was seen at the scene of-the crime who say(2sg) that CL_{refl} behaved(3sg)
de manera sospechosa?
of manner suspicious
‘Who was seen at the crime scene that behaved in a suspicious manner?’

b. *¿Cuánta gente fue vista en la escena del crimen que se comportaba de*
how many people was seen at the scene of-the crime who CL_{refl} behaved(3sg) of
manera sospechosa?
manner suspicious
‘How many people were seen at the crime scene who behaved in a suspicious manner?’

(101) a. *¿Cuántas fotos hay en la prensa de los incidentes con la policía?*
how many pictures is-there in the press of the incidents with the police
‘How many pictures appear in the newspapers of the incidents with the police?’

b. *¿Qué fotos hay en la prensa de los incidentes con la policía?*
which pictures is-there in the press of the incidents with the police
‘Which pictures appear in the newspapers of the incidents with the police?’

- (102) a. *¿A quién se busca por toda la ciudad que está implicado en el incidente?*
to whom CL_{imper} searches in whole the city who is involved in the incident
 ‘Who is being chased round the city who is involved in the incident?’
- b. *¿A cuántos periodistas se espera mañana que hoy no han podido asistir?*
to how many journalists CL_{imper} expect(3sg) tomorrow who today not have(3pl) been-able
to-attend
 ‘How many journalists are expected tomorrow that couldn’t attend today?’

In some cases, the extraposed version exhibits a higher degree of acceptability than the non-extraposed variant. This is illustrated in (103).

- (103) a. *¿Cuántas personas que querían trabajar para nosotros vinieron?*
how many people who wanted(3pl) to-work for us came(3pl)
 ‘How many people who wanted to work for us came?’
- b. *¿Cuántas personas vinieron que querían trabajar para nosotros?*

The degradation of (103a) is probably due to the unbalanced relative lengths of subject and predicate. Notice that if the imbalance is compensated by either extending the predicate with some adjuncts, as in (104), or by extraposing the relative, as shown in (103b) above, the acceptability of the sentence increases.

- (104) *¿Cuántas personas que querían trabajar para nosotros vinieron ayer a vernos?*
how many people who wanted(3pl) to-work for us came(3pl) yesterday
to to-see-us
 ‘How many people who wanted to work for us came yesterday to see us?’

In the case of bare *wh*-pronouns the non-extraposed version of the sentence is marginal. Given that one of the defining characteristics of EX is its optionality, the fact that it appears to be obligatory in certain contexts calls for an explanation.

(105) a. ??¿Quién que no tiene los papeles en regla trabaja en esta obra?

who that not has the papers in order works in this building site

Lit. ‘*Who who doesn’t have his papers in order works in this building site?’

b. ??¿Quién que quería hablar conmigo ha llamado esta mañana?

who that wanted(3sg) to-talk with-me has phoned this morning

Lit. ‘*Who who wanted to talk to me has phoned this morning?’

The acceptability of sentences like those in (105) increases when they are uttered in a context in which they are assigned a strong *echo*-interpretation. For example, (105b) can be acceptable in a situation like the following: A says that B’s daughter has phoned in the morning saying that she wanted to talk to B. B misses the information that it was his daughter who phoned, and asks about this particular providing part of the information that is already in the context (i.e. that whoever phoned wanted to talk to B). In this type of situation (105b) is quite acceptable. Notice that, with the *wh*-head noun *in situ* (where it clearly has an *echo*-interpretation), the sentences improve notably, as shown in (106).

(106) a. ¿Que ha llamado *quién que quería hablar contigo* esta mañana?

that has phoned who that wanted(3sg) to-talk with-you this morning

Lit. ‘??(that) who who wanted to talk to me has phoned this morning.’⁸¹

b. ¿Que trabaja aquí *quién que no tiene los papeles en regla*?

that works here who who not has the papers in order

Lit. ‘??(that) who who does not have the papers in order works here.’

Although in the extraposed sentences the information conveyed by the relative is also known in the context of utterance, there is no such a strong *echo*-sense as in the non-extraposed variant. At this point, I cannot offer a convincing explanation for this contrast. I will therefore leave this question for future research.

As can be seen in (107) to (109) below, the English counterexamples of the sentences in (97) to (102) are equally acceptable.

(107) a. *How many people* came in yesterday *that were willing/wanted to work for us?*

b. *Who* came in yesterday *that wanted to talk to me?*

⁸¹ The English sentences are more marginal probably due to the repetition of two morphologically identical *wh*-words.

- (108) a. *How many immigrants are working here who don't possess a green card?*
 b. *Who is working here that doesn't possess a green card?*
- (109) a. *Which book has been published this year that you were willing to read (ever since you knew that it was going to be on sale)?*
 b. *How many books have been published this year about the economic crisis in Europe?*
 c. *Who was seen at the crime scene that behaved in a suspicious manner?*
 d. *How many people were seen at the crime scene that behaved suspiciously?*
 e. *Who is being hunted throughout the city that was involved in the incident?*
 f. *How many journalists are expected tomorrow from the most important media?*

Notice finally that EX(*wh*) can also take place long-distance in Spanish. Similar English sentences are, however, unacceptable owing to the fact that they present *that*-trace effects. See the contrast between (110) and (111).

- (110) a. *¿Quién dices que trabaja en esta obra que no tiene los papeles en
 who say(2sg) that works in this building site who not has the papers in
 regla?
 order*
 Lit. '*Who do you say that works in this building site that doesn't have his papers
 in order?'
- b. *¿Cuántas personas dices que vinieron ayer que querían trabajar para
 how many people say(2sg) that came(3pl) yesterday who wanted(3pl) to-work for
 nosotros?
 us*
 Lit. '*How many people do you say that came yesterday who wanted to work
 for us?'
- c. *¿Cuántos libros crees que se publicaron el año pasado sobre la crisis
 how many books think(2sg) that CL_{pass} published(3pl) the year past about the crisis
 económica en Europa?
 economic in Europe*
 Lit. '*How many books do you think that were published last year about the
 economic crisis in Europe?'

- (111) a. **Who* did you say that _ is working here *that does not have a green card*?
 b. ??/**How many people* did you say that _ came in yesterday *that wanted to work for us*?
 c. **How many books* do you think that _ were published last year *about the economic crisis in Europe*?

The three sentences in (111) become acceptable once the complementizer is eliminated, as in (112).

- (112) a. *Who* did you say _ is working here *that does not have a green card*?
 b. *How many people* did you say _ came in yesterday *that wanted to work for us*?
 c. *How many books* do you think _ were published last year *about the economic crisis in Europe*?

Given that the *wh*-constituent has moved and that A-bar moved constituents are ‘frozen’ (see the unacceptability of (113) below), EX cannot apply after *wh*-raising, as standardly claimed. I will therefore continue to assume that EX takes place when the *wh*-constituent is in its base position (cf. the arguments presented in chapter 5, section 4).

- (113) ??Who do you wonder which picture of _ Mary bought?

(Lasnik and Saito 1992)

For unaccusative and passive predicates, this means that EX from the *wh*-subject is like EX(OB) – i.e. EX from the internal argument – with the EC adjoined to VP. In Spanish, subsequent raising of the *wh*-constituent to SpecFocusP, and the verb to the focus head will yield the final linear sequence. A sample derivation is provided in (114) below.

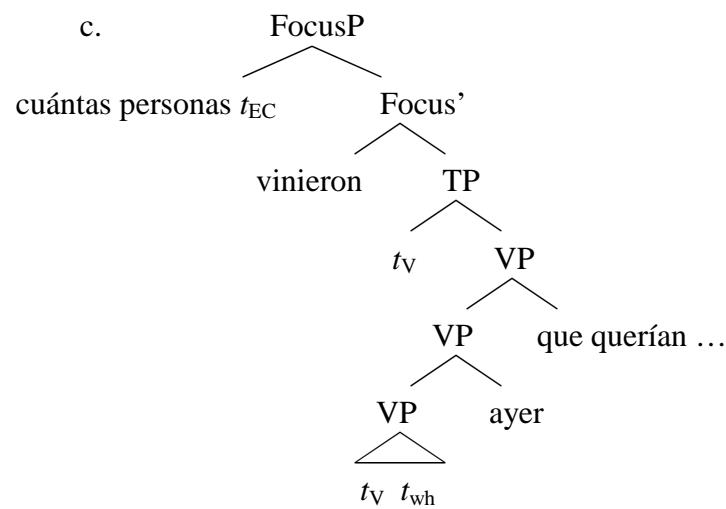
The position of *wh*-subjects in English is controversial. Two competing analyses appear in the literature, one which claims that this constituent need not raise from SpecTP to SpecCP/SpecFocusP (*Vacuous Subject Movement*) and another one which assumes that *wh*-subjects behave on a par with non-subject *wh*-phrases in that they move to SpecCP. For arguments in favor of the former position, see for instance Chung and McCloskey (1983), and Chomsky (1986); for raising to SpecCP argue among others Cheng (1991) and Rizzi (1991). As the precise analysis is immaterial to the discussion of

EX(*wh*), which is being claimed to take place before the subject moves to either of these positions, I will roughly assume raising to Focus for technical reasons. As to the position of the verb, I will just assume that it stays in its standard position, i.e. under V (unaccusatives) or under *v* (other predicates).

(114) a. *¿Cuántas personas vinieron ayer que querían trabajar para nosotros?*

how many people came(3pl) yesterday who wanted(3pl) to-work for us

b. *How many people came yesterday who wanted to work for us?*

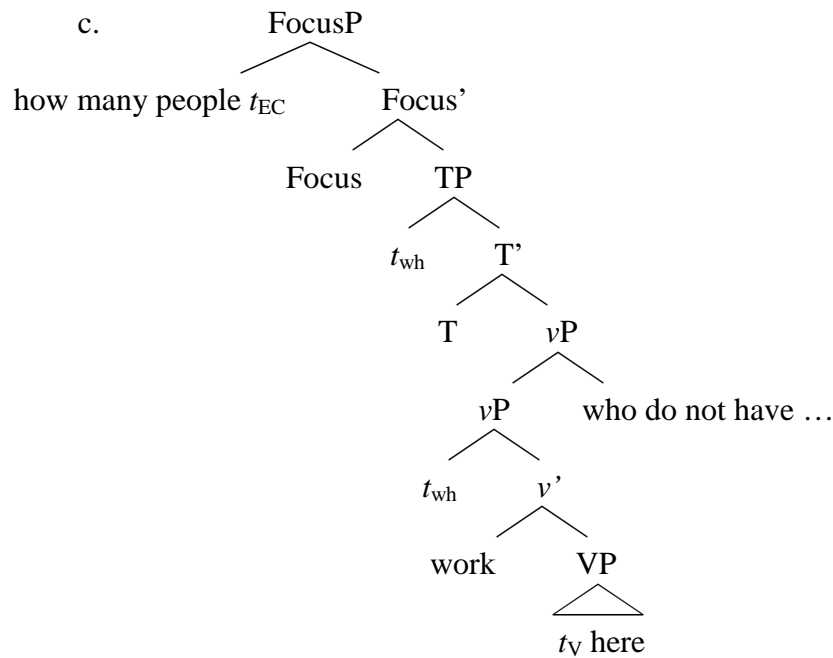


The analysis of unergatives differs from (114) in that the only argument is external (i.e. it has its base position in Spec v P). EX will therefore adjoin the EC to v P. The other movement operations involved in question formation are as in (114). The schematic representation of an English sentence is provided in (115c).

(115) a. *¿Cuántas personas trabajan aquí que no tienen los papeles en regla?*

how many people work(3pl) here who not have(3pl) the papers in order

b. *How many people work here who do not have their papers in order?*



Notice that, in all the cases analyzed in this section, the *wh*-constituent is the subject of the sentence, which renders subject-verb inversion vacuous. Let me now turn to predicates requiring more than one argument.

4.2.2. Pluriargumental predicates

EX(*wh*) does not seem to be blocked by the presence of other arguments in the structure. Examples of EX from an interrogative subject (116)/(117), direct object (118)/(119) and indirect object (120)/(121) follow.

- (116) a. (Según la encuesta) ¿Cuántas personas han leído un libro este verano
according-to the survey how many people have(3pl) read a book this summer
que hasta entonces sólo leían el periódico?
who until then only read(3pl) the newspaper
 ‘(According to the survey) ¿How many people have read a book this summer
 who, until then, only read the newspaper?’

- b. *¿Quién le ha regalado un gato a María/a María un gato (por su cumpleaños)*
who CL_{DAT} has given a cat to Mary/to Mary a cat on her birthday
que no sabe que es alérgica?
who not knows that is allergic
 ‘Who gave a cat to Mary / Mary a cat on her birthday who doesn’t know that she is allergic?’

(117) a. According to the survey, *how many people* read a book this year *that had only read newspapers before?*

- b. *Who* gave Mary a cat as a present *who doesn’t know that she is allergic?*

(118) a. *¿Qué libro/ Cuántos libros* ha leído Juan este verano *sobre el calentamiento*
which book / how many books has read John this summer about the warming
global?

global

- ‘Which book / How many books has John read this summer about global warming?’

- b. *¿Qué párrafo* modificaron en el discurso *que se creyó que podía*
which paragraph modified(3pl) in the speech that CL_{pass} thought(3sg) that could(3sg)
ofender a las minorías étnicas?

offend to the minorities ethnic

- ‘Which paragraph of the speech was modified which was thought that it could be offensive to ethnic minorities?’

- c. *¿Qué perfume* le ha regalado Juan a María *que no le ha gustado*
which perfume CL_{DAT} has given John to Mary which not CL_{DAT} has liked
absolutamente nada?

absolutely nothing

- ‘Which perfume has John given to Mary that she didn’t like at all?’

(119) a. *Which book / how many books* has John read in the summer *about global warming?*

- b. *Which paragraph* did they modify in the speech *that could be offensive to ethnic minorities / offend ethnic minorities?*

- c. *Which perfume* did John give Mary *that she didn’t like at all?*

(120) a. *¿A quién le has enviado una felicitación que (dices que) acaba de tener un hijo?*
to whom CL_{DAT} have(2sg) sent a note of congratulations who (say(2sg) that) finishes of to-have a son
 ‘To whom have you sent a note of congratulations who (you said) has just had a baby?’

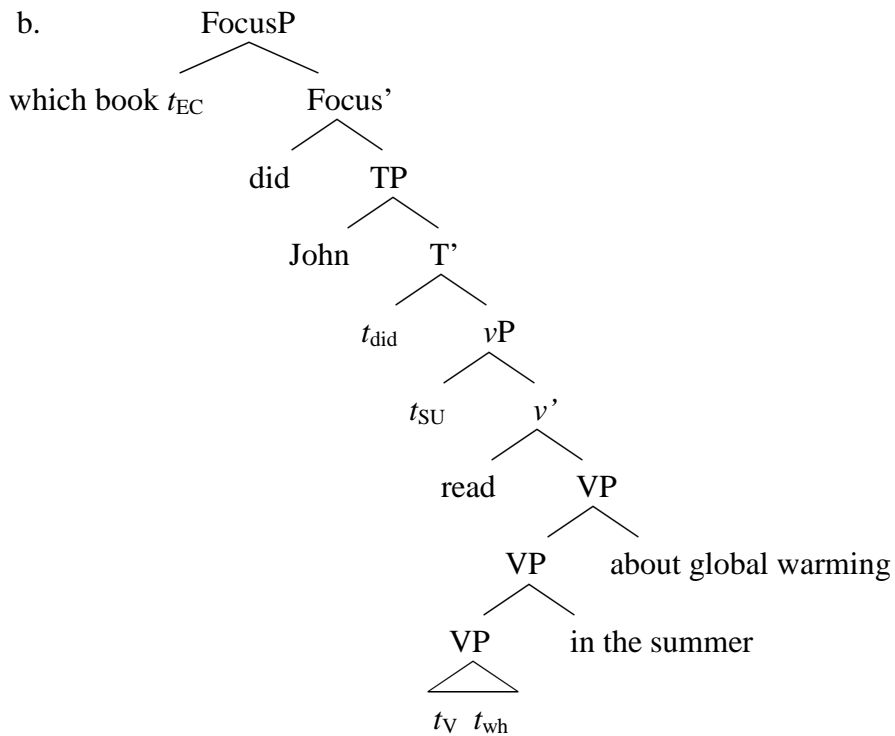
b. *¿A qué amigo le envió Pedro un regalo el año pasado que ahora vive en NY?*
to which friend CL_{DAT} sent(3sg) Peter a present the year past who now lives in NY
 ‘Which friend did Peter send a present to last year who lives now in New York?’

(121) a. *Who has John sent a present to that gets married tomorrow?*

b. *Which friend did Peter send a present to last year who lives now in New York?*

The acceptability of the sentences above confirms the absence of *closeness effects* already attested in the case of focus fronting, i.e. the presence of other arguments between head noun and EC does not interfere with their interpretation as a unit. The syntactic derivation of these sentences is as described in the preceding subsection. EX applies before the *wh*-phrase abandons its base position. Thus, EX from the *wh*-subject involves adjunction of the EC to *vP* with subsequent raising of the subject to SpecFocusP (via SpecTP in English), as shown in (115) above. In EX from internal arguments (whether direct or indirect objects), the EC adjoins to VP. The object (a *wh*-constituent) will later move to SpecFocusP. (122) provides a sample representation.

(122) a. *Which book/how many books did John read in the summer about global warming?*



Let me come back to the data in (120) above illustrating EX from an indirect *wh*-object in Spanish. Recall that the direct and the indirect object can exhibit two different linear sequences in declarative sentences and that EX(IO) is only possible in one of the linearities. Compare (123) and (124).

(123) a. *He enviado a una amiga _ una felicitación que acaba de tener un hijo
have(1sg) sent to a friend a note of congratulations who finishes of to-have a son

‘I have sent to a friend a note of congratulations who has just had a baby.’

b. *Pedro le envió a un amigo _ un regalo (la semana pasada) que ahora vive en NY?
Peter CL_{DAT} sent(3sg) to a friend a present the week past who now lives in NY?

‘Peter sent a present to a friend last week who lives now in New York?’

- (124) a. Le has enviado una felicitación a una amiga _ ayer que
CL_{DAT} have(2sg) sent a note of congratulations to a friend yesterday who
acaba de tener un hijo.
finishes of to-have a son
 ‘You sent a note of congratulations to a friend yesterday who has just had a baby.’
- b. Le envió Pedro un regalo a un amigo _ ayer que ahora vive en NY.
CL_{DAT} sent(3sg) Peter a present to a friend yesterday who now lives in NY
 ‘Peter sent a present to a friend yesterday who lives now in NY?’

The ungrammaticality of the sentences in (123) was ascribed in section 3.3 above to the fact that the head noun is not in its base (unmarked) position. Recall that the results so far indicate that EX is freely available from DPs in their base position. Subverting the linearity of direct and indirect object corrects this situation, (124). As I am assuming that EX(*wh*) takes place in the VP domain and that the *wh*-constituent moves later to SpecFocusP, the sentences in (124) – rather than those in (123) – have to be the source of their interrogative counterparts.

Another question of interest is that EX is allowed to take place from a preverbal *wh*-subject in Spanish, just as it was possible from a focalized (but not from a non-focalized) preverbal subject – another indication that fronted foci and *wh*-phrases are syntactically similar.

- (125) a. ??/*Una amiga le regaló un gato a María que no sabía que es alérgica.
a friend CL_{DAT} gave(3sg) a cat to Mary who not knew(3sg) that is allergic
 ‘A friend gave a cat to Mary who did not know that she is allergic.’
- b. ?UNA AMIGA le regaló un gato a María que no sabía que es alérgica.
- c. ¿Quién le regaló un gato a María que no sabía que es alérgica?
who CL_{DAT} gave(3sg) a cat to Mary who not knew(3sg) that is allergic
 ‘Who gave a cat to Mary that didn’t know that she is allergic?’

For completeness, it is worth remarking that EX from *wh*-constituents in embedded contexts yields perfectly acceptable sentences both in English and in Spanish. Some sample data follow.

- (126) a. I don't know *how many senators* Peter met *that will vote for the amendment*.
 b. I wonder *who* called yesterday *that wanted to talk to me*.

- (127) a. No sé *a cuántos senadores* entrevistará *Marta que piensan votar*
not know(1sg) to how many senators will-interview(3sg) Martha who think(3pl) to-vote
a favor de la reforma.

in favor of the reform

'I don't know how many senators Martha will interview who are thinking of voting for the reform.'

- b. ?Me pregunto *quién* llamó *ayer* *que quería* *hablar conmigo*.

me wonder(1sg) who called(3sg) yesterday who wanted(3sg) to-talk with-me

'I wonder who called yesterday that wanted to talk to me.'

In this section, it has been shown that the results of EX(*wh*) parallel those of EX from focalized constituents. As a matter of fact, EX appears to be especially felicitous when it takes place from a *wh*-constituent, no matter its syntactic function.

5. Conclusion

The analysis of the interaction of EX with focus fronting has thrown, to a large extent, the same results as the interaction with *wh*-movement. With respect to EX, then, the two movement operations can indeed be regarded as instances of the same phenomenon.

EX from fronted foci has been shown to be acceptable independently from the syntactic function of the focalized constituent. Some sentences displayed different degrees of deviance that could be attributed to the so-called *closeness effects*. However, the fact that they do not appear uniformly (i.e. following a pattern) indicates that factor beyond the purely syntactic must be at play in sentences with EX. Similarly, the data presented and discussed in section 4 have shown that EX is especially felicitous in contexts of *wh*-movement. Thus, the operation can also target any argumental *wh*-phrase both in a displaced position and *in situ*, both in root and embedded contexts. Moreover, it has been observed that, when the *wh*-constituent is a bare *wh*-pronoun, the degree of acceptability of the extraposed variant surpasses the degree of acceptability of its non-extraposed counterpart.

Although EX from a focalized constituent is not usually part of the discussion on EX, EX from a *wh*-moved constituent is and in such cases standard analyses propose raising of the *wh*-phrase to SpecCP, with EX occurring from this position and adjoining the EC to CP. Culicover and Rochemont (1990) and Baltin (2006), among others, explicitly argue against EX preceding *wh*-raising in these constructions. See the detailed discussion in chapter 5. As, following Rizzi (1997b), I have assumed an analysis of focalization and *wh*-raising in terms of movement to the Spec of a FocusP in the left periphery of the sentence, the traditional analysis of EX in this context would involve two steps. First, the focalized constituent moves to SpecFocusP; second, the EC is adjoined to FocusP, the minimal maximal projection containing its head noun. But the second step in either of these cases (CP and FocusP adjunction) poses a serious problem: derived Specs are well-established islands for extraction (Wexler and Culicover 1981).

As leftward extraction from derived Specs gives rise to freezing effects, but EX does not seem to be so constrained, it has usually been assumed that movement operations were subject to different constraints depending on their directionality, with rightward movement being less constrained than leftward movement. If the assumption put forward in this dissertation concerning the domain of application of EX is anywhere near the mark, it is not necessary to make this distinction, which is in itself conceptually undesirable. EX from a *wh*-fronted or focalized object would be like EX(OB) in that it would adjoin the EC to VP (similarly, EX from the subject of unaccusative and passive predicates). EX from a fronted *wh*- or focalized subject would be like EX(SU) in that it would adjoin the EC to *v*P. Since the base position of both subject and object are transparent for extraction, EX can take place without further problems. Subsequent movement of the head noun to SpecFocusP yields the final linear sequence.

As regards the trigger of EX, the results obtained in this chapter are consistent with those in preceding chapters. Once again it has been shown that EX is possible from a constituent (the head noun) which bears a [+focus] feature. Interestingly, given the uniqueness of focus (Rizzi 1997b), if this feature is held responsible for the fronting of the head noun, it cannot be responsible for the movement of the EC. In other words, EX cannot be driven by a focus feature. As a matter of fact, many of the extraposed modifiers in the data discussed in this chapter contributed background information.

Chapter 10

The interaction of EX and ellipsis

1. Introduction

This chapter deals with the interaction of EX with five different ellipsis operations: VP-ellipsis (VPE), pseudogapping, gapping, stripping and sluicing. They are illustrated in (1) to (5) below.

(1) *VPE*

- a. He won't come to see you, but I will.
- b. Peter came late, and John did, too.

(2) *Pseudogapping*

- a. John eats meat more often than he does fish.
- b. I didn't give a dime to Mary, but I did a nickel to Sue.

(3) *Gapping*

- a. Mary ate rice and Peter beans.
- b. Mary bought a new car and Peter a bicycle.

(4) *Stripping*

- a. John plays the piano, not the guitar.
- b. John plays the piano, and Mary, too.

(5) *Sluicing*

- a. Someone came in yesterday but I don't know who.
- b. Mary bought something at the fair and I would like to know what.

The first two phenomena (VPE and pseudogapping) are standardly analyzed as involving the deletion of VP. In the former case, the whole verbal projection is deleted, whereas in the latter one or more of its constituents abandon VP before ellipsis, thus escaping deletion. In the literature these constituents are called *remnants*. Gapping, stripping and sluicing, on their part, will be assumed to be derived by TP deletion. In the case of gapping at least two constituents survive by moving out of TP. In sluicing there is only one remnant, a *wh*-phrase that moves to SpecCP before TPE. Finally, in

stripping the only remnant is a constituent that moves to the SpecFocusP in the left periphery of the sentence.

Since all the phenomena above involve VP or TP ellipsis and these two categories play an important role in traditional accounts of EX (as adjunction sites of the EC in EX(OB) and EX(SU) respectively), I undertook the study of the interaction of EX with ellipsis in the hope of obtaining relevant information concerning the position of the EC. The key question in this respect is whether the EC has to be part of the deleted material or not. But using ellipsis for this purpose is not new. Given the assumption that only constituents undergo ellipsis, different deletion operations (particularly VPE) have traditionally been used as constituency tests. Culicover and Rochemont (1990) (among others) have already resorted to VPE to determine the adjunction site of the EC, as will be shown below. See also the discussion in chapter 5 section 4 for details. But the analysis of VPE proposed in the 1990s has become obsolete, so an important part of my study will be devoted to updating preceding analyses. The conception of ellipsis that I will adopt in this chapter for all the phenomena under study will be basically that presented in Merchant (2001, 2004) and subsequent work.

Of the five phenomena illustrated in (1) to (5) above, VPE and pseudogapping are attested in English but not in Spanish, while gapping, stripping and sluicing are available in the two languages. (6) to (8) illustrate the latter ellipsis operations in Spanish.

(6) El rey viajó a París y la reina a Londres.

the king travelled(3sg) to Paris and the queen to London

‘The king travelled to Paris and the queen to London.’

(7) El rey viajó a París y la reina también.

the king travelled(3sg) to Paris and the queen too

‘The king travelled to Paris and the queen, too.’

(8) El rey visitó un país de Oriente Medio, pero no sé cuál.

the king visited(3sg) a country of East Middle but not know(1sg) which

‘The king visited some country in the Middle East but I don’t know which.’

The sentences in (9) and (10) show that VPE and pseudogapping are ungrammatical in Spanish.

(9) *Pedro ha llegado a las tres de la tarde y María también ha.
Peter has arrived at the three of the afternoon and Mary too has
'Peter has arrived at three in the afternoon and Mary has, too.'

(10) *María me ha regalado un libro y Juan me ha bombones.
Mary me has given a book and John me has chocolates
'Mary has given a book to me as a present and John has chocolates.'

Some interesting results emerge from the analysis of the interaction of EX with the different ellipsis phenomena presented in this introduction. First, some of the patterns of deletion come to confirm that EX is a VP/vP phenomenon. Second, it will be shown that EX cannot be triggered by [+focus].

The chapter is structured as follows. Section 2 will briefly introduce Merchant's (2001, 2004) theory of ellipsis. I turn to the interaction of EX with VPE in section 3, which will be divided in three subsections dealing with the interaction of VPE and EX from a subject, an object and a sentence-initial contrastive topic. Section 4 will be devoted to pseudogapping. The discussion will be articulated in four subsections: a presentation of the ellipsis operation (§4.1), and three sections dealing with its interaction with EX(SU), EX(OB) and EX from a s-initial contrastive topic (§4.2 to §4.4). In section 5 the discussion will turn to gapping. As a preliminary step I will introduce the operation and the particular analysis that will later be applied to sentences with EX, §5.1. The presentation and discussion of data will be carried out in two subsections. The first one (§5.2) deals with the interaction of gapping and EX(SU), the second (§5.3) with the interaction of gapping and EX(OB). The turn of stripping will come in section 6. Again, the discussion will be structured in two sub-sections, one presenting the phenomenon (§6.1), the other the interaction of stripping with EX, §6.2. The last ellipsis operation (sluicing) will be analyzed in section 7. A brief presentation of the operation (§7.1) will again be followed by the analysis of the interaction of sluicing with EX (§7.2). The chapter is closed with the conclusions, section 8.

An analysis of the interaction of EX with the five ellipsis phenomena mentioned in this introduction has not been carried out before. For this reason, most of the data analyzed in this chapter are discussed here for the first time.

2. Merchant's theory of ellipsis

Merchant (2001, 2004, 2007, 2012) conceives ellipsis as a PF phenomenon in which the ellipsis site contains full syntactic structures which are left unpronounced. In what follows, I will go into the details of what triggers the non-pronunciation of that structure in Merchant's system. For an interesting review of the different approaches to ellipsis available in the literature, see Merchant (2012) and the references quoted there.

2.1. The E-feature

According to Merchant, the ellipsis of a given category is triggered by the presence in the derivation of an appropriate E-feature (E stands here for ellipsis); in his own words: "The E-feature serves as the locus of all the relevant properties that distinguish the elliptical structure from its non-elliptical counterpart." (Merchant 2004: 670).

This E-feature is an item of the Lexicon with certain syntactic requirements. In the case of sluicing – illustrated in (11a) below – the lexical entry of the E-feature will include the specification in (12), where E_S denotes the variety of E-feature relevant in sluicing.

(11) a. Someone murdered John, but I don't know who.

b. Someone murdered John, but I don't know who murdered John.

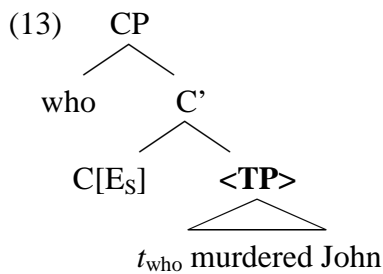
(12) E_S [μwh^* , μQ^*]

If this feature is part of the numeration, the sentence will contain sluicing. If not, its non-elliptical counterpart, (11b), will be generated. Similarly, if a language lacks this feature, it will lack sluicing altogether. In this system, any cross-linguistic difference in the realm of ellipsis is placed in the Lexicon, a conception that is much in tune with the strong lexicalist nature of *Minimalism*. Merchant himself regards this property as an advantage of his theory of ellipsis over other approaches.

Coming back to the syntactic requirements of the E_S -feature displayed in (12), the asterisk (*) indicates that the uninterpretable *wh*- and *Q*-features are strong. They will therefore trigger the association of the E-feature with a head that contains compatible features; in the case at hand, a C-head specified as [*wh*, *Q*]. The association of the E-feature with a functional head is forced by its morphosyntactic deficiency in a

way comparable to what is proposed in the analysis of certain clitics. Merchant suggests that one possible implementation of this association is the addition of the E-feature to the matrix of its ‘licensing’ head, although he leaves the possibility open that other – more complex – relationships can be established between E and the elided material.

The parser of the embedded clause in the second conjunct in (11) is provided in (13). Following Merchant’s practice, I will annotate the category that will be affected by PF ellipsis by placing it in angle brackets.



Roughly, the E_S -feature on C will instruct the post-PF phonological interpretive component not to parse its complement. This will only be possible if there is an antecedent that guarantees the semantic identification of the elided material (what is traditionally known as the parallelism requirement/recoverability condition on ellipsis). Merchant (2001) encodes this requirement as the semantic relation he dubs *e-GIVENNESS*, defined in (14), coupled with the focus condition, stated in (15).

(14) *e-GIVENNESS*

An expression E is e-GIVEN iff there is an antecedent A which entails E and is entailed by E modulo \exists -type shifting.

(15) *Focus Condition*

A constituent α can be deleted only if α is e-GIVEN.

At this point I will dwell for a while on another question that will become relevant in the discussion that follows: the extent to which the two constituents involved in ellipsis (i.e. the deleted phrase and its antecedent) have to be isomorphic.

2.2. *The ellipsis site and syntactic isomorphism*

At an intuitive level, one could say that the VP in the second conjunct in a sentence like (16) has been deleted under identity with the VP in the first conjunct. Simple though this idea might be, its accuracy is far from clear and a long way from being accepted by all researchers. See the interesting discussion in Merchant (2012) about this particular.

(16) Peter will [_{VP} write an article] and Mary will <write an article> too.

Assuming that there is syntactic structure in the ellipsis site and that, ellipsis being a PF phenomenon, this structure is silenced at PF, the question arises as to the extent to which the elided constituent and its antecedent are ‘alike’. Some researchers have argued that the two constituents involved (elided constituent and its antecedent) have to be syntactic twins, i.e. they have to be syntactically identical (cf. Fiengo and May 1994, for instance). The resulting approaches have been called ‘reconstruction theories’. The sentences in (17), drawn from Merchant (2001), contradict this view of ellipsis. They all illustrate cases of sluicing in which the elided constituent, provided in angle brackets in each sentence, is clearly not a syntactic twin of its corresponding antecedent.

- (17) a. Decorating for the holidays is easy if you know how <to decorate for the holidays>.
b. I’ll fix the car if you tell me how <to fix the car>.
c. I remember meeting him, but I don’t remember when <I met him>.

In the light of data like these, Merchant (2001), and subsequent work, argues for the presence of syntactic material in the ellipsis site but rejects isomorphism in favor of a semantic condition on identification based on the notion of e-GIVENESS mentioned in the preceding section.

I will assume that this conception of ellipsis is basically right and that the mechanism just described extends to all other ellipsis types; in particular to VPE, pseudogapping (which also involves VPE), stripping and gapping (the latter two involving TP ellipsis). In the following subsections I will tackle all these ellipsis phenomena in turn.

3. VP-Ellipsis and Extraposition

VPE can be generically described as a syntactic operation that deletes non-finite VPs. In other words, VPE involves deletion of the lexical verb and other constituents inside VP, but not of the tense and agreement features expressed in the auxiliary. As mentioned in the introduction, such a possibility does not exist in Spanish, a language that lacks VPE altogether. This cross-linguistic difference explains the contrast between (18) and (19).

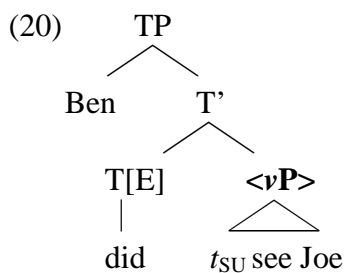
(18) a. Abby didn't see Joe, but Ben did <see Joe>.

b. Peter said that he would arrive before noon, and he did <arrive before noon>.

(19) *Pedro ya ha ido a recoger el paquete, pero yo aún no he <ido a recoger el paquete>.
Peter already has gone to to-collect the parcel but I yet not have(1sg) gone to to-collect the parcel

'Peter has already gone to collect the parcel, but I haven't (yet).'

Following Merchant (2001, 2004, 2007), the second conjunct of a sentence like (18a) would be derived as represented in (20).



The E-feature, responsible for VPE in Merchant's system, is associated with the functional head T, which will trigger the deletion (i.e. non-pronunciation) of its complement: vP . This analysis of VPE differs in several respects from more traditional ones. Strictly speaking, we should refer to this operation as vPE , since the category undergoing deletion is vP , not VP. However, I will continue to use the traditional term VPE for simplicity. Apart from this, I will assume that Merchant's conception of ellipsis is basically right and will apply it to sentences with EX.

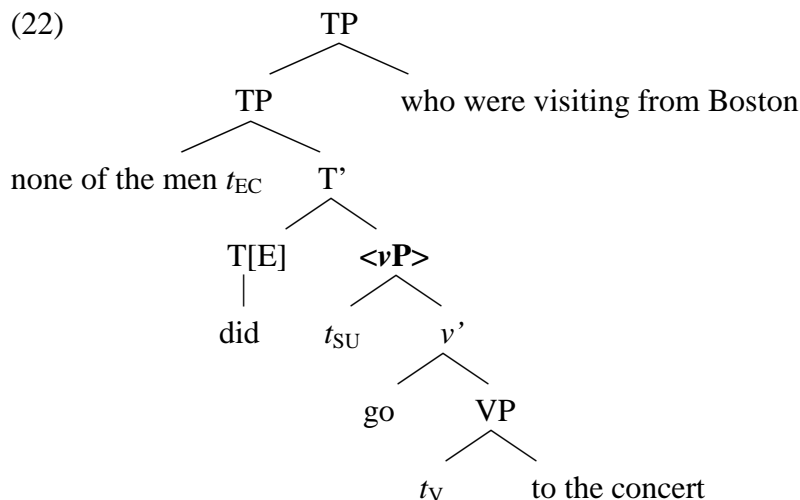
3.1. VPE and EX(SU)

In order to avoid potential *closeness effects* arising from the presence of other arguments in the structure, only sentences headed by monoargumental predicates will be considered in this subsection (for *closeness effects* see chapters 7 and 9 and the references quoted there). The analysis of unergatives, whose subject is an external argument, should extend to sentences headed by transitives and ditransitives.

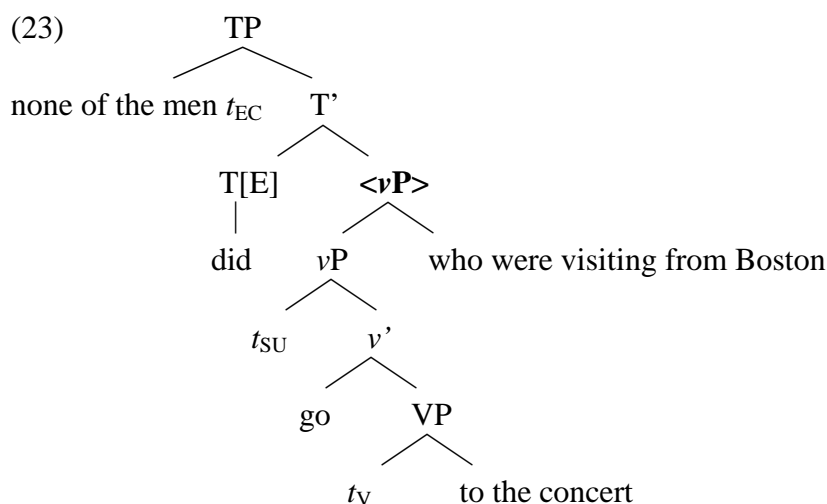
The sentences in (21) –from Culicover and Rochemont (1990) – show that VPE may (but need not) delete a relative extraposed from the DP subject.

- (21) a. Although none of the MEN did <go to the concert who were visiting from Boston>, several of the WOMEN went to the concert who were visiting from Boston.
- b. Although none of the MEN did <go to the concert> who were visiting from NEW YORK, several of the WOMEN went to the concert who were visiting from BOSTON.

These sentences were used in chapter 5 section 4 to argue against the traditional analysis of EX(SU), which placed the EC in a TP/IP-adjoined position. Let me ignore that result for the time being and assume TP-adjunction of the EC and VPE à la Merchant (2001). Under those conditions, the parser of the first conjunct in the sentences in (21) is as follows, (22).



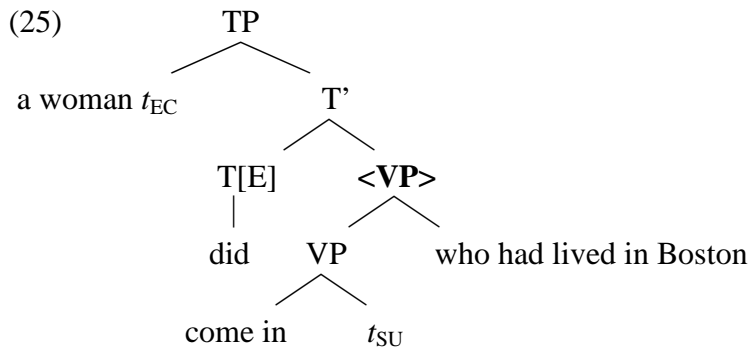
In this representation, a constituent extraposed from a subject will always be expected to survive VPE, which would derive (21b) but not (21a). In the light of examples like these, I concluded in chapter 5 that EX(SU) involves adjunction of the EC to ν P, i.e. the operation applies on the DP before raising to SpecTP. (23) shows the corresponding parser.



In this structure, ellipsis of the highlighted ν P will always include the EC. With the new assumption, (21a) can be derived, but not (21b). I will assume that for the EC to survive VPE it will have to vacate ν P before the deletion operation applies. That is to say, (21b) constitutes an instance of pseudogapping. I will come back to this sentence in section 4 below. What is important at this point is that the deletion of the EC in (21a) can only be accounted for in terms of VPE if the EC is ν P-adjoined. If (21b) can indeed be explained as a case of pseudogapping, the results so far would favor an analysis of EX(SU) in terms of ν P-adjunction over the traditional one in terms of IP/TP-adjunction.

Consider for completeness a case of EX from the subject of an unaccusative predicate. Remember that, as the surface subject is a base-generated internal argument, I am analyzing these cases as EX(OB). Given the discussion above, (24a) will be analyzed as a case of VPE, while (24b) will be considered a case of pseudogapping. The parser for the gapped conjunct in (24a) is provided in (25).

- (24) a. A man came in who had lived in Boston, and a woman did <come in who had lived in Boston>, too.
 b. A man came in who had lived in Boston, and a woman did <come in> who had lived in NY.



Since unaccusative predicates do not project a *v*P shell, the deleted constituent is VP, as shown in (25). As always, its deletion is triggered by the presence of the E-feature on the T head. In order to derive (24b), the EC will have to abandon VP before VPE applies (see section 4 below for details).

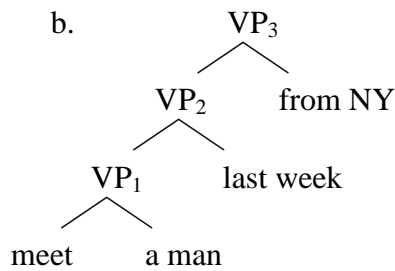
3.2. VPE and EX(OB)

The sentences in (26) below – discussed in Culicover and Rochemont (1990) – show that a constituent extraposed from an object cannot survive VPE.

- (26) a. John met a man last week from Philadelphia, and George did <meet a man last week from Philadelphia>, too
 b. *John met a man last week from Philadelphia, and George did <meet a man last week>from New York.

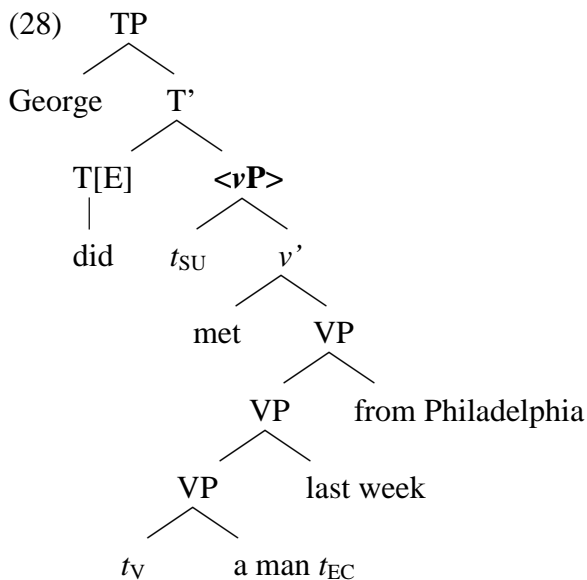
Culicover and Rochemont (1990) analyzed VPE in traditional pre-minimalist terms. Their analysis of the interaction of EX with VPE has two basic ingredients. One is the assumption that a constituent extraposed from the object is VP-adjoined, and the second one is the assumption that any VP layer can be targeted by VPE. Culicover and Rochemont’s parser for the VP in (27a) would therefore be (27b).

- (27) a. [_{VP} meet a man last week from NY]



An analysis along these lines predicts that (26b) should be grammatical, as deletion of VP₂ would derive that sentence. Culicover and Rochemont are forced to find a way to block this derivation. They attribute the ungrammaticality of this sentence to vacuous quantification. In their analysis of EX (in terms of base-generation), the problem with this derivation is that the EC cannot be properly related (by the *Complement Principle*) to a head noun that has been elided⁸². The problem with this type of logic is that quantification is a LF phenomenon whereas VPE is a PF operation. In other words, a PF operation cannot affect LF principles.

This problem does not arise in a derivation of VPE in the terms proposed in Merchant (2001). Under such an analysis, the second conjunct of the sentences in (26) is assigned the structure represented in (28).



This analysis predicts that a constituent extraposed from an object can never survive VPE, which correctly rules (26a) in and (26b) out. Notice that the same results are

⁸² In an analysis in terms of movement, the argument would be as follows: If the extraposed PP is assumed to have moved to the right, it should bind the trace it leaves behind, but this trace has been deleted, which gives rise to an illicit structure.

obtained in this case if no EX takes place in the second conjunct. Choice of the extraposed version – as in (28) – over the non-extraposed version will depend on the role played by syntactic isomorphism in ellipsis phenomena (see above). If EX has indeed taken place, the extraposed constituent has to stay in the local domain of its head noun, i.e. in the VP domain. Otherwise, it could not be included in the deleted constituent.

Before closing this section, I would like to mention the fact that some speakers consulted during the preparation of this dissertation could accept (26b) above – repeated here for convenience as (29a) – as well as (29b). In both sentences the head noun is deleted while its extraposed modifier escapes deletion.

- (29) a. [*]John met a man last week from Philadelphia, and George did <meet a man last week>from New York.
b. [*]John met a man last week from Philadelphia, and George did <meet a man> yesterday from New York.

Since some of the constituents of VP are not included in the ellipsis operations, I will analyze these sentences as cases of pseudogapping. Their discussion belongs therefore in section 4 below.

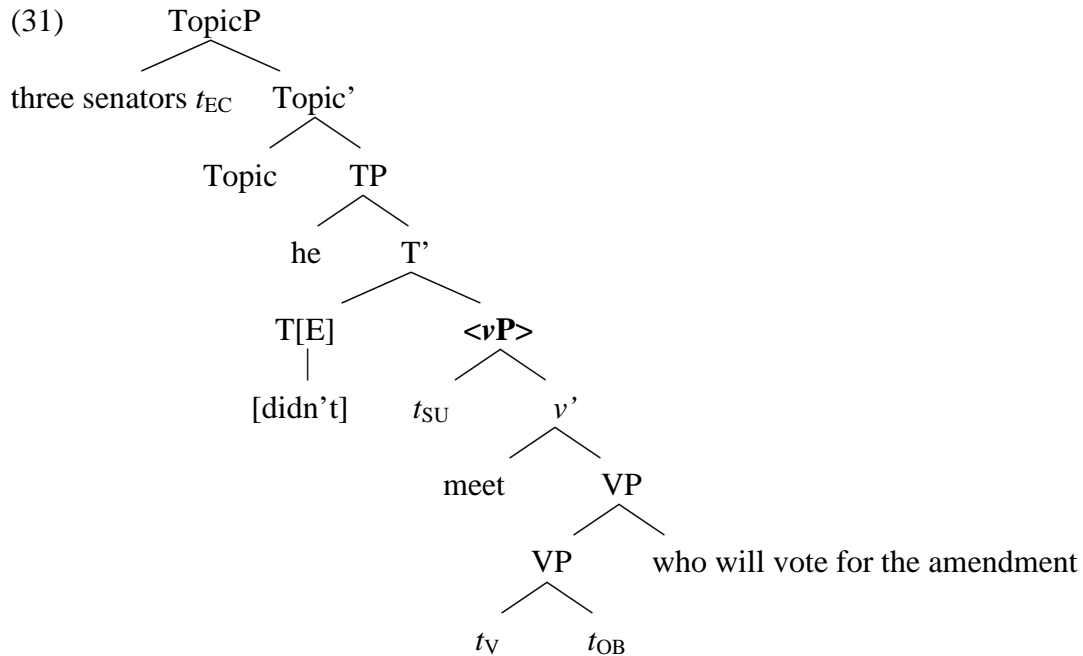
3.3. VPE, contrastive topicalization and EX

In this section, I will consider the two interesting ellipsis patterns in (30), where the internal argument of the predicate in the second conjunct is a contrastive topic and the VP has undergone ellipsis. As can be seen, only in (30b) has the EC survived ellipsis.

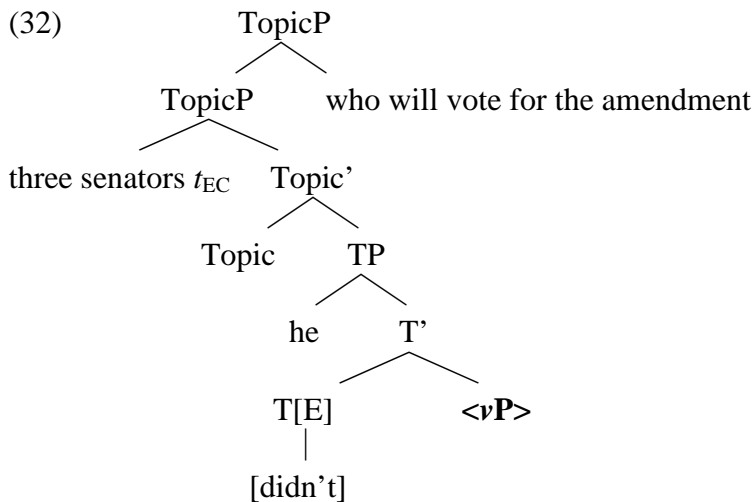
- (30) a. John managed to find three congressmen who will vote for the amendment, but three senators he didn't <find who will vote for the amendment>.
b. John managed to find three congressmen who will vote for the amendment, but three senators he didn't <find> who will vote against the amendment.

I would like to suggest that (30a) instantiates VPE, as represented in (31) below, whereas (30b) is a case of pseudogapping. In order to avoid unnecessary repetition, I will delay the discussion of the latter to section 4 below. For ease of exposition, I have

ignored the analysis of negation in the parser in (31). I will assume that contrastive topics sit in the Spec of a dedicated functional projection (TopicP) in the left periphery of the sentence (Rizzi 1997b). See also chapter 6.



Standard analyses of EX assume that a constituent extraposed from a fronted DP adjoins to CP (here, to TopicP), (32) below. If this were so, the EC would always survive VPE, contrary to the evidence provided by the datum in (30a) above. This type of data supports my analysis of EX as applying to DPs in their base position. At a later stage in the derivation the internal argument moves to check a contrastive topic feature in the left periphery of the sentence. Subsequent VPE will delete the EC together with the rest of VP constituents.



To recap, in this section I have updated the discussion of VPE that appears in the literature on EX. As it turned out, only some of the cases that have usually been discussed are true instances of VPE. Sentences in which some VP constituent (including the EC) survives deletion are to be analyzed as cases of pseudogapping. Under the new analysis, ECs can never survive VPE. This is true of the EC(OB), which is VP-adjoined, but also of the EC(SU), which is *vP*-adjoined. Standard analyses of EX(SU) in terms of IP-adjunction could not explain why the EC(SU) can be included in VPE. Similarly, standard analyses predict that a constituent extraposed from a fronted DP will survive deletion, as they place it in a CP-adjoined position. The fact that the constituent extraposed from a preposed contrastive topic can be part of the material undergoing VPE refutes the assumption that the EC occupies such a high position in the structure. In this respect, the analysis I propose in terms of *vP*/VP-adjunction is superior to traditional accounts.

I turn now to the discussion of pseudogapping.

4. Pseudogapping and Extraposition

4.1. The syntax of pseudogapping

Pseudogapping is an ellipsis operation that is usually regarded as a particular case of VPE, since it also involves the deletion of the non-finite verb. It departs from VPE, however, in that at least one complement or adjunct of the verb has to survive

deletion⁸³. This constituent is known as the *remnant*. In this respect, the operation is similar to gapping, where some constituents also survive deletion (see section 5 below). The phenomenon is illustrated in (33) with an example drawn from Bowers (1998).

(33) John will select me more happily than Bill will <select> you.

As in this example, pseudogapping most often occurs in comparative and contrastive contexts. The remnant is required to stand in contrast with a parallel expression in the antecedent clause. As can be seen in (34) below, the deleted items do not need to form a linear string. They can also form a discontinuous gap. (34a) is from Bowers (1998), (34b) from Sag (1976) and (34c) has been constructed and tested for this dissertation.

- (34) a. The DA proved Jones guilty and the Assistant DA will <prove> Smith <guilty>.
 b. John could pull you out of a plane, like he did <pull> his brother <out of a plane>.
 c. Peter will ask you for help on Tuesday earlier than he will <ask> me <for help> on Saturday.

As in VPE, the tense and agreement specification survives in an auxiliary. Again, as discussed in the preceding section, this strategy is not available in Spanish, which means that sentences like that in (35) are ungrammatical in this language.

- (35) *Yo he leído más libros que tú has <leído> artículos.
I have(1sg) read more books than you have(2sg) <read> articles
 ‘I have read more books than you have <read> articles.’

Although there are still some open questions concerning the true nature of pseudogapping, since Jayaseelan (1990) it is analyzed as VPE, preceded by movement

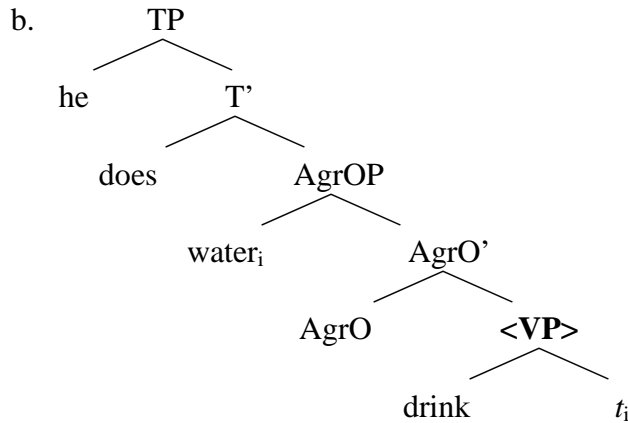
⁸³Pseudogapping also departs from VPE in other respects. For example, it has a more restricted distribution. Whereas VPE can operate backwards and forwards, as shown in (i), pseudogapping can rarely occur backwards, (ii). The examples are from Agbayani and Zoerner (2004), quoting Levin (1979).

- (i) a. Even if Kim could speak French, she wouldn't <read> French.
 b. Even if Kim could <read> French, she wouldn't speak French.
 (ii) a. Even if Kim could speak every Romance language, she wouldn't <read> French.
 b. *Even if Kim could <read> every Romance language, she wouldn't speak French.

See the references quoted in this section for more asymmetries in the syntactic behavior of VPE and pseudogapping.

of the remnant out of VP. The landing site of this constituent has been a matter of debate. Lasnik (1995), for instance, proposes raising of the remnant to SpecAgrOP, as shown in (36). (36b) is the simplified structure of the *than*-clause in (36a).

(36) a. He drinks milk more often than he does <drink> water.



According to Lasnik (1995), the direct object raises to SpecAgrOP to check accusative Case. The gapped structure is the result of the subsequent application of VPE. For such an analysis to work, movement of the verb has to be delayed. If the verbal head were allowed to rise to AgrO, it would also survive VP-deletion. Lasnik (1995) assumes that the strong feature that triggers V-raising is a feature of the verbal head (e.g. a theta-feature), not of the functional head to which the verb should rise (AgrO, in this derivation). Unchecked strong features are illicit PF objects that have to be deleted to guarantee convergence. In this case, the strong feature on V is deleted when VPE applies.

One of the problems posed by Lasnik's analysis is – as argued among many others by Bowers (1998) – that, if pseudogapping is triggered by Case checking, only one constituent would be expected to survive VPE, and this constituent would have to be the direct object. Sentences like those in (37) cannot be derived in Lasnik's system⁸⁴.

⁸⁴Bowers (1998) offers more arguments against Lasnik's (1995) analysis. The discussion has been simplified for reasons of space and relevance to the present discussion. The interested reader is referred to the original work for further details.

(37) a. I DIDN'T give a DIME to MARY, but I DID a NICKEL to SUE⁸⁵.

b. I give DIMES to MARY more often than I do NICKELS to SUE.

Although the sentence in (37a) is starred in Lasnik (1995), Bowers (1998) judges it acceptable with a specific prosodic contour which includes contrastive stress on the remnants, as indicated by capital letters in (37). Precisely the contrastive character of the remnants is one of the defining characteristics of pseudogapping. As Bowers interprets contrastive stress as the phonetic realization of a syntactic process of focalization, he claims that the functional projection that plays a role in pseudogapping is not AgrOP (as Lasnik 1995 proposed), but rather FocusP. Notice also that *Minimalism* has dispensed with Agr projections (Chomsky 1995), which makes a revision of Lasnik's analysis necessary on independent grounds.

Focus also plays a role in Merchant's conception of ellipsis. According to him, the relevant functional head bears a [+focus] feature and the E-feature which will license the ellipsis of νP ⁸⁶. Merchant remains unspecific as to the nature of this functional projection, which he simply labels XP. I will assume, with Bowers (1998), that this projection is a FocusP in the left periphery of the νP phase (in the spirit of Belletti 2004). See also Kuno (1981), Jayaseelan (1990, 2001), and Gengel (2007) for similar analyses.

The structure of the *than*-clause of the sentence in (36a) – repeated as (38a) –, where only the internal argument escapes VPE, is provided in (38b).

(38) a. He drinks milk more often than he does <drink> water.

⁸⁵It has to be noted that, when the subject in the gapped structure is also different from the subject in the antecedent clause, it has to be contrastively stressed, too. An example from Bowers (1998) is provided in (i).

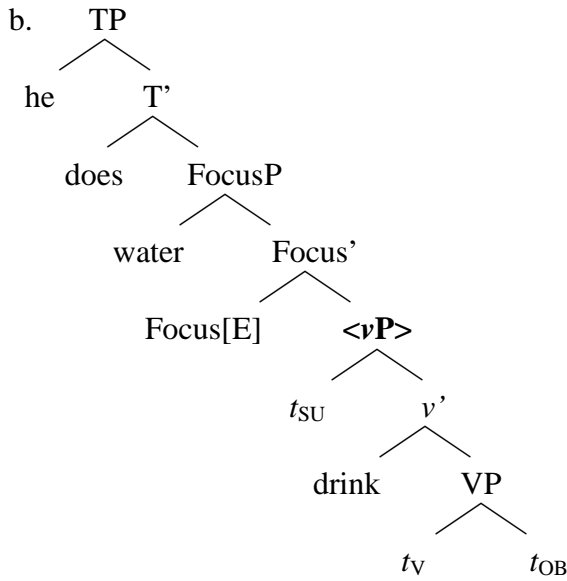
(i) JOHN didn't give a DIME to MARY, but BILL did a NICKEL to SUE.

⁸⁶This is a simplification of Merchant's analysis. He observes that voice mismatches are not allowed in pseudogapping, (i), and concludes that this is due to the fact that the deleted constituent is VoiceP, which projects between TP and νP . The category that hosts the focus and the E-feature selects VoiceP in his analysis, (ii). See Merchant (2007) for a detailed account.

(i) a. *Some brought roses, but lilies were <brought> by others.

b. *Roses were brought by some, but others did <bring> lilies.

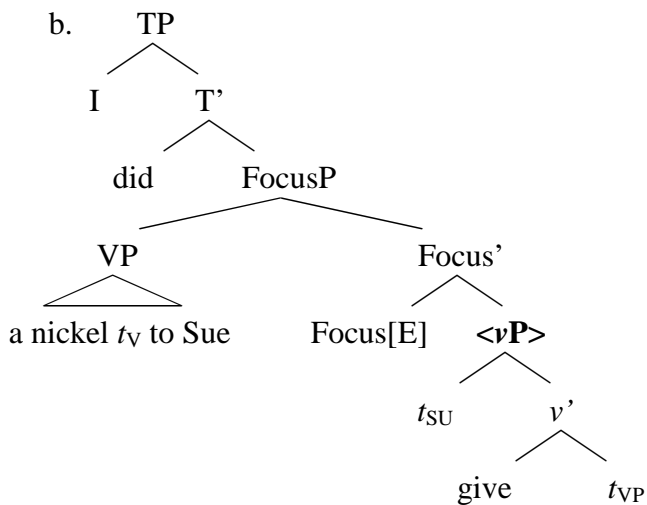
(ii) [_{TP} [_T T⁰] [_{XP} remnant [_X X⁰][**focus, E**] [_{VoiceP} [_{Voice} Voice⁰] [_{νP} ...



The contrasted object raises to SpecFocusP. The head of this projection is associated with the E-feature that will instruct the PF component not to pronounce its complement, i.e. vP . Notice that this analysis has the additional advantage over Lasnik's proposal that it does not need to resort to any special mechanism to guarantee that the verb stays inside VP. In the structure shown in (38b) the verb is under v , its usual position.

But what happens when the remnant is more complex, as in Bowers' (1998) examples in (37) above? In the relevant sentence, the direct and the indirect object survive deletion. I propose the structure in (39b) for the second conjunct of the sentence in (39a).

(39) a. I DIDN'T give a DIME to MARY, but I DID a NICKEL to SUE.



Given that focus is not recursive (see the discussion in chapter 9), the two constituents cannot move to two different Focus projections. One possible solution would be to allow the focus head to project multiple Specs, as Bowers himself does, but this would only be an artifact designed for the sole purpose of overriding the uniqueness of focus. For cases of multiple remnants (much in line with Johnson's (2009) analysis of gapping⁸⁷) I will tentatively suggest that a bigger category containing the remnants moves to SpecFocusP. In this case, the minimal maximal category that contains the direct and the indirect object is VP. This move allows the focalization of two constituents in one step. A-bar movement of the verbal projection is not unprecedented in the literature. (40) provides an example of VP fronting. See also the analysis in Johnson (2009) just mentioned.

(40) Peter said he would win the lottery, and [_{VP} win the lottery]_i he did *t_i*.

After outlining a possible analysis of pseudogapping we are in a position to introduce EX data. As will be shown below, the analysis just outlined will have to be modified to accommodate some of the patterns of pseudogapping that will be introduced in the following sections. Since it has been observed that the grammaticality of pseudogapping in coordinating constructions is subject to a certain amount of speaker variation (Lasnik 1995 and Bowers 1998 among many others), comparative constructions will be used in this section. This decision does not have to be interpreted as the denial that EX is compatible with pseudogapping in coordinating contexts. The sentence in (41) shows that it is.

(41) Larry won't read a paper on Thursday that deals with global warming, but he surely will <read> a book on Friday that deals with global dimming.

Adopting the analysis just outlined, the basic question that I will explore in the subsections that follow is whether the EC can become the remnant in pseudogapping constructions. I will start with EX(SU).

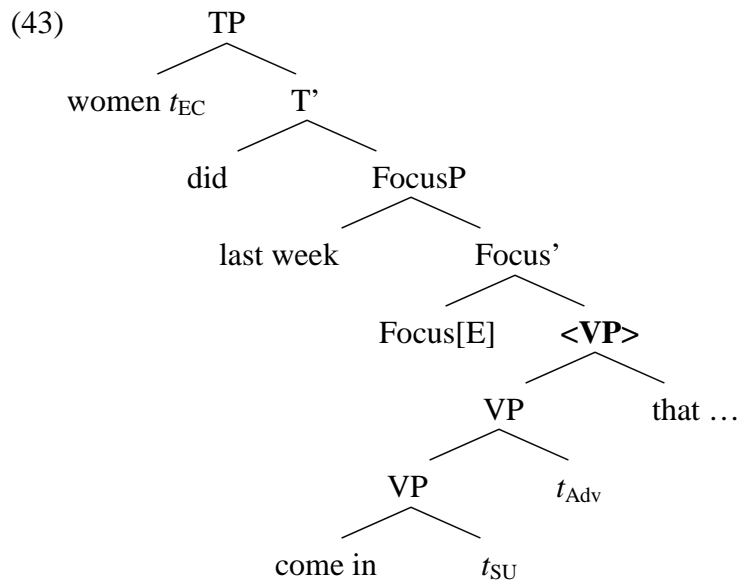
⁸⁷ It has to be noted, however, that the VP movement proposed by Johnson (2009) is of the ATB type and targets the Spec of a PredP projecting on top of *v*P. I will not adopt this analysis of gapping. See section 5 below.

4.2. Pseudogapping and EX(SU)

Let me start the discussion with the sentences in (42), headed by an unaccusative predicate.

- (42) More men came in yesterday that wanted to talk to you than ...
 a. women did last week.
 b. women did that wanted to talk to me.

It has to be noted that the sentence in (42a), where the extraposed relative has undergone ellipsis, allows for a reading in which the relative is implied. Since these two sentences are headed by an unaccusative predicate, the subject's canonical position is VP-internal. The representation of (42a), where only the temporal adverbial survives VPE, is provided in (43) below. If the relative raises to SpecFocusP instead of the adverbial, (42b) is derived.



There is another pattern of deletion in which only the verbal head is gapped, (44).

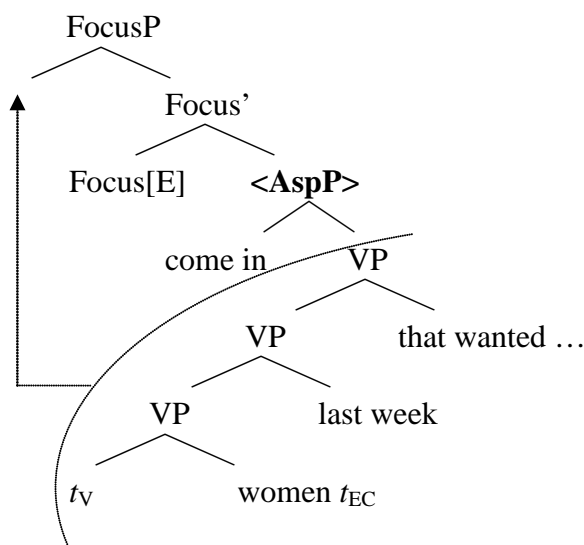
- (44) More men came in yesterday that wanted to talk to you than women did <come in>
 last week that wanted to talk to me.

The derivation of this sentence, with both the adverbial and the relative clause focalized, gives rise to a problem: Two elements that do not form a syntactic constituent have to move to the unique SpecFocusP.

The solution that I proposed in section 4.1 above for this type of cases is that a bigger constituent containing the two remnants should move to SpecFocusP. In (44), that constituent is VP (the same that has to undergo deletion) minus the verbal head. Let us assume that the two remnants possess a [+focus] feature but the verb does not. This situation creates a feature conflict. The VP cannot rise to SpecFocusP with the verbal head inside. However, if the verb vacates VP, nothing would stand in the way of VP raising to Focus (as all its sub-constituents will uniformly bear a [+focus] feature). A potential landing site for the verbal head is Aspect (for the aspectual projection Bosque and Gutiérrez-Rexach 2008, Zagona 2002 and Travis 1991, 2000 and the references quoted there).

Although I have been assuming a very simple structure for all the sentences up to now, it is usually assumed that several functional categories are projected in the area between the verbal projection and TP. One of them is AspP. I will exploit this projection as a potential landing site for the verb outside VP. Even though AspP would be part of all the derivations, I will only include it in the representation when it is necessary. With the movement operations just described and after merging the Focus head, the derivation of (44) has reached the stage shown in (45).

(45)



The problem that arises in this structure is that, after raising to SpecFocusP, the VP will be frozen and the subject will not be able to proceed on to SpecTP to check the EPP.

This particular problem would be avoided if the subject abandons VP before raising to Focus. A possible landing site would be the Spec of a functional category in the periphery of VP where the subject can check its contrastive feature (TopicP_[C]). The fact that the subject follows its own derivational path, separate from that of the VP remnants, brings this structure closer to the one I will propose below for gapping⁸⁸.

Notice that in the structure shown in (46) below the copy of the subject inside VP will have to cross over the copy in SpecTopicP_[C]. This movement does not give rise to any crossover or minimality effect first because the copy inside VP moves as part of a bigger category and second because the copy in SpecTopicP_[C] lacks a focus feature (consequently, it cannot be attracted to SpecFocusP). Later the subject in SpecTopicP_[C] will also move across the VP (now in SpecFocusP), but again the subject which is embedded inside VP will not cause crossover effects. Even when this copy of the subject is now closer to SpecTP, it cannot be attracted to that position because it is inside an island, i.e. I will assume that the VP in SpecFocusP is opaque so that the head T cannot search that domain for a goal⁸⁹.

⁸⁸ It could be argued that, unlike in the case of gapping, the subject in pseudogapping need not be contrastive, as can be seen in (i), where *Bill* and *he* refer to the same person. In such a case, the subject simply raises to SpecTP.

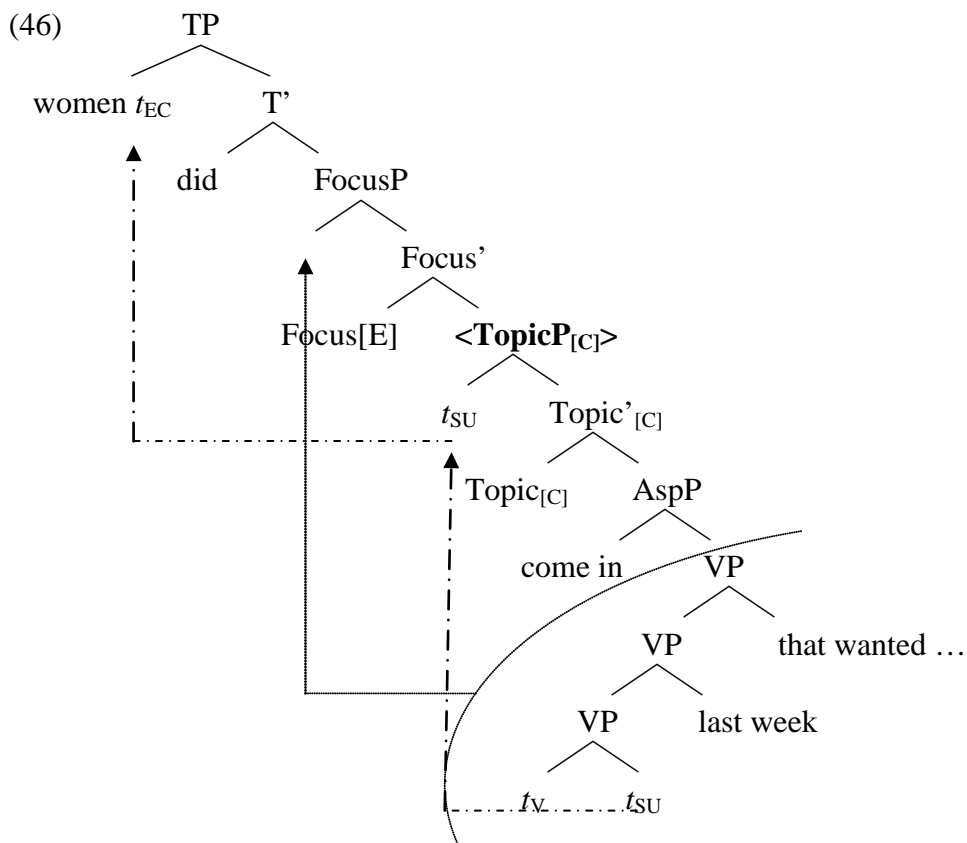
(i) Bill met more senators yesterday than he did congressmen last week.

However, in the cases of EX(SU) where the EC survives deletion the subjects are necessarily contrastive – as they have different referents. In (ii), the DP *men that wanted to talk to you* denotes a different set from the DP *men that wanted to talk to me*.

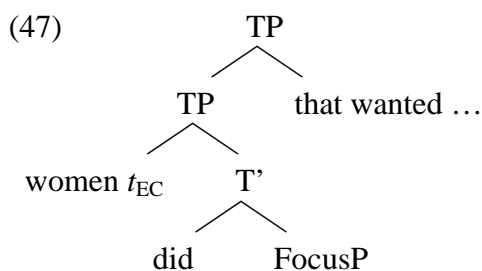
(ii) More men came in yesterday that wanted to talk to you than men did last week that wanted to talk to me.

⁸⁹ Notice that in structures like (46) – and quite generally in pseudogapping constructions – ellipsis has to apply obligatorily after the remnant moves to SpecFocusP. Failure to delete the complement of the focus head leads to ungrammaticality, as seen in (i). At this point, I have nothing to say about this shortcoming of the theory of ellipsis adopted in this dissertation.

(i) *More men came in yesterday that wanted to talk to you than women did last week that wanted to talk to me come in.



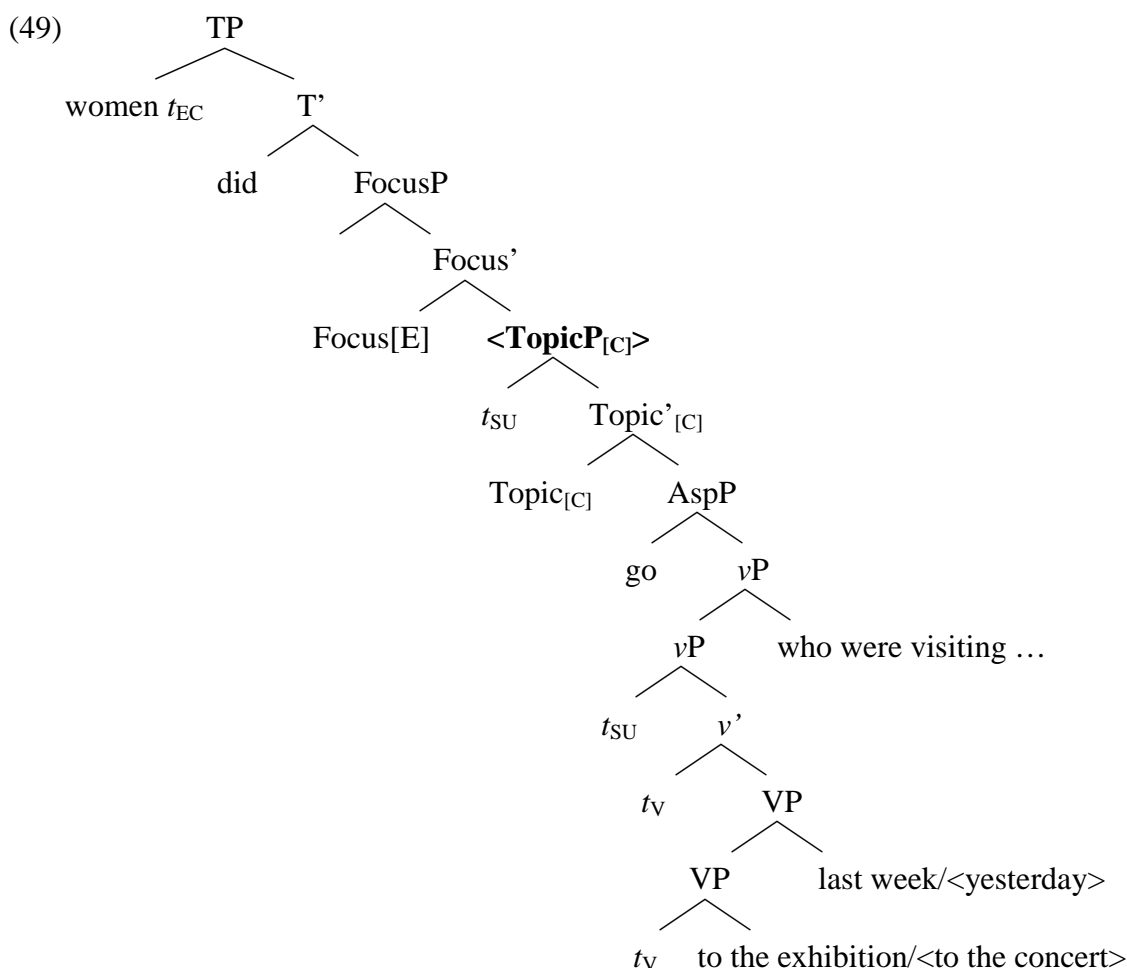
At this point I would like to remark that, if [+focus] is the feature that drives VP raising to SpecFocusP, the same feature cannot have triggered EX inside VP. Notice also that, if EX operated on the subject when it is in SpecTP adjoining the EC to this projection, as in (47) below, the EC would be expected to survive ellipsis in all the sentences analyzed above, contrary to fact.



The last case to be considered concerns EX from a subject that originates as an external argument. The data in (48) show patterns of pseudogapping with only one remnant. More complex patterns will be dealt with below.

- (48) More men went to the concert (yesterday) who were visiting from New York than
- ... women did to the exhibition.
 - ... women did last week.
 - ... women did who were visiting from Boston.

The structure of these sentences is provided in (49) below. In order to derive each particular pattern of pseudogapping, the respective remnant (*to the exhibition, last week* or the EC), associated with a [+focus] feature, will move to SpecFocusP. Since the subject is contrastive, it moves to SpecTopicP_[C], as just shown in (46) above. The operation is followed by PF deletion of this category, which is the complement of Focus[E].



As before, the lack of crossover/minimality effects in the derivation of (48c), where the DP subject containing a copy of the EC moves over the EC, can be attributed to the fact that the copy of the relative moves inside a bigger category, the DP, and it is not eligible

to check the EPP feature on T. It has likewise to be noted that the sentence-final position of the EC is derived, not by EX, but by raising this constituent to SpecFocusP and deleting the complement of the focus head. In the light of this fact, it could be argued that this sentence can be derived without applying EX. The problem is that leftward extraction of an adjunct is unacceptable in English, as shown in (50) below, drawn from Fox and Nissenbaum (1999).

(50) *From where / *By whom did you see a painting *t*?

It appears then that the sentence in (48c), where the EC survives VPE, can only be derived from a structure with EX, as that shown in (49). If this is so, a generalization emerges in the derivation of all three sentences in (48), and in any other case of ellipsis, namely that only constituents adjoined to the main projection line of *vP/VP* can become remnants in VPE constructions.

In the structure in (49) above, VP can undergo movement (provided that both *last week* and *to the exhibition* are associated with a [+focus] feature). In that case, the sentence in (51) obtains.

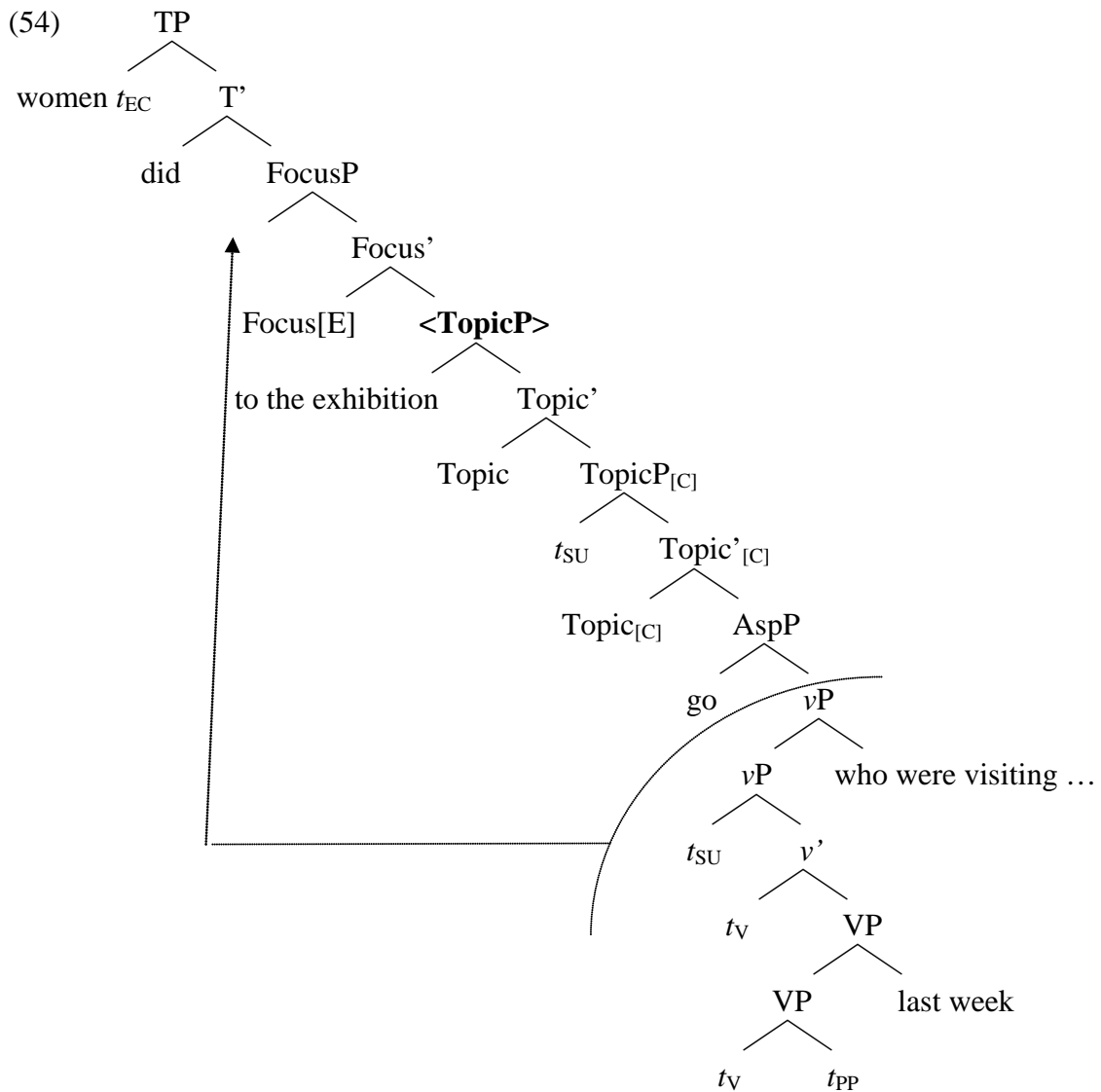
(51) More men went to the concert (yesterday) who were visiting from New York than women did to the exhibition last week.

Raising of *vP* to SpecFocusP yields (52), a sentence with three VP remnants.

(52) More men went to the concert (yesterday) who were visiting from New York than women did to the exhibition last week who were visiting from Boston.

Consider finally the derivation of the two sentences in (53). These cases are more complex, as the two VP remnants do not form a constituent. The derivation I propose for the sentence in (53a) appears in (54).

(53) More men went to the concert yesterday who were visiting from New York than
a. ... women did last week who were visiting from Boston.
b. ... women did to the exhibition who were visiting from Boston.



I propose that the VP constituents that do not survive ellipsis are associated with a strong [+topic] feature that will trigger their movement to the Spec of a TopicP projected in the periphery of vP. In the derivation of (53a) above, movement of the lexical verb to Asp is accompanied by movement of the PP *to the exhibition* to SpecTopicP and the DP subject to SpecTopicP_[C]. Only then can vP – now containing solely constituents associated with [+focus] – move to SpecFocusP. Subsequent deletion of TopicP will yield the required pattern of pseudogapping. The derivation of (53b) differs from this one only in the adverbial that moves to SpecTopicP; this time, the temporal *yesterday*.

In this section, it has been shown that, in sentences with only one remnant, Merchant's analysis in terms of raising to focus works smoothly. In sentences with multiple remnants, two situations may arise. It may be the case that the remnants form a

constituent. Then, the minimal maximal projection containing them moves to SpecFocusP. But it may also be case that the remnants do not form a constituent. In the latter situation, I have assumed that, again, the minimal maximal projection containing them moves to SpecFocus, but after being ‘purged’ of all the constituents that do not bear a [+focus] feature. These constituents move to the Spec of a TopicP projected in the low periphery of the sentence. With this analysis, all the patterns of ellipsis in sentences with EX(SU) can be derived.

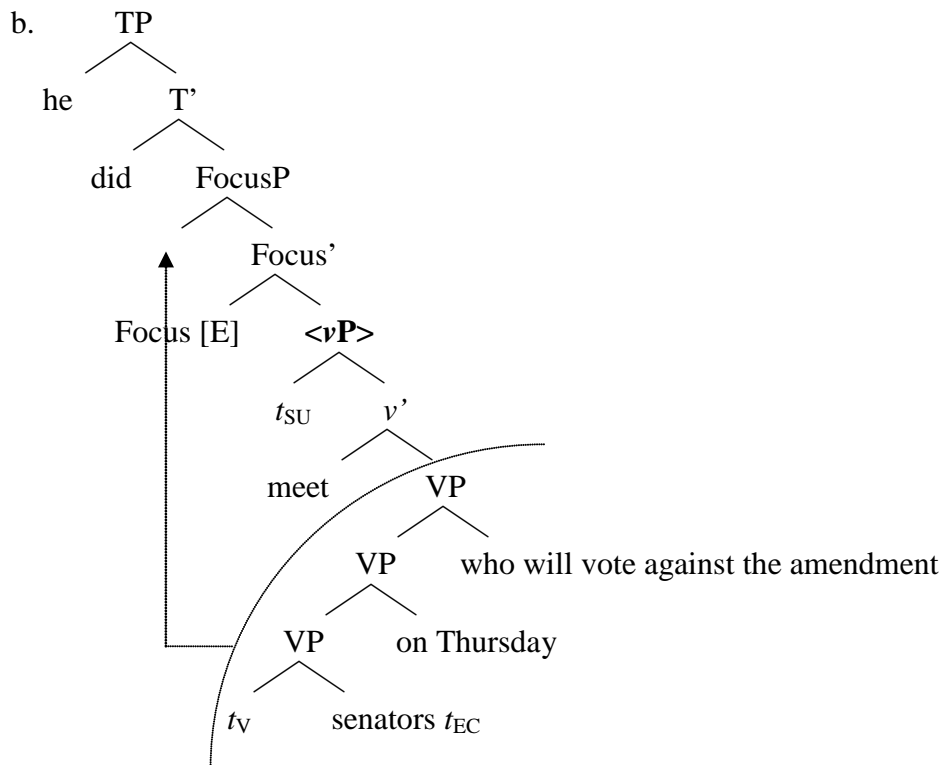
It has likewise been shown that some of the examples analyzed support VP/vP-adjunction of the EC(SU) rather than IP-adjunction. Notice also that the EC has to be associated with [+focus] when it survives ellipsis, but this feature is responsible for raising to SpecFocusP (of the whole VP/vP in some cases), not for EX.

4.3. Pseudogapping and EX(OB)

The sample sentence that will serve the purpose of illustrating EX(OB) in contexts of pseudogapping is provided in (55a). Assuming the analysis outlined in the preceding subsections, the derivation of the *than*-clause in (55a) is as represented in (55b)⁹⁰.

- (55) a. John met more congressmen on Monday who will vote for the amendment than he did <meet> senators on Thursday who will vote against the amendment.

⁹⁰ In order to simplify the discussion, I will use a sentence with a non-contrastive subject. Contrastive subjects would move through the SpecTopicP_[C] projecting on top of vP.



When the highest VP layer moves to SpecFocusP, PF-deletion of vP will affect only the verbal head yielding (55a). If the intermediate VP layer ($[_{VP} t_V \text{ senators } t_{EC} \text{ on Thursday}]$) in (55b) raises to SpecFocusP, (56) below obtains.

(56) John met more congressmen on Monday that will vote for the amendment than he did <meet> senators on Thursday <who will vote for the amendment>.

The *senators* in this sentence may be interpreted as senators who will vote *for* the amendment, which indicates that the relative clause is indeed part of the structure. Notice that the extraposed relative has to survive if it contains contrastive information, i.e. if the senators' vote differs from that of the congressmen, as in (54) above. There is a third VP layer in these structures that could likewise undergo raising to Focus: the lowest one containing the trace of the verb and the head noun plus trace of the EC. Raising of this VP followed by PF-deletion of vP would yield (57) below. As the same linearity can be obtained by raising the internal argument alone, I will assume that that is the correct derivation of (57) on the premise that movement of smaller constituents is more economical than movement of bigger ones.

(57) John met more congressmen on Monday that will vote for the amendment than he did <meet> senators <on Monday who will vote for the amendment>.

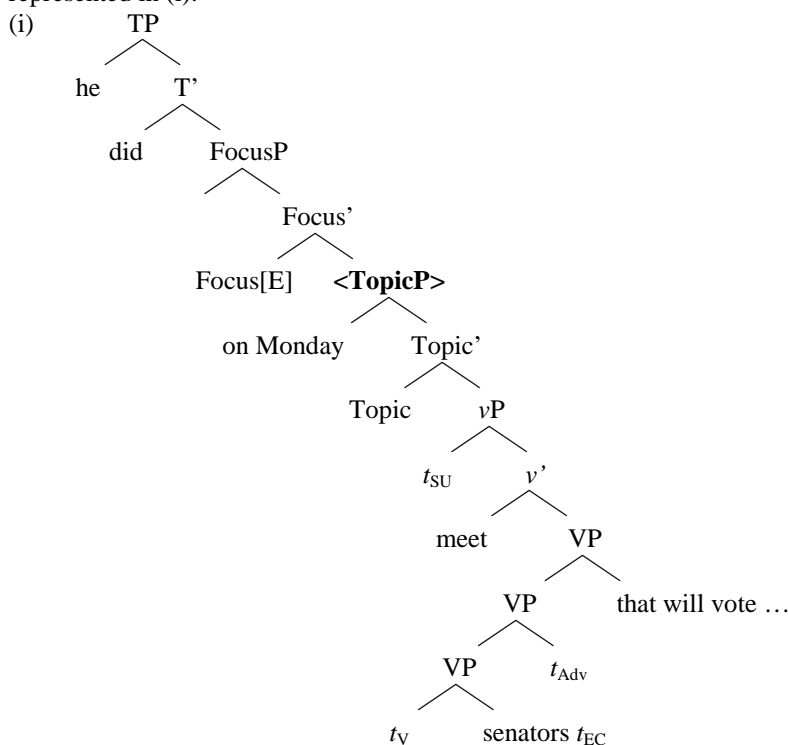
Consider next the two patterns of ellipsis in (58).

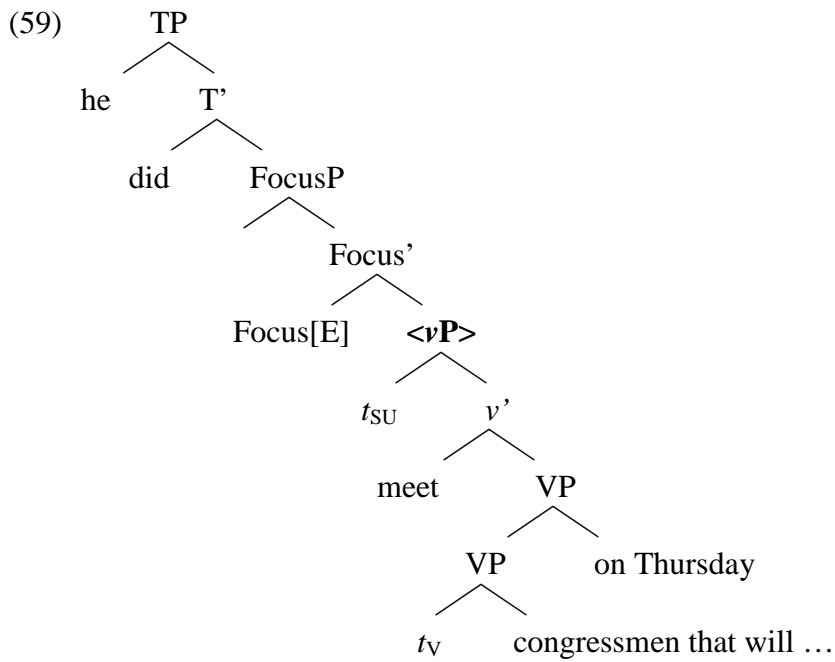
(58) a. John met more congressmen on Monday that will vote for the amendment than he did <meet congressmen that will vote for the amendment> on Thursday.

b. John met more congressmen on Monday that will vote for the amendment than he did <meet> senators that will vote against the amendment <on Monday>.

(58a) and (58b) can be derived by raising only the adverbial, in the former, and the internal argument, in the latter to SpecFocusP prior to *v*P deletion. In the absence of evidence to the contrary I will assume that EX is not necessary in the derivation of these two sentences. Their structure is shown in (59)⁹¹.

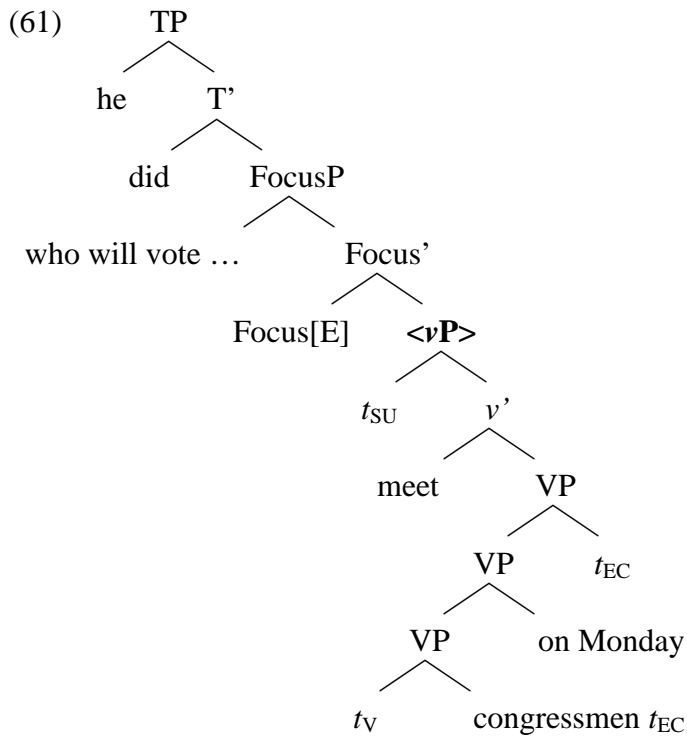
⁹¹ Notice that if conclusive evidence were found that EX is required in the *than*-clause, the derivation of (58b) would involve raising of the adverbial to SpecTopicP prior to raising of VP to SpecFocusP as represented in (i).





Consider finally the possibility that the EC raises to SpecFocusP alone. The sentence that would be derived is provided in (60), its structure in (61).

(60) John met more congressmen on Monday that will vote for the amendment than he did <meet congressmen on Monday> who will vote against the amendment.



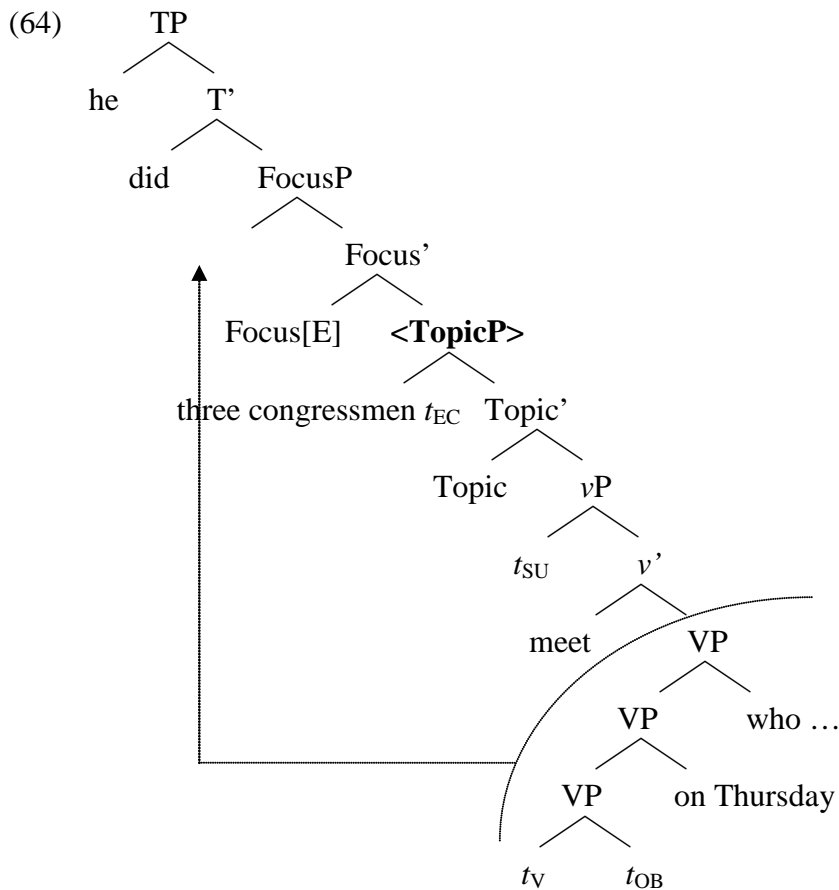
Again it has to be noted that the sentence-final position of the EC does not derive here from rightward movement, but rather from leftward raising to focus coupled with deletion of all the lexical material below the focus head. Included in the deleted lexical material is the head noun; that is to say, in this sentence, the modifier (the EC) survives deletion, whereas its head noun does not. This state of affairs gives rise to a certain amount of speaker variation. The examples I have just used for illustration are similar to those that appear in Culicover and Rochemont (1990), repeated in (62) below.

- (62) a. [*]John met a man last week from Philadelphia, and George did <meet a man last week>from New York.
b. [*]John met a man last week from Philadelphia, and George did <meet a man> yesterday from New York.

Another variant of the same phenomenon (i.e. deletion of the head noun but not of the EC) which also gives rise to speaker variation is provided in (63) below with the corresponding tree diagram in (64). This time the adverbial and the EC escape deletion.

- (63) [*] John met more congressmen on Monday that will vote for the amendment than he did <meet congressmen> on Thursday who will vote against the amendment.

Remember from the preceding discussion that a constituent can raise to SpecFocusP only when all its constituent parts bear the [+focus] feature. This is not the case of the VP in (64) below. The head noun possesses a [+topic] feature and will, therefore, raise to the Spec of a Topic projection. Once this constituent and the verb vacate the VP, nothing prevents its raising to SpecFocusP. The topic projection will be subsequently deleted.



It has to be noticed that this structure seems to contravene one of the constraints on EX that emerged from the discussion in chapter 6. There I proposed that the presence of a strong [+topic] feature in the matrix of the DP blocked EX. A sentence like (63) should therefore be unacceptable, and – as a matter of fact – it is for some speakers. However, it cannot be ignored that other speakers accept this sentence. Two possible explanations come to mind. First, the fact that there is an antecedent structure which permits the recoverability of the deleted segment. Some speakers seem to be able to reconstruct the link between the surviving EC and the deleted HN from the structure in the antecedent clause. Second, the interpretive import of the low topic projection represented in (64) is not the same as that of a sentence-initial topic. The latter introduces the object of discussion, so that the rest of the sentence constitutes a comment about that XP. Low topics, on their part, only convey old information. In ellipsis structures this information is easily recoverable from the antecedent clause, which makes the phonological deletion of the constituent possible. The different nature of the two topics (however this is finally encoded syntactically) may be behind the possibility of allowing or blocking EX.

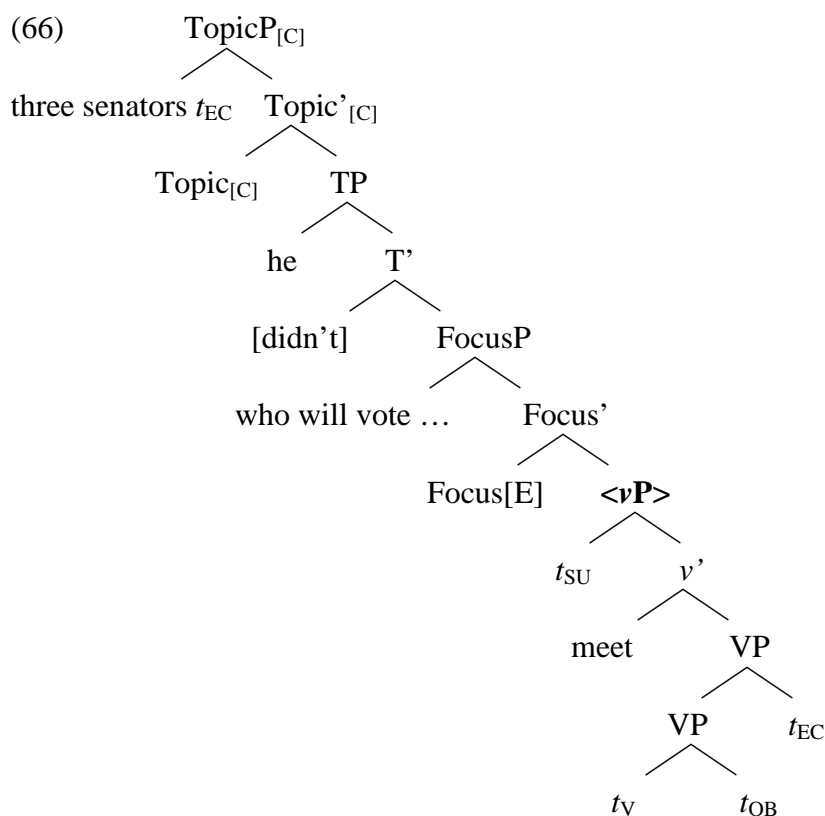
In this section, the amended analysis of ellipsis proposed above has been applied to sentences with EX(OB) with satisfactory results, as all the patterns of ellipsis can be derived successfully. In the following subsection I will turn to a final case which also involves EX(OB).

4.4. Pseudogapping, contrastive topicalization and EX

Let me briefly come back to sentence (30b), introduced in section 3.3 above. There I simply said that this sentence – repeated here as (65) – was a case of pseudogapping.

(65) John managed to find three congressmen who will vote for the amendment, but three senators he didn't <find> who will vote against the amendment.

Assuming the analysis of pseudogapping introduced above, I propose the following derivation for this sentence.



The EC moves to the Spec of a low FocusP, while the head noun (a DP containing a copy of the EC) raises to the Spec of a contrastive TopicP in the left periphery of the

sentence. The derivation is complete once the verbal projection is deleted at PF. It has to be noted that traditional analyses of EX cannot derive the sentence in (65). They assume that EX takes place after topicalization. Given that derived A-bar Specifiers are islands for extraction, it is not clear how EX can ever take place.

After considering pseudogapping in some detail, let me turn to gapping.

5. Gapping

5.1. *The syntax of gapping*

Gapping is an ellipsis phenomenon that involves the ellipsis of the tensed verb in the last conjunct of a coordination structure. (67) illustrates the phenomenon for English, and Spanish.

(67) a. I read a book yesterday and Peter <read> a paper today.

b. El rey viajó a Roma y la reina <viajó> a París.

the king travelled(3sg) to Rome and the queen <travelled(3sg)> to Paris

‘The king travelled to Rome and the queen to Paris.’

Deletion of the V head succeeds under lexical identity with an antecedent in the immediately preceding conjunct. That the identification of the antecedent of the gapped constituent follows criteria of (linear/hierarchical) proximity is shown in the sentences in (68).

(68) a. Marta leía una novela, Ander escribía un artículo y Jone un ensayo.

Marta read(3sg) a novel Ander wrote(3sg) an article and Jone an essay

‘Marta was reading a novel, Ander was writing an article and Jone an essay.’

b. Ander escribía un artículo, Marta leía una novela y Jone un ensayo.

Ander wrote(3sg) an article Marta read(3sg) a novel and Jone an essay

‘Ander was writing an article, Marta was reading a novel and Jone an essay.’

In (68a), *Jone* can only be writing an essay, since *escribía* (‘was writing’) is the verb that appears closest to the gap. That the gap picks out its reference from the closest predicate is confirmed when the order of the two non-gapped conjuncts is permuted, as

in (68b). In that case, *Jone* can only be reading an essay, because the verb *leía* ('was reading') is now closest.

The sentences in (69) below show that strict (phonological) isomorphism is not required. Thus, the verb that has undergone gapping need not be morphologically identical to its correlate in the antecedent sentence.

- (69) a. Yo leí un libro el mes pasado y Ander <leyó> un artículo ayer.
I read(1sg) a book the month past and Ander <read(3sg)> an article yesterday
'I read a book last month and Ander an article yesterday.'
- b. Luis llegó a las cinco y tú <llegaste> a las cinco y media.
Luis arrived(3sg) at the five and you <arrived(2sg)> at the five and half
'Luis arrived at five and you at five thirty.'

As in the case of pseudogapping, the remnant of gapping introduces new information which has to be in contrast with parallel information in the preceding conjunct. The sentences in (67) above illustrate the simplest and most typical case of gapping, namely that apparently involving the deletion of the tensed verbal head alone. However, other VP-constituents may accompany the verb, as shown in (70) for English and (71) for Spanish.

- (70) a. I want to try to begin to write a novel and Mary to review a play.
b. Carrie gave a set of directions to me and Will, a map.

(Johnson 2006)

- (71) a. Marta le compró un libro a Ander en París y Juan una camiseta.
Marta CL_{DAT} bought(3sg) a book to Ander in Paris and John a T-shirt
'Marta bought a book for Ander in Paris and John a T-shirt.'
- b. Marta le compró un libro a Ander en París y Juan una camiseta a Petra.
Marta CL_{DAT} bought(3sg) a book to Ander in Paris and John a T-shirt to Petra
'Marta bought a book for Ander in Paris and John a T-shirt for Petra.'

In all these sentences, the gapped strings – *wants to try to begin*, in (70a) and *gave to me*, in (70b); *le compró a Ander en París*, in (71a), and *le compró en París*, in (71b) – do not even form a constituent under standard assumptions, which is not an obstacle for gapping to apply.

Some analyses have capitalized on the similarities between gapping and pseudogapping and have extended the analysis in terms of VPE proposed for the latter to the former. For a relatively recent incarnation of this type of proposal see Coppock (2001). However, the fact that T does not survive deletion in gapping structures (see the contrast in (72) below, where (a) is an instance of gapping and (b) of pseudogapping) tells a different story. See Johnson (2009) for a detailed account of similarities and differences between gapping and pseudogapping.

(72) a. Some have served mussels to Sue and others <have served> swordfish.

b. Some have served mussels to Sue while others have <served> swordfish.

(Johnson 1994)

I will assume, following Merchant (2004) and others, that the contrast between the two constructions with respect to the presence versus absence of the T head derives from the fact that in gapping a higher phrase is deleted than in pseudogapping. In particular, pseudogapping involves VPE, gapping TP ellipsis (TPE).

One of the reasons why Merchant (2007) claims that gapping involves what he calls ‘big / high ellipsis’ rather than VPE is the absence of *Voice Shift* effects only in the latter. Compare in this respect gapping (73) with VPE (74).

(73) a. *Some bring roses and lilies <are brought> by others.

b. *Lilies are brought by some and others <bring> roses.

(Merchant 2007)

(74) a. The janitor must remove the trash whenever it is apparent that it should be <removed>. (Merchant 2007)

b. Actually, I have implemented it [=a computer system] with a manager, but it doesn’t have to be <implemented with a manager>. (Merchant 2007, quoting Kehler 2002)

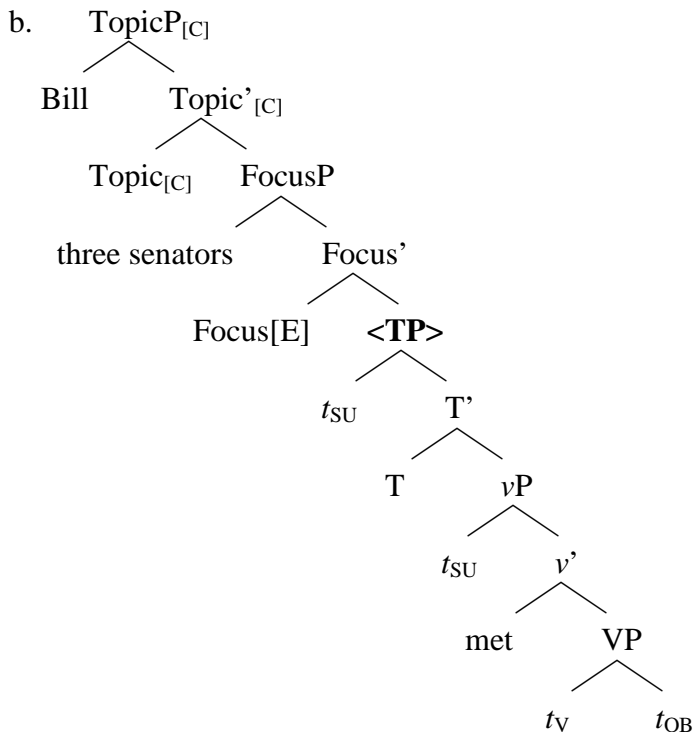
Merchant (2007) proposes that voice mismatches are only allowed when VoiceP – a functional projection on top of *vP* – is not part of the deleted structure. Roughly, only if VoiceP survives deletion can a different voice specification be licensed in the elliptical structure. If gapping is derived by TPE, VoiceP will be deleted and the prohibition of voice mismatches is correctly predicted (see footnote 86 above). Assuming that

Merchant (2007) is basically right, I will adopt his theory of TPE for gapping. As in the preceding chapter, an E(llipsis)-feature will be considered responsible for the ellipsis of this projection. This E-feature has to be associated with the functional head that takes TP as its complement.

Gengel (2007) notes that, while there is a strong preference for correferential subjects in pseudogapping constructions, the subject of a gapped conjunct has to be contrastive, as shown in (75) – her examples. The other remnants (the constituents internal to VP) do also stand in contrast with some parallel constituents in the antecedent conjunct. In the light of these facts, Gengel claims that gapping in English involves a *contrastive topic-contrastive focus* structure. With these premises, the second conjunct of the sentence in (75a) will be assigned the structure in (75b).

- (75) a. Claire read a book and Heather a magazine.
 b. *Claire read a book and she a magazine.
 c. Claire_i read a book and SHE_k a magazine.

- (76) a. John met three congressmen and Bill three senators.

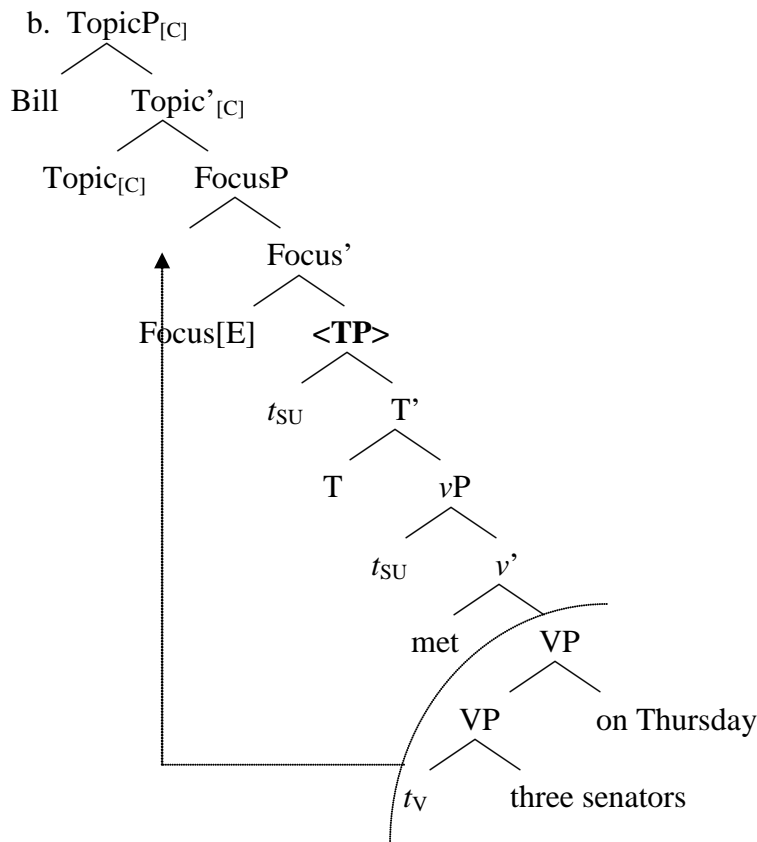


In this structure, the subject moves to SpecTP to check the EPP and further to SpecTopicP_[C] to check a strong [+topic, +contrast] feature. These movement operations

do not interfere in any way with the movement of the other remnant to the Spec of a FocusP which projects below TopicP_[C] because the two DPs move to check different features. In particular, the displacement of the subject in SpecTP does not induce minimality effects when the object is attracted to the SpecFocusP because it does not possess the required strong [+focus] feature. Similarly, the focalized object will not interfere with the movement of the subject to SpecTopicP_[C]. The E-feature on Focus will trigger the phonological deletion of its complement, i.e. of TP.

The structure of the triple remnant in (77a) below is more complex⁹². A potential problem for the analysis presented above is the fact that the two VP remnants do not form a constituent. Given that I am assuming that only one focus can be projected per derivation, I propose (as I did for pseudogapping) that the minimal maximal projection containing the two remnants – in this case VP – will move to SpecFocusP. Recall that for VP to be able to move to focus, all the constituents contained in it have to bear a focus feature.

(77) a. John met three congressmen and Bill three senators on Thursday.



⁹² Although gapping structures with more than two remnants are sometimes not accepted by all speakers, those consulted during the preparation of this dissertation could accept (77a) without problems.

What I propose is to extend the analysis of pseudogapping I presented in the preceding section to gapping construction with the difference that in this case the derivation is completed by deleting a bigger chunk of the structure: TP (rather than VP/vP). This is basically the structure of gapping that I will apply in the following sections to sentences with EX. The discussion starts with EX(SU).

5.2. *Gapping and EX(SU)*

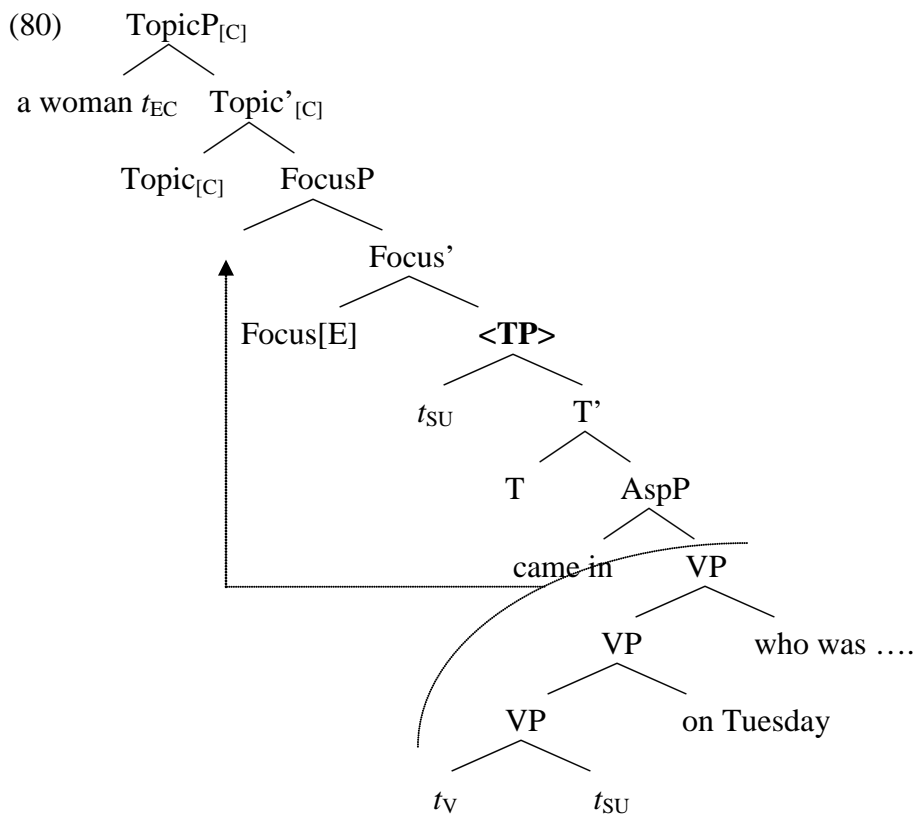
As in preceding sections, only sentences headed by unaccusatives and unergatives will be analyzed here. The analysis of the former should extend naturally to sentences headed by passive predicates, whose subject is also an internal argument. Similarly, the analysis of the latter should be applicable to sentences headed by transitive and ditransitive predicates, as in all those cases the subject is an external argument. The data in (78) illustrate the interaction of gapping with EX(SU) in English sentences headed by an unaccusative, and an unergative predicate. Similar examples from Spanish are provided in (79). Since EX from preverbal subjects is very restricted in this language, only postverbal subjects will be considered here (see chapter 7 for a detailed discussion of EX(SU)).

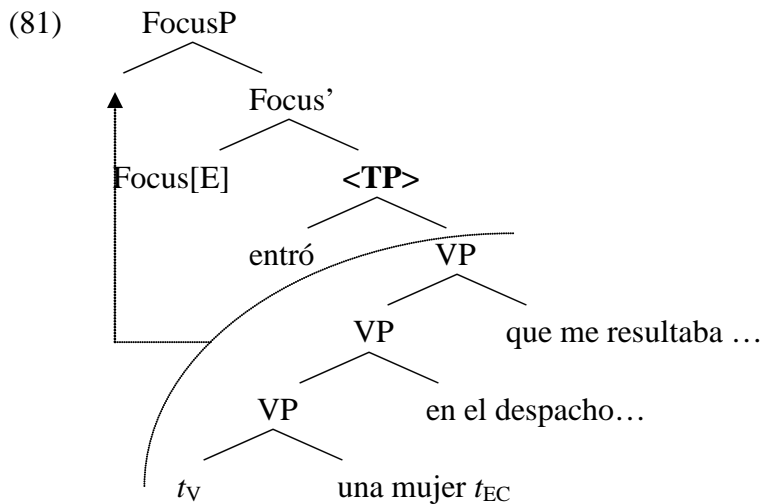
- (78) a. A man came in on Monday who was visiting from New York and a woman on Tuesday who was visiting from London.
 b. Two men went to the concert last week who were visiting from New York and three women yesterday who were visiting from Boston.

- (79) a. Entró un hombre en secretaría al que yo no conocía y una mujer en el despacho del director que me resultaba familiar.
came in(3sg) a man into administration to-the who I not knew(1sg) and a woman into the office of-the principal who me looked(3sg) familiar
 ‘A man came into the administration office who I didn’t know and a woman into the principal’s who looked familiar to me.’

- b. Gritó un hombre primero al que nadie pudo oír y una mujer
shouted(3sg) a man first to-the who nobody could(3sg) to-hear and a woman
 después que logró dar la voz de alarma.
after who managed(3sg) to-give the voice of alarm
 ‘A man shouted first who was not heard by anybody and a woman later who
 managed to raise alarm.’

By means of illustration, the structure of the gapped conjunct of the sample sentences in (78a) and (79a) is provided in (80) and (81), respectively. For reasons that will become clear in a while, I will assume that, in spite of the fact that the surface pattern of ellipsis appears to be the same, the underlying structure of gapping in Spanish is different from that of English. Basically, I will assume that the subject stays inside the verbal projection only in the former language. It will consequently move to SpecFocusP with the rest of the projection. In English, however, the DP subject has to abandon VP to check the EPP in SpecTP. From this position it will reach its final landing site in SpecTopicP_[C]. The divergence between the two languages will therefore be caused by the different strategies they use to check the EPP.

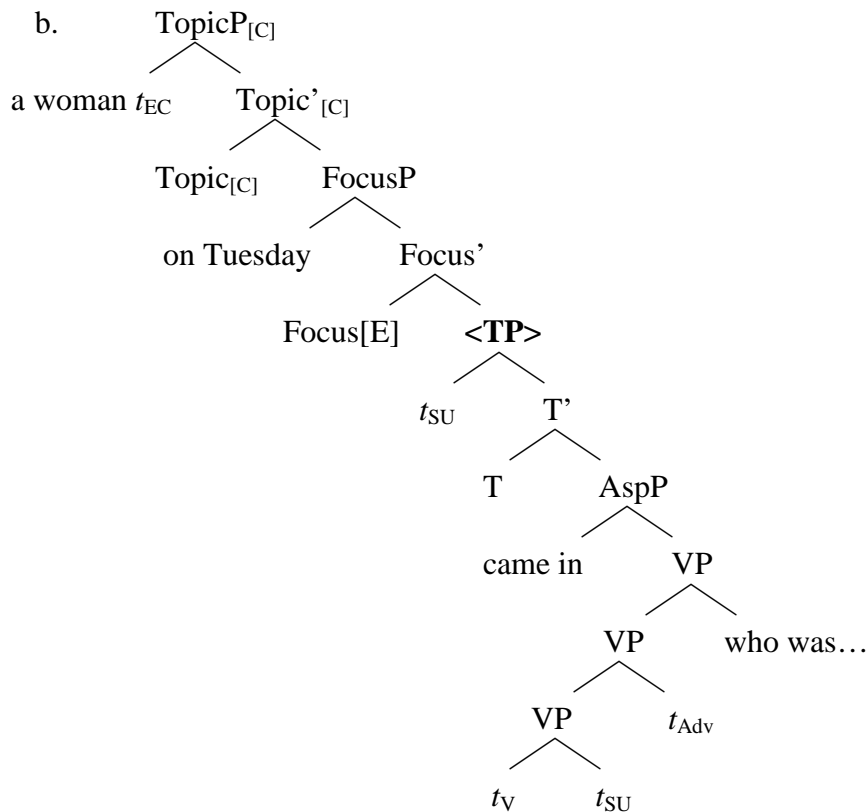




In these structures, only the verb is part of TP when TPE applies, which results in the derivations in which only the verb is gapped. As already happened in the case of pseudogapping, all the constituents inside VP are associated with [+focus]. And again these structures are not compatible with analyses that consider this feature to be the trigger of EX. If [+focus] is responsible for the displacement of VP, and consequently, for the non-deletion of the remnants, the same feature cannot trigger EX as well.

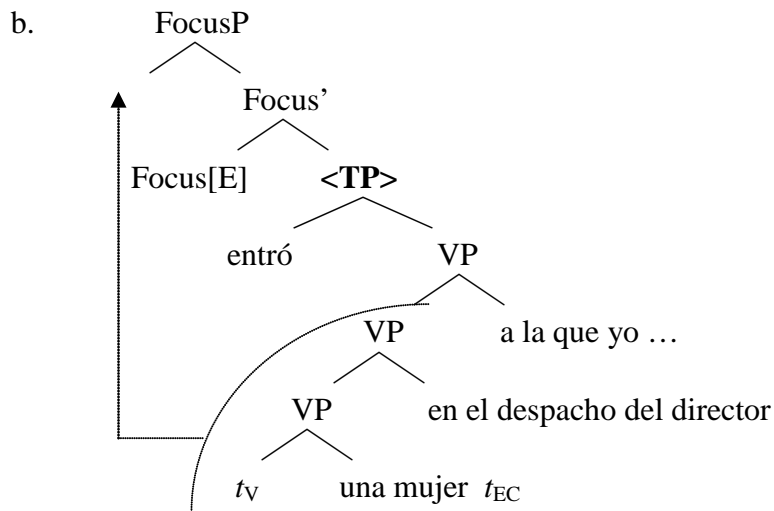
Other patterns of gapping are possible. Thus, in a sentence like (82a), the subject raises to SpecTopicP_[C] through SpecTP in the usual manner, whereas the adverb moves to SpecFocusP. The derivation is shown in (82b).

(82) a. A man came in on Monday who was visiting from New York and a woman on Tuesday.



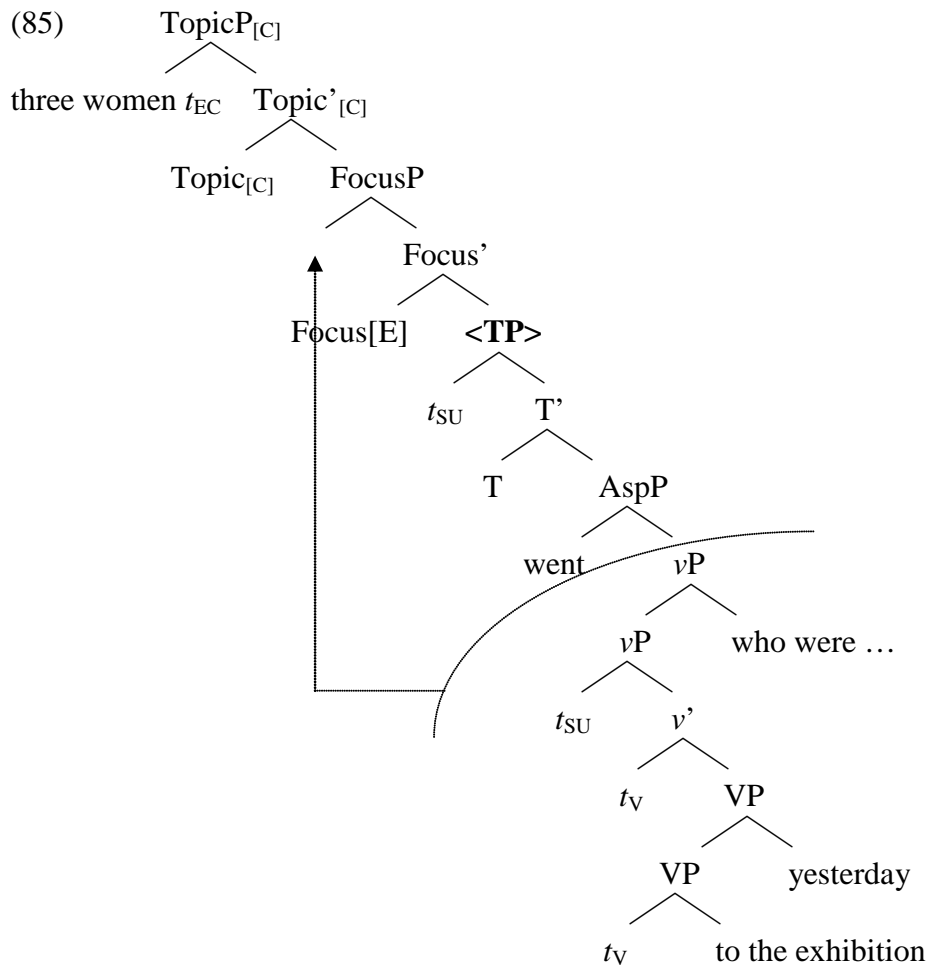
The same ellipsis pattern is available in Spanish, but with a slightly different derivation. As shown in (83b), the final linear sequence is obtained by raising the intermediate VP projection to SpecFocusP. The subject and the adverbial will therefore survive ellipsis, whereas the verb (under T) and the EC are deleted.

- (83) a. Entró un hombre en secretaría al que yo no conocía y una mujer
came in(3sg) a man into administration to-the who I not knew(3sg) and a woman
 en el despacho del director.
into the office of-the principal
 ‘A man came into the administration office who I didn’t know and a woman in
 the principal’s office.’



Turning to unergative predicates, let me start the discussion with the English sentence in (84) below, derived as shown in (85). Assuming that the final landing site of the subject is SpecTopicP_[C], in order to derive (84), where three constituents of the verbal projection survive deletion, I will assume that *v*P (it being the minimal maximal projection containing the three) will move to SpecFocusP. But before this movement operation takes place, the verb has to abandon this phrase. I will exploit, as I did in the case of unaccusatives above, the functional domain between this category and TP and propose that the verb raises to Asp.

(84) Two men went to the concert last week who were visiting from New York and three women to the exhibition yesterday who were visiting from Boston.



With the same structure but assuming movement of VP instead of vP, the sentence in (86) below, with two remnants, will be derived.

(86) Two men went to the concert last week who were visiting from New York and three women to the exhibition yesterday.

If the PP *to the exhibition* moves alone to SpecFocusP thus turning into the only remnant (apart from the subject), (87a) obtains. If it is the temporal adverbial *yesterday* that moves instead, (87b) is derived.

- (87) a. Two men went to the concert last week who were visiting from New York and three women to the exhibition.
 b. Two men went to the concert last week who were visiting from New York and three women yesterday.

The question now is whether the other ν P constituent, i.e. the extraposed relative can also move on its own to SpecFocusP. This operation would yield (88), an acceptable sentence.

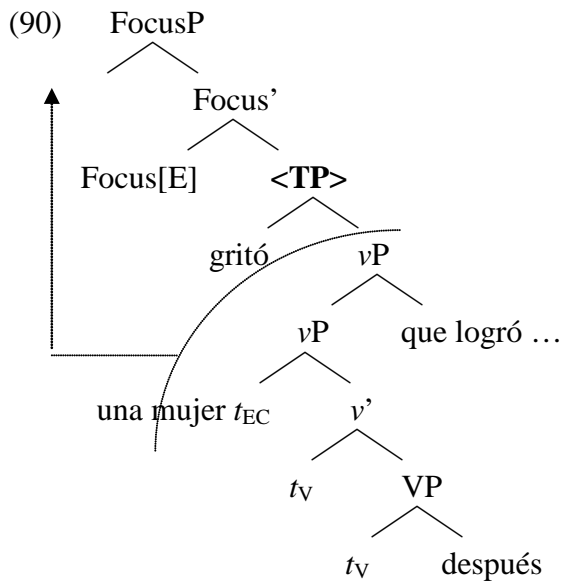
(88) Two men went to the concert last week who were visiting from New York and three women who were visiting from Boston.

This linearity could also be derived without EX. In such a case, the DP subject of the second conjunct would move to SpecTP and subsequently to SpecFocusP. As there is only one remnant in the second conjunct, the operation instantiates stripping rather than gapping. In the absence of evidence to the contrary, I will assume that this is the correct derivation of this sentence, as it involves fewer derivational steps.

Similar patterns of gapping arise in Spanish. However, as discussed above, their derivation will be different from their English counterparts. Consider first, a sentence with three remnants.

(89) Gritó un hombre primero al que nadie p udo oír y una mujer
shouted(3sg) a man first to-the who nobody could(3sg) to-hear and a woman
después que logró dar la voz de alarma.
after who managed(3sg) to-give the voice of alarm
'A man shouted first who nobody could hear and a woman later who managed to raise alarm.'

Following the logic applied to sentences with unaccusatives above, I will assume that the subject stays in its base position throughout the derivation. The sentence in (89) will then be derived as in (90), where the minimal maximal projection containing the three remnants (ν P) raises to SpecFocusP. These three constituents – including the EC – must be associated with [+focus], but it does not seem that this feature is responsible for EX.



Assuming that only the head noun and the adverbial possess a [+focus] feature, and that the projection that raises to SpecFocusP is, consequently, the lower vP, (91) obtains.

(91) Gritó un hombre primero al que nadie pudo oír y una mujer
shouted(3sg) a man first to-the who nobody could(3sg) to-hear and a woman
 después.
after
 ‘A man shouted first who nobody could hear and a woman later.’

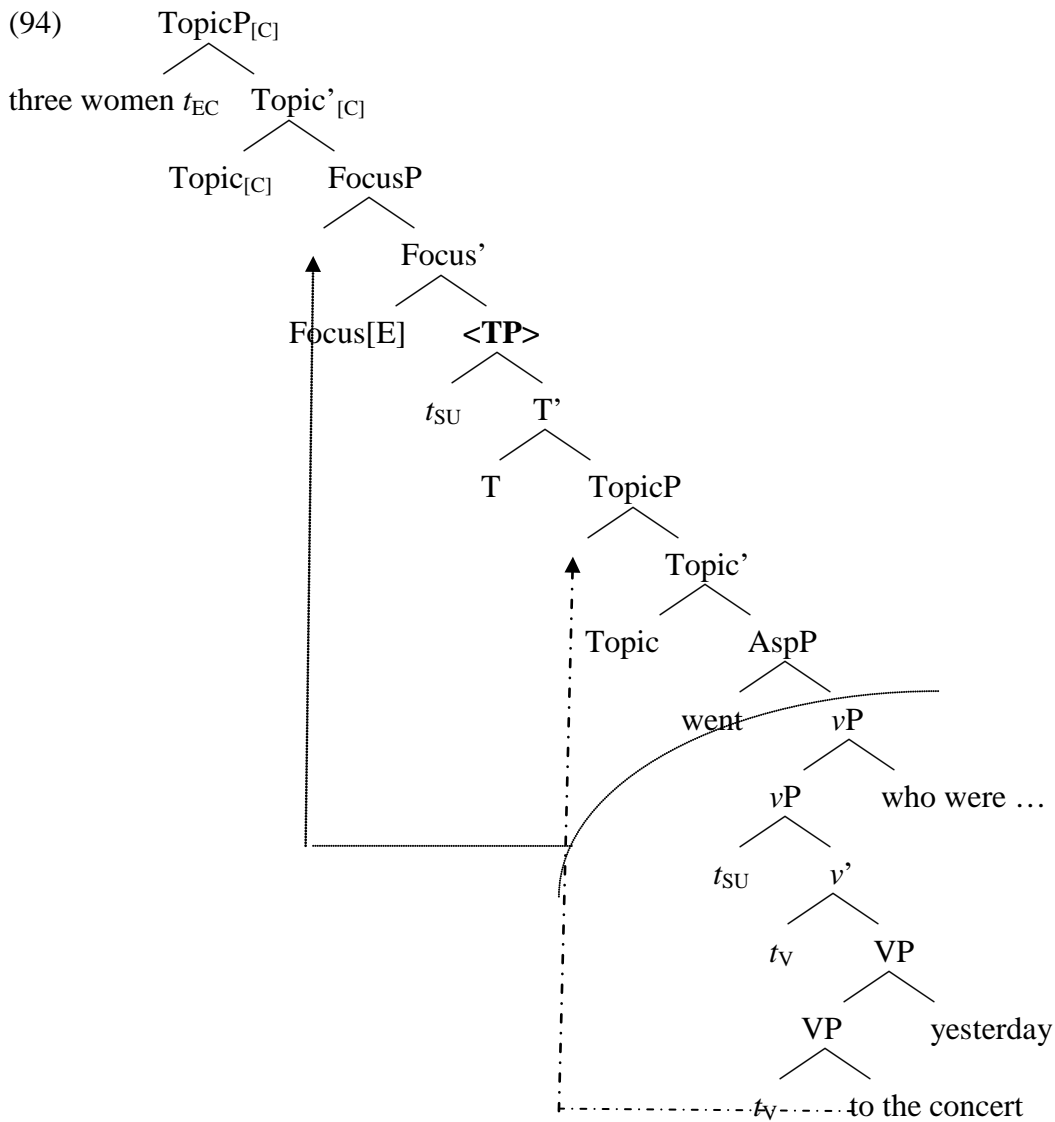
Assuming that EX does not take place, and that the subject moves to SpecFocusP, (92) obtains.

(92) ?Gritó un hombre primero al que nadie pudo oír y una mujer
shouted(3sg) a man first to-the who nobody could(3sg) to-hear and a woman
 que logró dar la voz de alarma después.
who managed(3sg) to-give the voice of alarm after
 ‘A man shouted first who nobody could hear and a woman who managed to raise
 alarm later.’

Coming back to English, let me turn now to two more complex patterns of deletion. They are more complex because the two VP remnants do not form a constituent in the structure in (85) above. The two sentences are shown in (93), their structure in (94). Basically, what I propose is that vP be purged of all the constituents that could cause a

feature clash. In the case of (93a), for example, if the locative PP is assumed to bear a [+topic] feature, vP will not be able to move to SpecFocusP until this constituent vacates the verbal phrase. I propose that it moves to the Spec of a dedicated functional projection, a low TopicP. The derivation of (93b) will be identical, except for the fact that now, the temporal adverbial will move to SpecTopicP.

- (93) a. Two men went to the concert last week who were visiting from New York and three women yesterday who were visiting from Boston.
 b. Two men went to the concert last week who were visiting from New York and three women to the exhibition who were visiting from Boston.



Some speakers will also allow the subject to stay in SpecTP and, consequently be deleted yielding the sentence in (95), where the EC (in its *vP*-adjoined position) survives ellipsis while the head noun undergoes deletion.

(95) Two men went to the concert last week who were visiting from New York and
 *(yesterday) who were visiting from Boston.

In this sentence, the same effect is observed as in the case of transitives (see (29) above). Unacceptability arises when the adverbial is deleted because the two relatives tend to be interpreted as referring to the same man and the resulting reading is incoherent. The presence of the adverbial allows an interpretation in which there are two men who are visiting from Boston and two men who are visiting from New York. This type of reading is not available in Spanish, and the sentence in (96) below is unacceptable both with and without the adverbial.

(96). *Gritó un hombre primero al que nadie pudo oír y después que
shouted(3sg) a man first to-the who nobody could(3sg) to-hear and after who
 logró dar la voz de alarma.
managed(3sg) to-give the voice of alarm

Lit. ‘*A man shouted first who nobody could hear and later who managed to raise alarm.’

In this section it has been shown that all the patterns of gapping in sentences with EX(SU) can be successfully derived with the analysis presented in section 2.1 above. The data discussed in this section also favor an analysis of EX in terms of VP/*vP*-adjunction over the traditional one in terms of TP-adjunction.

5.3. Gapping and EX(OB)

The sentences in (97) show that EX(OB) is compatible with gapping in Spanish. Thus, in the second conjunct of the two sentences (one headed by a transitive, the other by a ditransitive predicate) EX from the object has taken place and the verb has been gapped. Similar sentences are equally grammatical in English, as illustrated in (98).

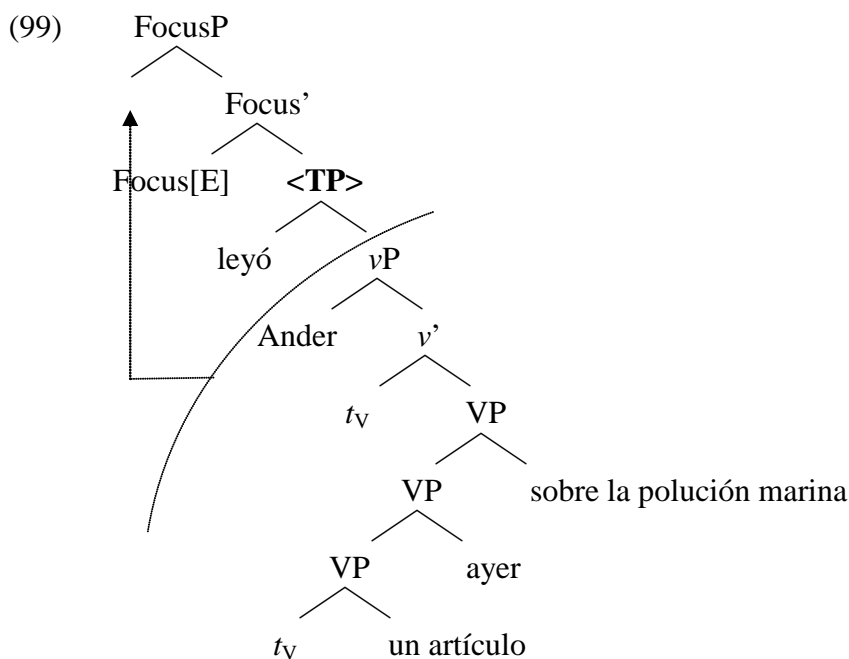
(97) a. Yo leí un libro la semana pasada sobre el calentamiento global y
I read(1sg) a book the week past about the warming global and
 Ander un artículo ayer sobre la polución marina.
Ander an article yesterday about the pollution sea
 ‘I read a book last week about global warming and Ander an article yesterday
 about sea pollution.’

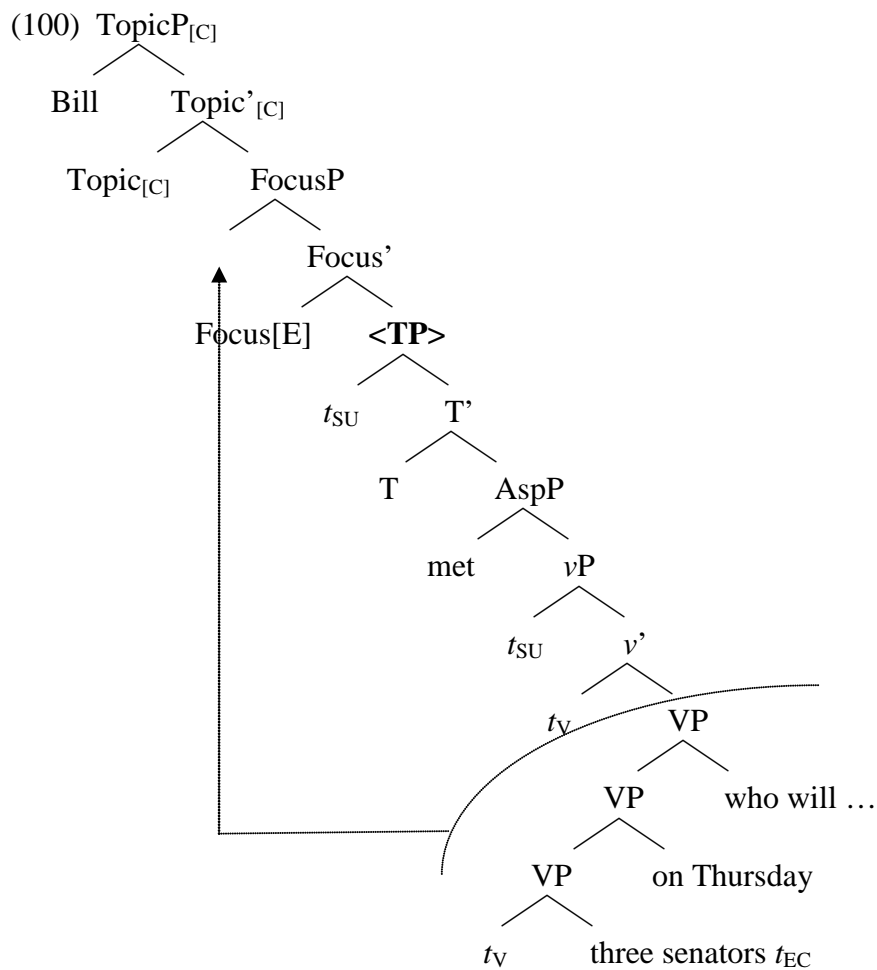
b. Yo le envié un libro a Marta sobre el calentamiento global y Ander un
I CL_{DAT} sent(1sg) a book to Marta about the warming global and Ander a
 DVD a Susana sobre la polución marina.
DVD to Susan about the pollution sea
 ‘I sent a book to Marta about global warming and Ander a DVD to Susan about
 sea pollution.’

(98) a. John met three congressmen on Monday who will vote for the amendment, and
 Bill three senators on Thursday who will vote against the amendment.

b. I sent a book to Mary about global warming and Peter a DVD to Susan about
 global dimming.

(99) shows the derivation of the second conjunct of the Spanish sentence in (97a). The
 tree diagram in (100) represents the second conjunct of the English datum in (98a).





(101) below will be derived by moving the intermediate VP layer to SpecFocusP.

(101) John met three congressmen on Monday who will vote for the amendment, and
Bill three senators on Thursday.

Any of the three VP constituents can move alone to SpecFocusP. These movement operations will yield the sentences in (102).

- (102) John met three congressmen on Monday who will vote for the amendment, and
- a. Bill three senators
 - b. Bill on Thursday.
 - c. Bill who will vote against the amendment.

I would like to point out that, apart from the intended reading, the English sentence in (102b) above has a second interpretation in which John met three congressmen on Monday and then he met Bill on Thursday. The latter interpretation is more readily available, but the reading in which Bill is the subject of the second conjunct can also be obtained given a specific prosodic contour which will include a pause after this constituent.

Let me now dwell for a while on (102c). The presence of the DP *Bill* in a position that is linearly adjacent to the extraposed relative favors the interpretation in which Bill is the one who is voting against the amendment, so that John met three congressmen and Bill. In other words, the relative clause is appositive rather than restrictive. This interpretation is available when there is no temporal PP in the structure. If the temporal is present, as in (103) below, the sentence is deviant.

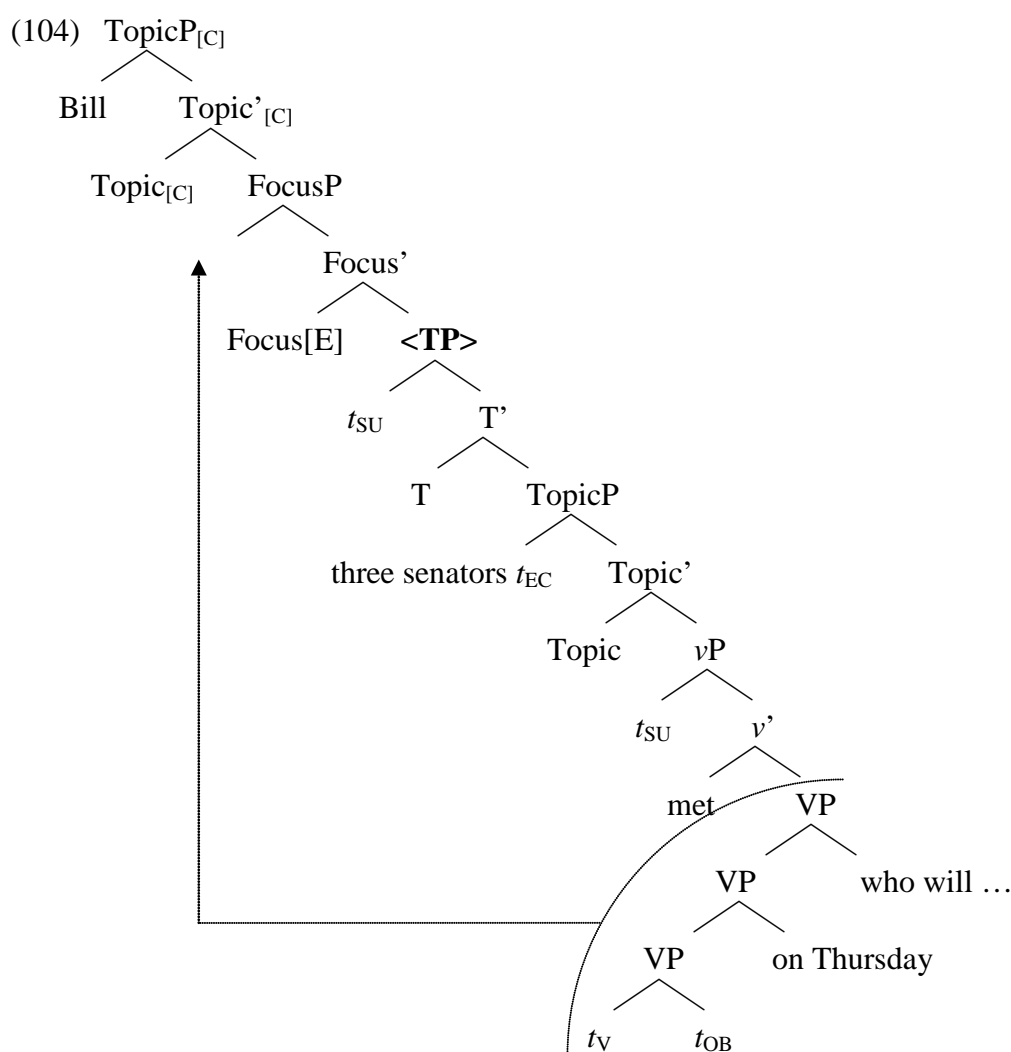
(103) *John met three congressmen on Monday who will vote for the amendment, and
Bill on Thursday who will vote against the amendment.

The structure of this sentence is provided in (104) below. In order to be able to derive a sentence like this, the two constituents in italics have to move to SpecFocusP. Given that focus is unique, they can only reach this position as part of a bigger phrase. The minimal maximal projection containing the two constituents is VP. As I have proposed for some preceding examples, the verbal phrase will have to be purged before raising to SpecFocusP. The head noun will leave its base position to move to SpecTopicP.

When discussing in the preceding section some cases of pseudogapping involving the deletion of the HN but not of the EC, I noted that EX might be incompatible with raising of the HN to SpecTopicP, given the results in chapter 6. One could assume that this incompatibility is at the root of the unacceptability of this sentence. However, as I explained above, the situation appears to be more complex. I speculated that the fact that low topics are different from high topics from the interpretive point of view might make EX from low topics possible (at least for some speakers) in constructions with pseudogapping, where certain speaker variation was observed. See the discussion of (63) and (64) above.

However, the sentence in (103) is more marginal than similar sentences involving pseudogapping (as (63) above). The difference between pseudogapping and gapping constructions is in the presence versus absence of T. And it is precisely the

presence of a tense auxiliary in the surface string that is crucial to explain the different degrees of acceptability of sentences like (63) as opposed to (103). Since nothing in (103) indicates that the DP *Bill* is the subject of the second conjunct, the hearer will probably reconstruct a VP instead of a full sentence. In other words, the hearer will assume that two VPs are being coordinated. The relative clause is consequently interpreted as a modifier of *Bill*. As appositive relatives cannot be extraposed, the unacceptability of the sentence follows. In cases of pseudogapping, the presence of the auxiliary (... and Bill did on Thursday who will vote against the amendment) would lead the hearer to reconstruct a full sentence.



The linearly similar Spanish sentences in (105) have a more complex structure, as the constituents not bearing a [+focus] feature will have to abandon vP before this projection moves to SpecFocusP. The derivation I propose for these sentences is shown in (106).

(105) Yo leí un libro la semana pasada sobre el calentamiento global y ...

I read(1sg) a book the week past about the warming global and

a. Ander un artículo.

Ander an article

‘Ander un artículo.’

b. Ander el mes pasado.

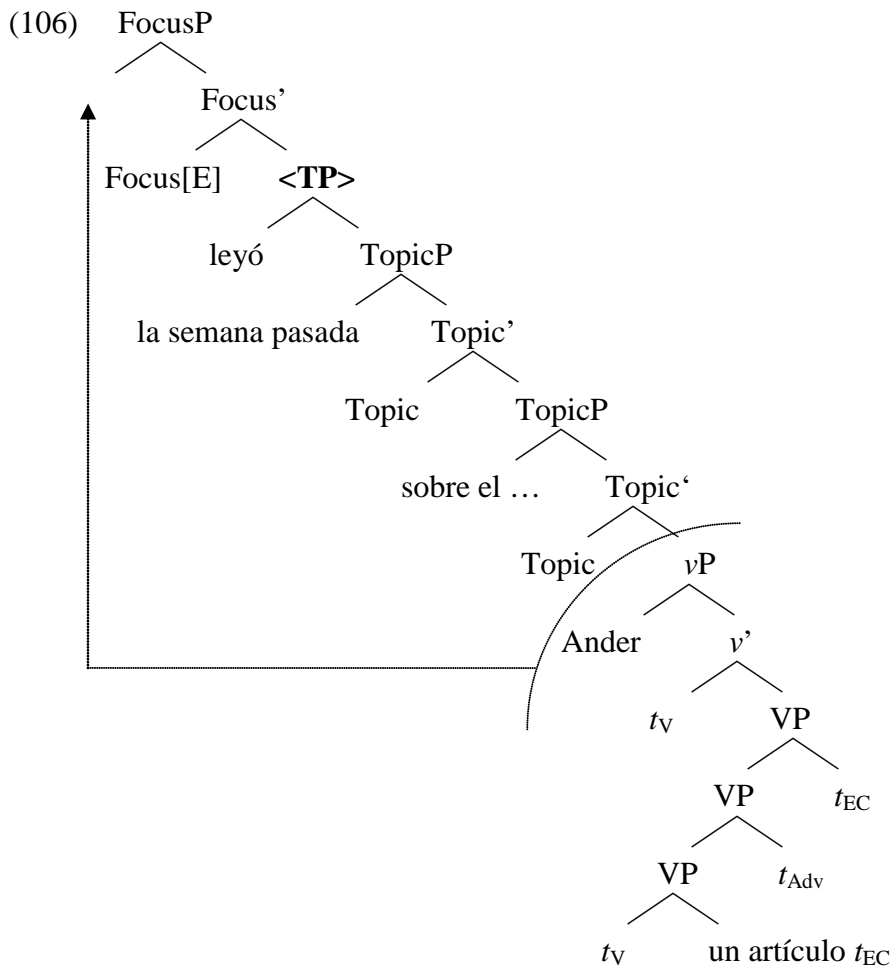
Ander the month past

‘Ander last month.’

c. Ander sobre la polución marina.

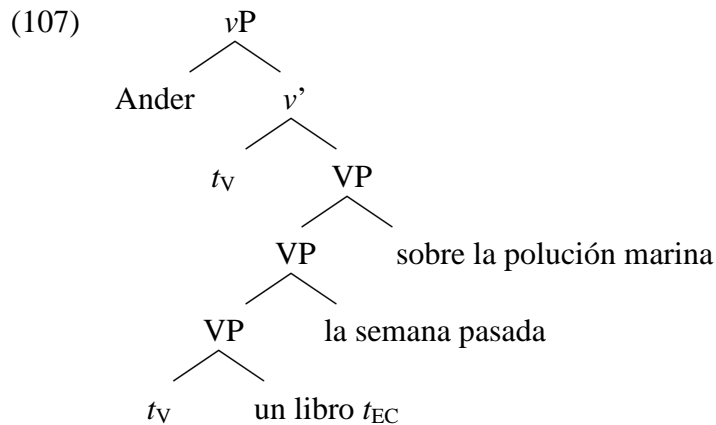
Ander about the pollution sea

‘Ander about sea pollution.’



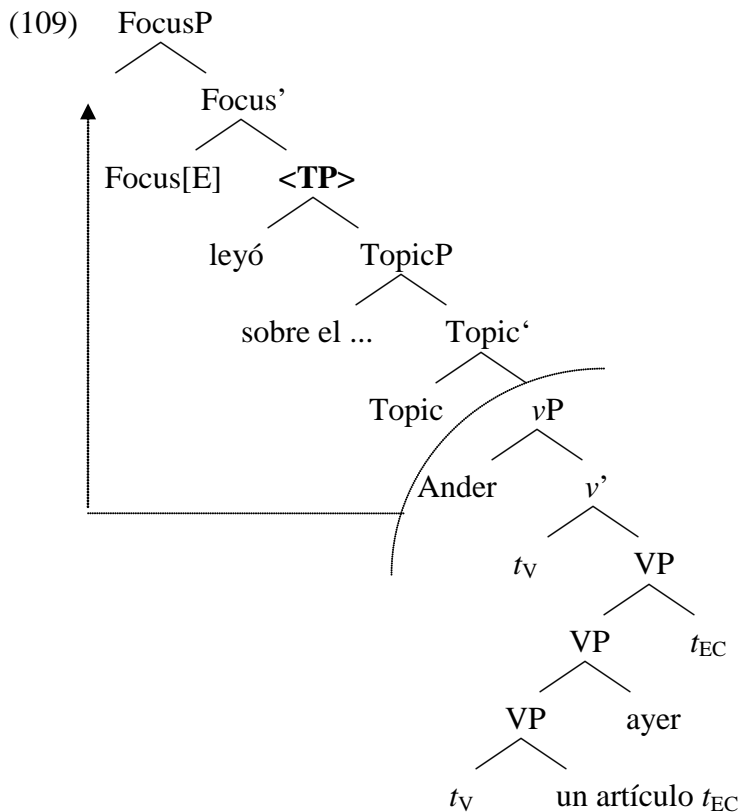
(106) shows the derivation of (105a), where the PP modifier and the locative adverbial move to the Spec of two low Topic projections. Once these constituents abandon vP, only [+focus] phrases are contained inside this projection, which can now move to

SpecFocusP. In order to derive (105b), only the DP object (head noun and PP modifier) has to vacate vP. Finally, (105c) is derived starting with the vP shown in (107) below. The intermediate VP projection moves to SpecTopicP (see (106)), and vP to SpecFocusP.



Consider now the Spanish sentence in (108), which is linearly similar to the English sentence in (101) above. Unlike in the case of English, here the projection of a low TopicP will be necessary to host the PP modifier, as shown in (109).

- (108) Yo leí un libro la semana pasada sobre el calentamiento global y Ander un artículo ayer.
I read(1sg) a book the week past about the warming global and Ander an article yesterday
 ‘I read a book last week about global warming and Ander an article yesterday.’

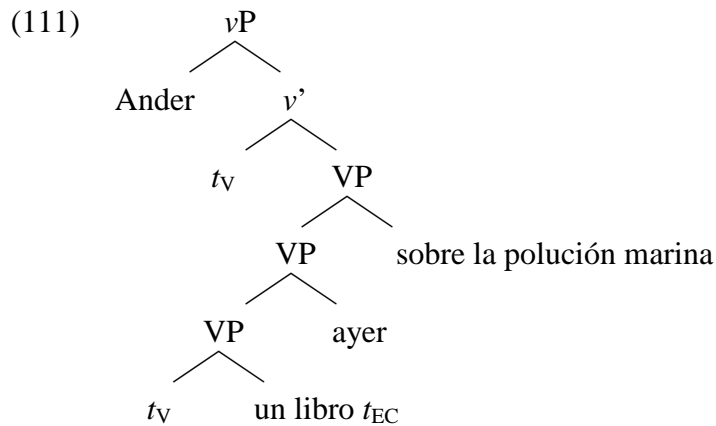


Let me turn now to a Spanish case parallel to the unacceptable English datum in (103) above. As shown in (110) below, the same pattern is found in Spanish with the same grammaticality judgment. Starting with the ν P in (111) below, the derivation proceeds by raising the intermediate VP to SpecTopicP, the projection that dominates ν P. Subsequent movement of this category to the Spec of the FocusP in the left periphery of the sentence will yield the structure upon which TPE will operate producing (110).

(110) ??Yo leí un libro la semana pasada sobre el calentamiento global y
I read(1sg) a book the week past about the warming global and
 Ander (ayer) sobre la contaminación marina⁹³.
Ander (yesterday) about the pollution sea
 ‘I read a book last week about global warming and Ander (yesterday) about sea
 pollution.’

⁹³ This sentence is worse with an extraposed relative, as in (i).

(i) *Yo leí un libro la semana pasada que analizaba el calentamiento global y
I read(1sg) a book the week past that analyzed(3sg) the warming global and
 Ander ayer que detallaba la situación en los polos.
Ander yesterday which detailed(3sg) the situation in the poles
 Lit. ‘*I read a book last week that analyzed global warming and Ander yesterday that described the
 situation in the poles.’

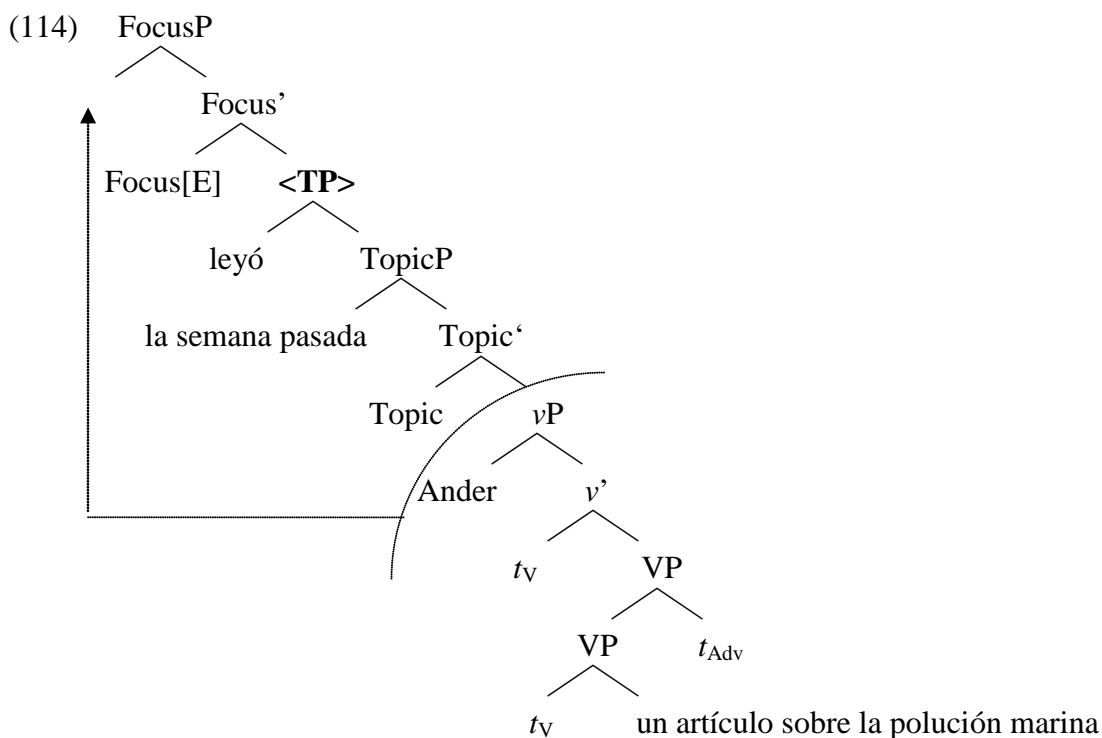


Consider now, for completeness, a final case.

- (112) John met three congressmen on Monday who will vote for the amendment, and Bill three senators who will vote against the amendment.

Two are the remnants of gapping in this sentence: the subject, which moves to SpecTopicP_[C], and the object as a whole (i.e. the head noun and its relative clause modifier). I will assume that this sentence is derived by moving this constituent to SpecFocusP. In other words, no EX has taken place in the second conjunct of this sentence. Again, the same structure is possible in Spanish, (113). As in English, there is no EX, but in the case of the Spanish datum the adverbial will have to abandon vP before it raises to SpecFocusP. Its landing site will be again SpecTopicP. The derivation is shown in (114).

- (113) Yo leí un libro la semana pasada sobre el calentamiento global y Ander
I read(3sg) a book the week past about the warming global and Ander
 un artículo sobre la contaminación marina.
an article about the pollution sea
 ‘I read a book last week about global warming and Ander an article about sea pollution.’



In this section, I have shown that all the patterns of gapping in sentences with EX can be derived by applying an analysis of ellipsis similar to that proposed for pseudogapping in the preceding chapter. Interestingly, although Spanish and English display the same patterns of ellipsis, I had to propose different derivations for the two languages. The difference is most probably related to the diverse mechanisms used to check the EPP. All the derivations are likewise consistent with the analysis of EX I am proposing in this dissertation, i.e. with its ascription to the vP/VP domain. Similarly, it has become clear that the [+focus] feature cannot be the trigger of the operation in many of the patterns, as it is responsible for other displacements.

6. Stripping

6.1. The syntax of stripping

This ellipsis operation – also known as *bare-argument ellipsis* – involves the deletion of all the sentence constituents but one. This (non-*wh*) remnant is contrasted with a phrase of the same category in the preceding conjunct and is accompanied by negation (*not/no*) or by some other polarity adverb (typically, *too* and *also* in English, *también* ('too') in Spanish).

- (115) a. John can play the guitar and Mary <can play the guitar>, too/and Mary as well.
 b. John can play the guitar and <John can play> the violin, too.

- (116) a. Pedro sabe tocar la guitarra y María también <sabe tocar la guitarra>.

Peter knows to-play the guitar and Mary too <knows to-play the guitar>

‘Peter can play the guitar and Mary, too.’

- b. Pedro toca la guitarra, y el violín también <toca Pedro>.

Peter plays the guitar and the violin too <plays Peter>

‘Peter plays the guitar and the violin, too.’

Any constituent may, in principle, survive deletion; thus, in (115a)/(116a) the remnant is the subject, whereas it is an object in (115b)/(116b). A very frequent instance of this ellipsis operation is so-called *not-stripping*, illustrated in (117)⁹⁴.

- (117) a. Peter gave it to me, not John.
 b. Peter gave me a DVD, not a book.
 c. I’m working on Friday, not on Saturday.

Not-stripping is also available in Spanish. Two examples are provided in (118).

- (118) a. Pedro me lo regaló a mí, pero no a ti.

Peter me CL_{ACC} gave(3sg) to me but not to you

‘Peter gave it to me, but not to you.’

- b. Me lo contó Pedro, no Juan.

me CL_{ACC} told(3sg) Peter not John

‘Peter told me, not John.’

One of the properties shared by all the examples presented so far is that – as in other cases of ellipsis – no strict identity between the elided material and its antecedent is

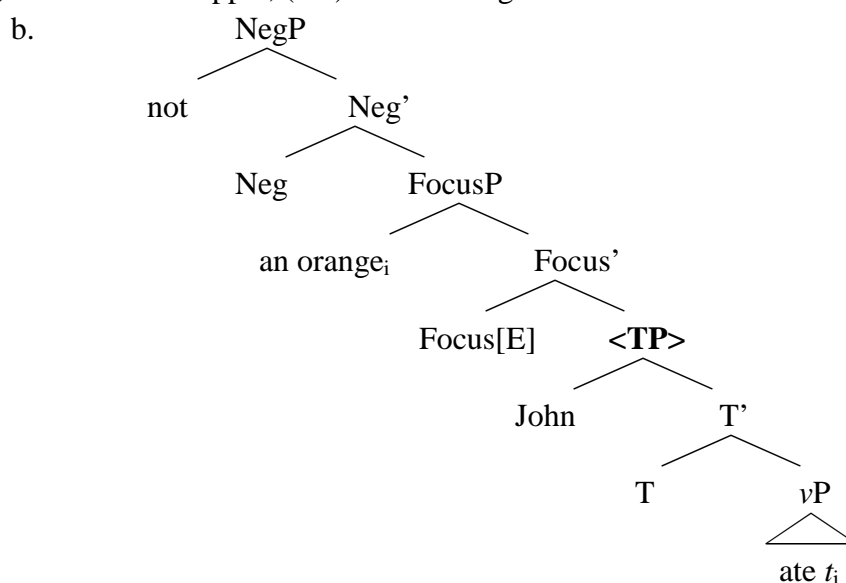
⁹⁴ In the main text, I only illustrate cases of stripping in which the remnant is of the category DP, since only those are relevant for the subsequent discussion. It has to be noted, however, that other categories can also be the remnant of stripping. (i) provides illustration. The sentences are drawn from Nakao (2009).

- (i) a. John ran slowly, but not quickly. (AdvP)
 b. Mary studies in this room, but not in that room. (PP)
 c. John is tall, but not big. (AP)

required for ellipsis to succeed. Stripping is similar to gapping (in particular) in many respects, but there are two fundamental differences that justify treating them as separate operations. In the case of stripping, (i) only one constituent can survive deletion, as mentioned above, and (ii) the presence of an operator of polarity (be it positive or negative) is obligatory.

Following Merchant (2004), I will assume that the remnant moves to the Spec of a focus projection in the left periphery of the sentence. The focus head is associated with an E-feature that will trigger the deletion of its complement: in this case, TP. As already noted in the case of pseudogapping (cf. footnote 89 above), ellipsis is obligatory in the case of stripping, the non-elliptical version being ungrammatical (**Peter gave it to me, not John gave it to me*). See also Heim and Kratzer (1998), Depiante (2000), and Nakao (2009), among others, for similar analyses. The tree diagram in (119b) below shows the structure of the stripped conjunct of the sentence in (119a).

(119) a. John ate an apple, (but) not an orange.



Notice that I assume – with Merchant (2004) and many others – that the negative particle *not* is hosted in a negative projection (NegP) on top of focus, which entails that the negation involved in *not*-stripping is sentential. In the paragraphs that follow I will provide an overview of part of the evidence available in the literature for raising of the remnant to focus and for sentential negation.

Let me start with two of the pieces of evidence discussed in Nakao (2009) that indicate that stripping does indeed involve leftward movement of the remnant. The first comes from P-stranding. In languages like English, the presence of the preposition in

the remnant (when its correlate in the antecedent clause is a PP) is optional. The relevant data are provided in (120).

- (120) a. Who did John talk about?
b. John talked about Mary, and (about) Susan, too.

The optionality of P is due to the fact that leftward movement to SpecFocusP can strand the preposition, which will then be deleted by TPE, or pied-pipe it, in which case the preposition will appear in the final linear string. When P-stranding is not allowed in the language, the preposition is obligatory. The case is illustrated for Spanish and German in (121) and (122). The examples are drawn from Nakao (2009), who quotes Depiante (2000).

- (121) a. *¿Quién escribe Juan para? vs ¿Para quién escribe Juan?

who writes John for for whom writes John
'For whom does John write?'

- b. Juan escribe para *Clarín* y *(para) *La Nación* también.

John writes for Clarín and (for) La Nación too
'John writes for *Clarín* and for *La Nación*, too.'

- (122) a. *Wem hat die Maria mit gesprochen? vs Mit wem hat die Maria gesprochen?

who has the Mary with spoken with whom has the Mary spoken
'Who has Mary spoken to?'

- b. Die Maria hat mit dem Hans gesprochen, aber nicht *(mit) dem Bill.

the Mary has with the John spoken but not (with) the Bill
'Mary has spoken to John, but not to Bill.'

The second piece of evidence in favor of a movement analysis of the remnant in stripping comes from the island-sensitivity of the construction. As the data in (123) show, stripping is not possible when the correlate is inside an island. The examples are again Nakao's (2009).

- (123) a. *The fact that the Prime Minister resigned got much publicity, but not the defense minister.

- b. *I met a boy who ate an apple, but not an orange.
- c. *John left because you played this song, but not that song.

The ungrammaticality of these sentences is accounted for if the remnant has abandoned a subject in (123a), a complex NP in (123b), and an adjunct in (123c) – three well-established islands.

As I will use *not*-stripping to illustrate the interaction of this ellipsis operation with EX, I will dwell for a while on the position of the negative particle. Many are the analyses that discard the option that *not* is constituent negation in this construction (but see Depiante 2000 for the opposite view). The most important arguments against this option are: (i) the impossibility of constituent negation in the non-elliptical sentence, (124); (ii) the interpretation of negation in the elliptical sentences along the same lines as in their non-elliptical counterparts, (125); and (iii) the occurrence of the same type of negation in contexts of gapping, (126).

- (124) a. John ate an orange, not Mary.
 b. *John ate an orange, not Mary ate an apple.
 c. John ate an orange, not an apple.
 d. *John ate an orange, John ate not an apple.

- (125) a. John ate an orange, not Mary.
 b. Non-elliptical: Mary didn't eat an orange.
 c. John ate an orange, not an apple.
 d. Non-elliptical: John didn't eat an apple.

- (126) Bill saw Harry, not Harry Bill.

According to Lasnik (1972), the negation in the gapped construction negates the whole event of Harry's seeing Bill, not just *Harry*. It cannot, therefore, be constituent negation.

Among those who claim that negation is sentence-initial, there is certain divergence in the precise position of the negative particle. Nakao (2009), following Klima (1964) and Lasnik (1972), proposes that negation is base-generated in the CP-domain. This is, however, not the only possibility. Thus, Merchant (2004), for instance,

places negation in the SpecNegP, a functional projection that dominates TP and FocusP (see the tree in (119b) above); Jones (2004) speaks of SpecΣP instead of SpecCP.⁹⁵

Assuming the analysis just outlined is basically right, I turn now to explore the interaction of stripping and EX.

6.2. *Stripping and EX*⁹⁶

Consider first the abstract structure in (127), which represents the derivation of stripping in English. The corresponding Spanish structure differs from this one in two respects. First, the subject occupies its base position in SpecvP; second, the verb raises to T to check the EPP, which makes the projection of SpecTP unnecessary.

⁹⁵ It has to be noted that sentence-initial negation in stripping constructions does not trigger subject-verb inversion.

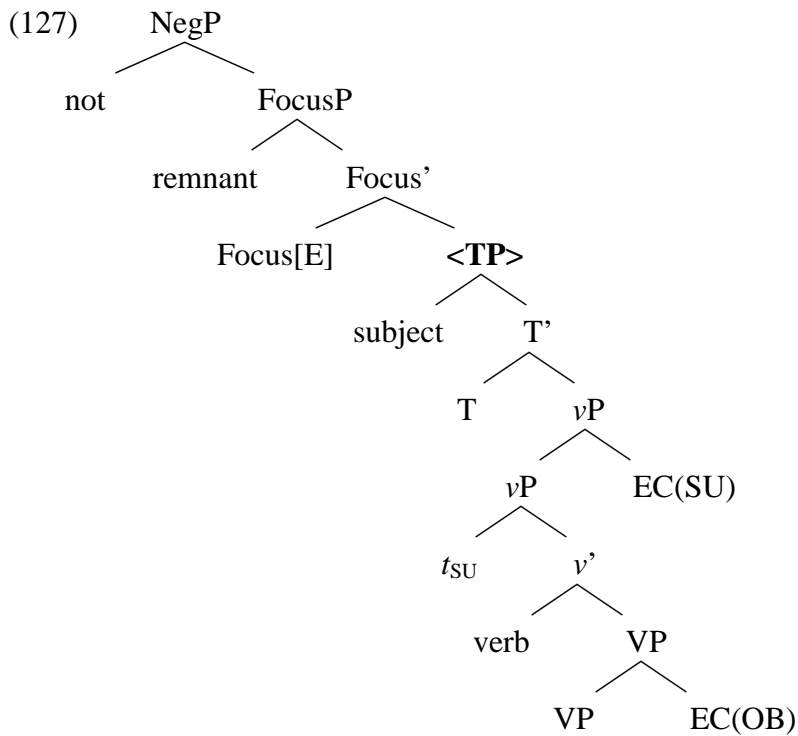
(i) *John ate an apple, not did [_{TP} John *t*_{did} eat an orange].

Movement of the object to FocusP and subsequent deletion of TP would produce the sentence in (ii), which is ungrammatical.

(ii) *John ate an apple, not **an orange** did [_{TP} ~~John~~ *t*_{did} ~~eat~~ *t*_{OB}]

A detailed discussion of the reasons why subject-auxiliary inversion does not apply in stripped constructions would take us too far from the discussion at hand. The reader is referred to Nakao (2009) and Lasnik (2001), who provide a plausible explanation.

⁹⁶ As just mentioned, *not*-stripping will be used for the purpose of illustrating the interaction of this ellipsis operation and EX. The reader can verify that the same patterns of EX that will be presented in this section arise in the case of *too*-stripping.



In this configuration, only the constituents that move to SpecFocusP will survive deletion. One such constituent can be the EC itself, as in (128) and (129). The (a) sentences illustrate EX(OB) – i.e. EX from an internal argument – while the (b) examples show EX(SU) – i.e. EX from the external argument. In these sentences, the remnant has a strong corrective interpretation.

- (128) a. I read a report last year about global dimming, not about global warming.
 b. A man went to the concert who was visiting from Boston, not who was visiting from New York.

- (129) a. Leí un informe el año pasado sobre la polución marina, no sobre el calentamiento global.
read(1sg) a report the year past about the pollution sea not about the warming global
 ‘I read a report last year about sea pollution, not about global warming.’

- b. Trabajan dos hombres en esta empresa que hablan inglés, no que son
work(3pl) two men in this enterprise who speak(3pl) English not who are
 ingleses.

English

‘Two men work in this enterprise who can speak English, not who are English.’

As in certain cases of pseudogapping, here the sentence-final position of the EC is the result of its raising to SpecFocusP followed by the deletion of the complement of this projection. Also as in the case of pseudogapping, I will assume that EX takes place before raising to Focus because leftward extraction of an adjunct yields ungrammatical results quite generally in English.

There are two additional patterns of stripping involving the head noun and its modifier. One is derived if the head noun, instead of the EC, moves to SpecFocusP, thus turning into the only remnant of stripping. The sentences that would be derived in this case are provided in (130) and (131). In the other one, the whole DP constitutes the remnant of stripping. This case is illustrated in (132) and (133) below. In order to derive the latter, the whole DP object moves to SpecFocusP, that is, EX has not taken place.

(130) a. I read a report last year about global dimming, not a book.

b. A man went to the concert who was visiting from Boston, not a woman.

(131) a. Leí un informe el año pasado sobre la polución marina, no un libro.

read(1sg) a report the year past about the pollution sea not a book

‘I read a report last year about sea pollution, not a book.’

b. Trabajan dos hombres en esta empresa que hablan inglés, no dos mujeres.

work(3pl) two men in this enterprise who speak(3pl)English not two women

‘Two men work in this enterprise who can speak English, not two women.’

(132) a. I read a report last year about global dimming, not a book about global warming.

b. A man went to the concert who was visiting from Boston, not a man who was visiting from New York.

(133) a. Leí un informe el año pasado sobre la polución marina, no un libro sobre
read(1sg) a report the year past about the pollution sea not a book about
el calentamiento global.

the warming global

‘I read a report last year about sea pollution, not a book about global warming.’

b. Trabajan dos hombres en esta empresa que hablan inglés, no dos hombres
work(3pl) two men in this enterprise who speak(3pl) English not two men
que son ingleses.

who are English

‘Two men work in this enterprise who can speak English, not two men who are English.’

The results obtained in this section point in the same direction as those obtained from gapping. Once again, all the patterns of EX can be derived under the assumption that EX takes place in the VP/vP domain. In the following section, I turn to the last ellipsis operation that I will deal with: sluicing. As in the case of stripping, in sluicing there is only one remnant. Unlike in stripping, the remnant in sluicing is a *wh*-phrase.

7. Sluicing

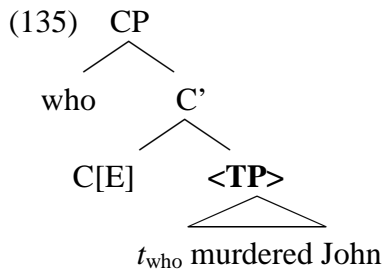
7.1. The syntax of sluicing

Sluicing is an ellipsis operation in which the only constituent that survives deletion in the second conjunct of a coordination is a *wh*-phrase, as in (134a). This sentence is, however, interpreted along the lines of (134b).

(134) a. Someone murdered John, but I don’t know who.

b. Someone murdered John, but I don’t know who murdered John.

Merchant (2001) proposes that this phenomenon be analyzed in terms of TPE. Recall that I used sluicing in section 2 above to introduce Merchant’s conception of ellipsis, which I have adopted. At this point, I will therefore just repeat the basic structure of the operation. The parser of the embedded clause in the second conjunct in (134) is provided in (135).



The E-feature in the case of sluicing is associated with the C head and will trigger the deletion of its complement, TP. The only constituent that escapes deletion is the *wh*-phrase – this time the subject – that has moved to SpecCP. This type of analysis has to be refined if the split CP hypothesis is adopted. In chapter 9, I assumed that fronted *wh*-phrases occupy the Spec of a FocusP in the left periphery of the sentence. The E-feature that prompts the deletion of TP is therefore associated with a Focus head. For convenience, I will continue to represent sluicing as in (135), i.e. with a CP node.

As in sluicing a fronted *wh*-phrase is the only remnant of ellipsis, it can be expected that this operation provides information about the position of the EC in EX(*wh*).

7.2. Sluicing and EX

The contrast that is interesting for the present purposes is that shown in (136) and (137) for Spanish; (138) and (139) for English. As can be seen in these sentences, the EC cannot survive sluicing.

(136) a. Pedro comió algo ayer que contenía cacahuets pero no sé
Peter ate(3sg) something yesterday which contained(3sg) peanuts but not know(1sg)
 qué.

what

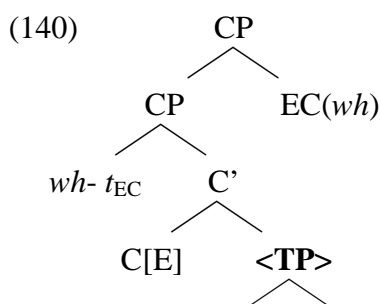
b. *Pedro comió algo ayer que contenía cacahuets pero no sé
Peter ate(3sg) something yesterday which contained(3sg) peanuts but not know(1sg)
 qué que contenía cacahuets.

what which contained(3sg) peanuts

- (137) a. Trabaja alguien en esta empresa que no tiene los papeles en regla pero no
works someone in this enterprise who not has the papers in order but not
 sé quién.
know(1sg) who
- b. *Trabaja alguien en esta empresa que no tiene los papeles en regla pero
works someone in this enterprise who not has the papers in order but
 no sé quién que no tiene los papeles en regla.
not know(1sg) who who not has the papers in order

- (138) a. Peter ate something yesterday that contained peanuts, but I don't know what.
 b. *Peter ate something yesterday that contained peanuts, but I don't know what
 that contained peanuts.
- (139) a. Someone works in this enterprise who does not have his papers in order but I
 don't know who.
 b. *Someone works in this enterprise who does not have his papers in order but I
 don't know who who does not have his papers in order.

If the EC were CP-adjoined, as claimed in traditional analysis of EX, and given that sluicing is a case of TPE – as shown in (135) above, the EC would be expected to survive sluicing, contrary to fact. The (partial) abstract derivation of sluicing given these two premises is shown in (140) below. Notice that the problem cannot be that the EC is identical in the antecedent and the target, as the sentence is acceptable without ellipsis: *Peter ate something yesterday that contained peanuts, but I don't know what he ate that contained peanuts.*



The contrasts above can be accounted for, however, if the EC in these sentences is attached lower in the structure than shown in (140). In the analysis I propose the EC adjoins to VP in EX(OB), and to *v*P EX(SU). In both structures, the EC is expected to

be part of the deleted material. Sluicing facts would constitute evidence for my analysis of EX as applying in the ν P/VP domain.

8. Conclusion

In this chapter I have analyzed the interaction of EX with five ellipsis operations, two of which involved the deletion of the verbal projection (VPE and pseudogapping), three the deletion of TP (gapping, stripping and sluicing). The former two, conflated under the rubric VPE, have traditionally been used in the literature to determine the structure of VP. As, under the analysis entertained at the time, any VP-layer could undergo deletion, VP-adjoined constituents could survive VPE, which resulted in patterns that are now analyzed as pseudogapping. Part of this chapter has been devoted to updating this type of analysis. I have basically followed the conception of ellipsis presented in Merchant (2001) and developed by this linguist in subsequent work.

In Merchant's analysis, VPE is triggered by the presence in the structure of an E-feature associated with T. As the complement of this functional projection will be 'silenced' at PF, many cases of VPE will be in fact cases of ν PE. In all the patterns of deletion considered in this chapter, constituents extraposed from both subjects and objects could undergo ellipsis with the rest of the VP/ ν P, which indicates that the EC occupies a rather low hierarchical position in the structure. In particular, the data refute the standard assumption that the EC(SU) is adjoined to TP, at the same time that they support my proposal that the domain of application of EX is restricted to ν P/VP. See, for example, the datum in (141).

(141) Although none of the MEN did <go to the concert who were visiting from Boston>, several of the WOMEN went to the concert who were visiting from Boston.

The same conclusion can be drawn from the interaction of EX with pseudogapping. This ellipsis phenomenon differs from VPE in that one or more constituents of the verbal projection survive deletion (the *remnants*). Most analyses of pseudogapping consider only sentences with one remnant and assume that this constituent moves out of VP before VPE. I have adopted the account in which the remnant targets the Spec of a FocusP in the left periphery of ν P. This functional head is associated with the E-feature

that will eventually trigger the deletion of vP . Two patterns have been identified in which the EC can survive ellipsis, (142). In the first case, the EC itself raises alone to SpecFocusP. The resulting sentence is subject to speaker-variation due to the fact that the head noun is deleted while the EC survives deletion. Not all speakers accept this state of affairs. For (142b) I have proposed an analysis in which the various remnants move to SpecFocusP as a unit. This sentence would therefore be derived by raising the whole VP to this position, as shown schematically in (142b). VP is the minimal maximal projection containing the three remnants, which are all associated with a strong (contrastive) focus feature.

(142) John met more congressmen on Monday who will vote for the amendment than

- a. [Bill did [_{FocusP} **who will vote against the amendment** [_{Focus'} Focus[E] [_{vP} ~~t_{SU}~~ ~~meet congressmen on Monday~~ t_{EC}]]]]
- b. [Bill did [_{FocusP} [_{VP} t_V **senators on Thursday who will vote against the amendment**] [_{Focus'} Focus[E] [_{vP} ~~t_{SU}~~ [_{v'} ~~meet~~ t_{VP}]]]]]

If this analysis is anywhere close to the mark, the claim put forward by many linguists that EX is triggered by a focus feature cannot be maintained. Given that pseudogapping involves raising of the remnant to SpecFocusP, the same feature cannot be responsible for EX, as this would require the projection of a second FocusP.

As VPE and pseudogapping are not available in Spanish, the discussion in the first part of this chapter was restricted to English. The three ellipsis operations involving the deletion of TP, however, are attested in the two languages, which have been considered in parallel. These three operations are gapping, stripping and sluicing.

As happens with pseudogapping, the discussion of gapping is usually restricted to sentences with the subject and the object as the only remnants. Given their contrastive interpretation, I have assumed (with Gengel 2007) that, in English, the subject moves to SpecTP, in the usual manner, and further to the Spec of a contrastive topic projection in the left periphery of the sentence. Immediately dominated by this category is the FocusP whose Spec will host the internal argument that vacates TP before ellipsis applies. Again as in pseudogapping, I have assumed that sentences with multiple VP remnants are derived by moving the VP containing them to SpecFocusP. Illustration is provided in (143).

(143) I met three congressmen on Tuesday who will vote for the amendment and
 [TopicP[C] Bill [FocusP [vP *t_v* **two senators on Thursday who will vote against the amendment**]] [Focus' Focus[E] [_{TP} *t_{SU}* [_T *T* [_{vP} *t_{SU}* **met** *t_{VP}*]]]]] .

I have proposed a different analysis for gapping in Spanish which derives from the different strategy used in this language to check the EPP. As in Spanish the subject does not move to SpecTP (this Spec is not even projected, see the discussion in chapter 7), I have proposed that the subject moves together with the other remnants as part of a bigger projection. In the sentences in (144a) and (144b) below, the categories that move to SpecFocusP are vP and VP respectively.

(144) a. Yo leí un libro la semana pasada sobre el calentamiento global y
I read(1sg) a book the week past about the warming global and
 [FocusP [vP **Ander un artículo ayer sobre la polución marina**] [Focus'
Ander an article yesterday about the pollution sea
 Focus[E] [_{TP} *leí* [_{vP} ...]]]].
read(1sg)

‘I read a book last week about global warming and Ander an article yesterday about sea pollution.’

b. Entró un hombre en secretaría al que yo no conocía y [FocusP
came in(3sg) a man into administration to-the who I not knew(1sg) and
 [vP **una mujer en el despacho del director que me resultaba familiar**]
a woman into the office of-the principal who me looked(3sg) familiar
 [Focus' Focus[E] [_{TP} *entró* *t_{VP}*]]]].
came in(3sg)

‘A man came into the administration office who I didn’t know and a woman into the principal’s who looked familiar to me.’

In all the sentences just provided, EX has taken place before raising to SpecFocusP. Given the uniqueness of the focus projection, it has to be concluded, once again, that EX cannot have been triggered by [+focus]. Apart from confirming this result, sluicing constructions provide another interesting piece of information: a constituent extraposed from a *wh*-phrase (in SpecFocusP) is in a relatively low hierarchical position. The fact that it cannot survive TPE clearly contradicts the standard assumption that a constituent extraposed from a *wh*-phrase adjoins to CP (FocusP, in my analysis).

- (145) a. Trabaja alguien en esta empresa que no tiene los papeles en regla pero no
works someone in this enterprise who not has the papers in order but not
 sé quién.
know(1sg) who
 ‘Someone works in this enterprise who does not have their papers in order, but I don’t know who.’
- b. *Trabaja alguien en esta empresa que no tiene los papeles en regla pero
works someone in this enterprise who not has the papers in order but
 no sé quién que no tiene los papeles en regla.
not know(1sg) who who not has the papers in order

Turning finally to *not*-stripping, in the sentences in (146) below, the head noun (a), the EC (b) and the whole DP object (c) can undergo movement to the Spec of a FocusP in the left periphery of the sentence, thus surviving TPE. Notice that in the latter case, no EX need be proposed. For (a) and (b), on the other hand, I have assumed EX. In (146a), the PP modifier can only be ‘stranded’ (and, consequently, deleted by TPE) if it has been previously extraposed. Thus, the constituent that moves to SpecFocusP is in fact the DP [a book t_{EC}]. In the case of (146b), I assume EX because leftward extraction of adjuncts is generally prohibited in English. However, once the EC is VP-adjoined, it can move to SpecFocusP, as any other VP-adjoined constituent.

- (146) a. I read a report last year about global dimming, not a book.
 b. I read a report last year about global dimming, not about global warming.
 c. I read a report last year about global dimming, not a book about global warming.

All in all, two fundamental conclusions emerge from the discussion in this chapter: (i) all the patterns of ellipsis are compatible with EX applying in the ν P/VP domain, whereas some are clearly incompatible with more traditional analyses, which place the EC in a hierarchically higher position in some cases (EC(SU) and EC(*wh*)); and (ii) [+Focus] is not the trigger of EX. These results come to confirm – and therefore support – the results in preceding chapters.

Chapter 11

Summary and concluding remarks

1. Scope of the investigation and some findings

The study presented in this dissertation has been carried out with the general aim of gaining some understanding of EX from DP, a syntactic phenomenon that, although widely studied, still constitutes a challenge in the minimalist framework. After subjecting the most significant analyses, presented in chapter 3, to a critical review in chapter 5, the chronologically earliest proposal, which analyzes EX in terms of rightward movement, emerges as the most appropriate if only on the grounds of derivational economy and syntactic simplicity. On the basis of empirical data (some of which are discussed in Culicover and Rochemont 1990), I proposed the revision of the positions standardly assumed for the EC, provided in (1). The analysis I undertake in chapter 5 section 4 reveals that the EC occupies rather the positions shown in (2).

(1) a. A constituent extraposed from the object is adjoined to VP.

b. A constituent extraposed from the subject is adjoined to IP.

c. A constituent extraposed from a *wh*-phrase is adjoined to CP.

(2) a. A constituent extraposed from the object is adjoined to VP.

b. A constituent extraposed from the subject is adjoined to ν P (to VP in the case of unaccusative and passive predicates).

c. A constituent extraposed from a *wh*-phrase is adjoined to VP, if the source DP is an object, or to ν P when the source DP is a subject.

In other words, while standard analyses of EX calculate the adjunction site of the EC with respect to the surface position of the source DP, I argue for the relevance of its base position. What I propose is that EX takes place before other movement operations and that it has its domain of application restricted to ν P. This proposal has some interesting consequences. Thus, for example, the restriction of EX to the ν P domain immediately accounts for why an EC cannot leave the sentence where it has its base position (*Right Roof Constraint*, Ross 1967). It is no longer necessary to appeal to the

idiosyncratic behavior of rightward movement as opposed to leftward movement, as has been standard practice.

Similarly, my analysis can explain why EX(SU) is possible, while leftward extraction from a subject is prohibited. I will come back to the analysis of the sentences in (3) in section 3 below.

- (3) a. *Who_i did you say [a picture of t_i] was hanging on the wall?
b. [A man t_i] came in [who I didn't know]_i.

In a similar vein, EX from *wh*-constituents yields acceptable sentences, as (4), in spite of the fact that derived Specs have been shown to be islands for extraction. Once again, traditional analyses of EX have to appeal to the exceptional behavior of rightward movement. Since I propose that EX takes place before *wh*-raising (i.e. when the *wh*-phrase is in its base position, which is transparent for extraction), it is not necessary to assume that rightward movement is subject to different constraints from leftward movement.

- (4) *How many books have been published this year about the economic crisis in Europe?*

Adopting this analysis, i.e. that EX is derived by rightward movement in the *vP* domain, I have studied the interaction of EX with other syntactic phenomena. This approach constitutes one of the innovative aspects of this dissertation, as to the best of my knowledge, EX has never been approached from this perspective. As a result, most of the data analyzed are new.

In chapters 6 to 9, I explore the availability of EX from fronted constituents, which includes topicalized as well as focalized phrases and preverbal subjects. The constructions that are considered in chapter 6 are LD, CLLD and English-like topicalization. Chapter 8 deals with a very specific topic constructions of English: *Locative Inversion*. Chapter 9 turns to focus fronting, and *wh*-raising. During the examination of subject-raising interesting patterns arose that made me extend my initial analysis and cover post-verbal subjects as well. The results of the analysis are presented in chapter 7.

Finally, in chapter 10 I turn to the interaction of EX with five ellipsis operations: VP-ellipsis, pseudogapping, gapping, stripping and sluicing. The first two are analyzed as cases of verbal phrase ellipsis and are only available in English. The rest involve TPE and are attested in the two languages under study: English and Spanish.

This brings me to the second aspect that distinguishes this study from previous work in the field: the comparative perspective. Against the commonly held view that EX is not possible (or very restricted) in Romance (cf. Cinque 1982, Alexiadou and Anagnostopoulou 1998), I have shown that EX in Spanish is not only productive, but it also displays patterns of syntactic behavior that do not differ significantly from those attested in English.

From the analysis of the interactions mentioned above, the following general characteristics of the construction emerge. First, EX from DP is highly sensitive to the context of utterance and to the informational structure of the sentence. However, claims like Rochemont's (1986) – echoed by many linguists afterwards – that EX is a focus construction of English have to be qualified. In this dissertation, I have shown that the EC is not always focalized, i.e. it does not always convey new information. Consequently, EX cannot be always triggered by a focus feature. I will expand on this observation in the sections that follow.

Second, the unacceptability of EX in certain sentences seems to be more related to parsing than to particular syntactic configurations. This can be clearly seen in those cases in which a DP is linearly closer to the EC than the intended head noun (*closeness effects*). This situation arises when the sentence is headed by a pluriargumental predicate. In those sentences, a constituent extraposed from the subject tends to be interpreted as a modifier of the linearly closer internal argument. Some examples are provided in (5).

(5) a. *A man shot a lawyer yesterday *from the Cosa Nostra*. (Göbbel 2006)

b. *Mañana presentará un alto cargo su dimisión *que está implicado*
tomorrow will-tender(3sg) a high-ranking official his resignation who is involved
en un escándalo de corrupción.
in a scandal of corruption

‘Tomorrow a high ranking official will tender his resignation who is involved in a scandal of corruption.’

Not surprisingly, those linguists who first undertook the task of investigating the construction claimed that EX was only possible in sentences headed by unaccusative predicates (see for instance Coopmans and Roovers 1986). Culicover and Rochemont (1990) already showed that EX could also take place from the subject of unergative predicates, as in (6). Göbbel (2006) argues that EX from the subject of transitive predicates is also possible, (7). In both cases it is necessary for the subject to acquire prominence, which brings us back to the question of context-sensitivity.

(6) Suddenly there was the sound of lions growling. Several women screamed. Then *a man* screamed *who was standing at the very edge of the crowd*.

(7) A *MAN* shot a lawyer yesterday *from the Cosa Nostra*.

Let me now turn to summarize some more specific findings, which I will present in three sections dealing in order with EX from constituents that have undergone leftward movement (basically, topicalization and focalization), EX from subjects (pre- and postverbal) and EX in ellipsis constructions.

2. EX from fronted constituents

By focusing on the availability of EX from DPs that had moved to sentence-initial positions, I expected to obtain some general information pertaining to the contexts in which EX can take place and the possible trigger of the operation.

In chapter 6, I showed that EX from fronted topics is excluded both in English and Spanish. (8) shows Left Dislocation, (9) Clitic Left Dislocation and (10) Topicalization.

- (8) a. **Pisos con terraza, hemos visto uno esta mañana que nos han gustado mucho.*
flats with balcony have(1pl) seen one this morning that us have(3pl) liked much
 ‘Flats with a balcony, we saw one this morning that we liked a lot.’
 b. *(Talking about) books, I’m reading one these days that deal with global warming.

(9) **Al lingüista no lo encontrarás aquí que habla / hable tres lenguas balcánicas.*

Balkan

Lit. ‘*The linguist you won’t find here who speaks three Balkan languages.’

(10) *Micro brews, I like (very much) that are located around the Bay Area. (Kiss 2003)

If the correct analysis of LD is that proposed in Cinque (1997), who claims that the left dislocated constituent is not part of the structure of the sentence, but rather a juxtaposed phrase, the data in (8) above can be discarded on the grounds that a constituent extraposed from a topic cannot adjoin to a sentence it is not a constituent of. Sentences like those in (11) below are, however, possible. In this case, the EC is a modifier of the correlate in sentence-internal position, i.e. these sentences have to be analyzed as involving EX(OB), as shown schematically in (12). What the data in (11) show is simply that EX can operate in a sentence introduced by a left-dislocated topic.

(11) a. Pisos con terraza, hemos visto *uno* esta mañana *que nos ha gustado mucho.*

flats with balcony have(1pl) seen one this morning that us has liked much

‘Flats with a balcony, we saw one this morning that we liked a lot.’

b. Books, I’m reading *one* these days *that deals with global warming.*

(12) [_{ForceP} LDT_i [_{ForceP} ... [_{TP} SU [_T T [_{vP} t_{SU} [_v verb [_{VP} [_{VP} [_{VP} t_V [_{DP} correlate t_{EC}]_i] Adv] **EC**]]]]]]] (English structure)

I extended the same type of structure to Spanish CLLD constructions, (9). There, the sentence-initial topic is a base-generated adjunct that correlates with a clitic and a null object (<obj>) in sentence internal position. The three elements are part of a chain (a base generated dependency). I propose that the EC enters the derivation as the modifier of the null correlate. The schematic representation of the structure is provided in (13).

(13) [_{FiniteP} CLLDT_i [_{FiniteP} [_{TP} CL_i-verb-T [_{vP} SU [_v t_V [_{VP}[_{VP}[_{VP} t_V [_{DP} <obj> t_{EC}]_i] Adv] **EC**]]]]]]]

The (un)acceptability of CLLD constructions depends on whether the source DP is headed by a definite or an indefinite D. See chapter 2, section 2.1.2 for definiteness effects on EX. The sentence in (9) above is therefore unacceptable due to the ban on extraposing from a definite DP. This proposal can also account for the acceptability of the Catalan sentence in (14). EX in this case is possible because the source DP [*<obj> que parlin tres llengües balcàniques*] is indefinite, just as the sentence-initial constituent *de lingüistes* and the clitic *en*.

- (14) a. *De lingüistes, aquí no en trobaràs que parlin tres llengües balcàniques.*
of linguists here not CL_{part} will-find(2sg) who speak(3pl) three languages Balkan
 Lit. ‘*Linguists you won’t find here who speak three Balkan languages.’

A similar sentence is acceptable in Spanish, but this time there is no clitic correlate, basically because Spanish lacks partitive clitics.

- (15) *Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.*
linguists not will-find(2sg) here who speak(3pl.subj) three languages Balkan
 Lit. ‘*Linguists you won’t find here who speak three Balkan languages.’

For this type of sentences two different analyses have been proposed in the literature. Thus, some linguists analyze them in terms of CLLD with a null clitic which would be roughly equivalent to the Catalan *en*. The structure of these sentences would be as shown in (13) above, but with a null (or *pro*) clitic. The second analysis proposed for (15) claims that this type of sentences are derived like English topicalization, that is, the fronted topic reaches its sentence-initial position via A-bar movement. In my analysis of EX this would amount to saying that (15) involves EX(OB), followed by movement of the head noun (now containing a trace/copy of the EC) to the Spec of a dedicated functional projection in the left periphery of the sentence (for the different analyses of topic fronting constructions see Casielles-Suarez 2004 and the references quoted there). (16) below shows the bracketed structure of this derivation.

- (16) [_{TopicP} [**OB** *t_{EC}*] [_{Topic'} Topic [_{TP} verb-T [_{VP} SU [_{v'} *t_V*] [_{VP} [_{VP} [_{VP} *t_V* [**t_{OB}t_{EC}**] Adv] **EC**]]]]]]

Up to this point, the analysis I am proposing works smoothly. However, problems arise when it is applied to English. A sentence like that in (10) above would have the structure shown in (16). Given that the source DP (a bare plural) is indefinite, nothing would block the application of EX, yet the sentence is unacceptable. In the analysis just outlined, the contrast between (10) and (15) comes as a surprise. A closer look at these sentences – repeated here for convenience as (17) – provides the key to a possible solution.

- (17) a. **Micro brews*, I like (very much) *that are located around the Bay Area*.
 b. *Lingüistas* no encontrarás aquí *que hablen tres lenguas balcánicas*.
linguists not will-find(2sg) here who speak(3pl.subj) three languages Balkan
 Lit. ‘*Linguists you won’t find here who speak three Balkan languages.’

Fronted bare nominals in English receive a different interpretation from their Spanish counterparts. Only in the latter language do sentence-initial bare nominals receive a contrastive interpretation. According to Leonetti (2013), they can never be non-contrastive themes. In chapter 6, I interpret this fact as indicating that the fronted constituent is associated with two discourse related features: [+topic] and [+contrast] (cf. Neeleman et al. 2009 for the [+contrast] feature and its compatibility with [+topic]).

The contrastive/emphatic interpretation of the bare nominal in (17b) may be held responsible for the availability of EX in this type of sentences. The lack of this reading in the English datum in (17a) (i.e. the lack of a [+contrast] feature on the bare nominal) could be blocking EX. One way of implementing this idea is by assuming that no sub-constituent can be extracted from a DP associated with a strong [+topic] feature. The availability of EX in sentences like (18) below can be interpreted as confirmation that this analysis is on the right track. Notice that, in the second conjunct of this sentence, the topicalized DP is contrastive and EX is possible.

- (18) Peter managed to find three engineers who speak Chinese, but *linguists* he didn’t find *who speak three Balkan languages*.

This interpretation of the facts would also explain why EX is acceptable from fronted foci and *wh*-raised constituents. It only need be assumed that the [+focus] feature that triggers their displacement has the same effect as a [+contrast] feature.

- (19) a. *MICRO BREWS*, I like (very much) *that are located around the Bay Area*.
 b. *LINGUISTS* you'll never find here *who can speak three Balkan languages*.
- (20) a. *ALGO* se habrá dicho en la reunión *que podemos publicar*.
something CL_{pass} will-have(3sg) said at the meeting which can(subj1pl) to-publish
 'SOMETHING must have been said at the meeting that we can publish.'
 b. *UN HOMBRE* entró en la reunión *que me resultaba familiar*.
a man came(3sg) in the meeting who me looked(3sg) familiar
 'A MAN came into the meeting who looked familiar to me.'
- (21) a. *¿Cuántos inmigrantes* trabajan en esta obra *que no tienen los papeles*
how many immigrants work(3pl) in this building site who not have(3pl) the papers
en regla?
in order
 'How many immigrants work in this building site who do not have their papers in order?'
 b. *¿Quién* vino ayer *que quería trabajar para nosotros?*
who came(3sg) yesterday who wanted(3sg) to-work for us
 'Who came yesterday that wanted to work for us?'
- (22) a. *How many immigrants* are working here *who don't possess a green card?*
 b. *How many books* have been published this year *about the economic crisis in Europe?*

Notice that all the fronted constituents in (18) to (22) are derived Specs. Notice also that the bare nominal in the Spanish datum in (15)/(17b) and the Catalan in (14) are CLLD constituents, that is, adjuncts. Although these two configurations are well-established islands for extraction, EX is possible in these sentences. Standard analyses, which assume that EX operates when the source DP is in its surface position, cannot provide a unified account for all the data discussed above (which have been drawn from chapters 6 and 9). They could explain the unacceptable sentences by appeal to the syntactic configuration, but they fail to explain the acceptable ones. In this respect, the analysis I propose is superior to previous accounts.

The sentences in (19) to (22) do also provide another interesting piece of information: [+focus] cannot be the feature driving EX. It is well established that only one focus is allowed per sentence, and if [+focus] triggers the fronting operation, it cannot be responsible for EX as well.

3. EX from SU

The starting point of the discussion in chapter 7 is the distributional differences between English and Spanish subjects. While they are overwhelmingly preverbal in English, they enjoy a certain freedom in Spanish. The data discussed in chapter 7 show that the linear position of the subject is relevant for the availability of EX in Spanish, as witnessed in the contrasts in (23) below.

(23) a. *A man* came in *who I didn't know*.

b. *??/*Un hombre* llegó ayer al *que nadie conocía*.

a man arrived(3sg) yesterday to-the who nobody knew(3sg)

'A man arrived yesterday that nobody knew.'

c. *Llegó un hombre* ayer al *que nadie conocía*.

(23a) shows that EX from a preverbal subject is possible in English, which is consistent with the standard assumption that it is an A-constituent. I assume that EX operates when the subject is inside VP (for unaccusative and passive predicates) or in Spec ν P (for other predicates) adjoining the EC respectively to VP or ν P. Afterwards, the head noun (containing a trace/copy of the EC) will raise to SpecTP in the usual manner. The simplified derivation of the sentence in (23a) is shown in (24).

(24) a. EX

[ν P [ν P came in [DP a man t_{EC}]] who I didn't know]

b. Subject raising

[TP [DP a man t_{EC}] [T T [ν P [ν P came in t_{DP}] who I didn't know]]]

The impossibility of extraposing from a preverbal subject in Spanish is consistent with its interpretation as a topic, and with the results obtained in chapter 6. Notice that, when

the preverbal subject is emphatic or contrastive, EX is allowed in the general case, as in (25).

(25) a. *Algunos* aparecieron después *que no* dijeron más *que* mentiras.

some appeared(3pl) later who not said(3pl) more than lies

‘Some appeared later who told nothing but lies.’

b. *NI UN SOLO LIBRO* se ha publicado / ha sido publicado este año

not one only book CL_{pass} has published / has been published this year

sobre la contaminación marina.

about the pollution sea

‘Not a single book has been published this year about sea pollution.’

EX from postverbal subjects, on the other hand, is possible both in Spanish – as seen in (23c) above – and in English. In the latter language there are basically two constructions in which the subject follows the verb: *there*-insertion and locative inversion, (26) and (27). (27b) illustrates a variant of locative inversion called *predicate inversion*.

(26) There arrived *several reports* yesterday *that clearly support your analysis of the facts*.

(27) a. On this wall was hanging *a picture* yesterday *that nobody had ever seen*.

b. Hanging on this wall were *two pictures* yesterday *that I had never seen before*.

There-insertion constructions are briefly commented on in chapter 7. The discussion of the locative (and predicate) inversion is resumed in chapter 8. The data analyzed in this chapter confirms the topic status of the preverbal locative as well as the A-status of the postverbal theme. EX is barred from the former, as shown in (28) below, and allowed from the latter, (27) above.

(28) **On a bench* were sitting two girls *that was nailed to the ground*.

If the preverbal locative were in SpecTP – as claimed in some analyses of LI – EX would be expected to be as possible from this constituent as it is from preverbal subjects, contrary to fact. The unacceptability of EX is again linked to the presence of a

strong [+topic] feature in the matrix of the locative, which will also trigger the movement of this constituent to SpecTopicP. The availability of EX from the postverbal theme, on its part, is consistent with this constituent occupying its base position (clearly, not a right-adjoined position, as claimed by advocates of the topicalization hypothesis). The EX facts just shown favor the unaccusative hypothesis, which claims that (i) the subject stays in its base position throughout the derivation, and (ii) the locative checks the EPP feature on T by raising to SpecTP and further raises to SpecTopicP.

The analysis of EX(SU) confirms that the domain of application of EX is VP/vP. As I anticipated at the outset of these concluding remarks, an analysis along these lines has the further advantage that it explains a long-standing asymmetry between *wh*-extraction and EX, (29).

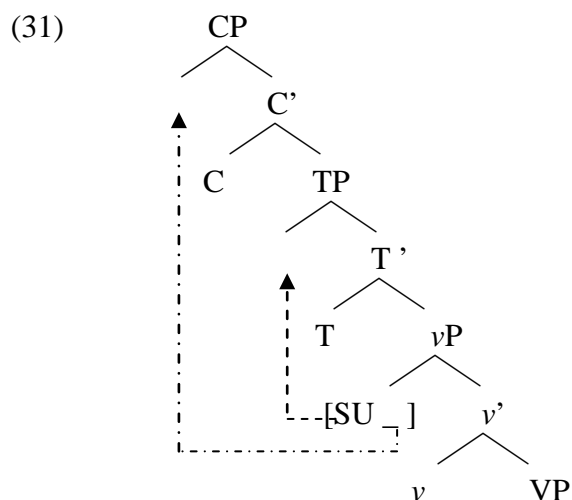
- (29) a. *Who did you say a picture of _ was hanging on the wall?
 b. A man _ came in who I didn't know.

The contrast in (29) cannot be explained in the traditional analysis of EX(SU). If SpecTP is an island for extraction, the two sentences should be equally ungrammatical. As it is clear that (29b) is acceptable, it has standardly been claimed that rightward movement obeys different constraints from leftward movement. This position was contested by linguists who preferred to assume that EX did not involve movement at all (among the latter, Culicover and Rochemont 1990, Rochemont and Culicover 1997). If EX is restricted to the vP domain, a unified account for the sentences in (29) above and (30) below, which show that leftward extraction from postverbal subjects is likewise possible, becomes readily available. (30a) has been drawn from Lasnik and Park (2003), (30b) from Uriagereka (1988).

- (30) a. Which candidate were there posters of _ all over the town?
 b. ¿De qué conferenciantes te parece que me van a impresionar las
 of what speakers to-you seems that me go(3pl) to to-impress the
 propuestas _?
 proposals
 ‘Which speakers does it seem to you that the proposals will impress me?’

If the postverbal subject occupies its base position, which is transparent for extraction, the acceptability of the sentences in (30) is straightforward. (29b) can also be derived in

my analysis of EX as applying when the source DP is in its base position. The question is why the *wh*-movement operation in (29a) cannot take place before the subject raises to SpecTP and becomes an island. The tree diagram in (31) shows the abstract representation of a sentence like (29a).



As Spec_vP is transparent for extraction (not so SpecTP), *wh*-raising should take place before the subject moves to SpecTP. Since a *wh*-phrase checks its *wh*-feature in SpecCP, the whole TP and CP layers have to be projected for this movement to be possible. The problem with this structure is that TP is projected to be ‘used’ later, which constitutes a serious look-ahead problem. In sum, the sentence in (29a) cannot be derived under standard assumptions.

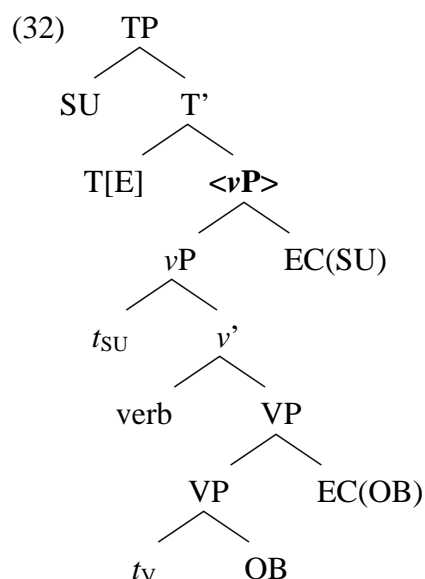
In the following section I will summarize the results obtained from the study of the interaction of EX with ellipsis, which again indicate that the EC cannot be outside VP/_vP.

4. EX and ellipsis

Chapter 10 exploits the conception of ellipsis proposed in Merchant (2001) and subsequent work. Roughly, an E(llipsis)-feature is selected from the Lexicon and associated with a compatible functional head. This feature will instruct the computational system not to pronounce the complement of the functional head it is associated with. In the case of VPE, the host of the relevant E-feature is T, in the case of TPE it is (roughly) C.

Of the five ellipsis constructions that I have considered, VPE and *pseudogapping* – both analyzed in terms of deletion of the verbal projection – are available only in English. The remaining three (gapping, stripping and sluicing) are attested in the two languages and are analyzed in terms of TP ellipsis. Adopting Merchant’s conception, I show that all patterns of VP and TP deletion in sentences with EX can be correctly derived under the assumption that the EC cannot move beyond the confines of *vP*.

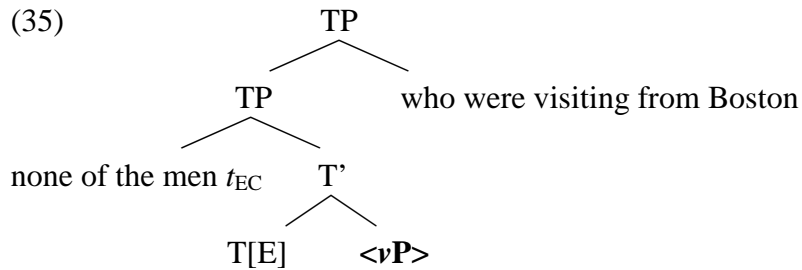
Let me provide some specific illustration. (32) shows the generic tree diagram adopted for VPE. In that structure, ellipsis of *vP* is expected to include a constituent extraposed from the object as well as a constituent extraposed from the subject in all cases. This is confirmed by the data provided in (33) and (34), drawn from Culicover and Rochemont (1990).



(33) John met a man last week from Philadelphia, and George did <meet a man last week from Philadelphia>, too.

(34) Although none of the MEN did <go to the concert who were visiting from Boston>, several of the WOMEN went to the concert who were visiting from Boston.

Notice that standard analyses of EX, which claim that a constituent extraposed from the subject adjoins to TP, will predict that the EC(SU) always survives deletion, contrary to fact. See the partial representation in (35).

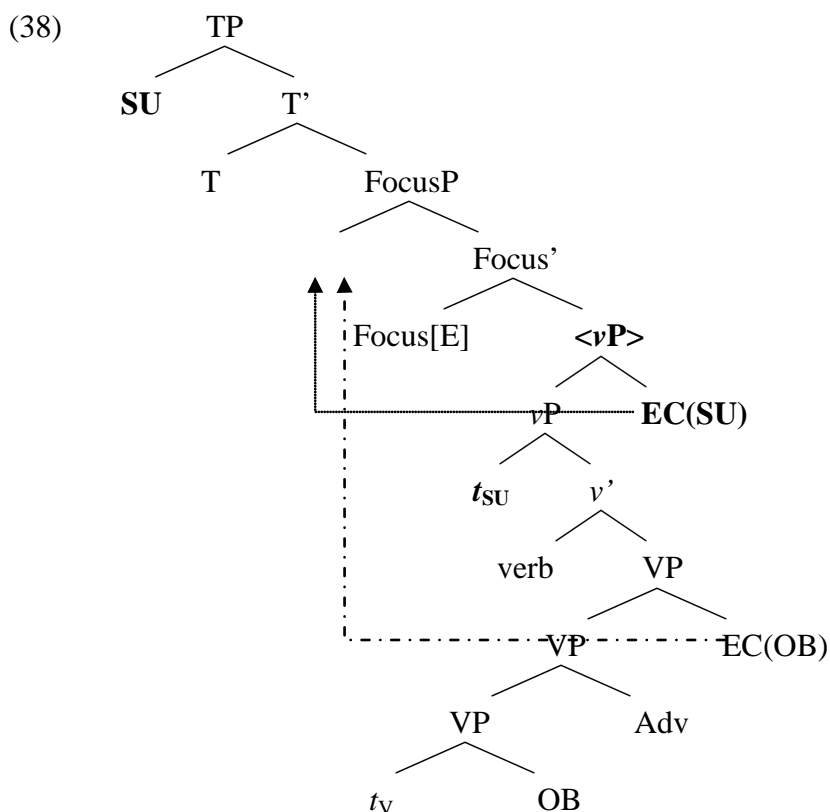


But a constituent extraposed from the subject can also survive deletion, as shown in (36) below, which contrasts with the situation of a constituent extraposed from an object, (37). The structure proposed for these sentences is shown in (38).

(36) Although none of the MEN did <go to the concert> who were visiting from NEW YORK, several of the WOMEN went to the concert who were visiting from BOSTON.

(37) *John met a man last week from Philadelphia, and George did <meet a man last week>from New York.

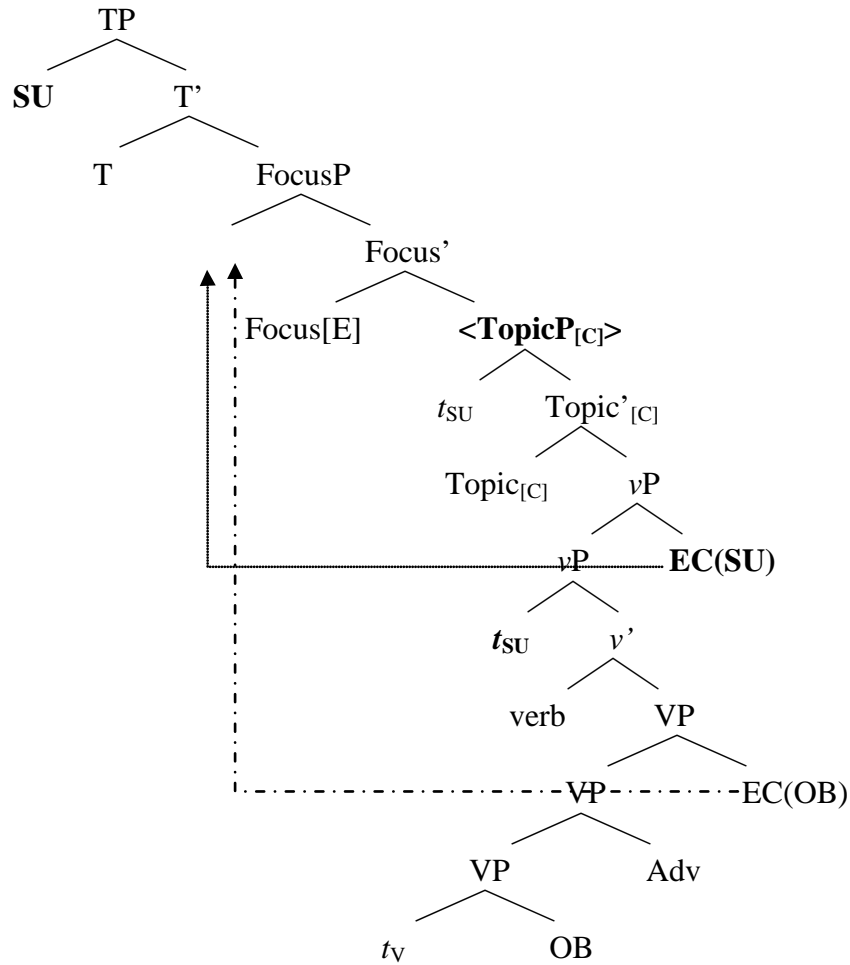
(Culicover and Rochemont 1990)



The ellipsis operation in which one or more constituents of VP survive the deletion of this category is called *pseudogapping*. It is standardly assumed that the remnants have to vacate the verbal projection before ellipsis operates. Their landing site is the Spec of a FocusP on top of vP. As can be seen in the structure above, the E-feature is associated with the head of this functional category. For the EC to survive in (36) and (37), it has to move to SpecFocusP. The problem with the derivation of the latter sentence is not related to this movement operation but rather to the fact that the head noun (the object) is part of deleted material, a state of affairs that is not accepted by all speakers. In (36), on the other hand, the head noun moves further on to SpecTP to check the EPP thus escaping deletion.

Given the contrastive interpretation of the subject, I propose that the DP is associated with [+contrast], a feature that has to be valued in the Spec of a contrastive TopicP in the periphery of vP. The derivation in (38) has to be modified along the lines shown in (39).

(39)



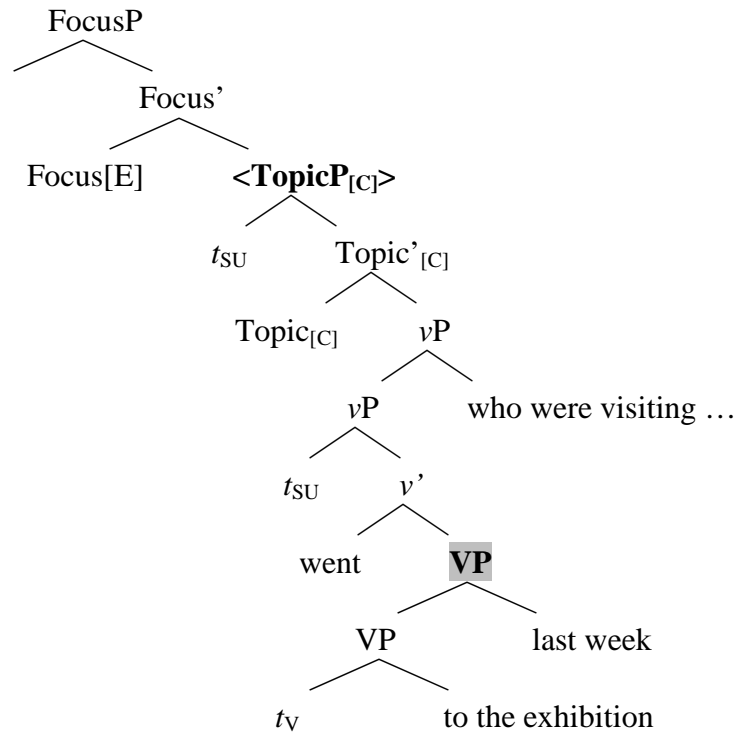
With the analysis of pseudogapping proposed in chapter 10, all the patterns of deletion shown in (40) (with only one VP remnant) and (41) (with multiple remnants) can be successfully derived. The sentences in (40) will be derived by moving the remnant (in bold) in each case to SpecFocusP before VPE (or rather ellipsis of TopicP_[C]). Notice that one of the remnants can be the EC itself, (40c).

- (40) More men went to the concert (yesterday) who were visiting from New York than
- ... women did **to the exhibition**.
 - ... women did **last week**.
 - ... women did **who were visiting from Boston**.

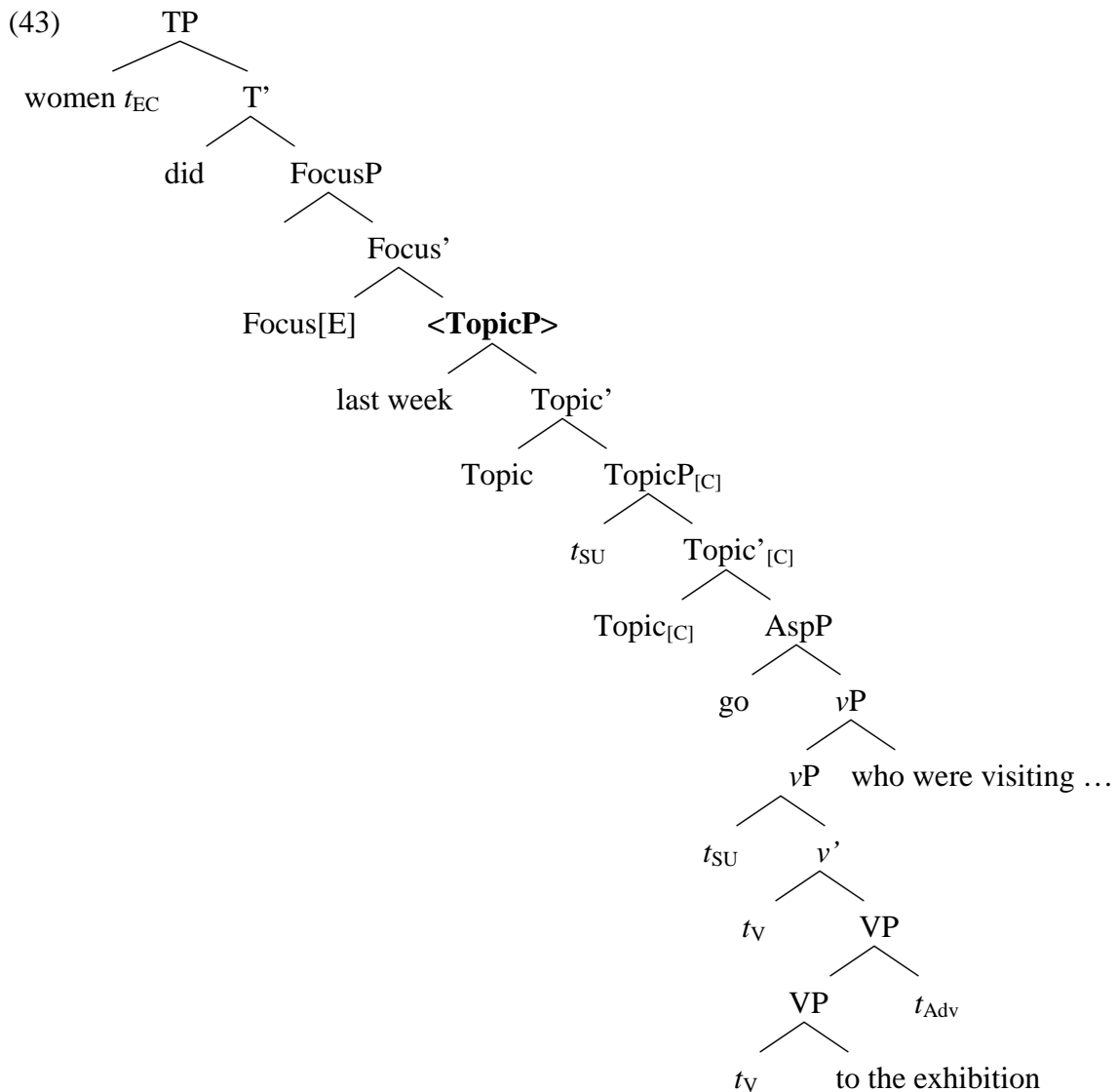
The derivation of sentences with multiple remnants is more complex. When they form a constituent, the derivation involves the focalization of a bigger category. Thus, in order to derive (41a), the VP projection highlighted in (42) has to move to SpecFocusP.

- (41) More men went to the concert (yesterday) who were visiting from New York than
- ... women did **to the exhibition last week**.
 - ... women did **last week who were visiting from Boston**.
 - ... women did **to the exhibition who were visiting from Boston**.
 - ... women did **to the exhibition last week who were visiting from Boston**.

(42)



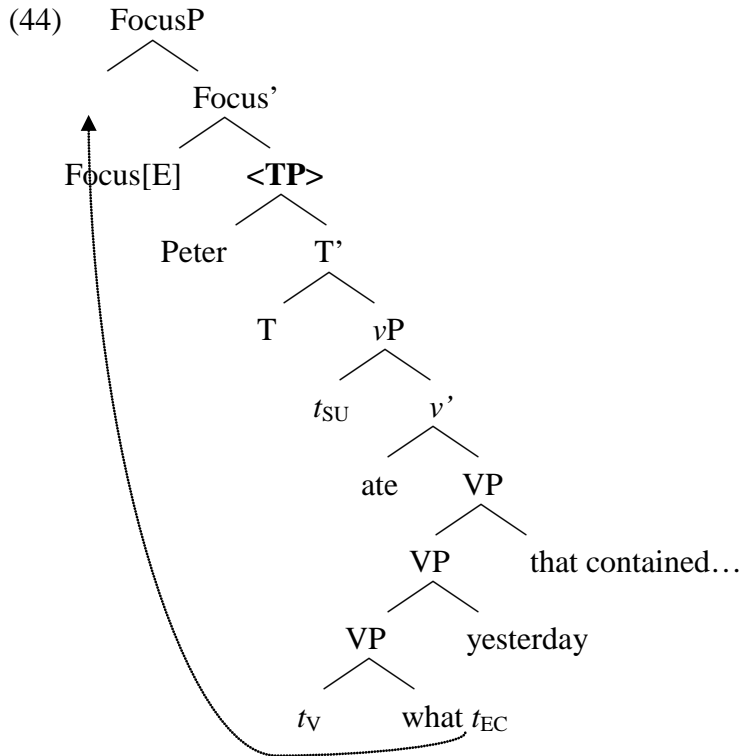
The derivation I have proposed for a sentence like (41c), where the two constituents that survive VPE (the locative and the EC) do not form a constituent, is shown in (43).



The VP constituents that will undergo deletion (in this sentence the temporal modifier) are associated with a strong [+topic] feature that will trigger their movement to the Spec of a TopicP projected in the periphery of vP. The lexical verb will raise to an aspectual projection on top of vP. Now that all the constituents inside vP are associated with a strong [+focus] feature, this constituent moves to SpecFocusP. Subsequent deletion of TopicP will yield the final linearity. Notice that whenever the head noun survives deletion while the EC is deleted, standard analyses of EX(SU) in terms of TP-adjunction have problems to derive the sentences, as they predict that the EC – it being outside VP/vP – should escape deletion.

I extended this type of analysis to cases of gapping, sluicing and stripping. In the latter two phenomena there is only one remnant, a *wh*-constituent in the case of sluicing. Following standard assumptions, I assume that they move to the Spec of a FocusP,

which this time projects in the left periphery of the sentence. The E-feature triggering TP deletion is associated with the focus head, as represented in the structure in (44). In (45) I provide two sentences that have this structure.



- (45) a. Pedro comió algo ayer que contenía cacahuetes pero no sé
Peter ate(3sg) something yesterday which contained(3sg) peanuts but not know(1sg)
 qué (*que contenía cacahuetes).
what
- b. Peter ate something yesterday that contained peanuts, but I don't know what
 (*that contained peanuts).

The stripping sentences in (46) below would have the same structure with the difference that the remnant is not a *wh*-constituent.

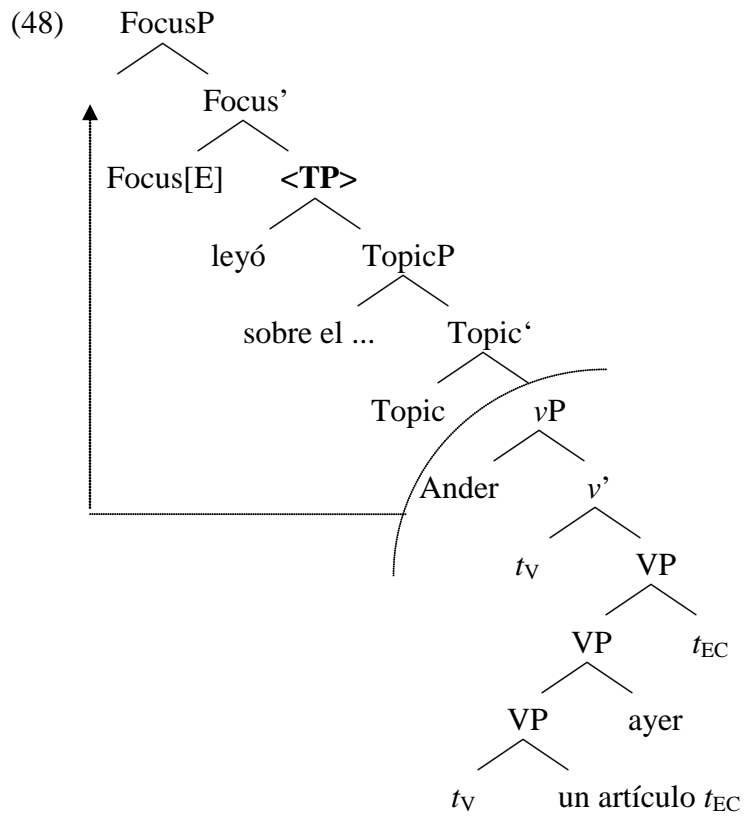
- (46) a. Leí un informe el año pasado sobre la polución marina, no un libro.
read(1sg) a report the year past about the pollution sea not a book
- b. I read a report last year about sea pollution, not a book.

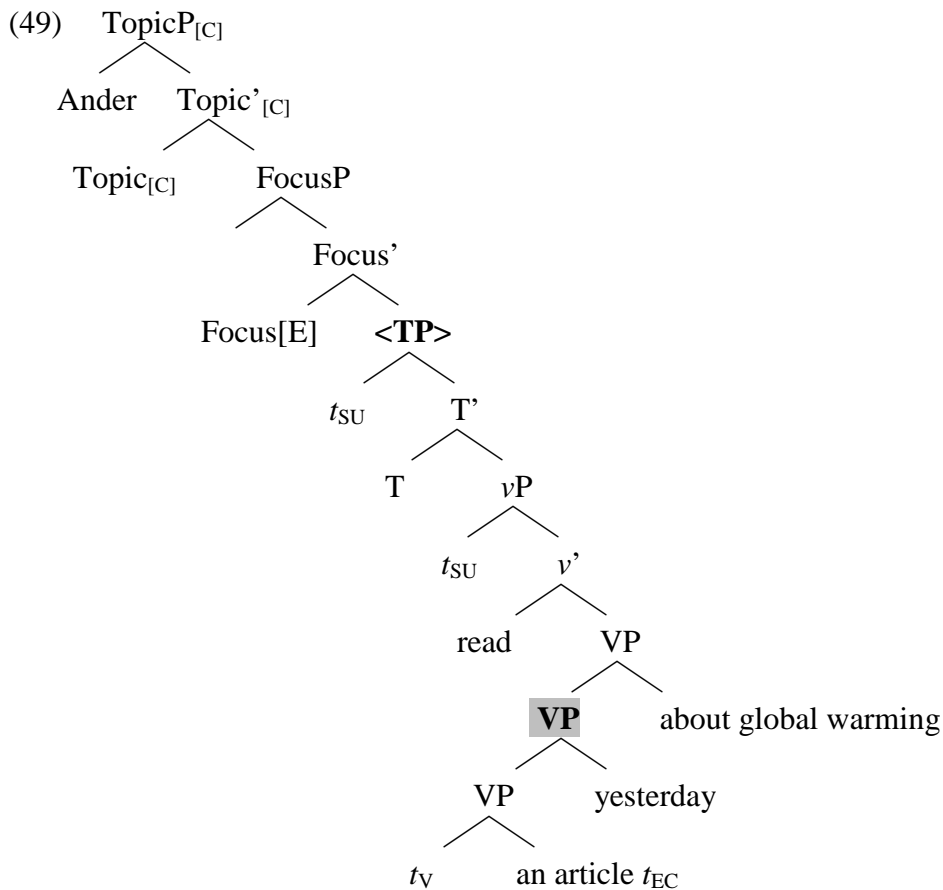
Turning now to gapping, the structure I propose is similar to that presented above for pseudogapping, with the difference that the system makes use of the left periphery of the clause to project the necessary topic and focus phrases, and the category undergoing deletion is TP. Cases of multiple remnants are interesting because they reveal that the same linearity is derived following different paths in English and Spanish. This is due to the different ways in which the two languages check the EPP. I will illustrate this particular with the sentences in (47).

- (47) a. Yo leí un libro la semana pasada sobre el calentamiento global y
I read(1sg) a book the week past about the warming global and
 Ander un artículo ayer.
Ander an article yesterday

- b. I read a book last week about global warming and Ander an article yesterday.

The structure of the Spanish sentence is provided in (48), that of the English in (49). As can be seen, the subject raises together with the VP remnants inside *vP* after the EC has moved to SpecTopicP and the verb to T. As this latter movement operation serves the purpose of checking the EPP, the subject does not need to move from its base position. The case of English is different, as the EPP is checked by the DP subject. Following Gengel (2007), I assume that this constituent moves further to the Spec of a TopicP in the left periphery of the sentence, which explains its interpretation as a contrastive topic. Raising of the VP highlighted in (49) (the minimal maximal projection containing the two constituents associated with [+focus]) to SpecFocusP completes the derivation.





The results obtained in chapter 10 confirm that EX applies in the very local domain where the source DP has its base position, which is VP in the case of the direct object and the subject of unaccusative and passive predicates; *vP* in the case of the subject of other predicate types.

As far as the trigger of the operation is concerned, the information gathered in this dissertation is more limited, but there are at least three important conclusions. First, the association of the head noun with a [+focus]/[+contrast] feature facilitates EX, whereas its association with a strong [+topic] feature blocks the operation. Second, in the patterns in which the head noun moves by [+focus] – as is the case of some ellipsis patterns, as well as of focus fronting and *wh*-raising – it cannot be maintained that EX is driven by the same feature, as only one focus projection is allowed per derivation (Rizzi 1997b). Third, when the EC survives deletion basically in gapping and pseudogapping constructions, it must have raised to SpecFocusP. It can be concluded that only in these cases is the EC associated with a focus feature. Remember also that, even in these constructions, if EX is assumed to take place inside *vP*/*VP* prior to raising to Focus, the same feature cannot be held responsible for the two operations.

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APPENDIX

SPANISH SUMMARY

Extraposición desde un sintagma determinante en inglés y español: un estudio comparativo.

1. La extraposición (EX) desde un sintagma determinante (SD): el reto teórico

El objeto de estudio de esta tesis es el fenómeno sintáctico de la extraposición desde un SD. Esta operación afecta a modificadores postnominales, que son habitualmente constituyentes de las categorías SP o SComp (oraciones de relativo). Ambos suelen aparecer en posición adyacente al núcleo nominal al que modifican, formando una unidad sintáctica con él. En (1) se proporcionan varios ejemplos del inglés y en (2) del español.

(1) a. *A book by Chomsky was published last year.*

un libro por Chomsky fue publicado pasado año

‘Un libro de Chomsky fue publicado el año pasado.’

b. *I read a book that later became a best-seller last year.*

yo leí un libro que más-tarde se-convirtió un superventas pasado año

‘Leí un libro que luego se convirtió en un superventas el año pasado.’

(2) a. *Aparecieron fotos de los incidentes de ayer en Grecia en toda la prensa.*

b. *La semana pasada leí varios artículos que analizaban las claves del escándalo.*

En algunos contextos, obedeciendo a necesidades informativas concretas, el modificador postnominal puede aparecer desplazado al final de la oración de manera que forma un constituyente discontinuo con el núcleo nominal al que modifica. Las variantes con EX de las oraciones de (1) y (2) se proporcionan en (3) y (4) respectivamente.

(3) a. *A book was published last year by Chomsky.*

un libro fue publicado pasado año por Chomsky

‘Se publicó un libro el año pasado de Chomsky.’

b. *I read a book last year that later became a best-seller.*

yo leí un libro pasado año que más-tarde se-convirtió un superventas

‘Leí un libro el año pasado que luego se convirtió en un superventas.’

- (4) a. Aparecieron *fotos* en toda la prensa *de los incidentes de ayer en Grecia*.
b. Leí *varios artículos* la semana pasada *que analizaban las claves del escándalo*.

El fenómeno de la discontinuidad ha atraído la atención de numerosos lingüistas y, en el caso particular de la EX, este interés queda reflejado en los numerosos análisis que se han propuesto a lo largo de varias décadas de investigación. En el capítulo 3 de esta tesis se recogen los más influyentes. Más adelante, en el capítulo 5, las diversas propuestas son sometidas a un análisis crítico que me lleva a concluir que las primeras aproximaciones al fenómeno en términos de movimiento hacia la derecha son todavía las más apropiadas aunque sólo sea por criterios de economía en la derivación y simplicidad en la estructura.

En este tipo de análisis, las oraciones de (1) y (2) representarían un estadio en la derivación de (3) y (4). Comenzando con la variante sin extraposición, el SP o la oración de relativo se mueven hacia la derecha adjuntándose a la primera categoría máxima que domina el SD en el que se origina el constituyente extrapuesto (CE) de manera que éste estaría situado en las posiciones que se detallan en (5). Nótese que la posición final del CE queda determinada por la posición superficial del SD en el que se origina, al que me referiré a partir de ahora como SD de origen (ingl. *source DP*).

(5) Posiciones del CE (propuesta estándar)

- a. Un CE desde un objeto (CE(OB)) se adjunta al SV.
- b. Un CE desde un sujeto (CE(SU)) se adjunta al ST/SInfl.
- c. Un CE desde un sintagma-*qu* (CE(*qu*)) se adjunta al SComp.

Aunque estas posiciones son asumidas de manera estándar en la bibliografía, un análisis minucioso de los datos empíricos que suelen proporcionarse para apoyarlas deja al descubierto una situación bien diferente. En el capítulo 5, tras actualizar el análisis de diversos fenómenos de elipsis y algunos datos de ligamiento (tomados fundamentalmente de Culicover y Rochemont 1990) concluyo que es la posición base y no la posición derivada la que ha de ser tomada en cuenta para calcular la posición final del CE. En otras palabras, la EX tiene lugar antes que otros movimientos sintácticos (como el ascenso a sujeto o el movimiento-*qu*), es decir, cuando el SD de origen está

aún en su posición base. Esta conclusión implica que el CE se adjunta en las posiciones que se detallan en (6), no en las que mostrábamos en (5).

(6) Posiciones del CE (mi propuesta)

- a. Un CE desde un objeto (CE(OB)) se adjunta al SV. (=5a)
- b. Un CE desde un sujeto (CE(SU)) se adjunta al Sv, o al SV (en predicados inacusativos y pasivos).
- c. Un CE desde un sintagma-*qu* (CE(*qu*)) se adjunta al SV, si el S-*qu* = OB; al Sv/SV, si el S-*qu* = SU.

De ser las de (6) las posiciones correctas, la EX vería su dominio de aplicación restringido al Sv/SV, es decir, al dominio temático de la derivación. Una consecuencia inmediata de este análisis es que la restricción propuesta por Ross (1967) y conocida como *The Right Roof Constraint*, según la cual el movimiento hacia la derecha nunca puede cruzar un linde oracional, recibe una explicación directa.

Siempre se ha constatado que, al contrario de lo que sucede con el movimiento hacia la izquierda, un constituyente que se mueve hacia la derecha no puede abandonar la oración en la que se genera. Véase el capítulo 2.

- (7) a. ¿A quién_i dices [_{SComp} *h*_i que vio Pedro *h*_i]?
b. *[El hecho [_{SP} de [_{SComp} que entrara un hombre *h*_i en la habitación]] *h*_i es irrelevante] [al que yo no conocía]_i.

Normalmente el contraste que se aprecia en (7) se ha explicado apelando al carácter idiosincrático del movimiento hacia la derecha. De igual manera se ha explicado el contraste que aparece en (8), en el cual se muestra que, si bien la extracción hacia la izquierda desde un sujeto es ílicita, no ocurre lo mismo con la EX.

- (8) a. *Who_i did you say [a picture of *h*_i] was hanging on the wall?
quién aux-pas tú dices un cuadro de estaba colgando en la pared
'Lit. *¿De quién dices que un cuadro _ estaba colgado de la pared?'
b. [A man *t*_i] came in [who I didn't know]_i.
un hombre llegó que yo aux-pas-neg conocer
'Un hombre llegó al que yo no conocía.'

Del mismo modo, en las teorías tradicionales resulta inexplicable que sea posible la EX desde un *S-qu*, (9).

(9) *¿Cuántos libros se han publicado este año sobre la crisis económica en Europa?*

Si la EX tiene lugar, como se suele argüir, una vez que el *S-qu* está en el *EspecSComp*, debería ser imposible extraer el SP en (9), ya que los *Especs* derivados se comportan como islas sintácticas. De nuevo, hay que apelar al carácter idiosincrático del movimiento hacia la derecha o negar que la EX implique movimiento alguno. Por esta última opción se decantan autores como Culicover y Rochemont (1990), que adoptan una teoría de base-generación del CE en las posiciones detalladas en (5).

En esta tesis muestro que, adoptando las posiciones que se proporcionan en (6), también es posible explicar todas las asimetrías que acabamos de ver sin tener que postular diferentes restricciones dependiendo de la direccionalidad del movimiento. En el caso de (9), por ejemplo, la EX se produciría cuando el objeto directo se encuentra en la posición base, en el SV. Se trataría pues de un caso más de EX(OB). El sintagma-*qu*, que ahora contendría una huella del CE, [cuántos libros h_{CE}], se movería posteriormente hasta alcanzar el *EspecSComp*. La presencia de la huella en una posición jerárquicamente más alta que su antecedente no supondría un problema en el análisis que propongo puesto que asumo, siguiendo a Müller (2000), ciclicidad estricta (ingl. *strict cyclicity*). La huella queda ligada por el CE cuando se produce la EX y su estatus no se cuestionará en fases posteriores de la derivación. Al caso del sujeto, (8), vuelvo en la sección 3.

Adoptando pues un análisis de la EX en términos de movimiento hacia la derecha y restringiendo su aplicación al dominio temático, exploro en esta tesis la interacción de la EX con otros fenómenos sintácticos. Esta aproximación es novedosa y, como consecuencia, la mayoría de los ejemplos que se analizan han sido contruidos y cotejados en el transcurso de la realización de esta tesis. Los fenómenos sintácticos a los que acabo de aludir incluyen varias construcciones con constituyente antepuesto y varias de elipsis. En el primer grupo, trato la EX desde elementos topicalizados (capítulo 6), focalizados, incluyendo el movimiento-*qu*, (capítulo 9) y desde sujetos pre- y postverbiales (capítulo 7). El capítulo 8 está dedicado a la construcción inglesa conocida como *inversión de locativo* (ingl. *locative inversion*). En el segundo grupo,

analizo los patrones sintácticos de elipsis que surgen en oraciones en las que se ha producido EX. Además de la elipsis del SV (ESV), se analizan los fenómenos conocidos como *pseudo-vaciado* (ingl. *pseudogapping*), *vaciado* (ingl. *gapping*), *elipsis con partícula de polaridad* (ingl. *stripping*) y *truncamiento* (ingl. *sluicing*). Los dos primeros existen en inglés pero no en español. Los tres últimos, por el contrario, se dan en las dos lenguas.

Esto me lleva al segundo aspecto innovador de esta tesis: la perspectiva comparativa. En contra de lo que se ha afirmado en algunas ocasiones (véanse, por ejemplo, Cinque 1982, y Alexiadou y Anagnostopoulou 1998), la EX existe y es productiva en lenguas romances como el español. Más aún, en el transcurso de mi investigación queda patente que la EX funciona de manera muy similar en las dos lenguas analizadas en la casi totalidad de los fenómenos tratados.

A continuación paso a detallar algunos de los resultados que se desprenden del análisis llevado a cabo en esta tesis.

2. EX desde un constituyente antepuesto

En los capítulos 6 y 9, así como en algunos apartados de los capítulos 7 y 8 se explora la posibilidad de extraponer un constituyente desde un SD que ocupa la posición inicial de la oración sin ser ésta su posición canónica. Así el capítulo 6 presenta tres tipos de construcciones con tópicos: la llamada dislocación a la izquierda (posible en las dos lenguas analizadas), la dislocación a la izquierda reduplicada por un clítico (sólo posible en español) y la topicalización inglesa. En (10), (11) y (12) se muestran algunos ejemplos.

(10) a. **Pisos con terraza, hemos visto uno esta mañana que nos han gustado mucho.*

b. **Books, I'm reading one these days that deal with global warming.*

libros yo-estoy leyendo uno estos días que tratan sobre global calentamiento.

Lit. *'*Libros, estoy leyendo uno estos días que tratan sobre el calentamiento global.'*

(11) **Al lingüista no lo encontrarás aquí que habla/hable tres lenguas balcánicas.*

(12) *Restaurants I like very much that are located around the Bay Area.

restaurantes yo gusto muy mucho que están situados alrededor la Bahía Área.

Lit. ‘*(Los) restaurantes me gustan mucho que están situados en la zona de la Bahía.’

Cinque (1997) propone que en las construcciones con dislocación a la izquierda el constituyente dislocado no forma parte de la estructura de la oración a la que precede sino que ha de ser analizado como un elemento yuxtapuesto. Si este análisis es correcto, las oraciones que aparecen en (10) pueden ser descartadas apelando al hecho de que el CE no puede ser adjuntado a una oración de la que el tópico no forma parte. Oraciones como las que aparecen en (13) son, sin embargo, aceptables.

(13) a. Pisos con terraza hemos visto *uno* esta mañana *que nos ha gustado mucho*.

b. Books, I’m reading *one* these days *that deals with global warming*.

libros yo-estoy leyendo uno estos días que trata sobre global calentamiento.

‘Libros, estoy leyendo uno estos días que trata el calentamiento global.’

En estas oraciones el CE es un modificador del correlato del elemento dislocado que aparece en la posición de argumento interno (*uno/one*). Nos encontramos por tanto ante un caso de EX(OB). La estructura que he propuesto para estos casos aparece de forma esquemática en (14). (TDI = Tópico dislocado a la izquierda)

(14) a. [_{SFuerza} TDI_i [_{SFuerza} ... [_{ST} SU [_T T [_{SV} h_{SU} [_V verbo [_{SV} [_{SV} [_{SV} h_V [_{SD} **correlato** h_{CE}]_i] Adv] **CE**]]]]]]] (estructura del inglés)

b. [_{SFuerza} TDI_i [_{SFuerza} ... [_{ST} T-verbo [_{SV} SU [_V h_V [_{SV} [_{SV} [_{SV} h_V [_{SD} **correlato** h_{CE}]_i]] Adv] **CE**]]]]]]]] (estructura del español)

Se puede mantener, por tanto, que la EX desde el elemento dislocado es imposible, pero nada impide que ambas operaciones (EX y dislocación) se den en la misma oración, como ocurre en (13).

En el capítulo 6 propongo extender la misma estructura a las construcciones de dislocación con clítico, que, como ya he mencionado, son posibles en español pero no en inglés. En (15) se muestra la estructura genérica de ejemplos como el de (11). El constituyente dislocado se genera como adjunto al SFinitud, siendo su correlato en el

SV un constituyente nulo. Ambos elementos forman junto con el clítico una cadena que, aunque generada en la base, presenta similitudes con las formadas por operaciones de movimiento. En este análisis sigo de nuevo a Cinque (1997). (TDCL = tópico dislocado con clítico)

(15) [_{SFinitud} TDCL_i [_{SFinitud} [_{ST} T-CL_i-verbo [_{Sv} SU [_v h_v [_{sv} [_{sv} [_{sv} h_v [_{SD} <obj> h_{CE}]_i] Adv] CE]]]]]]]]]

Lo que propongo para este tipo de oraciones es que el CE entra en la derivación como modificador del correlato nulo (<obj>) y se desplaza hacia la derecha adjuntándose al SV. La aceptabilidad de la oración en este caso dependerá de si el SD de origen tiene como núcleo un determinante definido o indefinido. Es un hecho contrastado que la EX desde un SD definido provoca agramaticalidad (*efectos de definitud*, capítulo 2, sección 2.1.2 de esta tesis). Éste sería el motivo por el cual la oración de (11) es inaceptable en español. Este tipo de análisis nos permite también explicar la gramaticalidad del dato catalán que se presenta en (16). La EX no es ilícita en este caso porque el SD formado por el constituyente nulo y la oración de relativo es indefinido.

(16) *De lingüistes, aquí no en trobaràs que parlin tres llengües balcàniques.*
de lingüistas aquí no CL_{part} encontrarás que hablen tres lenguas balcánicas
 ‘Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.’

Como se puede apreciar en la traducción de (16), la oración equivalente en español es igualmente aceptable, aunque en este caso, no aparece ningún clítico en la estructura. Esto se atribuye habitualmente a un sistema pronominal defectivo en español que carece de clíticos partitivos. Para la oración española, que repetimos en (17), se han propuesto dos tipos de análisis.

(17) *Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.*

Algunos lingüistas las consideran construcciones de tópico dislocado reduplicado por un clítico, en cuyo caso éste ha de ser nulo. Se trataría de un *pro* equivalente al partitivo catalán *en*. Asumiendo este tipo de análisis la estructura de (17) sería como se muestra arriba en (15). La segunda propuesta aboga por un análisis como el que se propone de

manera general para la topicalización en inglés, es decir, el tópico alcanza su posición final por medio de movimiento A-barra. Para oraciones como la de (17) esto implicaría un análisis en términos de EX(OB) seguido del ascenso del SD de origen, que ahora contiene una huella del CE, al Espec de un STópico que se proyecta en la periferia izquierda de la oración. Esta derivación aparece representada de manera esquemática en (18). Para un repaso de los diferentes tipos de tópicos y sus análisis, véase Casielles-Suarez (2004) y las referencias citadas en esta obra.

(18) [_{ST} Tópico [**OB** *h*_{CE}] [_{Tópico} Tópico [_{ST} T-verbo [_{S_v} SU [_v *h*_V [_{SV} [_{SV} [_{SV} *h*_V **h**_{OB}]] Adv] **CE**]]]]]

Hasta aquí el análisis propuesto funciona para todos los ejemplos. Los primeros problemas aparecen, sin embargo, cuando se aplica a los datos del inglés. Una oración como (12), repetida en (19a), tendría la estructura que aparece en (18), con la salvedad de que en inglés el sujeto ha de alcanzar el Espec_{ST} y el verbo debe permanecer en *v*. Dado que el SD de origen es indefinido (un nombre sin determinante), nada debería impedir que la EX fuera posible. Aún así la oración es inaceptable. En otras palabras, el contraste entre el español y el inglés que se muestra en (19) no se puede explicar con el análisis que acabamos de proponer.

(19) a. *Restaurants I like very much that are located around the Bay Area.

restaurantes yo gusto muy mucho que están situados alrededor la Bahía Área.

Lit. ‘*Restaurants me gustan mucho que están situados en la zona de la Bahía.’

b. *Lingüistas no encontrarás aquí que hablen tres lenguas balcánicas.*

La clave para explicar el contraste entre estas dos oraciones puede estar en la diferente interpretación que reciben los nombres sin determinante (ingl. *bare plurals*) en las dos lenguas. Así, al contrario que en inglés, estos sintagmas reciben una interpretación contrastiva en español. Según Leonetti (2013), estos constituyentes no pueden ser nunca temas no contrastivos. En el capítulo 6 de esta tesis, este hecho es interpretado como un indicador de la presencia de un rasgo [+contraste] junto con el rasgo [+tópico] en la matriz del constituyente antepuesto en casos como el de (19b). Para más información acerca de la compatibilidad de estos dos rasgos, véase Neeleman et al. (2009).

La interpretación enfática/contrastiva del SN antepuesto en español sería responsable directa de la posibilidad de que se produzca EX en casos como (19b). La ausencia de dicha interpretación en inglés bloquearía esta operación. Una forma de materializar esta intuición sería asumir que ningún constituyente puede abandonar un sintagma asociado con un rasgo fuerte [+tópico], a menos que el SD también posea un rasgo de contraste. El hecho de que en inglés oraciones como (20), con EX desde un tópico contrastivo en posición inicial, sean posibles vendría a confirmar esta hipótesis.

- (20) Peter managed to find three engineers who speak Chinese, but *linguists*
Pedro logró inf encontrar tres ingenieros que hablan chino pero lingüistas
 he didn't find who speak three Balkan languages.
él aux-pas-neg encontrar que hablan tres balcánicas lenguas
 'Pedro logró encontrar tres ingenieros que hablan chino pero lingüistas no encontró que hablen tres lenguas balcánicas.'

Este análisis permitiría también explicar por qué la EX puede tener lugar de manera general desde un sintagma focalizado, así como desde un sintagma-*qu* (que he analizado, siguiendo la propuesta de Rizzi 1997 como un sub-caso de focalización). Sólo sería necesario asumir que, en lo que respecta a la EX, el rasgo [+foco], que desencadena el movimiento hacia la izquierda en estos casos, tiene el mismo efecto que el rasgo [+contraste].

- (21) a. *RESTAURANTS*, I like (very much) *that are located around the Bay Area*.
restaurants yo gusto muy mucho que están situados alrededor la bahía área
 Lit. '*RESTAURANTES me gustan mucho que están situados en la zona de la Bahía.'¹
- b. *LINGUISTS* you'll never find here *who can speak three Balkan*
lingüistas tú-fut nunca encontrar aquí que pueden hablar tres balcánicas
languages.
lenguas
 'LINGÜISTAS nunca encontrarás aquí que hablen tres lenguas balcánicas.'

- (22) a. *ALGO* se habrá dicho en la reunión *que podamos publicar*.

¹ Esta oración es agramatical por motivos ajenos a la EX. En concreto, se da el caso de que en español los nombres sin determinante no puede ser sujetos preverbiales.

b. *UN HOMBRE* entró en la reunión *que me resultaba familiar*.

(23) a. *¿Cuántos inmigrantes trabajan en esta obra que no tienen los papeles en regla?*

b. *¿Quién vino ayer que quería trabajar para nosotros?*

(24) a. *How many immigrants are working here who don't possess a green card?*

cuántos inmigrantes están trabajando aquí que aux-pres-neg poseen una verde tarjeta

‘¿Cuántos inmigrantes trabajan aquí que no tienen una tarjeta verde?’

b. *How many books have been published this year about the economic crisis*

cuántos libros han sido publicados este año sobre la económica crisis

in Europe?

en Europa

‘¿Cuántos libros has sido publicados este año sobre la crisis económica en Europa?’

Nótese que los constituyentes antepuestos en (20) a (24) son Specs derivados. Nótese también que los nombres sin determinante en posición inicial en los datos (17)/(19b) del español y (16) del catalán son analizados habitualmente como adjuntos al SFinitud (Haegeman 2004), al SComp en análisis más antiguos. A pesar de que estas dos configuraciones son islas sintácticas, la EX es posible. Los análisis habituales de EX, que asumen que esta operación tiene lugar una vez el SD de origen ha alcanzado su posición final, no pueden proporcionar una explicación unificada para todas las oraciones presentadas arriba.

De las oraciones (21) a (24) también se extrae otra información interesante: el rasgo [+foco] no puede desencadenar la EX, toda vez que ya existe un rasgo de foco en la derivación que es responsable del ascenso del constituyente antepuesto, que en este caso es además el SD de origen. Dada la hipótesis del foco único (Rizzi 1997), ambas operaciones de movimiento no pueden ser motivadas por este rasgo.

3. EX desde un sujeto

El punto de arranque del capítulo 7 son las diferencias que se aprecian en la distribución de los sujetos en inglés y español. Mientras estos constituyentes son mayoritariamente preverbales en inglés, pueden aparecer tanto en posición preverbal como en posición

postverbal en español. Los datos discutidos en el capítulo 7 muestran claramente que la posición lineal del sujeto con respecto al verbo es relevante para la posibilidad de extraponer en español. Véase a este respecto el contraste que aparece en (25).

(25) a. *A man* came in *who I didn't know*.

un hombre llegó que yo aux-pas-neg conocer

‘Un hombre llegó al que yo no conocía.’

b. ?/?**Un hombre* llegó ayer al que nadie conocía.

c. *Llegó un hombre* ayer al que nadie conocía.

La EX desde un sujeto preverbal es posible en inglés, lo cual es consistente con la asunción de que este elemento es un constituyente-A. Como ya señalé más arriba, en esta tesis propongo que la EX opera cuando el sujeto está en su posición inicial, es decir, en el SV en el caso de los predicados inacusativos y pasivos, en el EspecSv para el resto de predicados. En inglés, el SD sujeto, que ahora contendría una huella del CE, se mueve a continuación al EspecST para cotejar el PPE (*Principio de Proyección Extendido*). La derivación simplificada de la oración (25a) aparece en (26).

(26) a. EX

[_{SV} [_{SV} came in [_{SD} a man *h*_{CE}]] who I didn't know]

b. Ascenso del sujeto

[_{ST} [_{SD} a man *h*_{CE}] [_{T'} T [_{SV} [_{SV} came in *h*_{SD}] who I didn't know]]]

La imposibilidad de extraponer desde un sujeto preverbal en español, por otro lado, es consistente con su interpretación como tópico, y por ende con los resultados obtenidos en el capítulo 6. Nótese a este respecto que cuando el sujeto preverbal es enfático o contrastivo la EX es lícita, como se muestra en (27).

(27) a. *Algunos* aparecieron después que no dijeron más que mentiras.

b. *NI UN SOLO LIBRO* se ha publicado/ha sido publicado este año sobre la *polución marina*.

La EX desde sujetos postverbales, por su parte, es posible tanto en español, como se ha visto arriba en (25c), como en inglés. En esta lengua hay básicamente dos

construcciones en las que el sujeto sigue al verbo: las oraciones con *there* (pronombre pleonástico) como sujeto superficial y la inversión de locativo. En (28) y (29), se proporcionan algunos ejemplos.

(28) *There arrived several reports yesterday that clearly support your analysis*
pron.pleo. llegaron varios informes ayer que claramente apoyan tu análisis
of the facts.
de los hechos

‘Llegaron varios informes ayer que apoyan claramente tu análisis de los hechos.’

(29) a. *On this wall was hanging a picture yesterday that nobody had ever seen.*
en esta pared estaba colgando un cuadro ayer que nadie había nunca visto
‘En esta pared había colgado un cuadro ayer que nadie había visto antes.’

b. *Hanging on this wall were two pictures yesterday that I had never seen*
colgando en esta pared estaban dos cuadros ayer que yo había nunca visto
before.
antes

‘Colgados en la pared había dos cuadros ayer que yo no había visto antes.’

Las construcciones con el sujeto *there* se comentan brevemente en el capítulo 7. La inversión de locativo, sin embargo, se trata en profundidad en el capítulo 8, donde se incluye el análisis de construcciones de inversión de predicado como la ejemplificada en (29b). Los datos analizados en el capítulo 7 confirman el estatus de tópico del locativo antepuesto al tiempo que corroboran el carácter de constituyente-A del sujeto postverbal. Así, la EX es imposible desde el primero, como se ve en (30), pero lícita desde el segundo, (29) arriba.

(30) **On a bench were sitting two girls that was nailed to the ground.*
en un banco estaban sentadas dos chicas que estaba clavado a el suelo

Lit. ‘*En un banco estaban sentadas dos chicas que estaba clavado al suelo.’

Si el locativo preverbal estuviera en el Espec del ST, como defienden algunos análisis (hipótesis inacusativa), se esperaría que la EX fuera tan posible en este caso como lo es desde un sujeto preverbal en inglés, lo cual no ocurre. La imposibilidad de extraponer estaría ligada de nuevo a la presencia de un rasgo fuerte [+tópico] en la matriz del

locativo, que también sería el responsable de la anteposición. Asimismo, la posibilidad de extraponer desde el sujeto postverbal es consistente con la idea de que este constituyente se encuentra en la posición base, a la vez que demostraría que no se puede encontrar en una posición de adjunto a la derecha, como sostienen los defensores de la hipótesis de la topicalización (Bowers 1976, Newmeyer 1987, Rochemont y Culicover 1990, y den Dikken 2006). Los datos de EX que acabamos de ver favorecen sin lugar a dudas la hipótesis inacusativa, que defiende (i) que el sujeto permanece en la posición base durante toda la derivación y (ii) que el locativo coteja el PPE y luego se desplaza a EspecSTópico. Veáanse las diferentes formulaciones de estas ideas básicas en Coopmans (1989), Hoekstra y Mulder (1990), Kempchinsky (2001) o Culicover y Levine (2001), entre otros.

El análisis de EX(SU) confirma que el dominio de aplicación de la EX se limita al SV/Sv. Como anticipé arriba, un análisis que incluya esta restricción – como el que yo propongo – es capaz de explicar una asimetría para la que hasta la fecha no se ha encontrado una explicación satisfactoria: la imposibilidad de extraer un modificador desde un sujeto cuando el movimiento es hacia la izquierda, (31a), frente a la posibilidad de hacerlo cuando el movimiento tiene lugar hacia la derecha, (31b).

(31) a. *Who did you say a picture of _ was hanging on the wall?

quién aux-pas tú decir un cuadro de está colgado en la pared

Lit. ‘*¿De quién dices que hay un cuadro _ colgado en la pared?’

b. A man _ came in who I didn’t know.

un hombre entró que yo aux-pas-neg conocer

??‘Un hombre entró al que yo no conocía.’

Como ya mencioné arriba, los análisis tradicionales de EX no pueden explicar el contraste que se aprecia en (31), más allá de achacarlo a una posible divergencia entre el movimiento hacia la derecha y el movimiento a la izquierda. Si asumimos la hipótesis de que la EX tiene su dominio de actuación restringido al Sv, sin embargo, podemos proporcionar una explicación uniforme para los ejemplos de (31) y para los de (32), donde se ve que la extracción hacia la izquierda es perfectamente posible desde un sujeto postverbal. El ejemplo inglés aparece en Lasnik y Park (2003), mientras que el español es de Uriagereka (1988).

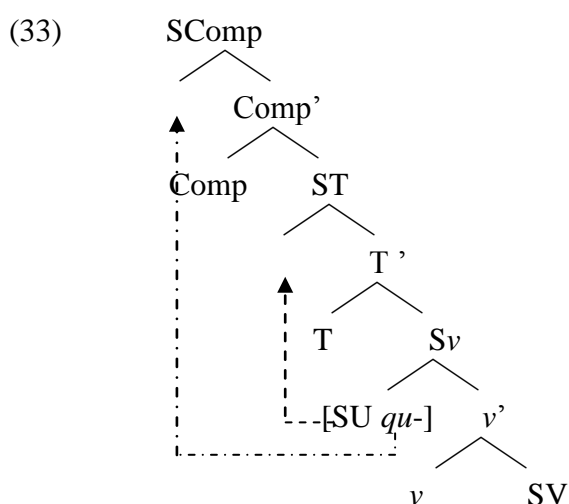
(32) a. Which candidate were there posters of _ all over the town?

qué candidato estaban pron pleonástico posters de todo por la ciudad

‘¿De qué candidato había posters por toda la ciudad?’

b. ¿De qué conferenciantes te parece que me van a impresionar las propuestas _?

Si el sujeto postverbal ocupa su posición base, que es transparente para la extracción, la aceptabilidad de las oraciones de (32) se sigue sin ningún problema. (31b) también se puede derivar por medio del análisis que propongo, ya que la EX tendría lugar cuando el SD está todavía en su posición base (igual que ocurre en (32)). La cuestión fundamental sería ver cómo se deriva (31a). El diagrama arbóreo en (33) muestra la estructura abstracta de derivaciones de este tipo.



El sujeto preverbal en inglés ocupa dos posiciones a lo largo de la derivación: su posición base en *EspecS_v*, que como ya hemos visto es transparente, y la posición derivada en *EspecS_T*, adonde se mueve para cotejar el PPE, que como *Espec* derivado es una isla para la extracción. El movimiento-*qu* no podrá por tanto tener lugar desde esta última posición. La única posibilidad que quedaría es que el sintagma-*qu* abandonara el SD sujeto cuando éste todavía se encuentra en la posición base. Sin embargo, y dado que el rasgo [+*qu*] se coteja en el *Espec* del *SComp*, surge el problema de que habría que proyectar estructura (básicamente, el *ST*) que sólo se utilizará más adelante. Se produce un importante problema de anticipación (ingl. *look ahead*), así como una violación de la *Condición de Extensión* (ingl. *Extension Condition*, Chomsky 1995) cuando se produce finalmente el ascenso del sujeto. Recordemos que esta

condición rige el modo en que se construye la estructura determinando que ésta sólo puede extenderse en la raíz. De lo que acabamos de ver se desprende que la oración (31a) es agramatical porque no puede ser generada por el sistema.

Paso ahora a resumir algunos de los resultados obtenidos del análisis de la interacción de la EX con operaciones de elipsis.

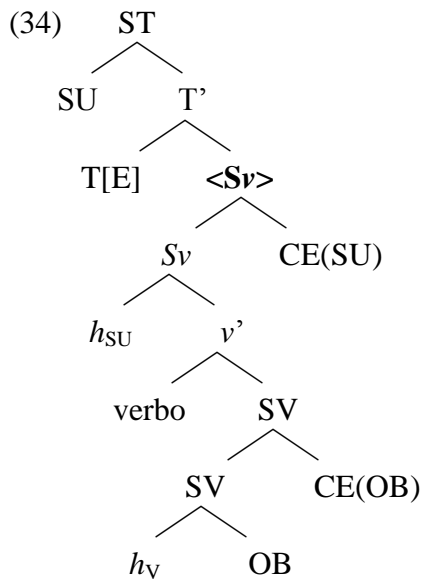
4. EX y elipsis

El capítulo 10 explota la concepción de elipsis presentada en Merchant (2001) y desarrollada en trabajos posteriores. Básicamente, la presencia de un rasgo de elipsis (rasgo-E) en la derivación desencadena un proceso de borrado en la FF. Dicho rasgo es parte del Léxico, de donde se selecciona para pasar a formar parte de la numeración inicial. El rasgo-E se caracteriza por ser defectivo (de manera similar a los clíticos), por lo que deberá buscar una categoría funcional compatible con la que asociarse. En el caso de la elipsis del SV, por ejemplo, dicha categoría sería el núcleo T; en el caso de la elipsis del ST, el núcleo Comp.

Cinco son los fenómenos de elipsis que examino en este capítulo: elipsis del SV (ESV), pseudo-vaciado, vaciado, elipsis con partícula de polaridad y truncamiento. Los dos primeros, que se analizan tradicionalmente en términos de ESV, sólo se producen en inglés. Los tres últimos, sin embargo, serán analizados como elipsis del ST y se producen también en español.

Adoptando la concepción de elipsis propuesta por Merchant, muestro que todos los patrones sintácticos de ESV y EST en oraciones con EX se pueden derivar asumiendo que el CE no se mueve más allá del nudo Sv. A continuación proporcionaré algunos ejemplos ilustrativos.

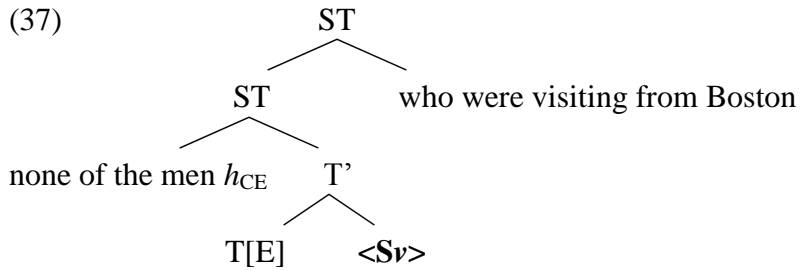
(34) muestra el diagrama arbóreo genérico que se debe adoptar para casos de ESV. Al incluir la categoría Sv, sería más apropiado hablar de ESv. El borrado fonético de dicha categoría debe incluir tanto al CE desde un sujeto como al CE desde un objeto. Este extremo es confirmado por los datos que aparecen en (35) y (36), tomados de Culicover y Rochemont (1990). Los constituyentes elididos aparecen representados entre corchetes.



(35) John met a man last week from Philadelphia, and George did
Juan conoció un hombre pasada semana de Filadelfia y Jorge aux-pas
 <meet a man last week from Philadelphia>, too
conocer un hombre pasada semana de Filadelfia también
 ‘Juan conoció a un hombre la semana pasada de Filadelfia y Jorge también.’

(36) Although none of the MEN did <go to the concert who were visiting
aunque ninguno de los hombres aux-pas ir a el concierto quienes estaban visitando
 from Boston>, several of the WOMEN went to the concert who were
de Boston algunas de las mujeres fueron a el concierto quienes estaban
 visiting from Boston.
visitando de Boston
 Lit. *‘Aunque ninguno de los hombres lo hicieron, algunas de las mujeres fueron al
 concierto que estaban de visita procedentes de Boston.’

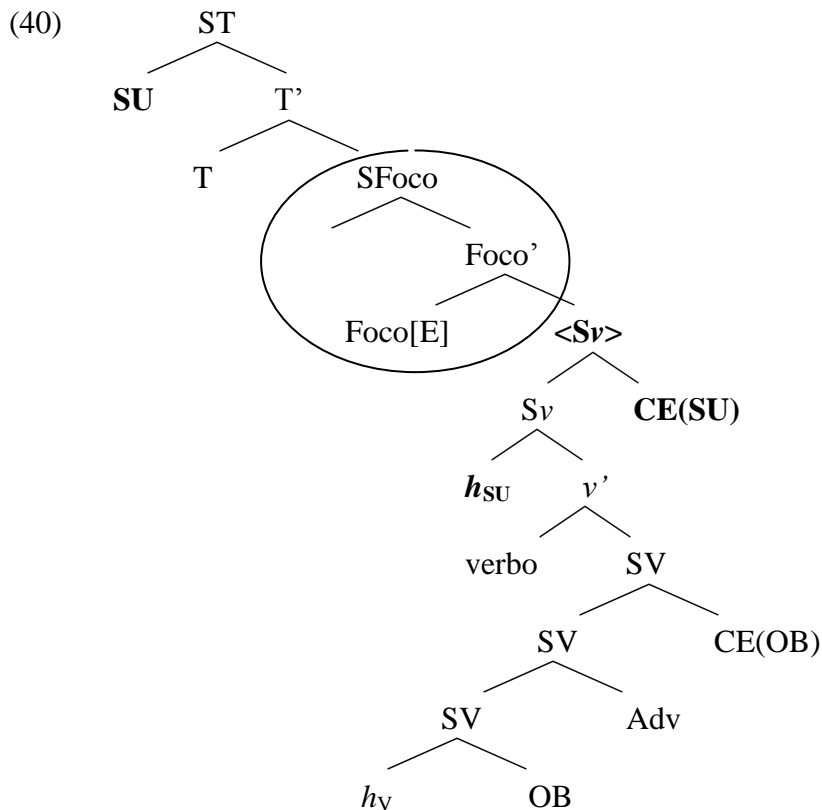
Hay que notar que los análisis tradicionales de EX, que defienden que el CE(SU) se adjunta al ST, predicen que éste siempre sobrevivirá en casos de elipsis, lo que no se sustenta en los hechos. Véase la representación parcial que se muestra en (37).



Pero un constituyente extrapuesto desde un sujeto puede sobrevivir a la elipsis del Sv, como puede verse en (38). Esta oración contrasta con la de (39), que muestra EX(OB) y es agramatical si el CE sobrevive. En (40) aparece la estructura genérica de oraciones como éstas.

(38) Although none of the MEN did <go to the concert> who were visiting
aunque ninguno de los hombres aux-pas ir a el concierto quienes estaban visitando
 from NEW YORK, several of the WOMEN went to the concert who were
de Nueva York algunas de las mujeres fueron a el concierto quienes estaban
 visiting from BOSTON.
visitando de Boston
 Lit.* ‘Aunque ninguno de los hombres lo hicieron que estaban de visita procedentes de NY, algunas de las mujeres fueron al concierto que estaban de visita procedentes de Boston.’

(39) *John met a man last week from Philadelphia, and George did
Juan conoció un hombre pasada semana de Filadelfia y Jorge aux-pas
 <meet a man last week> from New York.
conocer un hombre pasada semana de Nueva York
 Lit. *‘Juan conoció a un hombre la semana pasada de Filadelfia y Jorge lo hizo de NY.’



La operación de elipsis en la que uno o más constituyentes del SV sobreviven al borrado de esta categoría se denomina pseudo-vaciado. Desde Jayaseelan (1990) se asume de manera estándar que todo aquel constituyente que escapa al borrado lo logra porque ha abandonado la categoría elidida antes de que se produzca la elipsis. En este capítulo he adoptado la tesis de que estos constituyentes se desplazan al Espec de un sintagma de Foco que se proyecta encima del Sv (para la proyección de categorías funcionales en esta área de la estructura, véase Belletti 2004, por ejemplo). Como se puede ver en el diagrama de arriba, el rasgo-E se asocia con el núcleo Foco. Para sobrevivir, el CE debe moverse en (38) y (39) al EspecSFoco. El problema que surge en (39) es que el SD de origen se borra con el resto del Sv, mientras que el CE sobrevive al borrado. Esto no es aceptado por todos los hablantes. En (38) no surge este problema porque el SD ha de moverse hasta el EspecST para cotejar el PPE, abandonando así el Sv antes de que se produzca la elipsis.

Con el análisis de pseudo-vaciado, propuesto en el capítulo 10, todos los patrones sintácticos de elipsis que se muestran en (41), con un solo superviviente, así como aquellos que se muestran en (42), con múltiples supervivientes, se pueden derivar sin ningún problema. En el caso de las oraciones de (42), las estructuras que propongo son más complejas que la que aparece arriba en (40). Así por ejemplo, cuando los

constituyentes que escapan al borrado forman una unidad sintáctica, se moverán juntos al EspecSFoco. Es lo que ocurre en la derivación de (42a), donde el constituyente focalizado es el SV que contiene el circunstancial de lugar y el de tiempo. Por razones de espacio no ilustraré los casos más complejos. Véase el capítulo 10 para obtener detalles.

(41) More men went to the concert (yesterday) who were visiting from

más hombres fueron a el concierto (ayer) quienes estaban visitando de

New York than

Nueva York que

Lit.* ‘Más hombres fueron al concierto ayer que estaban de visita procedentes de NY que...’

a. ... women did **to the exhibition.**

mujeres aux-pas a la exposición

‘... mujeres a la exposición.’

b. ... women did **last week.**

mujeres aux-pas pasada semana

‘...que mujeres la semana pasada.’

c. ... women did **who were visiting from Boston.**

mujeres aux-pas quienes estaban visitando de Boston

‘... que mujeres que estaban de visita procedentes de Boston.’

(42) More men went to the concert (yesterday) who were visiting from New York than

a. ... women did [_{SV} [_{SV} *h_V* **to the exhibition**] **last week**].

b. ... women did **last week who were visiting from Boston.**

c. ... women did **to the exhibition who were visiting from Boston.**

d. ... women did **to the exhibition last week who were visiting from Boston.**

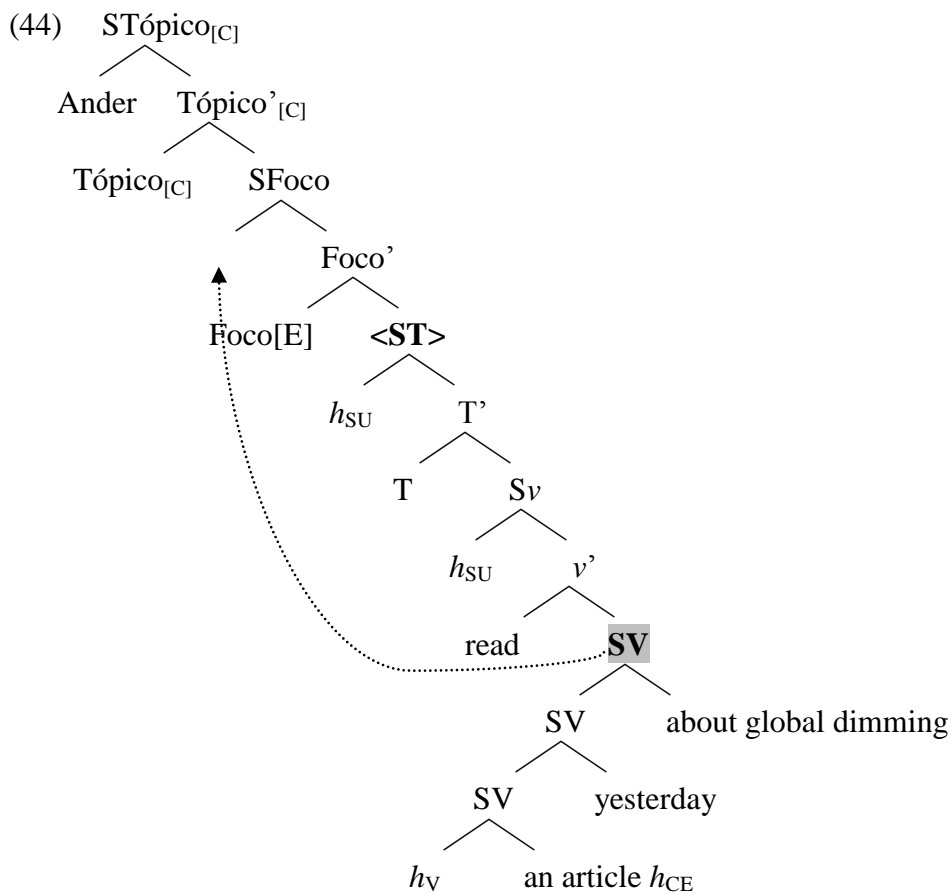
Nótese antes de continuar que siempre que el CE es elidido, análisis tradicionales de la EX(SU), que propugnan la adjunción del CE al ST, tienen problemas para derivar las oraciones, puesto que predicen que el CE debería sobrevivir a la elipsis al encontrarse fuera del Sv.

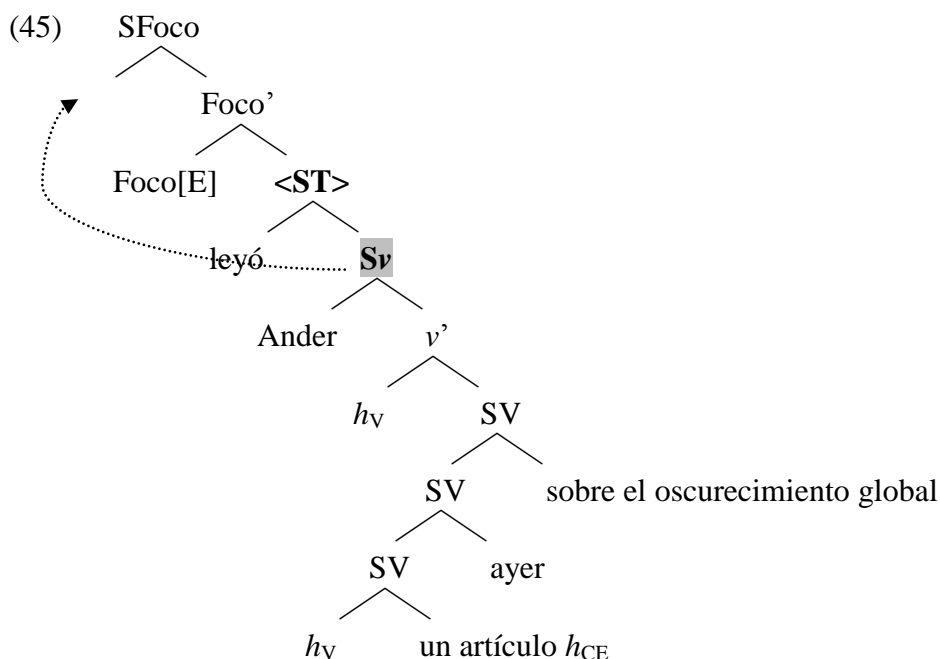
Pasemos ahora al vaciado. Los patrones encontrados tanto en español como en inglés son muy similares a los vistos en el caso del pseudo-vaciado. El análisis que propongo para este nuevo fenómeno es también similar al que acabo de introducir con la diferencia de que en este caso el constituyente elidido va a ser el ST y el SFoco, a cuyo

Espec se moverán los constituyentes que sobrevivan a la elipsis, se proyectará en la periferia izquierda de la oración. Veamos algunos ejemplos concretos con múltiples supervivientes, ya que estos casos ponen al descubierto una diferencia interesante en el modo de derivar el mismo orden lineal en inglés y español. Esta diferencia deriva del modo de cotejar el rasgo PPE en cada una de las lenguas.

- (43) a. I read a book last week about global warming and Ander an article
yo leí un libro pasada semana sobre global calentamiento y Ander un artículo
 yesterday about global dimming.
ayer sobre global oscurecimiento
- b. Yo leí un libro la semana pasada sobre el calentamiento global y Ander un
 artículo ayer sobre el oscurecimiento global.

La estructura de la oración inglesa aparece en (44), la de la española en (45).





Como se puede ver en este último diagrama, el sujeto junto con los demás constituyentes integrantes del Sv ascienden a foco al estar asociados todos ellos con un rasgo fuerte de foco. El único constituyente del SV que no lo está es el verbo, que sigue su propio camino derivacional hasta alcanzar el núcleo T, donde la morfología de concordancia cotejará el rasgo PPE. Al ser éste el único elemento que permanece en el ST cuando se produce el borrado, la oración resultante es aquella en la que sólo se elide el verbo en el segundo término de la conjunción.

El caso del inglés es diferente puesto que el sujeto es el encargado de cotejar el rasgo PPE, por ello el SD sujeto tiene que salir del Sv para ascender al EspecST y de ahí pasará al Espec de un STópico con rasgo contrastivo que se proyecta en la periferia de la oración. En este particular adopto el análisis propuesto en Gengel (2007). El resto de supervivientes ascienden al EspecSFoco como parte del SV que aparece resaltado en el diagrama de arriba. Las derivaciones que acabamos de ver representan una muestra de los patrones de vaciado que se discuten en la tesis, algunos de los cuales son más complejos que el que acabo de presentar a modo de ilustración.

Paso muy brevemente ahora a comentar algunos casos de truncamiento y de elipsis con partícula de polaridad. En ambos casos un solo constituyente sobrevive a la EST. La diferencia entre estos dos fenómenos estriba en el hecho de que el superviviente en el caso del truncamiento es un S-*qu*. Como ocurre en los casos de vaciado que acabamos de ver, el elemento que va a sobrevivir a la elipsis debe abandonar el ST y dirigirse al Espec de una proyección de Foco que domina al ST y

cuyo núcleo está asociado con el rasgo-E. La derivación del ejemplo de truncamiento que aparece en (46) sería como se muestra en (47). Nótese que el hecho de que no se pueda repetir la oración de relativo en el segundo término de la coordinación confirmaría que este constituyente no puede estar adjuntado al SFoco, como defenderían los análisis tradicionales de EX.

(46) Peter ate something yesterday that contained peanuts but I don't

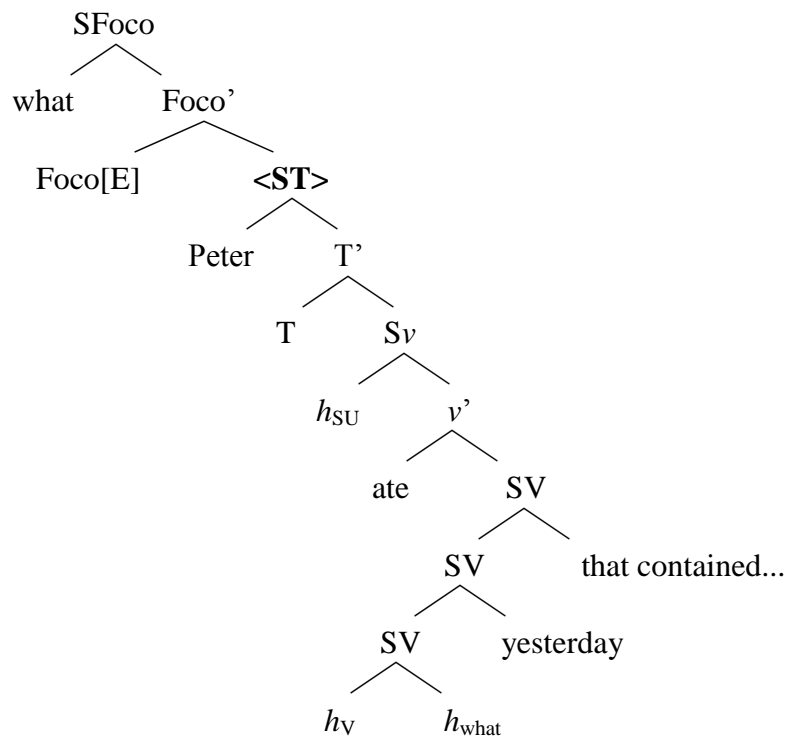
Pedro comió algo ayer que contenía cacahuets pero yo aux-pres-neg

know what.

saber qué

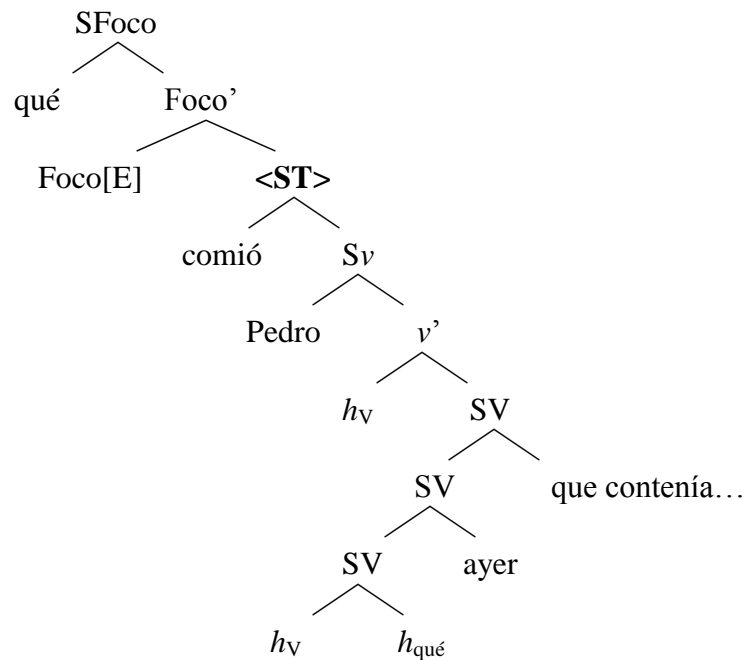
‘Pedro comió algo ayer que contenía cacahuets pero no sé qué.’

(47)



La correspondiente oración española *Pedro comió algo ayer que contenía cacahuets pero no sé qué* (**que contenía cacahuets*) tendría la estructura que se muestra en (48). La única diferencia con respecto a (47) vendría dada por la estrategia utilizada en esta lengua para cotejar el PPE, es decir, el verbo subiría hasta T y no se proyectaría el EspecST.

(48)



La estructura de oraciones con elipsis con partícula de polaridad como las de (49) sería la misma que aparece en (47). El SNeg se proyectaría encima del SFoco. El constituyente que sobrevive al borrado del ST (en el caso de (49), *un libro/a book*) asciende al Espec del SFoco. De nuevo, la oración española se deriva de forma análoga con la salvedad que acabamos de ver para el truncamiento, (48).

(49) a. Leí un informe el año pasado sobre la polución marina, no un libro.

b. I read a report last year about sea pollution, not a book.

yo leí un informe pasado año sobre mar polución no un libro

Los resultados obtenidos en el capítulo 10 vienen a confirmar que la EX es una operación cuyo dominio de actuación se reduce al SV/S_v. Este resultado es importante ya que viene a contradecir una asunción básica de la teoría estándar, que permite la adjunción del CE en posiciones mucho más altas jerárquicamente.

En lo referente al desencadenante de la operación, la información recogida en esta tesis es más limitada pero aún así se pueden sacar tres conclusiones importantes. En primer lugar, los rasgos [+foco] y [+contraste] en un determinado SD actúan como facilitadores de la EX, mientras que un rasgo fuerte de [+tópico] la bloquea. En segundo lugar, en aquellos casos en los que el SD de origen asciende al EspecSFoco, como ocurre en algunos casos de elipsis, así como en la anteposición por foco y el ascenso de un *Squ-*, no se puede mantener que el mismo rasgo desencadena la EX. Finalmente, en

aquellos casos de elipsis (básicamente, casos de vaciado y pseudo-vaciado) en los que el CE asciende al EspecSFoco y así sobrevive al borrado son los únicos en los que se puede afirmar que el CE está asociado con un rasgo de foco. Sin embargo, hay que recordar que, incluso en estas construcciones, se asume que la EX ha ocurrido en el seno del SV/S_v antes del ascenso a foco. Quiere esto decir que la EX no puede ser provocada por este mismo rasgo.