Clefts

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Declaration

I confirm that the work presented in this thesis is my own, and that where information has been obtained from other sources, this has been indicated in the thesis.

Matthew Reeve, March 2010

Abstract

The main argument of this thesis is that cleft constructions (and related constructions) in various languages do not easily submit to a strictly compositional analysis; that is, there is an apparent mismatch between their syntax and their semantics. I show that both 'specificational' and 'expletive' analysis of English clefts fail on both syntactic and interpretative grounds, and propose an alternative analysis in which the cleft clause is a syntactic modifier of the clefted XP, but a semantic modifier of the initial pronoun. I argue that the possibility for a relative clause to have two antecedents in this way is made possible by the existence of two separate licensing conditions, one thematic and one syntactic, which are normally satisfied by the same DP, but in clefts and related constructions can be satisfied by distinct DPs. Next, I extend the analysis to clefts in Slavonic languages, particularly Russian. These constructions differ considerably from English clefts in their syntactic structure, but which show strong interpretative parallels with them. Finally, I show that certain types of cleft present another type of compositionality problem: namely, the problem of semantically relating the two DPs in specificational sentences, the class of sentences to which clefts belong. I argue that they involve a functional head encoding equative semantics, which 'associates' with the focus of the clause. The superficial 'non-compositionality' of clefts thus reduces to the superficial 'non-compositionality' of association with focus more generally.

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Contents

Abbreviations used in glosses

1.SG	first person singular, etc.
ACC	accusative case
AUX	auxiliary
C	complementiser
DAT	dative case
INSTR	instrumental case
NOM	nominative case
PART	participle
REL	relative pronoun

1. Introduction

The main topic of this thesis is the existence of apparent mismatches between syntax and semantics. As the title suggests, the main constructions I examine are 'cleft constructions', which, however, resist easy definition. The construction to which the term was originally applied (by Jespersen 1927) is illustrated by the examples in (1), taken from various European languages:[1]

(1) a. It was JOHN that Mary saw.

b. Het is JOUW KIND, dat huilt. [Dutch]
it is your child which cries
'It is your child who cries.' (van der Beek 2003:24)

c. C' est LE PETIT qui est tombé dans l' escalier. [French]
it is the little-one who is fallen in the stairs
'It was the little one who fell down the stairs.' (Clech-Darbon et al. 1999:84)

d. Es war DIESER WAGEN, den sie kaufen wollte. [German]
it was this car which she to.buy wanted
'It was THIS CAR that she wanted to buy.' (Smits 1989)

These constructions can all be linearly analysed as in (2):

(2) pronoun – copula – focused XP – restrictive relative clause

[1] Throughout this dissertation, I will indicate the intended focus of the sentence with small capitals, partly in order to distinguish clefts such as (1a) from non-cleft copular sentences involving restrictive modification of the postcopular constituent. For example, (i) could be read either as a cleft, with a meaning equivalent to (ii), or with the relative clause restrictively modifying *cat*, a meaning paraphrasable by (iii):

(i) It was a cat that I wanted to buy.
(ii) I wanted to buy a cat.
(iii) Some contextually salient individual was a cat that I wanted to buy.

Accordingly, in order to indicate that the sentence in (i) has the cleft meaning paraphrasable by (ii), I would write it as follows:

(iv) It was A CAT that I wanted to buy.

Under most previous analyses of this type of cleft, there is no syntax/semantics mismatch: either the restrictive relative (which I will call the 'cleft clause') is a modifier of the initial pronoun (e.g., Jespersen 1927, Akmajian 1970, Percus 1997), or the pronoun and copula are expletive elements, and the focused XP (or 'clefted XP') sits in a left-peripheral position in the cleft clause (e.g., Jespersen 1937, Chomsky 1977, É. Kiss 1998). To simplify somewhat, these two analyses assimilate clefts to 'specificational sentences' such as (3a) and 'focus-fronting sentences' such as (3b) respectively:

(3) a. The one that Mary saw was JOHN.
b. JOHN Mary saw.

Following Hedberg (1990, 2000), however, I argue that neither of these semantically transparent analyses can be sustained. Instead, I develop Hedberg's (2000) analysis, according to which the cleft clause is syntactically adjoined to the clefted XP, and the initial pronoun is non-expletive. This gives rise to an apparent syntax-semantics mismatch: the cleft clause is adjoined to the clefted XP, yet semantically modifies the initial pronoun. I argue that this problem can be solved if modification by a relative clause is possible not just under (possibly underlying) sisterhood, but also can be licensed by conditions based on c/m-command which normally give the same results as sisterhood, but which in addition allow 'discontinuous' modification of a type already needed for relative clause extraposition. In addition, I show that this proposal accounts for the syntax of a related construction in which the focus-sensitive particle *only* apparently licenses a relative clause which does not form a constituent with it.

The second type of syntax-semantics mismatch I discuss arises in another type of 'cleft construction', a type found in various Slavonic languages:

(4) a. Èto BORIS vypil vodku. [Russian]
this Boris drank vodka
'It was Boris who drank the vodka.'

b. To MARIĘ Jan uderzył. [Polish]
that Maria Jan hit
'It was Maria that Jan hit.'

c. To KAREL přišel pozdě. [Czech]
that Karel came late
'It was Karel that came late.'

These are superficially similar to the clefts in (1) in that they contain a neuter singular pronoun preceding a focused XP and an 'open clause', but differ in that they contain no copular verb, and the open clause does not take the form of a relative clause. That is, they can be linearly analysed as in (5):

(5) pronoun – focused XP – clause minus focused XP

Nevertheless, I argue that clefts of this type should be assimilated interpretatively to specificational sentences, just like the clefts in (1). I argue that the licensing mechanism which allows discontinuous modification in English, because of its syntactically underspecified nature, can be extended to the type of cleft in (4).

The final type of syntax-semantics mismatch concerns the interpretation of specificational sentences such as (3a). In cases such as this the syntax-semantics relation appears to be transparent – either the copula can be treated as a transitive verb taking the two DPs as its arguments, or the copula could be a raising verb selecting for a small clause which underlyingly contains the two DPs. In certain types of cleft, however, notably those in which the clefted XP must have originated inside the cleft clause, these two types of analysis both fail. I argue that the apparent 'non-compositionality' which arises in these cases should be reduced to the apparent 'non-compositionality' of certain cases of 'association with focus', as illustrated in (6):

(6) a. I saw only JOHN.
b. I only saw JOHN.

In (6a), we have an apparently transparent case of association with focus: the focus-sensitive particle *only* forms a constituent with its DP 'argument'. In the synonymous (6b), however, the particle does not form a constituent with the DP, yet 'associates' with it. I argue, following the 'structured meanings' tradition, that what is crucial is the focused status of the DP, and that this allows an analysis of specificational sentences in which an equative functional head associates with the focus of its clause.

I will now provide an overview of the main chapters of this thesis. I begin in chapter 2 with an analysis of the syntactic structure of English clefts, which is essentially a development of the analysis proposed by Hedberg (2000). I argue that in the basic case, the cleft clause is base-generated as an adjunct to the clefted XP. This differentiates it from specificational analyses, in which the cleft clause is either base-generated as an adjunct to a projection of *it* (e.g., Percus 1997), or as a VP-adjunct (e.g., Hedberg 1990), and from expletive analyses, in which the cleft clause typically appears in a left-peripheral position in the cleft clause (e.g., É. Kiss 1998). I first provide evidence, both syntactic and interpretative, that specificational analyses are correct in treating cleft *it* as non-expletive. Then I argue that specificational analyses are wrong in treating the cleft clause as being a syntactic modifier of *it*, whether this relationship involves movement or not.

In chapter 3 I consider the problem that the structure argued for in chapter 2 raises for a strict interpretation of compositionality. In order to solve this problem, I argue that for both DP-internal and extraposed relative clauses, two licensing conditions apply to the relative – a thematic condition and a syntactic condition. These conditions are typically satisfied by the same element, but in certain cases they may diverge. In order to account for the apparent compositionality problem I propose that the conditions should be reformulated in terms of c/m-command rather than in terms of direct syntactic combination.

In chapter 4 I provide an analysis of Russian (and other Slavonic) 'clefts' which accounts for the often-noted fact that they differ from English clefts syntactically. I then argue on the basis of their interpretative properties that they should be treated as specificational sentences semantically. I show that applying the analysis of chapter 3 to Russian clefts, in addition to accounting for these interpretative properties, accounts for

some otherwise mysterious properties – in particular, the fact that the focus generally immediately follows the pronoun, in contrast to other cases of focus-fronting in Russian.

Finally, in chapter 5 I consider the question of the syntax of specificational sentences more generally, a question which is particularly interesting if both English and Russian clefts, whose syntax differs so much, are both examples of specificational sentences. One problem posed by Russian clefts, and certain types of English cleft, is that the clefted XP does not appear in a syntactic position which would normally allow it to be predicated of or equated with the initial pronoun, as is necessary under a specificational analysis. Russian clefts present the additional problem that they do not contain a copular verb, and so the syntax of specificational sentences cannot be dependent on the presence of such a verb. I argue that specificational sentences differ syntactically from predicational sentences in that they contain a functional head, Eq, in the extended verbal projection. Semantically speaking, Eq equates the denotations of the two DPs (e.g., the initial pronoun and the clefted XP in clefts). Crucially, Eq is a focus-sensitive operator, and hence takes whatever is focused in its c-command domain as one of its arguments. I show that this accounts for various properties of both clefts and specificational sentences more generally, properties which are problematic for prevalent approaches to copular sentences.

2. The syntax of English clefts

2.1. Introduction

The topic of this chapter is the syntactic structure of the English cleft construction, which is illustrated by the examples in (1):

(1) a. It was JOHN that Mary saw.
b. It was A CAKE that Bill baked.
c. It was ON THE MOON that Sue played golf.

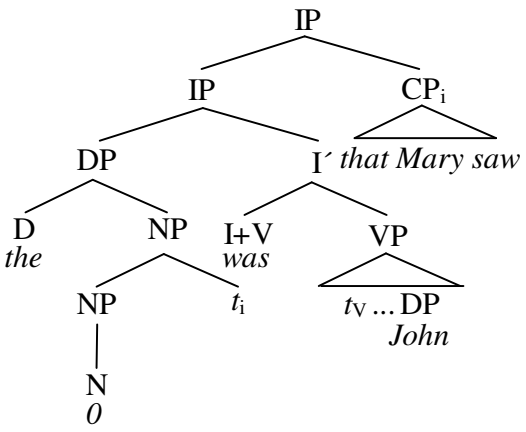
Previous generative work on English clefts can be divided into two strands, which differ according to how they treat the initial pronoun and the cleft clause. One approach, having its roots in Jespersen (1927), proceeds from the intuition that clefts are parallel in meaning and function to the class of copular sentences which Higgins (1973) called 'specificational', examples of which appear in (2):

(2) a. The one that Mary saw was JOHN.
b. What Bill baked was A CAKE.
c. The place where Sue played golf was ON THE MOON.

In specificational sentences, the precopular constituent (which Higgins called the 'superscriptional subject') contains a 'gap' or 'variable' position (e.g., the direct object position of *saw* in (2a)), and the postcopular constituent (which Higgins called the 'specificational subject') provides a 'value' for that variable. In this sense specificational sentences are semantically somewhat like question-answer pairs (e.g., *What did Bill bake? (Bill baked) a cake*) or headed lists (e.g., *Bill baked the following: a cake*). Specificational sentences give rise to interpretative effects, often called 'presuppositions', which their non-copular equivalents do not. For example, (2a) 'presupposes' that Mary saw someone, and that, out of a contextually relevant set of individuals, Mary saw no one else, while the non-copular sentence *Mary saw John* does not necessarily carry these 'presuppositions'. Since clefts also show these properties, many authors have proposed

that they have the same underlying syntax as specificational sentences, with the underlying superscriptional subject being either a free relative (paralleling cases like (2b)) or a definite description containing a restrictive relative clause (paralleling cases like (2a)). On this view, clefts differ from other specificational sentences only in that the relative clause of the superscriptional subject undergoes rightward extraposition, and the remnant subject is spelled out as *it*, resulting in a surface form in which *it* and the cleft clause make up a discontinuous definite description. On this view, then, the cleft clause is a modifier of the DP spelled out as *it*, both syntactically and semantically. An example of this approach is the analysis of Percus (1997), illustrated in (3) (see also Akmajian 1970, Schachter 1973, Pinkham and Hankamer 1975, Emonds 1976, Gundel 1974, 1977, Wirth 1978):[2]

(3)

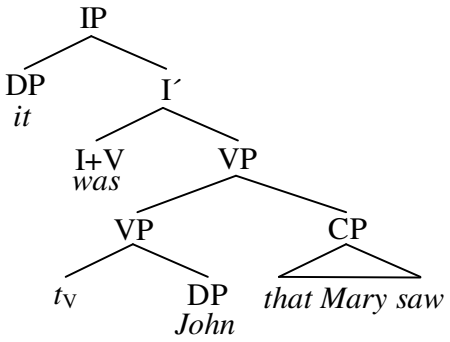


Other specificational analyses agree with Percus (1997) that *it* and the cleft clause are interpreted together semantically, but differ in that the cleft clause does not originate as part of the superscriptional subject. An example of this is the analysis of Hedberg (1990), illustrated in (4), under which the cleft clause appears in an extraposed position adjoined to VP (see also Smits 1989, Hedberg 2000, Den Dikken 2006, Han and Hedberg 2008):[3]

[2] Percus assumes that the superscriptional subject starts out as a predicate inside the VP, and thus that clefts involve 'predicate inversion' (see also Den Dikken 2006, Adger 2008). However, since Percus does not indicate precisely where the subject originates, I have not indicated this here. Although the question of whether clefts involve predicate inversion is not directly relevant to the discussion in this chapter, I will argue against a predicate inversion analysis in chapter 5.

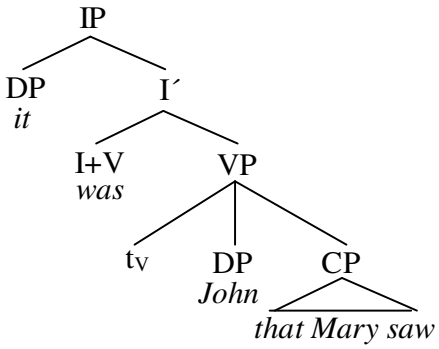
[3] Similar approaches have been proposed for clefts in other languages: see, e.g., Clech-Darbon, Rebuschi and Rialland (1999) on French clefts and Adger and Ramchand (2003) on Scottish Gaelic clefts.

(4)



The second main type of approach to the syntax of clefts more closely resembles Jespersen's later analysis (Jespersen 1937). This type of analysis posits no syntactic commonalities between clefts and specificational sentences beyond the presence of the copula. In particular, this approach denies that *it* is semantically linked with the cleft clause, instead claiming that *it* is an expletive element inserted purely to satisfy the requirement for a structural subject in SpecIP (the EPP). Once again, there are two variants of the expletive approach. Some authors have proposed that the clefted XP and the cleft clause are both sisters of the copular verb, entailing a ternary-branching VP; for example, Delahunty (1981, 1984) gives the structure in (5) (see also Williams 1980, Gazdar et al. 1985, Rochemont 1986):

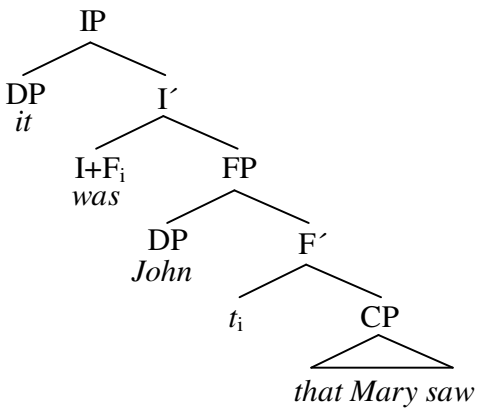
(5)



Under a more commonly encountered variant of the expletive approach, the cleft clause is a sister of the copular verb, and the clefted XP occupies a position in the left periphery of the cleft clause, either being base-generated there and linked to a *wh*-operator, or moving there from a lower position; for example, É. Kiss (1998, 1999) argues for the structure in

(6) (see also Chomsky 1977, 1981, Halvorsen 1978, Heggie 1988, 1993, Kayne 1994, Meinunger 1998, Cottell 2002):[4]

(6)



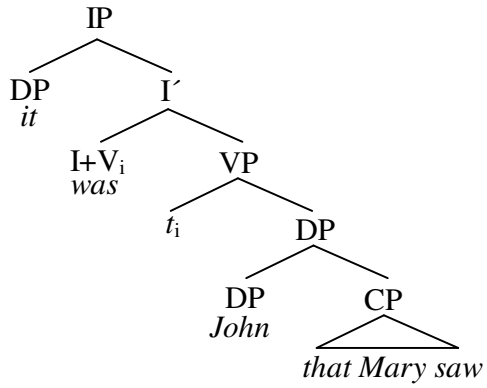
In this chapter, I will argue that specificational analyses of clefts are broadly correct in that cleft *it* is not an expletive. This suggests a semantic analysis of clefts parallel to that of specificational sentences: namely, that *it* and the cleft clause function together as a discontinuous definite description. On the other hand, specificational analyses – at least those that have been proposed previously – are incorrect in their predictions about the behaviour of the cleft clause. Although they are correct in taking the cleft clause to be a type of restrictive relative clause, they predict that it should behave in every way as a modifier of *it*. Although the evidence in 2.3 suggests that this modification relation is justified interpretatively, in 2.4 I will show that it is not justified syntactically.

2.2. Proposal

In this section I will provide novel evidence for an analysis of clefts along the lines of Hedberg (2000), and illustrated in (7):[5]

[4] Svenonius (1998) presents a similar analysis for clefts in Scandinavian languages.
[5] In chapter 3 I will further argue that Hedberg's (1990) analysis is also correct in that the cleft clause undergoes obligatory extraposition to VP. Nothing crucial in this chapter hinges on this part of the proposal, however.

(7)



Like specificational analyses, the analysis in (7) treats the cleft clause as a modifier: that is, a phrase adjoined to some maximal projection. On the other hand, the cleft clause is not adjoined to *it* as in Percus (1997), but to the clefted XP.[6] This leads us to expect that the cleft clause will behave syntactically as if the clefted XP is its antecedent; in particular, it predicts that it will behave like a relative clause extraposed from an object DP, since the clefted XP occupies an object-like position – the complement position of the copular verb.

First, in 2.3, I will argue that specificational analyses of clefts are correct in claiming that cleft *it* is not an expletive, contra analyses such as É. Kiss (1998). The evidence is of two types: syntactic evidence that the cleft pronoun behaves like a referential pronoun, and interpretative evidence that the pronoun is responsible for the presuppositions of clefts. In 2.4 I will argue that previous specificational analyses of clefts are incorrect in their treatment of the cleft clause. I will show that the cleft clause does not behave like a syntactic modifier of *it*, but rather like a modifier of the clefted XP. First I note the similarities between cleft clauses and restrictive relatives. Then I show that the cleft

[6] The analysis assumes the right-adjunction approach to restrictive modification (Partee 1975). Under this approach, restrictive relatives are standardly assumed to adjoin to NP (in the DP-based system of Abney 1987). The analysis in (7) raises the question of whether we need to allow restrictive relatives to be able to adjoin to non-NP nodes in clefts. Since the range of cleftable categories includes DP, PP, AP and possibly others, the analysis implies that restrictive relatives should in principle be able to adjoin to any of these categories. In fact, it is not clear to what extent this is necessary. In some cases, I will argue that the clefted XP originates inside the cleft clause and moves to its surface position, which I claim is as an adjunct to the CP of the cleft clause. The question of adjoining relatives to non-NPs thus does not arise in this case. In clefts which do not need to be derived by movement of the clefted XP (DP-clefts and some PP-clefts), it is quite possible that the cleft clause does indeed adjoin to NP. Although this might seem problematic given that restrictive relatives normally cannot modify proper names, for example, this is arguably an interpretative restriction rather than a syntactic one. Since, as I argue in chapter 3, the cleft clause is interpreted as a modifier of *it* rather than of the clefted XP, adjunction to the clefted XP is not a problem.

clause patterns with object relatives rather than subject relatives in various ways, which casts doubt on the idea that *it* is the syntactic antecedent of the cleft clause. 2.5 is the conclusion.

2.3. What specificational analyses get right: the non-expletive nature of cleft *it*

2.3.1.Introduction

In this section, I will argue that specificational analyses of clefts are correct in taking the cleft pronoun to be referential rather than expletive.[7] For example, Percus (1997) claims that the cleft subject is underlyingly a full definite description consisting of a definite determiner, a null head noun and a restrictive relative clause, and that the relative is obligatorily extraposed, stranding the determiner and the noun. A 'low-level' spellout rule then spells out the remnant as *it*. Thus, on Percus's analysis, the cleft subject minimally expresses the semantic feature of definiteness, and thus cannot be considered an expletive. On the other hand, a large number of analyses – namely, those which I termed 'expletive' analyses in section 2.1 – claim that *it* is an expletive and makes no semantic contribution to the meaning of the cleft (e.g., Chomsky 1977, Halvorsen 1978, Delahunty 1981, Rochemont 1986, Sornicola 1988, Kayne 1994, É. Kiss 1998). Since the expletivehood of *it* is a crucial component of these analyses, the evidence to be presented in this section is a strong indication that they are incorrect.

I begin in 2.3.2 by presenting some syntactic evidence for the referentiality of cleft pronouns, involving control, obligatoriness in V2 Germanic, the Aux-to-Comp construction in Italian, and experiencer blocking in French. Then, in 2.3.3, I discuss the well-known fact that clefts give rise to 'presuppositions'. This has often been taken as a strong argument for specificational analyses, since the same presuppositions arise in specificational sentences. Nevertheless, some proponents of expletive analyses have proposed ways of accounting for these presuppositions without relating them directly to specificational sentences. In 2.3.3 I will argue that these proposals are either ad hoc or inadequate.

[7] I use the term 'referential' here to mean 'individual-denoting', whether in the more intuitive extensional sense or the intensional sense (i.e., as a function from worlds or situations to individuals). I thus do not intend to imply any opposition with 'attributive' in the sense of Donnellan (1966).

2.3.2. Syntactic evidence

2.3.2.1. Alternation with demonstratives

The most commonly cited evidence for not treating cleft *it* as an expletive concerns its ability to alternate with demonstrative pronouns, which is not always possible with other uses of *it*. Thus, compare the cleft in (8a), which allows demonstrative subjects, with the sentences in (8b-d), illustrating raising, weather predicates and *it*-extraposition respectively, which do not (e.g., Bolinger 1972, Ball 1977, Ball and Prince 1978, Hedberg 1990, 2000, Geurts and van der Sandt 2004):

(8) a. It/this/that was JOHN that I saw.
b. It/*this/*that seems to me that you're wrong.
c. It/*this/*that is snowing.
d. It/*this/*that was clear that we were wrong.

Hedberg (2000:893-4) shows that this distinction also exists in other European languages, such as French, German and Russian, which suggests that it is not an accidental feature of English. The situation is, however, complicated by the fact that some speakers of French and German allow demonstratives in sentences like (8b-d). Nevertheless, the fact that we apparently do not find the reverse situation – speakers who accept demonstratives in sentences like (8b-d) but not in clefts – is suggestive. In the remainder of this section I will present new data which support the idea that cleft *it* is not an expletive, as predicted by specificational analyses of clefts, but not by analyses such as É. Kiss (1998).

2.3.2.2. Control

It is generally assumed that obligatorily-controlled PRO must be controlled by a DP with referential content. For example, Chomsky (1981:323) notes that the *it* subject of raising predicates and the *there* subject of existential sentences cannot control PRO:

(9) a. It_i seemed that John was wrong [without it/*PRO_i seeming that Mary was right].

b. There$_i$ were three men in the garden [without there/*PRO$_i$ being any reason why].

Chomsky also notes, however, that the subjects of weather predicates, which are often assumed to be expletives, can control PRO, as in (10a). Bennis (1986) makes the same observation for the subject of *it*-extraposition sentences in Dutch, and the observation carries over to English, as shown in (10b):[8]

(10) a. It$_i$ sometimes rains [after PRO$_i$ snowing].
b. It$_i$ was clear [after PRO$_i$ having been explained to us] that we were wrong.

This suggests that such pronouns are in fact referential, contrary to what has often been assumed (e.g., Rosenbaum 1967).

Interestingly, cleft *it* patterns with referential DPs in and the instances of *it* in (10) in being able to control PRO:[9]

(11) a. It$_i$ was THE FURNITURE that annoyed John on Sunday [despite PRO$_i$ being THE DÉCOR the day before].
b. On Sunday, [what annoyed John]$_i$ was THE FURNITURE [despite PRO$_i$ being THE DÉCOR the day before].

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[8] Chomsky (1981) claims that pronominal subjects of weather predicates are 'quasi-arguments', but maintains that pronominal subjects related to extraposed clauses are non-arguments. This fails to account for the fact that such pronouns can control PRO.

[9] Huber (2002), cited by den Dikken (2008), in fact claims that cleft *it* cannot control PRO, except in predicational clefts. He provides examples such as the following:

(i) ???It$_i$ is Peter who is coming without PRO$_i$ being a nice man.
(ii) ???[The murderer]$_i$ is the butler without PRO$_i$ being a bad guy.
(iii)???[Who murdered John]$_i$ was the butler without PRO$_i$ being a bad guy.

But these do not show that *it* cannot control, since the corresponding sentences with *it* instead of PRO are also ill-formed, as shown in (iv-vi):

(iv) *It is Peter who is coming without it being a nice man.
(v) *[The murderer] is the butler without it being a bad guy.
(vi) *[Who murdered John] was the butler without it being a bad guy.

Since *without*-gerunds can generally have either a PRO or an overt DP subject, this suggests that the clefts in (i-iii) are ill-formed for reasons independent of whether *it* can control PRO.

If Chomsky and Bennis are correct in taking control as a diagnostic for referentiality, then the possibility of control in (11) is evidence against treating cleft *it* as an expletive.

2.3.2.3. The obligatoriness of cleft pronouns in V2 Germanic

The second argument for not treating cleft *it* as an expletive comes from the behaviour of pronominal subjects in Germanic verb-second (V2) languages, which require the finite verb in matrix clauses to be preceded by a single phrasal constituent. Consider first some asymmetries between subject-initial and non-subject-initial matrix clauses discussed by Vikner (1995). First, in Danish, as in English, overt weather and extraposition pronouns are obligatory, in both subject-initial and non-subject-initial orders:

(12) a. Det regnede.
it rained
'It rained.'

a´. I går regnede *(det).
yesterday rained it
'Yesterday it rained.'

b. Det er godt at du er kommet.
it is good that you are come
'It is good that you have come.'

b´. Naturligvis er *(det) godt at du er kommet.
of.course is it good that you are come
'Of course it is good that you have come.'

In German, by contrast, both types of pronoun are obligatory in subject-initial orders, but in non-subject-initial orders, only weather pronouns are obligatory; extraposition pronouns are optional:

(13) a. Es regnete.
it rained

a´. Gestern regnete*(es).
yesterday rained it

b. Es ist gut, dass du gekommen bist.
it is good that you come are

b´. Natürlich ist (es) gut, dass du gekommen bist.
of.course is it good that you come are

Finally, Icelandic is even more liberal in this respect – although it requires weather and extraposition pronouns in subject-initial orders, these do not need to appear in non-subject-initial orders (and in fact weather pronouns cannot appear in this case):

(14) a. Það rigndi.
it rained

a´. Í gær rigndi (*það).
yesterday rained it

b. Það er gott að þú ert kominn.
it is good that you are come

b´. Að sjálfsögðu er (það) gott að þú ert kominn.
of.course is it good that you are come

Vikner claims that when no overt pronoun appears, the covert pronominal *pro* appears instead. With some revisions, the data in (12-14) can be accommodated by Rizzi's (1986:541) typology of the functions of *pro*. He identifies four types of languages: languages with no *pro* (e.g., English), languages in which *pro* can only be a non-argument (e.g., German), languages in which *pro* can be a non-argument or a 'quasi-argument' such as a weather pronoun (e.g., Faroese, Icelandic, Yiddish), and languages in which *pro* can be a non-argument, a 'quasi-argument' or a referential argument (e.g., Italian).[10] Danish seems to pattern with English, which disallows *pro* in all cases. If this is

[10] The optionality of extraposition pronouns in German and Icelandic seems to suggest, according to Rizzi's typology, that extraposition pronouns are non-referential. However, there is an alternative analysis according to which the overt pronoun is an argument and the extraposed CP an adjunct, and when no overt pronoun appears the CP is an argument (e.g., Bennis 1986, Zaring 1994, Mezhevich 2004; see also chapter

the correct way of looking at the optionality of inverted pronouns, the claim that cleft pronouns are referential makes the prediction that they should obligatory in all three languages, since *pro* is not available for referential DPs in any of them. This is exactly what we find:[11]

(15) a. Det var DEN JAKKE som Björn købte.
it was the jacket that Björn bought
'It was THE JACKET that Björn bought.'

a´. I går var *(det) DEN JAKKE som Björn købte.
yesterday was it the jacket that Björn bought

b. Es war DIESER WAGEN, den sie kaufen wollte.
it was this car which she to.buy wanted
'It was THIS CAR that she wanted to buy.'

b´. Gestern war *(es) DIESER WAGEN, den sie kaufen wollte.
yesterday was it this car which she to.buy wanted

c. Það var JÓN sem ég hitti í bænum.
it was Jón that I saw in the.town
'It was JÓN that I saw in town.'

c´. Í gær var *(það) JÓN sem ég hitti í bænum.
yesterday was it Jón that I saw in the.town
(Peter Svenonius, p.c.)

If the pronoun and cleft clause are together interpreted as a definite description, then the obligatoriness of the cleft pronoun is accounted for, since it must be referential. It is difficult to see how an expletive analysis of clefts such as É. Kiss (1998) could account for this: such an analysis would predict that cleft pronouns are optional in at least one of the three languages.[12]

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3). This would mean that when the overt pronoun is present, it is referential, but when it is absent, non-referential *pro* may appear, since the CP is the argument in this case.

[11] Büring (1998) briefly notes this for German, but to my knowledge the fact that cleft *það* in Icelandic is obligatory has not been noted before in the literature.

[12] French is another language in which cleft pronouns clearly differ from weather and extraposition pronouns. French has two pronouns corresponding to *it*: *il* and *ce*. Kayne (1983) argues that while *il* is a

2.3.2.4. Restrictions on referential *pro* in Italian

Further evidence that cleft pronouns are referential comes from Italian. Given Rizzi's typology of *pro*, we expect *pro* to be able to appear as the subject of clefts, since Italian, unlike the languages discussed in the previous section, allows referential *pro*. This is correct, as shown by (16) (e.g., Smits 1989):

(16) È GIANNI che a rotto il vaso.
is Gianni that has broken the vase
'It is GIANNI that has broken the vase.'

Italian clefts provide further evidence for the referential status of cleft pronouns. Rizzi (1986) discusses the so-called 'Aux-to-Comp' construction in Italian in the context of a discussion of *pro* in the subject position of small clauses and infinitivals. In the Aux-to-Comp construction, an infinitival clause embedded under a verb such as *ritenere* 'to believe' contains an auxiliary infinitive which inverts with the subject, as in (17) (from Rizzi 1982):

(17) Ritengo [aver Ria risolto molti problemi].
believe.1.SG to.have Ria solved many problems
'I believe Ria to have solved many problems.'

Rizzi (1986:542) notes that *pro* in the subject position of Aux-to-Comp clauses behaves differently from *pro* in the subject position of finite clauses. He observes that a *pro* subject is possible in such constructions in its use as an expletive, as in (18a), or in '*it*-extraposition' constructions such as (18b), but not with a referential use as in (18c):

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true expletive, *ce* is an argument. Notably, while either *il* or *ce* can occur in extraposition sentences (depending on the adjunct/argument status of the extraposed clause; see Zaring 1994), and *il* must appear in weather sentences, *ce* must be used in clefts. (Kayne in fact claims that "[t]he initial position of clefts in French must be a θ-position, given *C'est à Marie que Jean pense* versus **Il est à Marie que Jean pense*" (p.116 fn. 10)).

(18) a. Ritengo essere *pro* probabile che S.
believe.1.SG to.be *pro* likely that
'I believe it to be likely that S.'
b. Ritengo essere *pro* troppo tardi per S.
believe.1.SG to.be *pro* too late for
'I believe it to be too late for S.'
c. *Ritengo essere *pro* simpatico.
believe.1.SG to.be *pro* nice
'I believe him to be nice.'

If cleft pronouns are referential, we thus expect *pro* to be unavailable as the subject of an Aux-to-Comp clause, by analogy with (18c). Indeed, this appears to be correct (Vieri Samek-Lodovici, p.c.):

(19)??Ritengo essere *pro* GIANNI che ha rotto il vaso.
believe.1.SG to.be *pro* Gianni that has broken the vase
'I believe it to be GIANNI that has broken the vase.'

The fact that cleft pronouns in Italian conform to restrictions on referential *pro* is thus evidence that they are themselves referential.

2.3.2.5. Experiencer blocking in French

A final piece of evidence for the referentiality of cleft pronouns, suggested by an anonymous *Lingua* reviewer, has to do with a phenomenon found in French known as the 'experiencer blocking effect'. In French, a referential DP may not undergo raising across an experiencer argument of the raising predicate, as shown by the contrast between (20a) and (20b) (e.g., Chomsky 1995:305):

(20) a. Deux soldats semblent manquer à la caserne.
two soldiers seem to.miss at the barracks
'Two soldiers seem to be missing at the barracks.'

b. *Deux soldats semblent au général manquer à la caserne.
two soldiers seem to.the general to.miss at the barracks
'Two soldiers seem to the general to be missing at the barracks.'

Bošković (2002:196-7) notes, however, that it is possible to raise an expletive, such as the *il* subject of an existential clause, across a raising predicate:[13]

(21) Il semble au général y avoir deux soldats manquants à la caserne.
it seems to.the general there to.have two soldiers missing at the barracks
'There seem to be two soldiers missing at the barracks.'

Interestingly, the cleft pronoun *ce* in French patterns with referential DPs rather than the existential expletive, as shown in (22) (Nausicaa Pouscoulous, p.c.):

(22) a. Ce semble être JEAN que Marie a vu.
it seems to.be Jean that Marie has seen
'It seems to be JEAN that Marie saw.'
b. *Ce semble au général être JEAN que Marie a vu.
it seems to.the general to.be Jean that Marie has seen
'It seems to the general to be JEAN that Marie saw.'

The fact that experiencer blocking applies to cleft *ce* thus suggests that it is referential rather than an expletive.

2.3.2.6. Summary

In this section, I have provided evidence that specificational analyses of clefts, such as Percus (1997), are correct in one respect: in assigning referential rather than expletive

[13] In fact, Bošković argues that expletives are not generated in non-finite clauses, and thus that (21) does not involve raising at all.

status to cleft pronouns. I started by noting that cleft pronouns can be replaced by demonstratives. Then I showed that in English, cleft *it* may control PRO – normally a property of referential elements. In the rest of the section, I provided arguments from other European languages, which have clefts apparently very similar to those in English, for the referentiality of cleft pronouns: the obligatoriness of cleft pronouns in verb-second Germanic languages; the fact that cleft pronouns observe the referentiality restriction on Aux-to-Comp subjects in Italian; and the fact that cleft pronouns, just like referential DPs, block experiencer raising in French. In the rest of the chapter I will argue that, despite the success of Percus's analysis in this regard, cleft *it* cannot be regarded as the 'antecedent' of the cleft clause, and that this poses a serious problem for existing specificational analyses.

2.3.3. Interpretative parallels between clefts and specificational sentences

2.3.3.1. Restrictions on information structure

The second type of evidence for a specificational analysis concerns the interpretative parallels between clefts and specificational sentences, which suggest that cleft *it* and the cleft clause should be analysed semantically as a discontinuous definite description, in which cleft *it* is the analogue of the definite article. As we saw at the beginning of the chapter, the intuition behind specificational analyses of clefts is that they are synonymous with specificational sentences; thus, (23a) is synonymous with (23b):

(23) a. It was JOHN that Mary hit.
b. The one that Mary hit was JOHN.

Clefts and specificational sentences usually have 'simple sentence' analogues whose truth-conditional meaning they entail; thus, the sentences in (23) are related in this sense to the simple sentence in (24):

(24) Mary hit John.

(23) and (24) differ interpretatively, however, in various ways. The first difference is that (23a-b) are restricted in terms of information structure – that is, in the organisation of 'new' and 'old' information – in a way that (24) is not. This is sometimes stated as a requirement that *John* in (23) must be the focus of the sentence (e.g., Percus 1997).[14] Let us assume with Rooth (1996) that, in an answer to a question, the focus is the constituent which corresponds to the *wh*-phrase in the question. Then the fact that (23a-b) can be used felicitously as a response to the *wh*-question in (25a), but not the one in (25b), shows that *John* must be the focus in this sense. On the other hand, (24) can be used as a response to either of (25a,b), with main sentence stress on *John* or *Mary* respectively:

(25) a. Who did Mary hit?
b. Who hit John?

As well as the 'new information focus' found in answers to *wh*-questions, (23a-b) can also be used to express what is often called 'contrastive focus'. This type of focus operates over a 'closed' contextually determined set of individuals (or other semantic entities) of which the non-focused part of the sentence may hold, and the focused constituent picks out one or more of these individuals to the exclusion of some or all of the others.[15] That (23a-b) may also express contrastive focus can be shown by the fact

[14] This is not in fact always the case: there also exist clefts in which the clefted XP is a topic or a fronted discourse-anaphoric item, such as the 'informative-presupposition' clefts of Prince (1978) (see also Delin 1989). For example, (i) (Prince 1978:898) could be used at the start of a newspaper article:

(i) It was just about 50 years ago that Henry Ford gave us the weekend.

I will not have anything further to say about this type of cleft in this thesis, and leave it to future research to determine whether the analysis presented here can be extended to them.

[15] There are various definitions of 'contrastive' in the literature. For example, for Rochemont (1986), a focus is contrastive if, roughly speaking, the non-focus has already occurred in the discourse context, while the focus plus the non-focus are new in the discourse. Thus, for Rochemont, cleft focus is always contrastive. For É. Kiss (1998), on the other hand, contrastivity refers to the availability in the discourse context of a set of individuals from which the focus is selected: if this set is 'closed' (i.e., limited by the discourse context), the focus is contrastive; if the set is 'open' (i.e., not determined by the discourse context), the focus is non-contrastive. Finally, Molnár (2006) makes the distinction between 'closed' and 'open' sets, but regards both as involving contrastive focus; that is, it is the availability of a set that makes the focus contrastive. For the purposes of this section, I will assume É. Kiss's definition of 'contrastive focus'.

that they can be used as a response to (26), contrasting *John* with other potential people, one of whom is Bill, who Mary might have hit:

(26) I think that Mary hit Bill.

This use of (23a-b) to express contrastive focus is shared with the focus-fronting construction in (27), in which *John* undergoes A′-movement to clause-initial position (I will henceforth use small capitals to indicate the focus):

(27) JOHN, Mary hit.

Unlike (23), however, (27) may not normally be felicitously used to express new information focus – for example, as a response to (25a).

Clefts and specificational sentences thus pattern together in that they can be used to express both new information focus and contrastive focus. They differ from 'unmarked' sentences such as (24) in that they have a relatively fixed information structure, and they differ from focus-fronting sentences such as (27) in that the latter cannot normally express new information focus, only contrastive focus.

2.3.3.2. Presuppositions

The second way in which clefts pattern interpretatively with specificational sentences is in their 'presuppositions'. Clefts and specificational sentences express two effects of this type. One type, sometimes called an 'existential presupposition', involves a presumption on the part of the speaker that the property denoted by the cleft clause is true of some individual (e.g., Bolinger 1972, Jackendoff 1972, Halvorsen 1978, Atlas and Levinson 1981, Percus 1997, Rooth 1999, Geurts and van der Sandt 2004). Thus, both sentences in (23) above presuppose in this sense that there is someone that Mary hit. Although this may sometimes also be true of unmarked sentences such as (24) and focus-fronting sentences such as (27), it can be shown that clefts and specificational sentences differ in that this presupposition is obligatory. For example, it is impossible to focus a bare

negative quantifier in clefts and specificational sentences, but perfectly possible in unmarked and focus-fronting sentences:

(28) a. *It was NOTHING that he drank.
b. *The thing that he drank was NOTHING.
c. He drank NOTHING.
d. NOTHING, he drank.

This can be accounted for if clefts and specificational sentences obligatorily carry an existential presupposition, since the presupposition that he drank something is contradicted by the assertion that he drank nothing. On the other hand, the fact that (28c-d) are acceptable shows that the existential presupposition is not obligatory in unmarked or focus-fronting sentences.

Another example showing the difference between clefts and specificational sentences on the one hand and unmarked sentences on the other is provided by Rooth (1999):

(29) Q: Did anyone win the football pool this week?
a. A: #Probably not, because it's unlikely that it's MARY who won it, and she's the only person who ever wins.
b. A: #Probably not, because it's unlikely that the one who won it was MARY, and she's the only person who ever wins.
c. A: Probably not, because it's unlikely that MARY won it, and she's the only person who ever wins.

The oddness of (29a-b) as opposed to (29c) can accounted for in a similar way to the oddness of (28a-b) – the presupposition that someone won the football pools is contradicted by the earlier assertion that it is probable that no one won them.

The second type of presuppositional effect shown by clefts and specificational sentences is sometimes called 'exhaustivity', and involves a presumption that the individual denoted by the clefted XP is the only (or maximal) contextually relevant individual of which the property denoted by the cleft clause holds (e.g., Halvorsen 1978, Atlas and

Levinson 1981, Horn 1981, É. Kiss 1998). Thus, both sentences in (23) presuppose in this sense that John is the only contextually relevant person that Mary hit. Once again, it can be shown that the exhaustivity property is obligatory in clefts and specificational sentences and only optional in unmarked and focus-fronting sentences. First, note that clefts and specificational sentences are incompatible with particles such as *also* and *even*, which are inherently incompatible with an exhaustive focus, as shown in (30a-b). By contrast, the unmarked and focus-fronting sentences in (30c-d) can easily be modified by such particles (e.g., É. Kiss 1998):

(30) a. It was ??also/*even THE SHERRY that John drank.
b. The thing that John drank was *also/*even THE SHERRY.
c. John also/even drank THE SHERRY.
d. Also/even THE SHERRY, John drank.

Another test proposed by É. Kiss to diagnose exhaustivity involves focusing a bare universal quantifier. Once again, this gives bad results in clefts and specificational sentences, but perfectly acceptable results in unmarked and focus-fronting sentences:[16]

(31) a. *It was EVERYTHING that John drank.
b. *The thing that John drank was EVERYTHING.
c. John drank EVERYTHING.
d. EVERYTHING, John drank.

É. Kiss attributes the unacceptability of (31a-b) to the exhaustivity of the focus, which, following Kenesei (1986), she characterises as involving 'identification by exclusion' – that is, the focus must pick out one or more individuals from a contextually determined

[16] Note that the ban on bare universal quantifiers as clefted XPs cannot be attributed to a general ban on quantifier phrases in this position, as claimed by É. Kiss (1999). This is because modified universal QPs are perfectly acceptable as clefted XPs:

(i) It was EVERYTHING EXCEPT THE VODKA that John drank.

The difference between (i) and (31a) is that in (i) some member of the relevant set of individuals is excluded, satisfying the requirement of 'identification by exclusion'.

set to the exclusion of all the other individuals in that set. Since focusing a bare universal quantifier does not exclude any members of the set, it is incompatible with exhaustivity in this sense.

Another test for exhaustivity, which was first proposed by Szabolcsi (1981), involves comparing two sentences, one of which contains a focused conjoined XP, and the other of which contains a focused non-conjoined XP which is identical to one of the conjuncts of the focused XP in the first sentence. If sentence 1 entails sentence 2, then the focus expressed by these sentences is not obligatorily exhaustive, since if the XP in sentence 2 is exhaustively focused, it should not be possible to conjoin it with another XP, as in sentence 1, and preserve truth. Again, this shows that clefts and specificational sentences obligatorily express exhaustivity, while unmarked and focus-fronting sentences do not:

(32) a. i. It was JOHN AND MARY that Bill saw.
ii. It was JOHN that Bill saw. (i does not entail ii)
b. i. The ones that Bill saw were John and Mary.
ii. The one that Bill saw was John. (i does not entail ii)
c. i. Bill saw John and Mary.
ii. Bill saw John. (i entails ii)
d. i. JOHN AND MARY, Bill saw.
ii. JOHN, Bill saw. (i entails ii)

In summary, then, the interpretative parallels between clefts and specificational sentences – namely, that they have relatively fixed information structures, they can express new information or contrastive focus, and they carry obligatory presuppositions – are a strong motivation for treating the two as identical in some sense – either at an underlying syntactic level (e.g., Akmajian 1970, Percus 1997), which under standard assumptions will give rise to identical semantics, or in terms of the syntax-semantics mapping (e.g., Hedberg 1990).

Proponents of expletive analyses of clefts face more difficulty in capturing the fact that clefts pattern with specificational sentences rather than with unmarked and focus-fronting sentences. In most cases the interpretative parallel between clefts and specificational

sentences is simply not addressed (e.g., Chomsky 1977, Delahunty 1981, Rochemont 1986, Heggie 1988). Most of these authors do, however, recognise that clefts differ presuppositionally from their non-cleft equivalents. Nevertheless, the methods by which these are accounted for are somewhat ad hoc. Halvorsen (1978) discusses the presuppositions of clefts in detail, arguing that they are conventional implicatures, but simply stipulates them in the syntax-semantics translation. Treating them as arbitrary properties of clefts in this way arguably does not provide any insight into their nature. Delahunty (1981) explicitly argues that clefts have the same LFs as their non-cleft equivalents. He provides evidence that the presuppositions of clefts, as compared with non-clefts, are not relevant to their LF.[17] Instead he suggests that they are conversational implicatures in the sense of Grice (1975), but does not make an explicit proposal to this effect; nor does he provide any evidence that a treatment in terms of conversational implicatures is independently motivated. Rochemont (1986:133) proposes a Cleft Focus Principle, which requires a cleft focus to be contrastive in his particular sense of the term. This principle is clearly stipulative, however.

Probably the most explicit attempt to deal with the interpretative properties of clefts within an expletive analysis is that of É. Kiss (1998). Recall that under her analysis of clefts, the clefted XP moves to the specifier of a focus-related functional head F. She claims that the F head bears features called [±contrastive] and [±exhaustive], and that the settings of these features can vary from language to language, and from construction to construction. The feature [±contrastive] determines whether the focus assigned by F makes reference to a closed contextually determined set of alternatives or not, and thus

[17] Although he does show convincingly that the 'presuppositions' of clefts cannot be treated as logical presuppositions in the sense of Frege (1892), this does not in fact constitute evidence that the LFs of clefts and non-clefts are identical, since it is of course possible for truth-conditionally identical sentences to have distinct LFs. One example which he uses to argue against logical presupposition is (i), which should be impossible if a cleft logically presupposes that there is something to which cleft clause predicate applies:

(i) If it wasn't AN APPLE that John ate then he ate nothing.

While I agree with the judgement of this example, I think that it is an exceptional case. It seems to me that rejecting the idea that clefts give rise to 'presuppositions' directly derivable from their LFs (rather than as implicatures) on this basis would be similar to rejecting the idea that definite DPs differ in their LFs from indefinites based on the fact that they do not always give rise to existential 'presuppositions', as shown by the example in (ii), which seems perfectly coherent:

(ii) If the mayor isn't here, then there is no mayor.

corresponds to what was called 'contrastive focus' above. As might be expected, the feature [±exhaustive] determines whether the focus excludes other possible alternatives to the focus. This feature therefore gives rise to the exhaustivity property discussed earlier.

In English, É. Kiss assumes that when F is selected by I, as in clefts, it is specified as [+exhaustive] and [±contrastive]. This accounts for the obligatory exhaustivity property of clefts, as well as the fact that clefts may be used either as answers to *wh*-questions (new information or non-contrastive focus) or in contrastive contexts where the focus makes reference to a contextually determined set. If F is not selected by I, however, F is specified as [+exhaustive]. This captures the fact that unmarked and focus-fronting sentences, both of which do not involve selection of F by I, are only optionally exhaustive. Finally, if F is selected by C, as in focus-fronting, then F is specified as [+contrastive], capturing the fact that focus-fronting is not felicitous in response to a *wh*-question.

Although É. Kiss's approach can capture the differences between clefts and non-clefts with respect to exhaustivity and contrastivity, it does not explain why clefts should share all of the relevant properties with specificational sentences. Although É. Kiss does not provide an analysis of specificational sentences, it seems undesirable to account for their interpretative properties by assigning F particular feature values. First, it is clear that obligatory exhaustivity in specificational sentences is tied to the particular choice of surface subject. Thus, a definite subject, as in (33a), gives rise to exhaustivity – the sentence presupposes that Mary hit no one other than Bill. On the other hand, if an indefinite subject is used, as in (33b), an exhaustive interpretation is not required – Bill might be just one of a number of people that Mary hit (e.g., Birner 1994, Den Dikken 2006:82):

(33) a. The one that Mary hit was BILL.
b. One person that Mary hit was BILL.

Tying exhaustivity in (33a) to a property of a focus head would therefore not only duplicate information already derivable from the definiteness of the subject, it would not distinguish correctly between (33a) and (33b) without stipulation. This problem for É.

Kiss's analysis is even more serious given that exhaustivity is dependent on the type of subject even in clefts. We have seen that, in addition to *it*, clefts allow demonstrative subjects. Since demonstratives are also definite, it is correctly predicted under a specificational analysis that demonstrative-clefts will be obligatorily exhaustive. Interestingly, although clefts do not allow indefinite pronominal subjects, they do sometimes allow the existential 'expletive' *there* (examples from Davidse 2000):

(34) a. There's JOHN who's causing us trouble.
b. There's only HUMPTY DUMPTY that's that shape.

That these are clefts rather than existential sentences is clear from the fact that they allow proper names in postcopular position, something which is not permitted in true existentials because of the 'definiteness effect' (e.g., Milsark 1974). It seems clear that the focus in *there*-clefts is not obligatorily exhaustive. This is shown by the fact that *there*-clefts, unlike *it*-clefts, allow the particles *also* and *even*, which are incompatible with exhaustivity:

(35) a. There's also/even JOHN who's causing us trouble.
b. There's also/even HUMPTY DUMPTY that's that shape.

Thus, clefts behave in a parallel fashion to specificational sentences in that the exhaustivity of the focus depends on the definiteness or otherwise of the surface subject. A specificational analysis is thus naturally equipped to handle these facts. Under É. Kiss's approach, on the other hand, exhaustivity is tied to the position occupied by the clefted XP. Since the properties of F are entirely determined by the category it is selected by (I in clefts), it is not clear how the dependence of presuppositions on the subject can be accounted for in this system.

2.3.3.3. Summary

In conclusion, I have argued that the interpretative properties of clefts are best handled by treating them as a type of specificational sentence. Clefts and specificational sentences

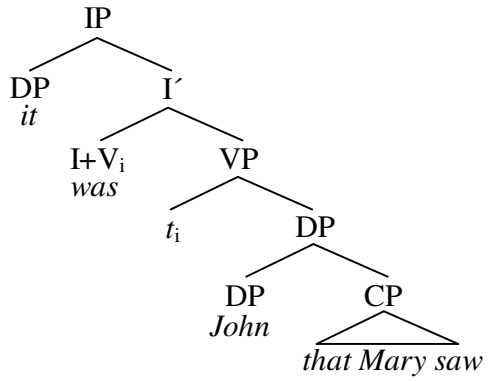
behave in a parallel fashion in that they have a relatively fixed information structure, they give rise to obligatory presuppositions, and they are compatible with both new information and contrastive focus. In all of these respects clefts and specificational sentences contrast with focus-fronting and *in situ* focus.[18] The expletive approach of É. Kiss (1998) thus misses a significant generalisation. In addition, since it ties all the relevant interpretative properties of clefts to the focus head F, it fails to capture the fact that, in both clefts and specificational sentences, obligatory exhaustivity is dependent on the choice of subject, something which is naturally handled by a specificational analysis.

2.4. What specificational analyses get wrong: the behaviour of the cleft clause

2.4.1. Introduction

Having argued that previous specificational analyses are correct in assigning referential status to the cleft pronoun, I would now like to argue that they are wrong in positing an extraposition relation between the cleft clause and *it*. Instead, I will argue that the cleft clause must be underlyingly adjoined to the clefted XP, as in Hedberg (2000). Thus, I will argue for the analysis in (36) (repeated from (7)):

(36)



Recall that there are broadly two types of specificational analyses of clefts. The first – the dominant position in the literature – is that the cleft clause originates as a modifier of the surface subject, and undergoes obligatory extraposition to clause-final position (e.g.,

[18] Incidentally, some of the presuppositional tests are also a problem for question-answer pair analyses of specificational sentences, which claim that they involve semantic equation of a question with its answer (e.g., Ross 1972, Den Dikken et al. 2000, Schlenker 2003, Romero 2005).

Akmajian 1970, Wirth 1978, Percus 1997). The second is that the cleft clause is base-generated in extraposed position, and is linked to *it* via some kind of LF or postsyntactic interpretative rule (e.g., Gundel 1977, Smits 1989, Hedberg 1990, 2000). In this section, I will argue that neither of these positions can be correct. In particular, various tests show that the cleft clause does not pattern with relative clauses extraposed from surface subjects. In fact, these tests suggest instead that the cleft clause takes the clefted XP as its antecedent, as in (36). I begin in 2.4.2 by noting the reasons for treating cleft clauses as a type of restrictive relative, contrary to expletive analyses such as É. Kiss (1998). Then in 2.4.3 I provide evidence that the cleft clause behaves as if the clefted XP, rather than *it*, is its antecedent, which supports the structure in (36).

2.4.2. The cleft clause as a restrictive relative clause

In English, as in many other languages, the cleft clause has the surface characteristics of a restrictive relative clause.[19] For example, both cleft clauses and restrictive relatives feature an alternation between an overt relative operator, an overt complementiser *that*, and a null complementiser, an alternation which does not appear in other constructions involving A´-movement to SpecCP:

(37) a. It was THE VODKA which/that/0 Boris drank.
b. I bought the vodka which/that/0 Boris drank.
c. What/*that/*0 did Boris drink?
d. I drank what/*that/*0 Boris drank.
e. The vodka, *which/*that/0 Boris drank.

Also, the overt relative operators that can appear in restrictive (and non-restrictive) relatives can also appear in cleft clauses (with the exception of *why*), while the other constructions make use of a different set of *wh*-operators:[20]

[19] See, for example, Schachter (1973) and Harries-Delisle (1978) for evidence of the cross-linguistically widespread connection between clefting and relativisation.

[20] Various authors have argued against the idea that the cleft clause is a type of restrictive relative, since there are several differences between cleft clauses and restrictive relatives. For example, Delahunty (1981:130), Huddleston (1984), Quirk et al. (1985) and Rochemont (1986) claim that only *which* and *who* are possible as cleft operators. Cottell (2002) is even more restrictive, allowing only *who* in clefts. Declerck

(38) a. It was BORIS who bought the vodka.
b. I know the man who bought the vodka.
c. It was MOSCOW where Boris bought the vodka.
d. I have been to the city where Boris bought the vodka.
e. It was TOMORROW MORNING when Boris was hoping to buy the vodka.
f. I remember the time when Boris bought the vodka.
g. *It was FROM A SHOT GLASS how Boris drank the vodka.
h. *I don't know the way how Boris drank the vodka.
i. *It was BECAUSE HE LIKED IT why Boris bought the vodka.
j. I know the reason why Boris bought the vodka.

In addition, cleft clauses, just like restrictive relatives, show 'anti-*that*-trace' effects, which are not found in complement CPs (Cottell 2002:90):

(39) a. It was BORIS that *t* bought the vodka.
b. I know the man *t* that bought the vodka.
c. *BORIS, you said that *t* bought the vodka.

Finally, clefts show the extraction properties that are expected if the cleft clause is a relative clause, rather than a selected clause containing an A′-moved XP in the left periphery, as in È. Kiss (1998). If the cleft clause is a relative clause, we expect it to act as a strong island (and hence to ban both argument and adjunct extraction), either because of (whatever is responsible for) the Complex NP Condition or the Adjunct Condition. Under È. Kiss's analysis, on the other hand, we expect the cleft clause to behave as a weak island (banning adjunct but not argument extraction), parallel to CPs in which *wh*-movement has taken place. As shown in (40), both argument and adjunct extraction from

(1988) notes that a cleft clause cannot be infinitival, whereas a restrictive relative can, and that cleft operators can be deleted in subject position more easily than relative operators in restrictive relatives. (He also incorrectly claims that cleft clauses cannot be 'reduced', in contrast to restrictive relatives; see chapter 3 for evidence that they can.) Delahunty (1981:109-110) notes that while restrictive relatives with a gap in subject position do not easily permit omission of the complementiser, cleft clauses with a gap in subject position do allow complementiser omission. Although many of these differences are undoubtedly real, I do not think they provide an argument against treating the cleft clause as a type of restrictive relative; after all, given the considerable similarities, this is surely preferable to treating the cleft clause as a *sui generis* CP.

the cleft clause are ungrammatical; that is, the cleft clause behaves as a strong island, as expected if it is a relative clause:

(40) a. ?*Which drink$_i$ was it BORIS [that bought t_i]?
b. *How$_i$ was it BORIS [that bought the drink t_i]?

The similarities between cleft clauses and restrictive relatives can be accounted for if cleft clauses bear the same syntactic relation to their antecedents as restrictive relatives do to their head nouns, as under the present analysis and specificational analyses generally. On the other hand, under an expletive approach, the fact that cleft clauses are introduced by the same items as restrictive relatives is mysterious, as is the behaviour of cleft clauses with respect to extraction, since the cleft clause is taken to be a complement, either of the copula or of a focus-related functional head.

2.4.3. The clefted XP as the antecedent of the cleft clause

2.4.3.1. Introduction

Having established that the cleft clause is a type of restrictive relative, in this section I will provide evidence that it must be underlyingly adjoined to the clefted XP, as expressed by the analysis in (36), and not to *it* as most previous specificational analyses claim. As we have seen, most specificational analyses of clefts claim either that the cleft clause originates inside the surface subject and moves rightwards (e.g., Percus 1997), or that the cleft clause is base-generated in extraposed position and interpretatively linked to *it* via some kind of LF interface rule (e.g., Hedberg 1990). Regardless of which of these options is chosen, these analyses predict that the cleft clause will behave like a relative clause extraposed from a surface subject.

In fact, the evidence shows that the cleft clause is not in any kind of extraposition relation with *it*. Instead, the evidence suggests that cleft clauses behave syntactically as modifiers of the clefted XP, as I will show in the following sections. First, data involving VP-ellipsis, raising and VP-fronting show that the cleft clause need not surface locally to *it*. If the cleft clause modifies *it* syntactically, this is unexpected, since an extraposed relative must normally surface very locally to its antecedent. In fact, the data suggest

instead that the cleft clause must surface locally to the clefted XP, as expected if this is the antecedent of the cleft clause. Further evidence that the cleft clause modifies the clefted XP comes from the fact that the clefted XP must correspond to the gap position in the cleft clause in a particular sense, as I show using examples of well- and ill-formed 'predicational' (as opposed to specificational) clefts. Furthermore, the features of the relative operator in the cleft clause are conditioned entirely by the clefted XP, just as the features of standard relative operators are conditioned by the head noun of the relative. Cleft clauses also pattern with object relatives in that they may be 'reduced', something which subject relatives disallow. Then there is evidence that the clefted XP c-commands into the cleft clause at some point, which is expected only if the cleft clause is a modifier of the clefted XP. This is demonstrated with data involving negative polarity items and quantifier scope interactions. In addition, there are some cases where the clefted XP arguably originates inside the cleft clause and raises to its surface position. These correspond to the cases of restrictive relatives involving 'raising' noted in the literature, and thus support the idea that the cleft clause is a modifier of the clefted XP. Since restrictive relatives may also involving a 'matching' derivation in which the head NP is base-generated in its surface position, we also expect this to be possible in clefts. In the final section I provide evidence that this is the case.

2.4.3.2. Locality

First, we would expect the cleft clause to be in a local surface relationship with *it*, since this is a property of extraposed relatives in general (e.g., Ross 1967, Baltin 1981, Wittenburg 1987, Culicover and Rochemont 1990, Kiss 2005). For concreteness, I will adopt Culicover and Rochemont's (1990) Complement Principle as the relevant locality condition. Their definition of the Complement Principle is given in (41) (see Guéron 1980 and Guéron and May 1984 for precedents):[21]

[21] The relevant ancillary definitions (adapted from Chomsky 1986a) are given in (i-v):

(i) α *governs* β if α c-commands β and there is no δ, δ a barrier for β, that excludes α.
(ii) α *c-commands* β iff α does not dominate β and there is no δ that dominates α and not β.
(iii) δ is a *barrier* for α iff (i) δ is an X^{max} that dominates β and (ii) δ is not θ-governed (directly θ-marked).
(iv) δ (δ = X^{max}) *excludes* α if no segment of δ dominates α.
(v) δ (δ = X^{max}) *dominates* α only if every segment of δ contains α.

(41) *Complement Principle* (ibid.:41)
β is a *potential complement* of α (α,β = X^{max}) [i.e., β is an extraposed phrase which can take α as its antecedent – MJR], only if α and β are in a government relation.

Importantly, the Complement Principle applies at 'S-Structure' (i.e., to overt rather than to underlying representations). This means that what is crucial for determining the antecedent of a relative is the surface position of the antecedent, and not its underlying position.[22] Formulated as in (41), the Complement Principle requires relative clauses extraposed from surface objects (henceforth 'object relatives') to adjoin to VP, and allows relative clauses extraposed from surface subjects (henceforth 'subject relatives') to adjoin to IP or VP. Hedberg (1990) suggests that under her analysis, in which the cleft clause adjoins to VP, the Complement Principle will allow it to be interpreted as a modifier of *it* despite not being adjoined to its projection at any point. In this section I will provide evidence from VP-fronting, raising and VP-ellipsis that shows that this prediction is not borne out. In fact, if the Complement Principle is the relevant locality condition, then the data indicate that the clefted XP is the antecedent of the cleft clause.

The first piece of evidence that the cleft clause modifies the clefted XP involves VP-ellipsis, which has often been used as a diagnostic for the surface position of extraposed clauses (e.g., Baltin 1978, 1981, Reinhart 1980, Culicover and Rochemont 1990, 1997). Baltin (1978) noted that there is an asymmetry between extraposed subject and object relatives in that subject relatives may be stranded by VP-ellipsis, while object relatives may not be:

(42) a. Although not many people would ride with Fred who knew just him, some would ___ who knew his brother.
b. * Although he didn't call people up who are from Boston, he did ___ who are from New York.

[22] This means that the question of whether *it* or the clefted XP is the antecedent of the cleft clause is independent of the question of where *it* is base-generated – i.e., whether it originates in a VP-internal small clause, perhaps as a predicate of the clefted XP (e.g., Moro 1997), or whether it is base-generated external to the VP. I return to this question in chapter 5.

According to Baltin (1981), the contrast between (42a,b) is due to the fact that extraposed subject and object relatives adjoin to different nodes: subject relatives adjoin to IP and object relatives to VP. Thus, only extraposed subject relatives are outside the domain of VP-ellipsis. Guéron (1980:642) notes a serious problem with this argument, however: namely, that VP-ellipsis need not target the highest VP node in a VP-adjunction structure. For example, passive *by*-phrases may, but need not be, deleted by VP-ellipsis, as shown in (43a). VP-adverbs have the same property, as shown in (43b):

(43) a. John was hit by Bill and Sue was (by Mary).
b. John was hit forcefully and Sue was (gently).

Crucially, when the *by*-phrase or adverb is deleted, the relevant phrase in the first conjunct may be understood as being part of the ellipsis site. This indicates that the phrase *may* be targeted by VP-ellipsis, and is hence VP-internal; the fact that it need not be targeted suggests that Baltin's explanation for the contrast in (42) is not quite correct.
I would therefore suggest an alternative view of (42) based on the fact that the Complement Principle requires an *overt* local relation between a relative clause and its antecedent. That is, the antecedent must be overtly present. Since the antecedent of the relative is overt in (42a) but not in (42b), this gives the correct contrast. What the present analysis predicts in the case of clefts, then, is that the cleft clause cannot be stranded by VP-ellipsis. This is because VP-ellipsis would necessarily delete the clefted XP, which under the present analysis is the antecedent of the cleft clause. As Delahunty (1981:2000) notes, this is correct:

(44) *Although it probably wasn't JOHN who cooked the stew, it might have been ___ who baked the cake.

By contrast, previous specificational analyses of clefts incorrectly predict stranding of the cleft clause to be possible, since they take the antecedent of the cleft clause to be *it*, which is of course not deleted by VP-ellipsis.[23]

Another argument from locality comes from cases where a subject undergoes A-movement to a higher clause. In such cases the Complement Principle correctly predicts that extraposed subject relatives must surface in the same clause as the derived position of the subject (e.g., Ross 1967), not its base position, since the subject and relative must be in a surface government relation. For example, in (45), the fact that the agent PP of the passive matrix verb must precede the extraposed subject relative, as in (45b), and cannot follow it, as in (45c), shows that the relative must surface in the matrix clause:

(45) a. A man was believed to have arrived that I had insulted.
b. ? A man was believed to have arrived by everybody that I had insulted.
c. * A man was believed to have arrived that I had insulted by everybody.

The same point can be made using binding. The examples in (46) involve a raising verb with a clausal argument, which contains an extraposed subject relative. (46a) shows that coreference between a pronominal experiencer argument of this raising verb and an R-expression inside the extraposed relative is impossible – a Condition C violation.[24] This

[23] Note that under Baltin's (1981) explanation of the contrast in (42) too, Percus's (1997) movement account fails to account for the unacceptable status of (44), since it would be necessary to violate the proper binding condition in order to move the cleft clause to VP from inside the subject. On the other hand, Hedberg's (1990) analysis would not face the same problem, since the cleft clause is base-generated in VP-adjoined position. Nevertheless, without independent motivation that relative clauses, and not passive *by*-phrases and VP-adverbs, must be deleted by VP-ellipsis, I assume that Baltin's argument is incorrect.

[24] To be more precise, we should distinguish, as Williams (1997) does, between anaphoric dependence and coreference. For Williams, Condition C is a condition ruling out coreference in a particular configuration – namely when the pronoun c-commands the referential expression. Anaphoric dependence, by contrast, is governed by precedence: it is permitted in all cases when the R-expression precedes the pronoun, and is allowed when the pronoun precedes the R-expression only when the pronoun is contained in a subordinate clause to the clause containing the R-expression. Assuming the CP in (46b) is adjoined to the matrix IP, this condition will not be met, and anaphoric dependence should be prohibited. And indeed, when main stress is put on *Mary*, as in (i), the sentence becomes unacceptable:

(i) *A man seemed to her$_i$ to have arrived that liked MARY$_i$.

In other words, the configuration in (46a) disallows anaphoric dependence, but allows coreference, so when *John* is destressed, it can be anaphoric to something in the preceding context, and circumstantially coreferent with the pronoun.

suggests that the extraposed relative must remain inside the embedded clause, where it is c-commanded by the experiencer argument. By contrast, in (46b), in which the subject of the embedded clause undergoes raising to the matrix subject position, the Condition C violation is obviated. This suggests that the extraposed relative surfaces in the matrix clause, in which it need not be c-commanded by the experiencer pronoun:

(46) a. ??It seemed to her$_i$ that a man had arrived that Mary$_i$ knew from school.
b. A man seemed to her$_i$ to have arrived that Mary$_i$ knew from school.

The present analysis predicts that raising of cleft *it* in this way should make no difference to coreference possibilities, since the cleft clause is not in an extraposition relation with *it*. In fact, the prediction is stronger: since the clefted XP is the antecedent of the cleft clause, the Complement Principle should force the cleft clause to surface in the same clause as the clefted XP. The pattern of judgements differs from (45-6) in the expected way. In (47), there is a strong preference for the cleft clause to precede the matrix passive *by*-phrase, suggesting that the cleft clause must remain in the embedded clause:

(47) a. ??It was believed to be JOHN by everybody that Mary saw.
b. It was believed to be JOHN that Mary saw by everybody.

And in (48b), raising of *it* to the matrix subject position does not ameliorate the Condition C violation in (48a), once again suggesting that the cleft clause must not leave the embedded clause:

(48) a. ?*It seemed to her$_i$ that it was JOHN that Mary$_i$ saw.
b. ?*It seemed to her$_i$ to be JOHN that Mary$_i$ saw.

The data in (47-8) are unexpected if the cleft clause is in an extraposition relation with *it*. If this were the case, then the Complement Principle should force the cleft clause to

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But notice that in (46a) the sentence is bad whether main stress is put on *John* or not – this is because the pronoun c-commands *John*, disallowing coreference even in the case where *John* is destressed and thus potentially anaphoric to something in the preceding context.

surface in the matrix clause, allowing it to follow the matrix *by*-phrase in (47) and obviating the Condition C violation in (48).

We have seen that moving *it* into the matrix clause has no effect on binding relations between a matrix argument and the cleft clause. On the other hand, the present analysis predicts that movement of the clefted XP may have such an effect, since this should force movement of the cleft clause as well. Culicover and Rochemont (1990) note that *wh*-movement of the antecedent of an extraposed relative can obviate Condition C violations which would obtain if the antecedent had not moved. Thus, (49a) gives rise to a Condition C violation on the assumption that the extraposed relative clause remains in the same clause as its antecedent, *several girls*. On the other hand, if the antecedent undergoes *wh*-movement to the matrix clause, as in (49b), the violation is obviated. In (49c), however, the violation is not obviated, because the landing site of *wh*-movement is in the embedded clause, and thus the relative cannot move into the matrix clause to escape c-command by the pronoun:

(49) a. *He$_i$ said he invited several girls to the party that John$_i$ dated in high school.
b. How many girls did he$_i$ say he invited to the party that John$_i$ dated in high school?
c. *He$_i$ wondered how many girls he invited to the party that John$_i$ dated in high school.

The present analysis predicts that clefts should behave in the same way if the clefted XP undergoes *wh*-movement. As shown in (50), this is correct: the Condition C violation in (50a) is obviated by *wh*-movement of the clefted XP in (50b). On the other hand, if *wh*-movement does not move the clefted XP out of the c-command domain of the pronoun, as in (50c), the violation remains:

(50) a. *It seemed to her$_i$ to be JOHN that Mary$_i$ saw.
b. Who did it seem to her$_i$ to be that Mary$_i$ saw?
c. *She$_i$ wondered who it seemed to be that Mary$_i$ saw.

The final locality-based argument for the present analysis comes from VP-fronting. Culicover and Rochemont (1990) note that VP-fronting may take along extraposed object relatives but not extraposed subject relatives.

(51) a. *They said that a man would come in who had lived in Boston, and come in who had lived in Boston a man did.
b. They said he would call people up who are from Boston, and call people up who are from Boston he did.

They note that this is in conflict with the idea that extraposed subject relatives may adjoin to VP. However, since the Complement Principle applies at 'S-Structure', the contrast in (51) is accounted for: in (51a) no surface government relation holds between the relative and its potential antecedent, whereas in (51b) the structural relation between the relative and its antecedent is the same as if VP-fronting had not applied.

The present analysis predicts that clefts will pattern with object relatives with respect to VP-fronting, since the antecedent of the cleft clause is the clefted XP. At first sight, this claim is not borne out. Delahunty (1981:204-5) provides the examples in (52a-b), labelling them ungrammatical.[25] (He does note, however, that "judgements of these sentences vary", though without providing further details.) As Hedberg (1990:98) notes, however, more acceptable examples can be constructed: she provides the example in (52c), which I agree is acceptable:

(52) a.(*)I said that it was BILL that argued the case and Bill that argued the case it was.
b.(*)I said that it must have been FRED who lost his head, and Fred who lost his head it must have been.
c. I said it'd be A CONSERVATIVE who'd win, and a conservative who won it certainly was.

[25] The supposed ungrammaticality of 'big VP-fronting' in clefts provides problems for Delahunty's analysis, as he himself notes. In the system he assumes (based on that of Akmajian et al. 1979), VP-fronting may normally (only) apply to V^1, and his claim is that the clefted XP and cleft clause must both be daughters of V^1, which predicts that 'big VP-fronting' should be possible.

It is thus arguable that the deviance of certain examples of VP-fronting in clefts is not a matter of categorical grammaticality. In any case, if *it* is the antecedent of the cleft clause, then the possibility of VP-fronting of the type in (52c) is unexpected. Since VP-fronting disturbs the government relation between the extraposed relative and the subject, the Complement Principle should disallow *it* from being the antecedent of the cleft clause in (52c).

In this section, I have provided evidence from VP-ellipsis, raising and VP-fronting that the cleft clause must surface in a position local to the clefted XP, as expected under the present analysis, in which the clefted XP is the antecedent of the cleft clause. Under previous specificational approaches such as Hedberg (1990) and Percus (1997), the locality facts are unexpected. Such analyses incorrectly predict instead that the cleft clause must surface in a position local to *it*.[26]

[26] In addition to the VP-ellipsis and VP-fronting tests mentioned in the main text, Delahunty (1981) uses examples such as (i-ii), involving full VP-fronting and co-ordination, in order to show that the cleft clause is inside the 'small VP' (in the phrase structure system he adopts, a daughter of V^1):

(i) I said that it should have been BILL who negotiated the new contract, and it should have been ___.
(ii) It must have been FRED that kissed Mary but BILL who left with her.

It is not clear, however, whether these examples actually show that the cleft clause is inside the VP. In the case of (i), the fact that both the clefted XP and cleft clause may be deleted by VP-ellipsis only shows that the cleft clause is inside the VP if there are no true 'truncated clefts' – i.e., clefts in which no clefted XP is generated – which has not to my knowledge been shown. As for (ii), this could innocuously be analysed as involving VP-conjunction on Delahunty's analysis, since he takes *it* to be an expletive. If, on the other hand, *it* constitutes part of a definite description, as under specificational analyses such as the present one, analysing (ii) as involving VP-conjunction may be undesirable. This is because (ii), for example, should involve two definite descriptions: *the one that kissed Mary* and *the one that left with her*. This implies that there should be two instances of *it*, not one, since overt cases of modification of a single definite DP with two relatives do not allow 'distributive' readings unless *respectively* is used:

(iii) The ones that kissed Mary and that left with her were FRED and BILL. (both Fred and Bill kissed Mary and left with her)
(iv) The ones that kissed Mary and that left with her were FRED and BILL respectively. (Fred kissed Mary and Bill left with her)

It would surely be semantically preferable to take such cases to involve IP-conjunction plus some sort of deletion (presumably an updated form of conjunction reduction), since there must be two definite descriptions, not a single one as implied by the VP-conjunction analysis.

2.4.3.3. Restrictions on predicational clefts

The clefts we have looked at so far have all been examples of specificational clefts – clefts in which the clefted XP supplies a 'value' for a 'variable' in the definite description subject. As we have seen, these correspond in meaning to specificational sentences. For example, the cleft in (53a) and the specificational sentence in (53b) are synonymous:

(53) a. It is THE CAT that I am pointing at.
b. The thing that I am pointing at is THE CAT.

In both sentences in (53), there is a sense in which the postcopular DP *the cat* 'corresponds' to the gap position in the subject or cleft clause: that is, we could begin to construct the equivalent simple sentence (*I am pointing at this cat*) by filling the gap with this DP.

Like the specificational sentence in (53b), the sentence in (54) has a definite description subject. It differs, however, from (53b) in that the postcopular constituent is predicated of the subject, rather than providing a value for a variable in the subject (that is, it is a 'predicational' sentence in the sense of Higgins 1973):

(54) The thing that I am pointing at is feline.

Furthermore, the AP does not 'correspond' to the gap position in the free relative: there is no simple sentence equivalent **I am pointing at feline*.

Since specificational analyses such as Percus (1997) propose that clefts like (53a) are syntactically equivalent to specificational sentences like (53b), apart from the extraposition of the cleft clause, they predict that predicational sentences such as (54) will have a cleft equivalent, since it is implausible that cleft clause extraposition from *it* could be conditioned by the semantic type or syntactic category of the postcopular XP. The present analysis, however, makes different predictions from Percus's analysis, since it claims that the cleft clause is adjoined to the clefted XP. Given that the head NPs of relative clauses roughly 'correspond' to the gap in the relative clause in the sense described above, this means that predicational clefts should only be possible if the clefted

XP 'corresponds' to the gap in the cleft clause.[27] Indeed, this seems to be correct: the class of predicational clefts attested in the literature all involve clefted DPs corresponding to the gap in the cleft clause, as in the examples in (55) (see, e.g., Jespersen 1927, 1937, Ball 1977, Declerck 1988, Hedberg 1990, 2000, Den Dikken 2008, Han and Hedberg 2008 for discussion of predicational clefts):

(55) a. It was an interesting meeting that I went to last night. (Declerck 1988)
b. It was a kid who beat John. (Han and Hedberg 2008)

It seems clear that the clefted XP in these sentences really can be interpreted as a predicate, since such clefts can appear as small clause complements of verbs which subcategorise for a predicational small clause, such as *consider*, as shown in (56a-b). By contrast, specificational clefts can only appear as the complement of *consider*-type verbs if the clause is a full infinitival, as shown in (56c) (Declerck 1988:171):[28]

(56) a. I consider it (to be) an interesting meeting that I went to last night.
b. I consider it (to be) a kid who beat John.
c. I consider it *(to be) John that Mary saw.

[27] It is not strictly true that the head NP of a relative always 'corresponds' to the gap, since (ii) is ungrammatical:

(i) the cat that I am pointing at
(ii) *I am pointing at cat.

However, it is always possible to fill the gap in the RRC with its head NP plus a determiner:

(iii) I am pointing at a cat.

[28] Note, however, that the demonstrative *that*, which can usually be a pro-predicate DP, cannot replace the clefted XP in predicational clefts:

(i) A: John is a kid.
B: Yes, I believe him to be that.
(ii) A: It was a kid who beat John.
B1: *Yes, it was that.

I have no explanation for this.

By contrast, there are no predicational clefts corresponding to predicational sentences such as (57):

(57) *It is feline that I am pointing at.

(57) is ruled out under the present analysis because the clefted AP *feline* does not 'correspond' to the gap in the cleft clause, violating a condition on the relation between a relative clause and the XP it modifies.[29] Under other specificational analyses such as Percus (1997), the impossibility of (57), as compared with the possibility of (55), is mysterious.

2.4.3.4. The features of the relative operator

Treating the clefted XP, rather than *it*, as the antecedent of the cleft clause also allows for a natural treatment of the restrictions on the type of *wh*-operator that may introduce the cleft clause. This is because the *wh*-operator appears to depend on the features of the clefted XP in the same way that the *wh*-operator of a relative clause depends on the features of its head noun. For example, in both examples in (58), the fact that *the teachers* is [+human] forces the *wh*-operator to be *who*, and the fact that it is plural forces the verb of the cleft clause or relative clause to be plural:[30]

(58) a. It is THE TEACHERS who/*which are/*is tired.
b. The teachers who/*which are/*is tired will not be coming in.

[29] Given the existence of specificational clefts such as (i), however, in which the clefted AP *does* correspond to the gap in the cleft clause, one might wonder why (i) cannot also have a predicational reading, in which the AP is predicated of the hypothesised definite description subject. On this reading, it would have a meaning which could be paraphrased by the predicational sentence in (ii):

(i) It is PROUD OF HIMSELF that John seems to be.
(ii) The person that John seems to be is proud of himself.

We will see in 2.4.3.7, however, that AP-clefts can only have a raising derivation. If this is the case, then a predicational reading of (i) is ruled out by the Θ-Criterion, since the clefted AP would have to assign two θ-roles: one to *John* and one to *it*.

[30] Though, as noted by Akmajian (1970:150 ff.) and Sornicola (1988:348) among others, the agreement in features is only partial: the cleft clause verb agrees with the clefted XP for number but not person. (As Sornicola notes, this differs from the situation in Italian, where agreement is total.)

By contrast, under the analysis of Percus (1997), the antecedent of the cleft clause is the DP spelled out as *it*, which contains a null N. Since the cleft clause originates as a syntactic modifier of this NP, the null head and the *wh*-operator of the cleft clause would be expected to agree for number and [±human]. Consider first number. It is clear from the example in (58a) that the DP spelled out as *it* is singular, since it triggers singular agreement on the copula. If the cleft clause were a syntactic modifier of the null N, then not only this N, but the entire DP subject would be expected to be specified for plural, contrary to fact.

It is less clear that *it* is incompatible with a syntactic modifier specified as [+human], since there is no independent evidence (such as agreement) showing this. However, if we compare clefts with other types of specificational sentences, it becomes clear that the former are restricted by the [±human] specification of the clefted XP in a way that the latter are not:[31]

(59) a. The thing which/that bothers me is JOHN.
b. What bothers me is JOHN.
c. *the man which bothers me
d. *It is John which bothers me.

[31] There are other cases in which restrictions on the cleft clause appear to be imposed by the clefted XP, but which present a less clear case against *it* as the antecedent of the cleft clause. For example, when the clefted XP is a predicate nominal, as in (i), or a non-specific or non-D-linked DP, such as an 'aggressively non-D-linked' *wh*-phrase, as in (ii), the *wh*-operator in the cleft clause cannot be *which* (Den Dikken 2008). Once again, the facts are parallel for restrictive relatives, as shown in (iii-iv):

(i) It is A DOCTOR *which/that/0 I want to become, not a baker.
(ii) What the hell is it *which/that/0 is bothering you?
(iii) Bill knows the thing *which/that/0 I want to become.
(iv) What the hell *which/?that you saw is bothering you?

Den Dikken presents the latter case as a difference between cleft clauses and restrictive relatives, since a non-specific head NP of a restrictive relative can co-occur with *which*; for example, (v) has both *de dicto* (non-specific) and *de re* (specific) readings, while (vi) does not:

(v) He wants to buy a car which/that is easy to park in small spaces.
(vi) ?*It is A CAR which he wants to buy.

However, I think this is mistaken, for two reasons. First, the comparison between (v) and (vi) is not a good one, since the badness of (vi) is arguably due not to the non-specificity of the clefted XP, but to the *wh*-blocking effect discussed in 2.4.3.7. Second, the specificity effect *does* show up with restrictive relatives when the head NP is an 'aggressively D-linked' *wh*-phrase, as shown in (iv).

(59a-b) show that specificational sentences with a [+human] postcopular DP may have a [-human] subject. In particular, the *wh*-operator occurring in the subject may be *which* or *what*, which in relatives are restricted to [-human] nouns, as shown in (59c). Clefts pattern with relative clauses rather than specificational sentences in this respect, as shown in (59d). This can be accounted for if the cleft clause bears the same relation to the clefted XP as a relative clause does to its head noun, since the same restrictions appear in relative clauses. Under Percus's analysis, however, (59d) is incorrectly expected to pattern with (59a).

The facts discussed in this section constitute another argument for treating the clefted XP, rather than *it*, as the antecedent of the cleft clause, since the features of the *wh*-operator seem to be restricted by the features of the clefted XP rather than by the features of the DP spelled out as *it*.

2.4.3.5. Reduced cleft clauses

The claim that the cleft clause is a restrictive relative clause correctly predicts the existence of 'reduced' cleft clauses; thus, the cleft clauses in (60c-d) are parallel to the 'reduced' relatives in (60a-b) respectively:[32]

(60) a. the man (who was) sitting outside
b. the man (who was) in the park
c. It was John (who was) sitting outside.
d. It was John (who was) in the park.

Interestingly, reduced cleft clauses pattern with extraposed object relatives rather than subject relatives, providing further evidence that the antecedent of the cleft clause is the clefted XP rather than *it*. Culicover and Rochemont (1990:32 fn. 23) claim that reduced relatives (along with APs) may not be extraposed, based on examples like (61):

(61) a. A man now sitting outside came into the room.

[32] The terminology 'reduced relative' should not be taken to imply a commitment to a derivation of these modifiers as relative clauses, which is not necessarily the case. The question of exactly how they are derived is not crucial to the present argument.

b. *A man came into the room now sitting outside.

However, this claim only seems to be true for extraposed subject relatives, since object relatives may be reduced:

(62) a. I saw a man now sitting outside.
b. I saw a man yesterday now sitting outside.

As we have seen, if the antecedent of the cleft clause is the clefted XP, then it is expected to pattern with object relatives, since the clefted XP is in an object-like position. Thus the grammaticality of reduced cleft clauses is expected, by analogy with (62b). Furthermore, it is consistent with the idea that cleft clauses are obligatorily extraposed, as argued in section 2.4. On the other hand, if the antecedent of the cleft clause is *it*, as claimed by both Hedberg (1990) and Percus (1997), then reduced cleft clauses are incorrectly predicted to be impossible, by analogy with (61b).

2.4.3.6. Evidence for a raising structure

The claim that the cleft clause is a restrictive relative whose antecedent is the clefted XP makes the prediction that the potential scope and binding interactions between material inside the cleft clause and the clefted XP will be parallel to the potential scope and binding interactions between a restrictive relative and its head NP. By contrast, Percus's (1997) proposal that clefts are syntactically parallel to specificational sentences, *modulo* extraposition of the cleft clause, predicts that clefts and specificational sentences will behave alike with respect to scope and binding interactions. Although both restrictive relatives and specificational sentences behave similarly in this respect, I will show that in cases where they diverge, clefts pattern with restrictive relatives rather than with other specificational sentences, as predicted by the present analysis.

It is well known that moved constituents are often interpreted as if they have not moved with respect to certain phenomena. Examples of such 'connectivity effects' are given in (63), where the constituent undergoing *wh*-movement behaves as if it is in its trace

position for the purposes of Condition A, variable binding and quantifier scope, as shown in (63a-c) respectively:

(63) a. [Which picture of himself$_i$]$_j$ did John$_i$ like t_j best?
b. [Which picture of his$_i$ mother]$_j$ did every boy$_i$ like t_j best?
c. [Which two patients]$_j$ do you think that every doctor will examine t_j? [∀>∃]

Connectivity effects are also apparent in restrictive relatives, as shown by the examples in (64) (from Aoun and Li 2003):

(64) a. The [picture of himself$_i$]$_j$ that John$_i$ painted t_j is impressive.
b. The [picture of his$_i$ mother]$_j$ that every boy$_i$ painted t_j in art class was impressive.
c. I phoned the [two patients]$_j$ that every doctor will examine t_j. [∀>∃]

Many authors have taken these effects as evidence that restrictive relatives have a derivation in which the head NP originates inside the relative clause and undergoes A´-movement to its surface position (e.g., Brame 1968, Schachter 1973, Vergnaud 1974, Carlson 1977, Kayne 1994, Sauerland 1998, Aoun and Li 2003).[33] Under the raising derivation, then, the connectivity effects in (64) can be accounted for in the same way as those in (63).

Specificational sentences, on the other hand, are an apparent exception to the generalisation that connectivity effects only arise if the 'dislocated' element has moved from the position with which it is 'connected'. There are good reasons to think that the postcopular XP of a specificational sentence cannot have moved from the 'gap' position inside the superscriptional subject (e.g., Higgins 1973). First, if the surface position of the

[33] These authors vary, however, in the extent to which they posit raising derivations for restrictive relatives. For Vergnaud and Kayne, for example, all restrictive relatives are derived in this way, while for authors such as Sauerland and Aoun and Li, only a proper subset of restrictive relatives involve raising. For example, Sauerland (ibid.:68) argues that relatives are derived by raising when they have an amount reading, a multiple individual reading, a possibility modal reading and a kind reading (although he leaves open the possibility that there are other cases). It should be noted that some authors proposing an expletive analysis of clefts also provide evidence that the clefted XP can or must originate inside the cleft clause (e.g., Chomsky 1977, É. Kiss 1998).

postcopular XP is hierarchically lower than the subject position, as is generally assumed, then the postcopular XP would not c-command the trace position from which it had putatively moved, violating the proper binding condition on traces. Second, there are specificational sentences in which it is independently implausible that the postcopular XP originates in the subject, such as (65) (from Heycock and Kroch 1999:382). In these examples, there is apparently no position inside the subject from which the postcopular XP could have moved, as shown by the ungrammaticality of (65b):[34]

(65) a. Fiona's only purchase was THAT ANCIENT DICTIONARY.
b. *Fiona's purchase that ancient dictionary

Despite the unlikeliness of a movement derivation of specificational sentences, however, such sentences show connectivity effects with respect to various phenomena. Some examples are given in (66): (66a) shows connectivity for Principles A-C, (66b) for variable binding, (66c) for intensionality, and (66d) for quantifier scope (see, e.g., Bach and Peters 1968, Higgins 1973, Jacobson 1994, Heycock and Kroch 1999, 2002, Sharvit 1999, Schlenker 2003):

(66) a. What he$_i$ is is PROUD OF HIMSELF$_i$/*HIM$_i$/*JOHN$_i$.
b. What no student$_i$ enjoys is HIS$_i$ FINALS.
c. What John seeks is A UNICORN.
d. What every dog ate was A CHICKEN. [$\forall > \exists$]

As has often been noted (e.g., Akmajian 1970, Halvorsen 1978), these connectivity effects are also found in clefts:

(67) a. It is PROUD OF HIMSELF$_i$/*HIM$_i$/*JOHN$_i$ that he$_i$ seems to be.
b. It is HIS$_i$ FINALS that no student$_i$ enjoys.
c. It is A UNICORN that John seeks.

[34] Though see Schlenker (2003) for the proposal that the postcopular XP does originate inside the subject in such sentences. This seems to be motivated purely by the connectivity effects rather than by any syntactic argumentation.

d. It was A CHICKEN that every dog ate. [∀>∃]

Nevertheless, there are also cases in which specificational sentences do not show connectivity effects, and thus diverge from constructions clearly involving movement. Such 'anti-connectivity' effects cast further doubt on the plausibility of a movement analysis of specificational sentences (e.g., Akmajian 1970, Higgins 1973, Bošković 1997a, Den Dikken et al. 2000, Cecchetto 2001). Interestingly, anti-connectivity effects seem to be much weaker, or even not present, in clefts; rather, they show the connectivity properties of movement constructions. This suggests that clefts may have a raising derivation, like restrictive relatives, as expected if the cleft clause is a restrictive relative taking the clefted XP as its antecedent.

One anti-connectivity effect, noted by Williams (1994), concerns quantifier scope interactions. Consider the sentences in (68):

(68) a. Every dog ate a chicken. [∀>∃]
b. What every dog ate was A CHICKEN. [∀>∃]
c. What ate a chicken was EVERY DOG. [*∀>∃]

The sentence in (68a) allows either a wide scope reading of the universal QP *every dog*, in which there is potentially a different chicken for each dog, or a narrow scope reading in which there is a single chicken which was eaten by every dog. The pseudocleft version of this in which the object is focused, (68b), also allows both readings – an apparent connectivity effect. However, the pseudocleft in which the subject is focused, (68c), does not allow the wide scope reading of the universal, which is not expected if the postcopular XP has undergone A′-movement from the trace position inside the subject. Williams concludes that the apparent connectivity effect in (68d) does not involve scope reconstruction at all, but rather 'unselective binding' in the sense of Pesetsky (1987). That is, he claims that the postcopular XP does not originate inside the subject.[35]

[35] See also Cecchetto (2001), who shows that this and other 'anti-connectivity' effects can be handled under the 'semantic' approach to reconstruction advocated by Jacobson (1994) and Sharvit (1999).

Now, compare the cleft versions of the pseudoclefts in (68b-c), given in (69a-b) respectively:

(69) a. It was A CHICKEN that every dog ate. [∀>∃]
b. It was EVERY DOG that ate a chicken. [∀>∃]

(69a) patterns with the pseudocleft in (68b) in allowing a wide scope reading for the universal. As we have seen, though, this does not necessarily mean that scope reconstruction, and hence a raising derivation, is involved here.[36] Crucially, though, (69b) differs from (68c) in allowing the wide scope reading as well. This suggests minimally that the clefted XP in (69b) c-commands into the cleft clause, since universals can take scope over non-clausemate indefinites which they c-command; thus (70) allows *every dog* to take scope over *a chicken*:[37]

(70) Every dog said that Bill ate a chicken. [∀>∃]

Another indication that the clefted XP c-commands into the cleft clause at some point is provided by data involving negative polarity items. It has been noted that canonical specificational sentences show connectivity effects for NPI-licensing, as in (71a-b) (e.g., Higgins 1973, Den Dikken et al. 2000, Heycock and Kroch 2002). On the other hand, 'inverse' specificational sentences only show such connectivity effects if the negative polarity item does not head the surface subject, as in (71d); (71c), in which the NPI does head the subject, is ungrammatical. Heycock and Kroch (2002) note that fronted topics show exactly the same pattern, as in (71e-f):

[36] That the clefted XP can originate inside the cleft clause has also been argued for by Schachter (1973), Chomsky (1977) and É. Kiss (1998, 1999), among others.
[37] It is not clear, however, why in (i), an 'inverse pseudocleft', the universal cannot take scope over the indefinite, despite presumably c-commanding it:

(i) EVERY ARTICLE THAT APPEARED was what bothered a friend of mine. [*∀>∃]

As Den Dikken et al. (2000) have shown, subjects of inverse pseudoclefts seem to occupy A-positions, so the universal should take scope in its surface position. I leave this as an unresolved matter.

(71) a. What I don't have is ANY BREAD.
b. What wasn't available was A DOCTOR WITH ANY REAL KNOWLEDGE OF ACUPUNCTURE.
c. *ANY BREAD is what I don't have.
d. A DOCTOR WITH ANY REAL KNOWLEDGE OF ACUPUNCTURE was what wasn't available.
e. *I bought lots of textbooks, but any novels, I didn't buy.
f. We found various doctors, but a doctor who knew anything about acupuncture, we couldn't find.

Heycock and Kroch attribute the contrast to an anti-c-command requirement: an NPI cannot c-command its licenser. Given this, consider the cleft data in (72):

(72) a. *It's ANY BREAD that I don't have.
b. It was A DOCTOR WITH ANY REAL KNOWLEDGE OF ACUPUNCTURE that wasn't available.

These examples pattern with 'inverse' specificational sentences and topicalisation structures: if the NPI heads the clefted XP, then the sentence is ungrammatical; if not, then the sentence is acceptable. This suggests that in the ungrammatical example the clefted XP c-commands the licenser in the cleft clause, thus violating the anti-c-command condition on NPIs.

A similar argument can be constructed with respect to apparent anti-connectivity effects involving pronouns. Pinkham and Hankamer (1975) observe that in (73b), which is semantically related to the simple sentence in (73a), not only can a reflexive appear as the clefted XP, but a pronoun may not appear:

(73) a. Bill_i asked Sue to wash him_i/*himself_i.
b. It was *HIM_i/HIMSELF_i that Bill_i asked Sue to wash.

One possible reason why the reflexive might be permitted to appear in (73b) is that it is a logophor rather than an anaphor, and is thus not subject to the locality condition on anaphoric reflexives. This does not explain, however, why the pronoun may not alternate with the reflexive, since this is permitted in other cases of logophoricity such as (74) (Reinhart and Reuland 1993:26):

(74) Max_i boasted that the Queen invited Lucie and $\text{himself}_i/\text{him}_i$ for a drink.

A plausible explanation of the impossibility of the pronoun is that this would cause a Condition C violation. The pronoun in (73b) is thus subject to an anti-c-command condition on its antecedent, in the same way as the NPI in (72a). As expected, a similar pattern is found in 'inverse' specificational sentences and topicalisation structures, as compared with canonical specificational sentences, which appear to permit either a pronoun or a reflexive:

(75) a. (The one) who Bill_i asked Sue to wash was $\text{HIMSELF}_i/?\text{HIM}_i$.
b. $\text{HIMSELF}_i/*\text{HE}_i/*\text{HIM}_i$ was who Bill_i asked Sue to wash.
c. $\text{Himself}_i/*\text{him}_i$, Bill_i asked Sue to wash.

Furthermore, the PP- and AP-clefts in (76) show that if the pronoun does not c-command its antecedent, the sentence is acceptable:

(76) a. It was FOR $\text{HIMSELF}_i/\text{HIM}_i$ that Bill_i asked Sue to buy a wind chime.
b. It was PROUD OF $*\text{HIMSELF}_i/\text{HIM}_i$ that Bill_i thought Sue was.

The data in (72) and (73) involving NPIs and pronouns thus suggest that the clefted XP c-commands into the cleft clause. Thus, if an NPI or pronoun is clefted, its licenser or antecedent cannot be inside the cleft clause, since this would violate the anti-c-command condition on these elements. Under the present analysis, the cleft clause is underlyingly adjoined to the clefted XP, and thus the clefted XP c-commands into the cleft clause. Thus, whether a raising derivation is possible or not, the data are accounted for by the

present analysis, but not by that of Percus, for whom the clefted XP never c-commands into the cleft clause.

Another anti-connectivity effect found in specificational sentences is discussed by Heycock and Kroch (1999), and involves the adjective *different*, which, when it modifies an indefinite in the scope of a universal quantifier, forces a distributive reading of that indefinite. Thus, on the wide-scope reading of *every dog* in (77), the sentence means that no two dogs ate the same chicken:

(77) Every dog ate a different chicken. [∀>∃]

Carlson (1987) and Beck (2000) argue that this use of *different* requires it to be in the scope of the universal QP. Heycock and Kroch note that if the indefinite in (77) is focused in a pseudocleft, the distributive reading is not possible, even though the universal in the subject can normally take apparent wide scope in this case:

(78) What every dog ate was A DIFFERENT CHICKEN. [*∀>∃]

On the basis of this, they agree with Williams that there is no scope reconstruction of the indefinite into the subject.

Once again, the cleft equivalent provides an interesting contrast:

(79) It was A DIFFERENT CHICKEN that every dog ate. [∀>∃]

Here, the distributive reading of the indefinite is possible when the universal takes wide scope. If Carlson and Beck are correct, then this indicates that there must be scope reconstruction in (79), which provides support for the idea that clefts may have a raising derivation in which the clefted XP originates inside the cleft clause. Once again, clefts pattern with restrictive relatives, which also allow a raising derivation – and thus true scope reconstruction – rather than with specificational sentences.

A final case in which clefts pattern with restrictive relatives rather than specificational sentences involves idiom connectivity. It is commonly assumed that the verb and object

of VO idioms such as *keep track* and *make headway* must be base-generated as a constituent. This captures the fact that the idiomatic use of the object is dependent on the presence of the verb, as shown by the ungrammaticality of (80b) as compared with (80a):

(80) a. She's keeping careful track of her expenses.
b. *The careful track pleases me.

However, it is possible for the object to undergo movement and yet retain its idiomatic meaning, as shown in (81a-b), involving *wh*-movement and passive respectively:

(81) a. What kind of track was she keeping *t* of her expenses?
b. Careful track was being kept *t* of her expenses.

The fact that the head NP of a restrictive relative can be the object of a VO idiom whose verb is inside the relative, as shown in (82), has thus been used as an argument for a raising derivation for restrictive relatives (e.g., Brame 1968, Vergnaud 1974, Carlson 1977, Kayne 1994, Sauerland 1998, Hulsey and Sauerland 2006):[38]

(82) The careful track that she's keeping *t* of her expenses pleases me.

Specificational sentences, however, do not allow the postcopular XP to fulfil this function (e.g., Prince 1978, Den Dikken et al. 2000):[39]

(83) a. *What she is keeping of her expenses is CAREFUL TRACK.
b. *CAREFUL TRACK is what she is keeping of her expenses.

[38] Carlson (1977) argues the relative clause in (82) is actually an amount relative rather than a restrictive relative. His evidence for this is that reconstruction of idiom chunks is only available when the determiner is Type I (e.g., *the*) rather than Type II (e.g., *some*) (cf. **Some careful track that she's keeping of her expenses pleases me*). Nevertheless, he concedes that this does not rule out a raising analysis of restrictive relatives as well. Aoun and Li (2003) express scepticism that reconstruction distinguishes amount relatives from restrictive relatives, given that uncontroversial examples of restrictive relatives show reconstruction for other properties such as binding.

[39] The 'inverse pseudocleft in (83b) is included to show that the failure of idiom connectivity is not due to a linearity effect.

As with the failure of scope connectivity in (78), the failure of idiom connectivity in (83) indicates that the postcopular XP does not originate inside the subject.

Interestingly, though, clefts pattern with restrictive relatives and *wh*-questions rather than specificational sentences in this respect, showing idiom connectivity:

(84) It's CAREFUL TRACK that she's keeping of her expenses.

Idiom connectivity thus provides another argument that clefts can have a raising derivation, as expected under the present analysis.[40]

2.4.3.7. Evidence for a matching structure

As we have seen, it has often been proposed that restrictive relatives have a 'raising' derivation in which the head NP originates inside the relative and moves to its surface position. Additionally, it has sometimes been argued that restrictive relatives are potentially ambiguous between a raising derivation and a derivation in which the head NP is base-generated in its surface position and associated with an operator in the relative clause (sometimes called a 'matching' derivation) (e.g., Carlson 1977, Sauerland 1998, Aoun and Li 2003). The evidence for this is based on 'anti-connectivity effects which occur when the relative contains an overt relative operator:

(85) a. *?The picture of himself which John painted is impressive.
b. ?*The picture of his$_i$ mother which every boy$_i$ painted *t* in art class was impressive.
c. I phoned the two patients who every doctor will examine. [*∀>∃]
d. ?*The careful track which she's keeping of her expenses pleases me.

[40] There are also cases where idiom evidence might require a structure in which the head NP of a relative is base-generated in its surface position (Delahunty 1981, McCawley 1981):

(i) We never made the headway that we intended.
(ii) We were never paid the homage which was our due.

Unfortunately, given the fixed form of the matrix clause of clefts, it is not possible to use this type of idiom evidence to support a base-generation structure for clefts.

The explanation these authors give for the contrast between restrictive relatives with and without an overt relative operator is that when a relative operator appears, it is base-generated in the gap position inside the relative and moves to SpecCP, and therefore it is not possible for the head NP to originate in this position as well. Instead, the head NP must be base-generated outside the relative and semantically associated with the relative operator in order to give the correct interpretation.

Since the present analysis of clefts takes the cleft clause to be a restrictive relative whose antecedent is the clefted XP, we expect a matching derivation of clefts to be possible alongside a raising derivation. Indeed, clefts behave in a parallel fashion to restrictive relatives in that the presence of an overt relative operator in the cleft clause blocks some of the connectivity effects that were observed in the previous section:[41]

(86) a. It's two patients who every doctor will examine. [*∀>∃]
b. ?*It was careful track which she kept of her expenses.

Under the present analysis, this blocking effect can be captured in exactly the same way as Carlson and Aoun and Li account for the parallel effect in restrictive relatives: if a relative operator is present, a matching structure is forced, and thus reconstruction of the clefted XP into the cleft clause is impossible.[42]

Further evidence for the possibility of a matching derivation for clefts is provided by Pinkham and Hankamer (1975), who also propose that clefts are derivationally

[41] Authier and Reed (2005) claim that *wh*-blocking does not obtain in clefts, in contrast to restrictive relatives. I do not share this judgement, but for speakers that do, a version of Authier and Reed's solution may be appropriate. They propose that in clefts, the *wh*-operator is "the optional spell-out on C of the *wh*-feature that attracts the clefted phrase to Spec,CP, prior to its further movement to Spec,FP" (2005:645).

[42] Dutch provides an interesting contrast with English which provides further support for the analysis. In Dutch DP-clefts, an overt relative operator is always required. As expected, the *wh*-blocking effect is general in Dutch restrictive relatives and DP-clefts, as shown by (i)-(iv) (Ad Neeleman, p.c.). Here, in both relatives and clefts, the relative pronoun *die* (parallel to *which*) must be used; the complementiser *dat* (parallel to *that*) is disallowed. As expected, only surface scope is permitted in (i-ii):

(i) Ik belde de twee (andere) patienten op die elke dokter zal onderzoeken. [*∀>∃]
I phoned the two (different) patients up REL.PR every doctor will examine
'I phoned the two patients that every doctor will examine.'

(ii) Het zijn TWEE (ANDERE) PATIENTEN die elke dokter zal onderzoeken. [*∀>∃]
it are two (different) patients REL.PR every doctor will examine
'It's TWO PATIENTS that every doctor will examine.'

ambiguous, but do not relate this to the corresponding ambiguity in restrictive relatives.[43] They argue that DP-clefts (i.e., clefts whose clefted XP is a DP) are ambiguous between matching and raising derivations, while non-DP-clefts only allow a raising derivation. The present analysis, however, makes a slightly different prediction, since the possibility of a matching derivation for a restrictive relative relies on the availability of an appropriate relative operator. Thus we only expect clefts to be derivationally ambiguous if the cleft clause could potentially contain a relative operator which can be 'matched' with the clefted XP. As I will show, this appears to be correct.

Pinkham and Hankamer's initial evidence for the possibility of a matching derivation for clefts involves cases where the cleft differs in grammaticality from its simple sentence counterpart. Some relevant examples are given in (87). (87ai) only permits a reflexive and not a pronoun, as required by Binding Condition A. However, the equivalent cleft in (87aii) allows a pronoun as well as a reflexive, which would be surprising if the clefted XP necessarily originated in the trace position of the cleft clause. The opposite case is found in (87b) - a reflexive is impossible in (87bi), as Condition A is violated, yet a reflexive is possible (in fact obligatory) in (87bii).[44] Finally, (87ci) violates Postal's (1974) Referential Inclusion Constraint, and yet the equivalent cleft in (87cii) is acceptable:

(87) a. i. I dislike myself/*me.
ii. It's MYSELF/ME that I dislike.
b. i. *Bill$_i$ asked Sue to wash himself$_i$.
ii. It was HIMSELF$_i$ that Bill$_i$ asked Sue to wash.

[43] More specifically, Pinkham and Hankamer essentially claim that matching clefts have the structure proposed by Akmajian (1970) for clefts in general – that is, the same underlying structure as pseudoclefts, plus extraposition – and that raising clefts have the structure proposed by Schachter (1973) – that is, the clefted XP is extracted from the cleft clause to a non-c-commanding position. The arguments against both movement-based specificational and expletive analyses thus apply to their analysis as well, though not to their claim that there are both matching and raising clefts.

[44] In fact, given Barss's (1986) observation that anaphors can be bound in 'intermediate' A′-positions, as in (i), the contrast in (87b) is not convincing evidence that movement cannot have taken place in (87bii).

(i) John$_i$ wondered which picture of himself$_{i,j}$ Bill$_j$ saw.

Also, their use of NPI evidence such as (ii) is unconvincing, given the anti-c-command generalisation mentioned in 2.4.3.6.

c. i. *We elected me treasurer.
ii. It was ME that we elected treasurer.

Pinkham and Hankamer's claim that DP-clefts may have a matching derivation accounts for these differences, since the clefted DP need not originate in the cleft clause, and so there is no point at which the configuration found in the simple sentence counterpart arises in the derivation of the cleft. The contrast is also accounted for by the present analysis, since DP-clefts may contain a relative operator (either overt or null), and hence may have a matching structure.

Pinkham and Hankamer then present some apparent differences between DP- and PP-clefts which purportedly show that while DP-clefts allow a matching derivation, PP-clefts must be derived by raising. The first of these concerns matrix negation. They note that in a non-contrastive context such as that provided in (88), the DP-cleft in (88a), which has matrix negation, is possible, but the PP-cleft equivalent in (88b) is not. The only possibility is constituent negation of the clefted PP, as in (88c), which necessarily involves overt contrast with an alternative:

(88) Mary went to the movies with some guy, I don't know who. All I know is…
a. It wasn't PAUL that she went with.
b. #It wasn't WITH PAUL that she went.
c. It wasn't WITH PAUL that Mary went to the movies, it was WITH BILL.

Pinkham and Hankamer assume that sentential (i.e., non-constituent and hence non-contrastive) negation is associated with a clause in underlying structure, and that the raising structure involves creation of a matrix clause which is not present in underlying structure. In (88a), which can have a matching derivation, the matrix clause is present in underlying structure, and hence can host sentential negation. (88b), on the other hand, must be derived by raising, and hence the matrix clause is not present in underlying structure, and cannot be negated.

The second such contrast concerns the possibility of extracting a proper subconstituent of the clefted XP ('subextraction'). This is generally assumed to be possible only if the

constituent subextracted from has not itself previously been moved (a generalisation sometimes known as the Freezing Principle; e.g., Wexler and Culicover 1980). Pinkham and Hankamer note that subextraction from the DP-cleft in (89a) is possible, as in (89b), but not from the PP-cleft in (89c), as shown in (89d):[45]

(89) a. It was A PICTURE OF MARX that he decorated his door with.
b. ? Who was it a picture of that he decorated his door with?
c. It was WITH A PICTURE OF MARX that he decorated his door.
d. * Who was it with a picture of that he decorated his door?

Their explanation of the contrast is that since (89a) allows a matching derivation, the clefted DP need not have moved to its surface position, and thus subextraction from it does not violate the Freezing Principle. By contrast, since (89b) must be derived by raising, the clefted PP must have moved to its surface position, and thus subextraction does violate the Freezing Principle. This account of the contrast in (89) has been disputed, however, in particular by Gundel (1977) and Delahunty (1981). Gundel's objections mainly concern the grammaticality judgements Pinkham and Hankamer assign to (89). Delahunty (ibid.:49ff.) argues that *picture*-DPs are exceptional in allowing subextraction in clefts, as they are in other cases of extraction, and that extraction from other DPs and PPs is prevented by the fact that their maximal projections are bounding nodes, which disallow extraction in certain contexts such as focus.[46] It may well be that

[45] Pinkham and Hankamer attribute the slight oddness of (89b) to Kuno's (1973) constraint preventing extraction from clause-non-final constituents.

[46] Delahunty also claims (ibid.:50) that extraction from *picture*-DPs is much worse if they are inside a PP, such as in (i). He suggests that this may be because PP is a bounding node. Strangely, he does not provide an example with *picture* itself, from which extraction, to my ear, is much better in such a context:

(i) Who$_i$ did he tell you a story about t_i?
(ii) (*)Who$_i$ did he entertain you with a story about t_i?
(iii) Who$_i$ did you paint a picture of t_i?
(iv) (?)Who$_i$ did he decorate his door with a picture of t_i?

This suggests that the unacceptability of (89d) cannot be due solely to the 'bounding node' status of PP, and that Pinkham and Hankamer's explanation based on the Freezing Principle may be correct. However, Gundel (1977:549) correctly points out that specificational copular sentences such as (v) also disallow subextraction from a PP focus, even thought it is implausible that this PP could previously have moved:

(v) *What$_i$ is the only tasteful way to decorate your room WITH PICTURES OF t_i?

Pinkham and Hankamer's conclusion that the judgements in (89) are solely due to whether the clefted XP has moved or not was premature. On the other hand, the fact that clefted *picture*-DPs do tolerate subextraction does at least strongly suggest that the clefted DP in this case cannot have moved. This is because even *picture*-DPs do not tolerate subextraction in cases in which they have clearly moved, as shown by the topicalisation and *wh*-movement examples in (90):

(90) a. *John$_j$, Bill said that [a picture of t_j]$_i$, he bought t_i.
b. *Who$_j$ did Bill say that [a picture of t_j]$_i$, he bought t_i?

These examples are clearly much worse than the example in (90b), which suggests that DP-clefts do allow a matching derivation.

The present analysis differs from Pinkham and Hankamer's in that the availability of an appropriate relative operator should make a matching structure available, and hence those PP-clefts which allow an overt operator in the cleft clause should allow matrix sentential negation and subextraction from the clefted PP. Although the judgements are difficult, there do seem to be some clear cases of PP-clefts which bear this out. For example, PPs headed by the prepositions *in* and *on* appear to allow an overt relative operator, as shown in (91), in contrast to PPs headed by *with* and *to*:

(91) a. ?It was IN PARIS where she stayed.
b. ?It was ON THIS SHELF where he put his trophies.
c. *It was WITH JOHN which/who/where she went to Paris.
d. *It was TO THE RESTAURANT where she wanted to go.

As expected, PP-clefts in which the preposition is *in* or *on* allow matrix sentential negation much more readily than those with *with*:

(92) Mary stayed somewhere with John, but I don't know where. All I know is…

Nevertheless, the claim that the Freezing Principle is involved is strengthened by data to be discussed involving extraction of the DP complement of a clefted PP, which is sometimes acceptable and sometimes not.

a. It wasn't PARIS that she stayed in.
b. It wasn't IN PARIS that she stayed.

(93) John put his trophies, somewhere, but I don't know where. All I know is…
a. It wasn't THIS SHELF that he put them on.
b. It wasn't ON THIS SHELF that he put them.

Although under the present analysis we cannot appeal to Pinkham and Hankamer's explanation of the contrast between clefts that allow and clefts that disallow matrix sentential negation, the fact that this contrast seems to coincide with the availability of a relative operator suggests that it has something to do with the matching/raising contrast. Additionally, for me and other speakers I have consulted, this type of PP-cleft readily allows subextraction of the DP complement of the P, unlike PP-clefts headed by *with* and *to*:

(94) a.. Which city was it in that she first met John?
b. Which shelf was it on that he put his trophies?
c. ??Who was it with that she went to the cinema?
d. *Where was it to that she wanted to go?

The present analysis also correctly predicts, as Pinkham and Hankamer's does, that AP-clefts disallow matrix sentential negation and subextraction, since no overt relative operator is possible in AP-clefts:[47,48]

(95) a. It was DRUNK ON VODKA *which/that he was, not drunk on slivovitz.
b. Bill said that John was something, but I couldn't hear what. All I know is...
#It wasn't DRUNK ON VODKA that he was.
c. *What was it drunk on that John was?

[47] Emonds (1976) claims that only NP and PP may be clefted, but Pinkham and Hankamer (1975), Delahunty (1981) and Heggie (1988) show that AP and AdvP may also be clefted under certain conditions.
[48] Delahunty (1981) gives a base-generation treatment of clefts, and proposes that in cases where there is no *wh*-operator corresponding to the clefted XP, there is no *wh*-movement.

In summary, under the present analysis, the cleft clause is a restrictive relative taking the clefted XP as its antecedent. It therefore correctly predicts that the clefts are ambiguous between a matching and a raising derivation, and that the availability of a matching derivation is contingent on the availability of a relative operator corresponding to the category of the clefted XP.

2.4.3.8. Obligatory contrastivity

The idea that clefts have a dual derivation, allowing either raising or matching, accounts for another difference between clefts and specificational sentences. Recall that clefts such as (97a) and specificational sentences such as (97b) can both be used to answer a *wh*-question such as (96a) or to express contrast with a previous statement such as (96b):

(96) a. Who did Mary hit?
b. I think that Mary hit BILL.

(97) a. It was JOHN that Mary hit.
b. The one that Mary hit was JOHN.

Thus, DP-clefts can be used to express either new information or contrastive focus. As Heggie (1988), notes, however, AP-clefts are more restricted in their use: they can only be used in contrastive contexts, as shown by the mini-dialogues in (98):

(98) a. A: What colour are her eyes?
B: #It's GREEN that her eyes are.
b. A: Her eyes are green.
B: No, it's BLUE that her eyes are, not GREEN.

Under the present analysis, the obvious explanation for the difference between (97) and (98) is that the AP-cleft in (98) must be derived by raising, while the DP-cleft in (97a) allows either a matching or a raising derivation. It has often been observed that in many languages, A´-movement of a focus makes a contrastive reading obligatory (e.g., É. Kiss

1998, Molnár 2006). Indeed, as we saw in 2.3.3.1, English is one such language: *in situ* focus is not obligatorily contrastive, but A´-moved foci are.

Of course, if the contrast between (97) and (98) is due to the raising/matching distinction, this predicts that not just AP-clefts, but any type of cleft that requires a raising derivation will require a contrastive reading of the focus. In 2.4.3.6, we identified DP-clefts with inverse scope and idiom reconstruction, and PP-clefts which have no appropriate relative operator as belonging to this class. Although the judgements here are subtle, there does seem to be a contrast: these clefts can be used in contrastive contexts, but not so easily in new information contexts:

(99) a. A: What did every dog eat?
B: #It was A DIFFERENT CHICKEN that every dog ate.
b. A: For whom did you buy the books?
B: #It was FOR JOHN that I bought the books.
c. A: To whom did you give the vodka?
B: #It was TO JOHN that I gave the vodka.

(100) a. A: There was a chicken that every dog ate part of.
B: No, it was A DIFFERENT CHICKEN that every dog ate, not THE SAME CHICKEN.
b. A: You bought the books for Mary.
B: No, it was FOR JOHN that I bought the books, not FOR MARY.
c. A: You gave the vodka to Bill.
B: No, it was TO JOHN that I gave the vodka, not TO BILL.

By contrast, PP-clefts which according to 2.4.3.7 can have a matching derivation – namely, those for which an appropriate relative operator is available – can be used in either type of context:

(101) a. A: In which country did you see a rhinoceros?
B: It was IN KENYA that I saw a rhinoceros.

b. A: At which restaurant did you have lobster thermidor?
B: It was AT THE IVY that I had lobster thermidor.

(102) a. A: You saw a rhinoceros in Tanzania.
B: No, it was IN KENYA that I saw a rhinoceros, not IN TANZANIA.
b. A: You had lobster thermidor at the Savoy.
B: No, it was AT THE IVY that I had lobster thermidor, not AT THE SAVOY.

If obligatory contrastivity is due to A´-movement, therefore, the facts discussed can be accounted for.

The contrast between (97) and (98) is problematic both for specificational analyses such as Percus (1997) and expletive analyses such as É. Kiss (1998). The problem for specificational analyses is that specificational sentences with an AP focus do not show obligatory contrastivity; thus, (103b) can be used to respond to the *wh*-question in (103a):

(103) a. What colour are her eyes?
b. The colour of her eyes is GREEN.

There seems to be no non-stipulative way, under Percus's analysis, of making contrastivity obligatory in (98) but not in (97). The problem for É. Kiss is that the contrastivity of a focus is determined not by the category of the focus, but by the feature settings on F, which are determined under selection. Thus, she argues that focus-fronting in English involves selection of F by C, which makes F [+contrastive]. On the other hand, clefts involve selection by I, which makes F [±contrastive]. Assuming that the structure of AP-clefts is broadly the same as that of DP-clefts, the category which selects for F should be the same in both DP- and AP-clefts, and thus there should be no distinction between the two in terms of obligatory contrastivity.

If the A´-movement that is involved in raising clefts is licensed by the interpretation of the clefted XP as a contrastive focus, then we also predict that the clefted XP should not be able to undergo further focus-movement. This is because iterations of the same type of A´-movement are typically disallowed (see, e.g., Abels 2008). Indeed, as shown in

(104a,b), there does seem to be a contrast between DP-clefts, which allow focus-movement of the clefted XP to a clause-initial position, and AP-clefts, which do not. As shown in (104c,d), PP-clefts also differ in the expected way:

(104) a. JOHN it was that Mary saw.
b. ?*GREEN it was that her eyes were.
c. ? IN LONDON it was that I saw a rat.
d.?? TO JOHN it was that I gave the vodka.

As expected if *wh*-movement and focus-movement are distinct types of A´-movement in the relevant sense, *wh*-movement is acceptable in all cases:

(105) a. Who was it that Mary saw?
b. What colour was it that her eyes were?
c. In which city was it that you saw a rat?
d. To whom was it that you gave the vodka?

This is problematic for Percus (1997) and É. Kiss (1998) for the same reasons as the data discussed previously in this section. In fact, the problem is even more serious for É. Kiss, since a clefted XP in postcopular position always occupies a focus-related position. We would thus expect any further focus-movement to be impossible in all cases.

2.4.3.9. Focus-based restrictions on extraposition

It has been claimed that definite DPs differ from indefinite DPs in disallowing extraposition (e.g., Ziv and Cole 1974, Guéron 1980, Guéron and May 1984):

(106) a. A guy just came in that I met at Treno's yesterday.
b. ??The guy just came in that I met at Treno's yesterday.

Huck and Na (1990) observe that this is not a categorical restriction: extraposition from definite DPs is permitted if the extraposed relative contains a contrastive focus. Thus, if

the speaker has been discussing two men, one of whom he met at Andrea's and the other of whom he met at Treno's, and if one of the two walks into the room, the speaker can say:

(107) The guy just came in that I met at TRENO'S yesterday.

In clefts, however, it is not always the case that the cleft clause contains a contrastive focus (though it is possible). Since one of the main claims underlying specificational analyses such as Percus (1997) is that *it* and the cleft clause form a definite description, such analyses would involve extraposition from a definite DP without the mitigating presence of contrastive focus in the extraposed clause. Under the present analysis, this problem is avoided, since the cleft clause is not extraposed from *it*. Although I will argue in chapter 3 that it is obligatorily extraposed from the clefted XP, this conforms to Huck and Na's condition. The notion of 'contrastive focus' they use is based on that of Rochemont (1986). Crucially, unlike the definition assumed here (based on É. Kiss 1998), his definition means that cleft foci are always contrastive. Thus, since the focus in clefts always falls either on the clefted XP or the cleft clause, extraposition of the cleft clause should always be permitted.

2.4.3.10. Summary

In section 2 I argued that specificational analyses of clefts are correct in that they account for the referential properties of cleft *it*, something which expletive analyses do not do. In this section, however, I have argued that the claim made by previous specificational analyses that the cleft clause is in an extraposition relation with *it* is incorrect. Instead I have proposed that the cleft clause behaves as if the clefted XP is its antecedent in this sense. I started by arguing that the cleft clause really is a type of restrictive relative clause, as claimed by most specificational analyses. Then I provided evidence that the cleft clause patterns with object relatives rather than extraposed subject relatives with respect to various tests. First, it must surface in a local relation with the clefted XP, as required by the Complement Principle. Second, the clefted XP must 'correspond' to the gap position in the cleft clause in both category and features. Third,

the cleft clause may be reduced, like object relatives but unlike subject relatives. Finally, I presented evidence for the matching/raising ambiguity in clefts, which is predicted by the claim that the cleft clause bears the same relation to the clefted XP as a restrictive relative does to its head NP. Furthermore, the evidence for raising is difficult to capture under standard specificational analyses, under which the clefted XP cannot have originated inside the cleft clause.

2.5. Conclusion

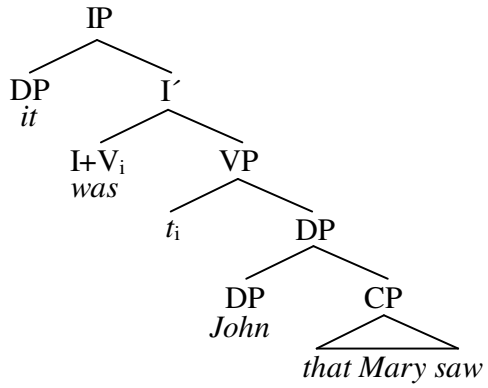
In this chapter I have argued for a syntactic analysis essentially parallel to that of Hedberg (2000), on which the cleft pronoun is non-expletive and the cleft clause is a restrictive relative clause adjoined to the clefted XP. I provided novel evidence for this structure, which both argues against the idea that the cleft clause is in an extraposition relation with the cleft pronoun and suggests that it is a syntactic modifier of the clefted XP. Given the evidence that clefts are parallel in interpretation to specificational copular sentences, however, this conclusion leads to an apparent problem: since the cleft clause is not underlyingly adjoined to *it*, nor is it licensed as a modifier of *it* by the Complement Principle, the question arises how it can be interpreted as restricting the reference of *it*, as would be required under a specificational interpretation. This problem is taken up in the next chapter, in which I argue that the cleft clause essentially has two antecedents which fulfil two distinct licensing functions.

3. Clefts and the licensing of relative clauses

3.1. Introduction

In chapter 2 I argued that English clefts have the syntactic structure in (1), which is essentially the structure argued for by Hedberg (2000):

(1)



This analysis captures various syntactic properties of clefts that are not easily accounted for under 'specificational' analyses such as Hedberg (1990) and Percus (1997) or 'expletive' analyses such as É. Kiss (1998). Nevertheless, as we saw in chapter 2, there is good reason to think that, in terms of interpretation at least, clefts are parallel to specificational sentences such as (2):

(2) a. What Mary saw was John.
b. The one that Mary saw was John.

It has often been proposed that certain interpretative properties of specificational sentences – namely, their 'presuppositions' – follow from the definiteness of the surface subject (e.g, Partee 1986). Thus, under this approach the surface subject in (2) is treated as a definite description which is semantically equated with the postcopular XP. Since clefts carry identical 'presuppositions' to sentences like (2), this argues in favour of treating them as a type of specificational sentence. Under the present analysis, however, it will not be straightforward to assimilate clefts to specificational sentences syntactically.

In order to do so, there needs to be some way of allowing the cleft clause to semantically restrict the domain of *it*, just as, for example, the relative clause in (2b) restricts the domain of *the*. The idea that cleft *it* contributes the 'definiteness' part of a definite description is supported by the evidence presented in chapter 2 that cleft *it* is non-expletive. As we also saw in that chapter, however, there is good reason to think that the cleft clause is not in an extraposition relation with *it*, whether derived by movement (as in Percus 1997) or base-generated (as in Hedberg 1990). Rather, the cleft clause seems to take the clefted XP as its antecedent. This seems to be a severe problem for the idea that the cleft clause semantically restricts the domain of *it*.

We therefore face two separate but related problems: (i) the cleft clause must semantically modify a constituent which is not its syntactic sister at any point; and (ii) the cleft clause seems to have two 'antecedents': the constituent it semantically modifies (*it*) and the constituent which behaves like its antecedent syntactically (the clefted XP). We are thus apparently forced to give up the strict compositional idea that modifiers must be syntactically combined directly with the constituents they modify. In fact, it has often been argued that this must be the case anyway, since there are cases of relative clause extraposition in which the relative clause is arguably base-generated in extraposed position (e.g., Perlmutter and Ross 1970, Culicover and Rochemont 1990, Kiss 2005). As we saw in chapter 2, however, there is an asymmetry between the two 'antecedents' of the cleft clause, in that the cleft clause obeys the Complement Principle with respect to the clefted XP, but not with respect to *it*. Interestingly, there is another construction in which a relative clause apparently takes two 'antecedents' which are asymmetric in exactly the same way as in clefts. Focus-sensitive particles such as *only* may license the presence of a restrictive relative clause where it would otherwise be ungrammatical; thus, compare (3a) and (3b) (the latter of which might be uttered in response to the question *Who did you see that you like?*):

(3) a. *I saw John that I like.
b. I only saw JOHN that I like.

Since the only difference between (3a) and (3b) is the presence of *only*, it seems reasonable to conclude that *only* is responsible for licensing the relative clause. In addition, the interpretation of (3b) suggests that the relative clause has the function of 'restrictively modifying' *only*, as shown by the specificational paraphrase in (4):

(4) The only person that I saw that I like was John.

On the other hand, the focused constituent (*John* in (3b)) appears to behave like the antecedent of the relative in the same way that a clefted XP behaves like the antecedent of the cleft clause.

We thus have two constructions – clefts and *only*-relatives – in which a relative clause is licensed by two distinct elements, one of which is arguably not syntactically combined with the relative at any point. As we have seen, though, it seems impossible to escape the conclusion that in certain cases, modifiers are not syntactically combined with their antecedents. Accordingly, in this chapter I propose that relative clauses must satisfy two distinct licensing conditions: a thematic licensing condition, which determines the constituent semantically modified by the relative, and a syntactic licensing condition, which determines the features of the relative operator. Although these conditions are generally satisfied under sisterhood, I will argue that both have non-sisterhood-based analogues which in most cases have the same empirical effects, but allow for certain structures which the sisterhood-based conditions do not – in particular, those found in clefts and *only*-relatives. As for the asymmetry between the two antecedents, this results from the fact that while the syntactic condition (being a descendant of the Complement Principle) requires surface locality, the thematic licensing condition merely requires underlying locality, as expected of a thematic relation.

Of the two licensing conditions, the thematic condition is the essential one for interpretation – the syntactic condition merely specifies syntactic features for a *wh*-operator. Thus, we might expect that in CPs which contain no *wh*-operator, but which otherwise function as modifiers, the syntactic licensing condition is suspended. I will argue that this case is instantiated by the '*it*-extraposition' construction:

(5) a. It proved his guilt that John bought a gun.
b. It was obvious that Fred ate a hamburger.
c. It annoyed me that Mary opened the window.

This differs from the two cases considered above in that the CP is not a relative clause, having no 'gap' position. It seems reasonable to suppose that CPs of this type need not satisfy the syntactic licensing condition. Nevertheless, I will argue that the thematic relation between *it* and the CP is in some cases parallel to that between *it* and the cleft clause.

3.2. Two licensing conditions for relative clauses

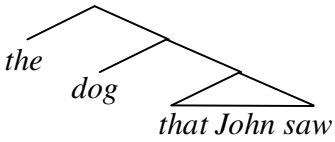
3.2.1. Introduction

In chapter 2 I provided evidence for treating clefts as synonymous with specificational sentences. Given the syntactic structure argued for in that chapter, however, this leads to an apparent problem. It was shown there that the 'antecedent' of the cleft clause in terms of the Complement Principle is the clefted XP, yet a specificational analysis of clefts seems to require *it* to be the antecedent, at least for semantic purposes. Furthermore, if *it* is the antecedent of the cleft clause, then this requires a relaxation of compositionality, in that a relative clause must be able to semantically modify a category of which it is not a syntactic sister at any point. In this section I will argue that both the clefted XP and *it* are antecedents of the cleft clause, but that they perform distinct licensing functions. More specifically, I will argue that relative clauses in general must satisfy two licensing conditions – a thematic condition and a syntactic condition – and that although the two licensers usually coincide, they may diverge under certain conditions. Crucially, the possibility of non-sisterhood-based modification arises from a representational 'misinterpretation' of the otherwise sisterhood-based licensing conditions. Finally, I will briefly compare this analysis with possible alternative ways of dealing with the compositionality problem presented by clefts.

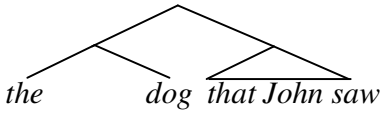
3.2.2. Restrictive relative clauses and 'θ-binding'

Most generative syntactic research has implicitly assumed a strict version of the thesis of compositionality, which requires the denotation of a particular node in a syntactic tree to be computable from the denotations of its immediate daughter nodes.[49] This principle has sometimes been used as a basis for preferring one structure over another for a particular construction. As far as restrictive modification of nouns – the case most relevant for this chapter – is concerned, it has often been assumed since Partee (1975) that the correct structure for a DP containing a restrictive modifier is as in (6a), rather than the alternative structure in (6b):[50]

(6) a.



b.



The analysis in (6a) is based on particular (and plausible) assumptions about the semantics of the noun, the modifier and the determiner: namely, that the noun and relative clause are interpreted as sets of individuals (i.e., predicates), that the combination of the noun and relative clause denotes the intersection of these two sets, and that the determiner selects a unique (and relevant) individual from this restricted set (e.g., Heim and Kratzer 1998).[51] If the noun and modifier are predicates, however, then under widely-

[49] A classic statement of a strict version of compositionality is what Bach (1976) calls the 'rule-to-rule hypothesis'. This essentially says that for every syntactic rule, there is a unique corresponding semantic rule. Another statement of a strict version of compositionality is found in Dowty et al. (1981:9): "[...] 'the parts' referred to in the statement of Frege's Principle [i.e., compositionality] must be the syntactic constituents of the expression in question. Furthermore, the meanings of those constituents must enter into the meaning of the whole expression *in a fixed way*, determined once and for all by the semantic rule corresponding to the syntactic rule by which those constituents were joined." Thus, what I will mean by the term 'strict compositionality' is that syntactic merger of two constituents in a particular way implies a unique way of combining the meanings of those constituents. (This seems to correspond to the 'strong' interpretation of Interface Uniformity in the sense of Culicover and Jackendoff 2005.)

[50] In fact, the oldest proposal in the generative literature, to my knowledge, due to Smith (1964), takes the relative to form an underlying constituent with the determiner and to undergo obligatory extraposition. A more recent analysis which preserves Smith's idea that the determiner selects for the relative clause is Kayne (1994), in which the head NP originates inside the relative clause and raises to SpecCP. (However, see Borsley 1997 for convincing criticisms of this analysis.)

[51] As Bach and Cooper (1978) have shown, however, the semantics of these elements can be revised in order to admit a structure in which the modifier is adjoined to the DP rather than the NP, a structure which is motivated by evidence from restrictive relatives in Hittite.

held assumptions they should bear the syntactic correlate of a semantic 'open position' – that is, a θ-role. Higginbotham (1985) observes that this is problematic for the formulation of the Θ-Criterion in Chomsky (1981), given in (7):

(7) *Θ-Criterion:*
   a. Every argument is assigned one and only one thematic role.
   b. Every thematic role is assigned to one and only one argument.

It is normally assumed that in predicational copular sentences, the postcopular phrase assigns a θ-role to the subject. Thus, in (8a), the DP/NP *a dog* assigns a θ-role (which ultimately originates in the noun *dog*) to Fido, the interpretation being that Fido belongs to the set of individuals having the property of 'doghood'. In the interest of maximum generality, we would also want to say that even when the DP *a dog* functions as an argument, as in (8b), the noun *dog* has an external θ-role which must be saturated somehow:

(8) a. Fido is a dog.
   b. John saw a dog.

As Higginbotham notes, however, there is no argument to which this θ-role could be said to be assigned in cases like (8b), and thus clause (7b) of the Θ-Criterion cannot account for argumental uses of DPs as it stands. Higginbotham's solution to this problem is to argue that the external θ-role of the noun is 'bound' by the determiner. Higginbotham thus distinguishes 'θ-marking', the standard way in which a predicate discharges its argument slots, from 'θ-binding', in which a functional head satisfies an argument slot, and reformulates the Θ-Criterion as in (9):[52]

(9) *Θ-Criterion (revised):*
   a. If X discharges a thematic role in Y, then it discharges only one.

[52] The reformulated Θ-Criterion thus accounts for the ban on multiple (adjacent) determiners (at least in English), which Chomsky (1981) attributes to a ban on vacuous quantification.

b. Every thematic position is discharged.

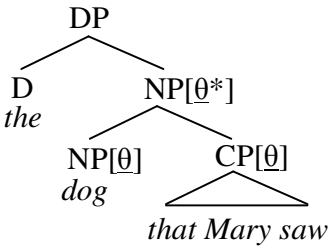
Furthermore, Higginbotham makes the compositionally-based assumption that θ-binding takes place under sisterhood between the determiner and a projection of the noun.

Higginbotham accommodates restrictive modification into this system by treating its interpretation as conjunction in the simple intersective case.[53] For example, in the NP *white wall*, both *white* and *wall* have a thematic position which needs to be discharged, but given clause (9a) of the revised Θ-Criterion, the two θ-roles cannot both be discharged by a single determiner. Higginbotham thus argues that the θ-roles of the adjective and the noun are 'identified' in the mother node dominating them, and thus distinguishes an extra thematic operation, 'θ-identification'. The thematic grids of the two predicates percolate up to a single node, and collapse into a single thematic grid, which is interpreted as a semantic conjunction of the two original grids. The newly created position is then θ-bound under sisterhood by the determiner which is merged with the N′. Although Higginbotham does not discuss them, we would also expect restrictive relative clauses, which are interpreted as intersective modifiers of nouns, to fall under this account. Thus, in a DP like *the one that Mary saw*, the thematic grids of *one* and *that Mary saw* will percolate and undergo θ-identification at the top NP node, subsequently being bound by the determiner *the*.[54] This is illustrated in (10), in which * indicates satisfaction of a θ-role under θ-binding:

[53] Higginbotham introduces another mechanism, *autonymous θ-marking*, in order to deal with non-intersective modification, which he calls "the norm".

[54] An obvious problem with this view of modification by restrictive relatives is that the relative clause is apparently internally saturated – in particular, the 'gap' position in the relative is underlyingly filled by a relative operator (either overt or covert) which will function as an argument. Nevertheless, given that semantically the relative functions as a predicate in the same way as an AP does (at least when it acts as a modifier), it will be necessary to treat the syntax-semantics interface in the same way for both types of modifier. Thus, although the assumption that the relative bears an external θ-role is problematic, I do not believe that it is a problem unique to the present analysis.

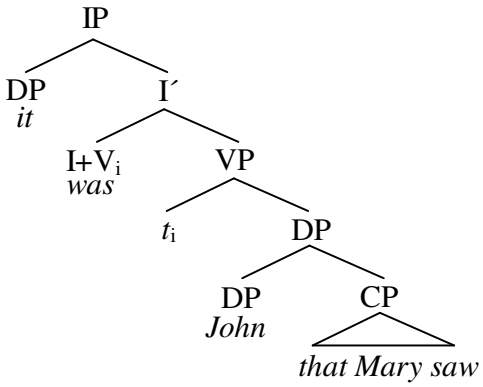
(10)



3.2.3. The problem with clefts I: modification of a non-sister

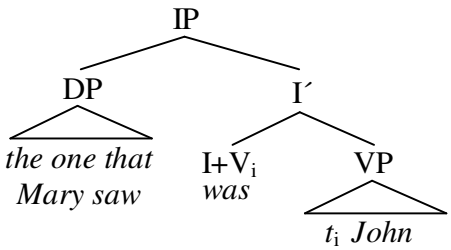
If θ-binding is the mechanism by which relative clauses are interpreted as modifiers of NPs, then in clefts it must be *it*, rather than the clefted XP, that θ-binds the cleft clause. Clearly, however, the sisterhood requirement inherent in Higginbotham's system will not be met by *it* and the cleft clause, given the structure argued for in chapter 2 and repeated in (11), since they are not sisters at any stage:

(11)



Contrast this structure with the commonly assumed structure for specificational sentences in (12) (e.g., Bošković 1997, Guéron 2003, Den Dikken 2006):

(12)



If we want to retain the idea that both (11) and (12) are mapped compositionally to an identical semantics, there are various ways in which we might proceed, but the problem is that, at least within 'mainstream' generative grammar, the mechanisms by which the cleft clause could come to restrictively modify *it* in a compositional fashion are either semantically inappropriate or not independently available. For example, one function that may be played by a predicate in VP-adjoined position is that of a subject-oriented secondary predicate. Thus, (13a), in which *drunk* is adjoined to VP, can be approximately paraphrased as (13b); that is, the secondary predicate is asserted to hold of the subject, and this predication is temporally dependent on the main predicate:

(13) a. John came in drunk.
b. John came in while he was drunk.

Assuming that the cleft clause can be extraposed to VP, like other VP-internal restrictive relative clauses, one explanation that might be entertained under the present analysis is that the cleft clause is interpreted as a secondary predicate of the subject *it*. This solution, however, fails in at least two ways. The first is that relative clauses cannot in general be secondary predicates, as shown by the ungrammaticality of (14a) with the intended meaning in (14b). Second, even if a relative clause could be a secondary predicate, the meaning of the cleft does not correspond to the meaning that should arise through secondary predication; that is, (14c) cannot be adequately paraphrased as (14d):[55]

(14) a. John came in that I was insulting.
b. John came in while I was insulting him.
c. It was John that Mary saw.
d. It [i.e., some deictically or anaphorically indicated entity] was John while Mary saw it/him.

[55] In addition, subject-oriented secondary predicates behave differently from cleft clauses with respect to VP-ellipsis, in that they can be stranded by VP-ellipsis (e.g., Culicover and Jackendoff 2005), as in (i):

(i) Tomatoes don't taste good cooked, but they do ___ raw.

Thus, it seems that any way of relating the cleft clause to *it* which relies on the same mechanism used to relate a secondary predicate to a subject would make the wrong predictions, both syntactically and semantically.[56]

An obvious alternative within the assumptions of 'mainstream' generative grammar would be to argue that there is some syntactic level at which (11) and (12) are isomorphic. The arguments presented in chapter 2 suggest that this cannot be an underlying level, since the cleft clause must (for whatever reason) be underlyingly adjoined to the clefted XP. The alternative is that the cleft clause undergoes covert movement at LF, adjoining to the nominal restriction of *it*. This would satisfy strict compositionality, and would not violate the Complement Principle (which only applies to overt structures). It would, however, be a highly *ad hoc* solution – to my knowledge there are no other constructions where such LF-raising has been proposed for reasons of semantic modification alone.[57] It thus seems that if the syntactic argumentation in chapter 2 is correct, any attempt to maintain strict compositionality in the syntax-semantics mapping for clefts will encounter serious problems.[58]

It seems, then, that we must relax the sisterhood requirement in some way in order to allow modification of *it* by the cleft clause. This problem is akin to that posed by relative clause extraposition. If the sisterhood condition holds of a modifier and the NP it modifies, then this suggests that extraposed relatives must have been base-generated in the antecedent DP and moved rightwards to their surface positions. Indeed, for a long time the 'standard view' was that extraposition involves rightward movement (e.g., Ross 1967, Baltin 1978, 1981, Rochemont 1978, Reinhart 1980, Guéron and May 1984, Büring and Hartmann 1997). More recently, under the influence of Kayne's (1994) 'antisymmetry' hypothesis, which prohibits rightward movement, many authors have

[56] That is, positing a small clause with a PRO subject controlled by *it*, and the cleft clause as predicate (e.g., Chomsky 1981), or 'function identification' of a θ-role borne by the cleft clause with the external θ-role of the main predicate (e.g., Neeleman and van de Koot 2002).

[57] The expletive-raising hypothesis of Chomsky (1995) does not fall into this category, since it was proposed for purposes of checking nominative Case on the 'associate' of the expletive. Similarly, the LF-raising analysis proposed by Bošković (1997) for pseudoclefts is motivated by reconstruction effects rather than purely semantic reasons.

[58] Even authors such as Den Dikken (2006) and Adger (2008), who argue on the basis of simplicity for assigning an asymmetrical predicational relation to all of Higgins' classes of copular sentences, do not explicitly address the compositionality issue raised by clefts. Neither argues that the cleft clause originates as a modifier of *it* (or the equivalent in Scottish Gaelic for Adger) and extraposes – rather, they claim that it originates in an IP-adjoined position (Adger) or a rightmost position which is left vague (Den Dikken).

argued that extraposition involves leftward movement of the antecedent, stranding the relative clause (e.g., Kayne 1994, Bianchi 1999).[59] As has often been noted, however, a movement analysis of extraposition raises various problems. In addition, there are some cases where a movement derivation is simply implausible. Problems such as these have led various authors to propose analyses of extraposition in which the extraposed element is base-generated in its surface position (e.g., Andrews 1975, Wittenburg 1987, Culicover and Rochemont 1990, 1997, Koster 2000, Kiss 2005; though see Büring and Hartmann 1997 for a defence of rightward movement).

Culicover and Rochemont (1990) note that the idea that extraposed phrases are related to a gap position leads to various problems, since extraposition is both more and less restricted than other A´-movements. Extraposition from subject is possible, yet subjects are islands for other A´-movements. On the other hand, extraposition is generally assumed to be clause-bounded, while other A´-movements are not (Ross's 1967 Right Roof Constraint). Various attempts have been made to account for these distinctions (e.g., Rochemont 1978, Baltin 1981, 1987, Huang 1982), but essentially these either amount to stipulations that rightward movement has different properties from leftward movement, or face other problems (see Culicover and Rochemont 1990).

In addition, there are certain clear cases where an extraposed phrase cannot plausibly have a movement source. These are the cases of relative clause extraposition involving conjunction pointed out by Perlmutter and Ross (1970) and Link (1984):

(15) a. [A man]$_i$ entered the room and [a woman]$_j$ left who$_{i+j}$ were quite similar.
b. [The boy]$_i$ and [the girl]$_j$ who dated each other$_{i+j}$ are friends of mine.

In each case, the extraposed relative contains an element which must be related to (a part) of both conjuncts simultaneously – in (15a), plural agreement on the copula, and in (15b), the anaphor *each other*. The relative in (15a) cannot have originated from one of the conjuncts alone, since this would violate the Co-ordinate Structure Constraint, and in addition would not account for the plural agreement. Nor can it have originated in both

[59] As Büring and Hartmann (1997) and Culicover and Rochemont (1997) show, however, this type of analysis faces various serious problems.

conjuncts via Across-the-Board movement, again because this would not account for the plural agreement. The (15b) case, which Link calls a 'hydra', presents a similar difficulty. It is normally assumed that restrictive relatives adjoin to NP. Since the relative in (15b) modifies both *boy* and *girl*, it would be expected to adjoin to a conjoined NP *boy and girl*, but there is no such NP, since a determiner intervenes. It thus appears that the relative must be adjoined to the conjoined DP, in which case the relative must be construed with the two NPs in some other way, the obvious way being extraposition. However, a movement-based extraposition analysis would fail here for the same reason as in (15a) – the relative cannot have originated in just one of the two conjuncts, nor can it be derived via Across-the-Board movement.

Kiss (2005) notes further problems with the movement account of extraposition, including the fact that extraposition of adjuncts in German (in contrast to extraposition of complements) violates certain island constraints. As he puts it, "it seems worthwhile to ask why modifier extraposition has been recognised as an extraction of the modifier in the first place. It is the *interpretation* of the extraposed phrase which leads to the conclusion that extraposition is a displacement operation. The modifier receives the interpretation it would acquire if it remained adjacent to its antecedent" (ibid.:287). The conclusion such authors draw from these considerations is that extraposed modifiers are base-generated in their surface positions, and that the relation between an extraposed modifier and its antecedent is derived in some way other than through sisterhood (e.g., Wittenburg 1987, Culicover and Rochemont 1990, Kiss 2005).[60]

[60] The analysis of Kiss (2005) seems to preserve compositionality in that it makes use of a kind of 'percolation' mechanism which links the 'index' of the antecedent with that of the extraposed phrase. But the analysis is still not 'strictly compositional', since an extraposed relative in the same position may in some cases be ambiguous as to its choice of antecedent, as in this example from Wittenburg (1987), where any of the underlined DPs may be the antecedent of the relative (note that Wittenburg's condition on extraposition is weaker than the Complement Principle, since it allows an IP-adjoined relative to have its antecedent within VP):

(i) [[A playwright gave a play to some producer yesterday] [that had never been in New York before]].

As Wittenburg puts it: "The syntactic structure proposed here is thus a departure from some conventional assumptions about the relation of syntax and semantics. In particular, the tenet of compositionality is being relaxed, since it will be no longer possible to strictly determine the semantic interpretation from the syntactic phrase structure bracketing alone" (p. 432).

In summary, the problem posed by clefts that they involve modification of a non-sister is part of a general problem concerning the linking of modifiers and their antecedents.[61] Ideally, we would like to account for the cleft facts in the same way that we account for the facts concerning relative clause extraposition.

3.2.4. The problem with clefts II: two antecedents for one relative

The second problem that clefts present for commonly accepted accounts of modification is that the cleft clause apparently has two antecedents: the clefted XP and *it*. There is, however, an asymmetry between the two antecedents. As we saw in chapter 2, the clefted XP is the antecedent which gives rise to feature agreement on the relative operator. Furthermore, the cleft clause must overtly appear in a local relation with the clefted XP, in conformity with the Complement Principle. Cleft *it*, on the other hand, does not show these properties: the relative operator may differ in feature content from *it*, and the cleft clause need not surface locally to *it*. On the other hand, the cleft clause is not interpreted as a restrictive modifier of the clefted XP, as is clear from the fact that proper names, which may not normally be restrictively modified, may nevertheless be clefted. Instead, it is interpreted as a restrictive modifier of *it*.

Interestingly, there is a parallel case which has not, to my knowledge, been discussed in the literature. Consider the minimal pair in (16):

(16) Q: Which people that you like did you see at the party?
  a. A: *I saw JOHN that I like.
  b. A: I only saw JOHN that I like.

(16a) illustrates the fact that restrictive relatives cannot normally take proper nouns (or pronouns) as antecedents. On the other hand, when the focus particle *only*, in its pre-VP use, is added, the sentence becomes grammatical. Since the only apparent difference between the two sentences is the presence or absence of *only*, this suggests that *only*

[61] I assume that, by contrast, the relationship between predicates and arguments is strictly compositional, as is suggested by the distinction between extraposed adjuncts and complements discussed by Kiss (2005) (see also Büring and Hartmann 1997 for data which seem to support this distinction). As for why there should be a distinction between complementation and modification in this sense, I have no further insights to offer here, but merely note it as an issue for future research.

licenses the relative clause in some way. Furthermore, the relative clause appears to be interpreted as a modifier of *only*. Note first that (16b) can be paraphrased by the specificational sentence in (17), just as clefts can be paraphrased by specificational sentences:[62]

(17) The only person that I like that I saw was JOHN.

In order to assess the semantic contribution made by the relative clause, it will be useful to consider the semantics of *only* briefly. Since Jackendoff (1972), it has been well known that *only* 'associates with focus'; that is, it appears to take the focus of the sentence as an argument, regardless of where the focus appears in the structure. Thus, for example, the two sentences in (18) differ only in the placement of focus, but this difference gives rise to a difference in truth-conditions. Thus, (18a) would be falsified by a situation in which John also gave a book to Mary, but (18b) would not be; on the other hand, (18b) would be falsified by a situation in which John also gave a magazine to Sue, but (18a) would not be:

(18) a. John only gave a book to SUE.
b. John only gave A BOOK to Sue.

A simplistic way of looking at the semantics of *only* might be to say that it takes two arguments, a predicate and an individual, and asserts that there is no other individual which satisfies the property denoted by the predicate. This is informally represented in (19a).[63] Thus, the semantics of *I only saw JOHN* might be as in (19b). Given the paraphrase in (17), an adequate semantics of (16b) might therefore be as in (19c):

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[62] The fact that sentences with *only* can be paraphrased by specificational sentences fits in with Horn's (1969) claim that sentences with *only* presuppose the propositional content of the sentence without *only*, and assert exhaustivity. This insight appears not to have been preserved in more recent accounts of *only* such as Rooth (1985, 1992) and Krifka (1992), in which the propositional content of the VP without *only* is asserted rather than presupposed.

[63] I refer to this as 'simplistic' because it is flagrantly non-compositional, since the predicate argument of the particle is not even a constituent, let alone a syntactic sister of the particle. Modern theories of association with focus tend to assume that adverbial particles take their sister (a constituent, of course) as their argument, and that the partition between focus and background is calculated independently within this domain. See chapter 5 for more discussion.

(19) a. λPλx[P(x) & ∀y[P(y) → y=x]]
b. saw(John)(I) & ∀y[saw(y)(I) → y=John]]
c. saw(John)(I) & ∀y[saw(y)(I) & like(y)(I) → y=John]]

What the relative clause appears to be doing semantically, then, is restricting the domain over which the universal quantifier in the semantics of *only* operates. Notice that, if clefts are semantically parallel to specificational sentences, this is exactly the function the cleft clause plays with respect to *it*. For example, under such a view, both sentences in (20a-b) might have the semantics in (20c), in which the definite article and *it* are translated as the Russellian ι-operator, and specificational semantics is taken to involve equation:[64]

(20) a. The one that Mary saw was JOHN.
b. It was JOHN that Mary saw.
c. ιx[see(x)(mary)] = john

Just as the relative clause in (16b) adds a semantic restriction on the domain of the universal quantifier in the (simplistic) translation of *only*, the cleft clause in (20b) adds a semantic restriction on the domain of the otherwise unrestricted ι-operator in the translation of *it*. In both cases, there is a parallel specificational sentence in which the relative clause transparently restricts the domain of the relevant operator: in (17), the NP-internal *only*, and in (20a), the definite article.

On the other hand, in other ways the relative clause in sentences such as (16b) behaves as if the focused DP is its antecedent. Thus, like clefts, *only*-relatives contain a relative clause which apparently has two antecedents. Recall from chapter 2 that an extraposed relative clause must overtly appear locally to its syntactic antecedent on the surface, as captured for example by the Complement Principle. First, note that when *only* is in pre-VP position, it need not appear in the same clause as the focus with which it associates, as shown in (21b) (e.g., Anderson 1972, Jackendoff 1972, Bayer 1996). This is also possible with the *only*-relative construction, as in (21c):

[64] The Russellian definition of the ι-operator is given in (i) (from Allwood et al. 1977:153):

(i) G(ιx(Fx)) is equivalent to ∃x(F(x) & G(x) & ~∃y(F(y) & x ≠ y))

(21) a. I only saw JOHN.
b. I (only) said that I saw (only) JOHN.
c. I (only) said that I saw (only) JOHN that I liked.

Recall that according to the Complement Principle, an extraposed relative clause must be in a government relation with its syntactic antecedent at S-Structure. Thus, if the syntactic antecedent of the relative clause in (21c) is *only*, the relative should surface in the matrix clause, while if the syntactic antecedent is *John*, the relative should surface in the embedded clause. Of course, it is impossible to tell from (21c) alone which clause the relative clause is in. There are two pieces of evidence, however, suggesting that the relative clause surfaces in the embedded clause, and thus that its syntactic antecedent is *John* rather than *only*. First, if the matrix clause is a passive with a *by*-phrase, it is strongly preferred to place the *by*-phrase to the right of the relative clause:

(22) a.?* It was only believed that I saw JOHN by everyone that I liked.
b. ? It was only believed that I saw JOHN that I liked by everyone.

If the relative clause were in the matrix clause, this would be unexpected, since extraposed relative clauses preferably follow *by*-phrases in the same clause:

(23) a. A man was seen by everyone that I liked.
b. ? A man was seen that I liked by everyone.

Second, if the matrix clause is a raising verb with an experiencer argument, a Condition C violation ensues if the experiencer is a pronoun coreferential with an R-expression in the relative clause:

(24) a. It only seemed to $Mary_i$ that I saw JOHN that she_i liked.
b. * It only seemed to her_i that I saw JOHN that $Mary_i$ liked.

This clearly indicates that the relative clause is in the embedded clause, and is thus c-commanded by the matrix experiencer, since, as Culicover and Rochemont (1990) observe, it is the surface position of an extraposed relative clause that is relevant for Condition C (though see Büring and Hartmann 1997 for some caveats).

Only-relatives thus present a similar problem to clefts in that they contain a relative clause with two antecedents. Semantically speaking, the relative modifies *only* in that it restricts the domain over which the quantifier in the translation of *only* operates; on the other hand, with respect to locality, the relative behaves as if the focused DP is its antecedent. In the next section, I will propose a parallel analysis of clefts and *only*-relatives which is based on the idea that non-sisterhood-based modification is possible, as we have already seen for relative clause extraposition. Since the relative clause in these constructions has two different types of antecedent, this leads us to expect that the relation between the relative and either or both of these antecedents need not be mediated under sisterhood.

3.2.5. Two licensing conditions

What I would like to propose in this section is that all the cases of relative clauses that we have considered – DP-internal relatives, extraposed relatives, cleft clauses and *only*-relatives – are licensed via θ-binding. In the DP-internal case, a relative clause must adjoin to NP and have its θ-role bound under sisterhood by a determiner. In the latter three cases, however, I will argue that one or both of these licensing requirements are 'misinterpreted' as representational locality conditions which in most cases have the same empirical effects, but also allow for cases where sisterhood does not obtain between the relative and its antecedent(s).

Let us suppose that in the DP-internal case, the following two licensing conditions must be met by the relative clause:

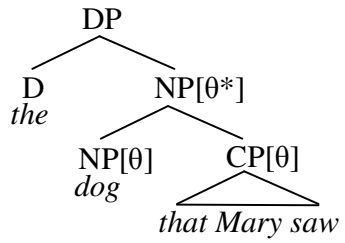
(25) i. *Thematic licensing condition:* The θ-role borne by the relative clause must be θ-bound under sisterhood with a determiner.

ii. *Syntactic licensing condition:* The relative clause must be adjoined to the

extended nominal projection (in the sense of Grimshaw 1991) which licenses it.

These two principles will be satisfied by structures such as (26):

(26)



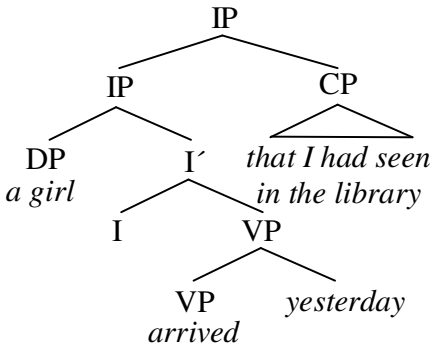
Now consider extraposed relatives. As we have seen, there is convincing evidence that some extraposed relatives must be base-generated in extraposed position. This means that the syntactic licensing condition in (25ii) cannot be satisfied. Suppose, then, that in this case the syntactic licensing condition is 'misinterpreted' as a representational locality condition which holds of structures licensed by (25ii), but which in addition holds of the structure found in base-generated extraposed relatives. As we have seen, various conditions of this type have been proposed in the literature. The formulation I will adopt is given in (27) (retaining the 'S-Structure' condition of Culicover and Rochemont's 1990 Complement Principle):

(27) *Syntactic licensing condition (non-sisterhood):* In the overt structure, the relative clause and the extended nominal projection licensing it must be immediately dominated by segments of the same category.

Like (25ii), this condition will allow for the structure in (26), since segments of the NP category immediately dominate both the CP and a member of the extended projection licensing it – the head N. Unlike (25ii), however, (27) will also allow the structures in

(28), which according to Culicover and Rochemont (1997) are the main structures allowed for relative clause extraposition:[65]

(28) a.



[65] In fact, Culicover and Rochemont (1990) also claim that subject relatives can extrapose to VP. I find several of the judgements used to support this questionable, however. Culicover and Rochemont present three arguments for the possibility of VP-adjoined subject relatives: the possibility of deleting a subject relative (in their original examples, an extraposed PP) by VP-ellipsis, as in (i); the relative order of subject relatives and VP-adverbs, as in (ii); and the placement of parentheticals, as in (iii):

(i) A MAN came into the room who had blond hair, and A WOMAN did ___ too.
(ii) Some women came into the room who were from Chicago as quickly as possible.
(iii) A man was, I think, sitting in the room who had a scarf on.

In (i), the DP in the second conjunct can be interpreted as being modified by the relative even though it is not present in this conjunct, which suggests it is included in the material deleted by VP-ellipsis. As Culicover and Rochemont note, though, James McCawley has provided counterexamples to this, such as (iv), which suggest that an 'inferential' account of (i) might be superior:

(iv) If you find a man who has lived in Boston, or a woman, please tell me.
(v) A MAN who is convicted of bank robbery will get a ten-year sentence, but A WOMAN would get only five years.

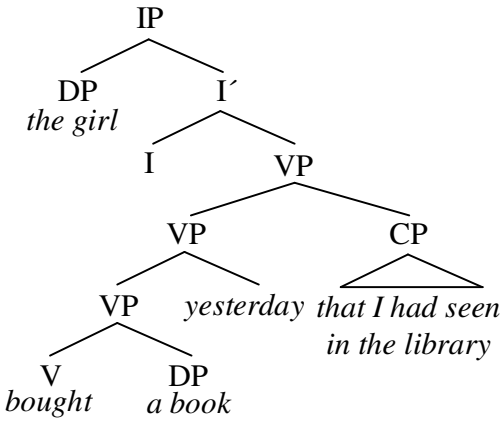
As for (ii), Culicover and Rochemont provide evidence that *quickly* must be adjoined to VP, which I find convincing. However, I do not agree with the judgement of the sentence as grammatical. Finally, the argument from (iii) is based on Emonds' (1976) claim that parentheticals can only appear to the left of a maximal projection. (iii) thus purportedly shows that the subject relative can adjoin to VP, since only then would the material following the parenthetical make up a constituent. Once again, however, I find the judgement of (iii) as acceptable questionable.

Indeed, the possibility of VP-adjoined subject relatives appears to be primarily motivated by Culicover and Rochemont's definition of the Complement Principle rather than by any strong empirical facts. Recall that the Complement Principle requires the relative clause to be in a government relation with its antecedent. Under Culicover and Rochemont's definition of government, which makes crucial use of Chomsky's (1986a) notion of *barrier*, a relative clause in VP-adjoined position would be governed by the subject, since no (full) barrier would intervene between the two.

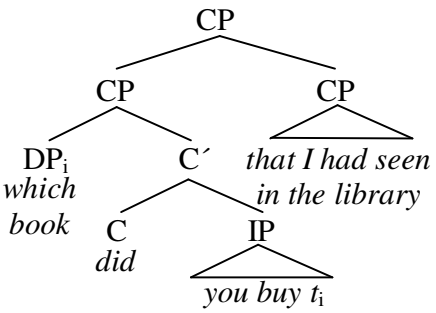
Given the complications that would ensue under the present approach if VP-adjoined subject relatives were permitted, plus the questionable empirical motivation for such structures, I assume that Culicover and Rochemont (1997) are essentially correct in restating the Complement Principle as follows:

(vi) An extraposed relative must be adjoined to the minimal maximal projection that contains its antecedent.

b.



c.

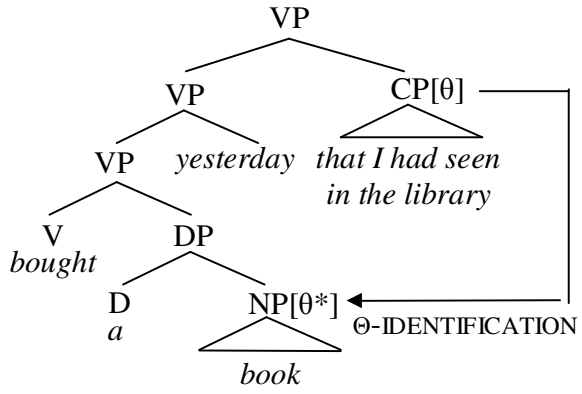


In (28a), the structure for extraposed subject relatives, segments of the IP category immediately dominate both the CP and the DP licensing it. Similarly, in (28b), the structure for extraposed object relatives, segments of the VP category immediately dominate both the CP and the DP. Finally, a relative extraposed from a moved object relative must adjoin to CP, as in (iii). Notice that any other phrasal adjunction sites, other than to (part of) the DP itself, would violate the condition in (27).

What about the thematic licensing condition (25i)? Clearly this cannot be satisfied by the structures in (28) either. The idea that this condition need not be satisfied under sisterhood raises a problem which does not arise for the syntactic licensing condition: namely, non-sisterhood-based satisfaction should violate the Θ-Criterion, since the determiner of the antecedent will need to carry out two instances of θ-binding, one for the NP and one for the extraposed relative clause. This would violate Higginbotham's revised Θ-Criterion, according to which a θ-binder can satisfy only a single θ-role. Suppose instead, then, that in the structures in (28), satisfaction of the syntactic licensing condition in (27) is sufficient to 'identify' the θ-role of the relative with that of the head

NP, thus allowing a single instance of θ-binding by the determiner. This is illustrated in (29) for the extraposition from object case in (28c):

(29)



The situation is somewhat different in the case of clefts and *only*-relatives, since the thematic licenser is a distinct DP from the syntactic licenser. It will therefore not be possible for θ-identification with the focused XP to allow θ-binding by *it* or *only*, under the assumption that θ-roles cannot be percolated out of the extended nominal projection. Suppose, then, that the sisterhood-based condition in (25i) may be 'misinterpreted' as the representational locality condition in (30), in the same way that (25ii) may be 'misinterpreted' as (27):[66]

(30) *Thematic licensing condition (non-sisterhood):* The θ-role borne by the relative clause must be θ-bound by a determiner which c-commands the relative and which the relative m-commands.

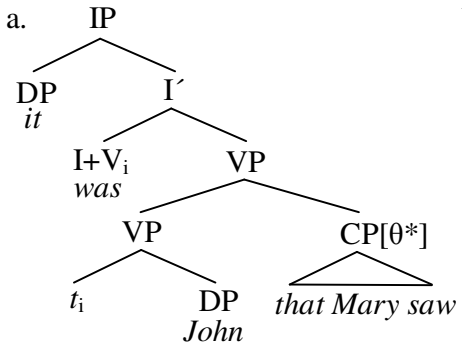
As well as allowing for the DP-internal case of restrictive modification, (30) allows for the structures in (31) – (31a) being that of a cleft and (31b) being that of an *only*-relative

[66] I adopt the definitions of c- and m-command in (i-ii), plus the definition of domination in (iii):

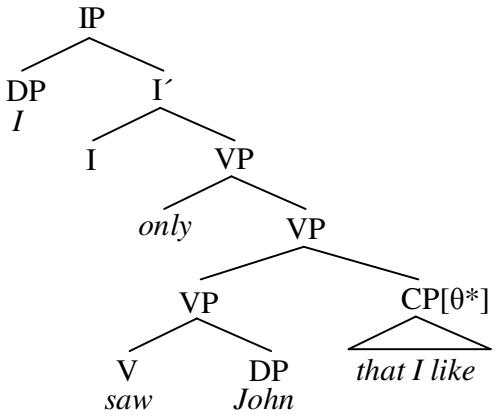
(i) α *c-commands* β iff α does not dominate β and there is no δ that dominates α and not β.
(ii) α *m-commands* β iff α does not dominate β and there is no δ (δ an X^{max}) that dominates α and not β.
(iii) δ dominates α iff every segment of δ contains α.

construction – assuming, as seems reasonable, that the relative clause in both cases can extrapose to VP like other VP-internal restrictive relative clauses:[67]

(31) a.



b.



(31a) is permitted because the cleft clause and *John* are immediately dominated by segments of the same category (VP), and, assuming that the cleft clause may undergo extraposition to VP, it also m-commands and is c-commanded by its thematic antecedent, *it*. (31b) is permitted for similar reasons, the thematic antecedent of the relative clause this time being *only*.[68]

There is one remaining problem. As it stands, the combination of the two non-sisterhood-based licensing conditions leads us to expect that any instance of *it* can thematically license a relative clause syntactically licensed by a distinct DP, as the following ungrammatical example shows:

(32) *It annoyed John that I bought. (meaning *What I bought annoyed John*)

[67] Recall that in chapter 2, various empirical facts were presented which showed that the clefted XP c-commands into the cleft clause at some stage. This seems to be in conflict with the possibility, argued for here, of base-generating an extraposed relative in VP-adjoined position, since in that case the clefted XP would not c-command into the cleft clause. In order to resolve this conflict, I would like to suggest that the sisterhood-based licensing conditions are preferred over the non-sisterhood-based conditions: that is, where it is possible to apply the sisterhood-based condition (i.e., where conditions on movement would not be violated by doing so), it must be applied. Although this clearly makes some empirical predictions, I have found these hard to test, and so must leave this for future work.

[68] Note that the hierarchical order of *only* and the relative clause is predicted to be free, since both will allow the relevant c- and m-command relations. Unfortunately, though, I can see no way to test this prediction.

What seems to be necessary is a condition that the thematic licenser and the syntactic licenser be in some sense non-distinct.[69] Given that in clefts and *only*-relatives the two licensers are distinct DPs, this condition cannot be formulated in terms of non-distinctness of extended projections. A more promising candidate is a condition requiring a relation of semantic equation between the two licensers. As we have seen, specificational semantics is usually assumed to involve semantic equation between the two XPs, and the semantics of *only* can be defined as involving equation between the focus and a variable which is quantified over (e.g., Krifka 1992). An interesting consequence of this is that it rules out cases of θ-binding by focus-sensitive particles which do not involve semantic equation. Recall that the semantics of *only* can simplistically be defined as in (33a). Here, there is equation between the focus argument (here represented by the variable *x*) and the variable *y* quantified over by the universal quantifier. Similarly, the specificational semantics we have been assuming involves equation between the focus argument and the term created by the ι-operator, as in the semantics for (33b) in (33c):

(33) a. $[[only]] = \lambda P \lambda x[P(x) \& \forall y[P(y) \rightarrow y=x]]$
b. It was JOHN that Mary saw.
c. $\iota x[see(x)(mary)] = john$

On the other hand, the semantics of *even* and *also* do not involve equation, as shown by the simplistic semantics for the two particles given in (34a-b) respectively:

(34) a. $[[even]] = \lambda P \lambda x[P(x) \& \exists y[P(y) \& P(y)$ is more likely than $P(x)]]$
b. $[[also]] = \lambda P \lambda x[P(x) \& \exists y[P(y)]]$

[69] In Reeve (2007) I suggested a solution to a distinct problem (the problem of why restrictive relatives do not routinely adjoin to PP, AP and so on) which might seem to solve this problem – the θ-role of the cleft clause must percolate up to a node immediately dominating *it* (as in the system of Neeleman and van de Koot 2002) in order to be θ-bound by it. In most cases this percolation will be blocked by the fact that the verb will have its own θ-role(s), with which the θ-role of the cleft clause would collapse (which would account for the deviance of (32)), but under the assumption that *be* does not assign θ-roles, percolation is not blocked in the case of clefts. Although this analysis might seem to resolve the compositionality problem, however, I reject it because it does not extend to *only*-relatives.

As expected, then, these particles, although focus-sensitive, cannot easily license a relative clause in the same way as *only*:

(35) a. ?*I even saw JOHN that I like.
b. ?*I also saw JOHN that I like.

The proposal is as follows, then. Restrictive modifiers of NP have two types of licensing requirement – syntactic and thematic – and these are normally governed by the sisterhood-based conditions in (25). Although these seem to rule out structures like (28) and (31), assuming that the relative in such cases does not originate inside the syntactic antecedent, the structures result from 'misinterpretations' of these conditions, giving rise to the representational, non-sisterhood-based conditions in (27) and (30), repeated in (36i-ii) below. Additionally, the two licensers must meet the non-distinctness condition in (36iii):

(36) i. *Syntactic licensing condition (non-sisterhood):* In the overt structure, the relative clause and the extended nominal projection licensing it must be immediately dominated by segments of the same category.
ii. *Thematic licensing condition (non-sisterhood):* The θ-role borne by the relative clause must be θ-bound by a determiner which c-commands the relative and which the relative m-commands.
iii. *Non-distinctness condition:* The extended projection to which the thematic licenser belongs must be referentially and thematically non-distinct from the syntactic licenser.

These conditions allow for the same possibilities as the sisterhood-based versions, but in addition allow structures like (28) and (31).[70] Despite deviating from the strict

[70] The condition in (36ii) is reminiscent of the notion of 'c-subjacency' proposed by Williams (1980) as a condition on predication, including θ-role assignment. Williams defines c-subjacency as in (i):

(i) B is c-subjacent to A iff A is dominated by at most one branching node which does not dominate B. (ibid.:204 fn. 1)

compositionality which is assumed in much generative syntactic research, this proposal has the theoretical benefit of accounting for 'discontinuous' modification of this type while avoiding the severe syntactic problems faced by movement accounts. In the following subsections, I will show that, in addition to this theoretical advantage, the proposal accounts for certain empirical properties of clefts and *only*-relative constructions which otherwise remain mysterious.

3.3. Consequences of the analysis

3.3.1. Obligatory versus optional extraposition

Given the syntactic structure proposed in chapter 2, the requirement for the cleft clause to satisfy both licensing conditions predicts that it must undergo obligatory extraposition to VP, as shown in (31a) above.[71] Consider the three possible structures in (37a-c), corresponding respectively to the cases where the cleft clause has not undergone extraposition, where it has undergone extraposition to IP, and where it has undergone extraposition to VP:[72]

In order to update c-subjacency with the clausal structure assumed here, 'branching node' would have to be replaced with 'maximal projection'. In this case, 'c-subjacency' would be almost identical with (36ii). It is a promising aspect of the condition in (36ii) that it could potentially be reduced to a condition which holds of thematic relations in general.

The condition in (25iii) resembles a proposal by Smits (1989), who also argues that the cleft clause in effect has two antecedents: *it* and the clefted XP. A similar fact, the fact that an extraposed relative does not allow 'split antecedents', as in (ii), is attributed by Guéron (1980:647-8) to Noam Chomsky (see also Guéron and May 1984), and is used as an argument for a movement approach to extraposition:

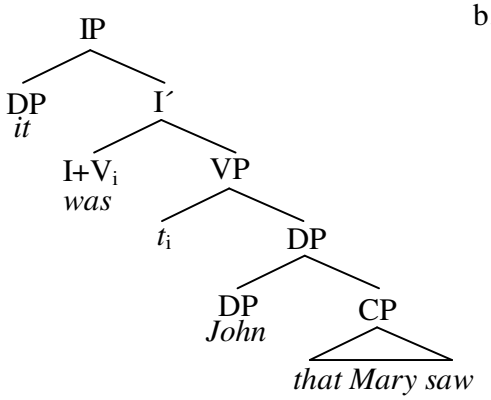
(ii) *A man met a woman yesterday who were similar.

[71] Note that this means that relative clause extraposition cannot (always) be PF-movement, contra Chomsky (1995) and Truckenbrodt (1995b), since this would predict that it has no LF-related effects. In fact, it has independently been shown that relative clause extraposition does have other LF-related effects (e.g., Culicover and Rochemont 1990, 1997, Inaba 2005, Abels and Marti 2009). Inaba (2005) claims that, in contrast to English extraposition, German extraposition is a PF-movement phenomenon, but as far as I can tell, all that he manages to show is that the German data are consistent with either a base-generation or a movement analysis. The single pair of examples that might indicate a difference in the nature of extraposition between English and German are not analysed in enough detail for us to know what the relevant factors are.

[72] One might wonder what rules out the possibility of *it* functioning as both the syntactic and thematic antecedent of the cleft clause, which would essentially replicate the predictions of Percus's (1997) analysis. I assume that this ruled out by the fact that, for whatever reason, pronouns cannot syntactically license a relative clause, as is generally the case whether the relative clause is extraposed or not:

(i) *I saw it that I liked.
(ii) *He came in that I liked.

(37) a.



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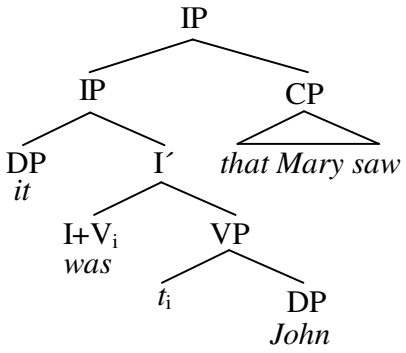
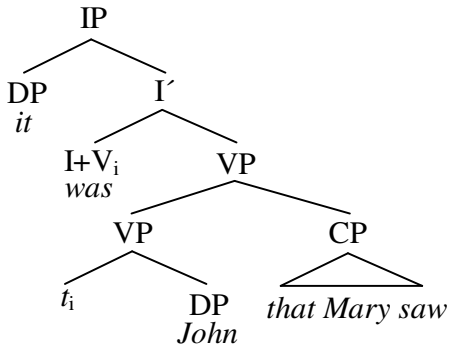


c.



In (37a) the cleft clause is adjoined to its syntactic antecedent *John*, thus satisfying the syntactic licensing condition. However, assuming that the relative cannot have moved downwards from a higher position, the thematic licensing condition is violated, since the relative does not m-command *it*. The structure in (37b), in which the cleft clause is adjoined to IP, faces a different problem: the syntactic licensing condition cannot be satisfied by *John*, since the cleft clause and *John* are immediately dominated by distinct nodes (IP and VP respectively), and the thematic licensing condition cannot be satisfied by *it*, since *it* does not c-command the cleft clause. The structure in (37c), in which the cleft clause is adjoined to VP, faces neither of these problems, since the cleft clause and *John* are immediately dominated by segments of the same VP, and the cleft clause m-

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An exception to this generalisation is provided by the 'false predicational clefts' noticed by Hedberg (1990) and others and discussed below. As yet I have no explanation for the exceptional behaviour of these pronouns.

commands *it* and is c-commanded by *it*. Thus, extraposition of the cleft clause to VP is the only way of satisfying both the syntactic and thematic licensing conditions.[73]

Is there any evidence for obligatory cleft clause extraposition? In English, it is difficult to find direct evidence, because such extraposition would normally be string-vacuous. In Germanic languages with SOV order in embedded clauses, however, relative clause extraposition will always be visible: extraposed items will necessarily follow the verb. As in English, relative clause extraposition in Dutch and German is normally obligatory, as shown in (38-9), in which the relative may appear either to the left or to the right of the verb:

(38) a. dat ik met zijn zoon die zojuist belde heb gestudeerd
that I with his son who just called have studied
'that I have studied with his son who just called'

[73] An anonymous *Lingua* reviewer points out a potential problem with the idea that cleft clauses undergo obligatory extraposition, namely the fact that a null C is possible in a cleft clause, but not in standard cases of relative clause extraposition (see also Cottell 2002:51-52):

(i) It was John I liked.
(ii) *A man came in I liked.

The reviewer suggests that this could be handled under Bošković and Lasnik's (2003) analysis of null complementisers. Bošković and Lasnik propose that null complementisers are affixes, and need to be right-adjacent to a particular lexical head at PF. In the case of relative clauses with a null C, the null C must be right-adjacent to a noun at PF. Thus, in (ii), the intervening material will block C-affixation to N, but since extraposition in (i) would be string-vacuous, C-affixation to N would not be blocked here.

Another potential problem is that Hulsey and Sauerland (2006) note that relative clause extraposition is only possible for matching relatives, not for raising relatives; consider the contrast between (iii) and (iv):

(iii) *Mary praised the headway last year that John made.
(iv) Mary praised the pot roast yesterday that John made.

This might suggest that raising clefts should not allow extraposition of the cleft clause, contrary to the present analysis. In fact, such extraposition seems perfectly acceptable when forced by intervening temporal modifiers; thus (v) and (vi) seem equally acceptable:

(v) It was very good headway yesterday that John made.
(vi) It was very good pot roast yesterday that John made.

Although I have no explanation for why (iii) and (v) should contrast (if they do), it at least seems that cleft clause extraposition cannot be ruled out in the case of raising clefts.

b. dat ik met zijn zoon heb gestudeerd die zojuist belde
that I with his son have studied who just called
(Den Dikken 2008:12)

(39) a. Man hatte den Boten, der den Befehl überbrachte, beschimpft.
one had the messenger who the command delivered insulted
'The messenger who delivered the command had been insulted.'
b. Man hatte den Boten beschimpft, der den Befehl überbrachte.
one had the messenger insulted who the command delivered
(Kiss 2005:285)

In embedded clefts, however, the cleft clause may only appear to the right of the copula – that is, it undergoes obligatory extraposition:

(40) a. dat het ZIJN ZOON was die zojuist belde
that it his son was who just called
'that it was his son who just called'
b. *dat het ZIJN ZOON die zojuist belde was
that it his son who just called was
(Den Dikken 2008:12)

(41) a. Jutta sagt, dass es DIESER WAGEN war, den sie kaufen wollte.
Jutta says that it this car was which she to.buy wanted
'Jutta says that it was this car that she wanted to buy.'
b. *Jutta sagt, dass es DIESER WAGEN, den sie kaufen wollte, war.
Jutta says that it this car which she to.buy wanted was
(Smits 1989)

Dutch and German thus lend support to the idea that cleft extraposition is obligatory. Furthermore, if cleft clause extraposition is obligatory in English too, this accounts for the fact that a clefted DP and its cleft clause never move together as a single DP (except

in VP-fronting environments), which is what would be expected if the structure in (37a) were a possible final structure (e.g., McCawley 1981). Thus, although the clefted DP can move alone, as in (42b,d), the cleft clause cannot be taken along, as in (42a,c):

(42) a. *THE BOOK that I liked, it was.
b. THE BOOK it was that I liked.
c. *What that you liked was it?
d. What was it that you liked?

If the cleft clause is obligatorily extraposed to VP, the data in (42) can be accounted for, since after extraposition there is no DP node that dominates both the clefted DP and the cleft clause. On the other hand, since there is a VP node exclusively dominating the clefted DP and cleft clause, we expect movement operations that target VP to be able to affect the clefted DP and cleft clause together. As we have seen, this is possible in VP-fronting environments such as (43) (Hedberg 1990):

(43) I said that it would be A CONSERVATIVE who'd win, and a conservative who won it certainly was.

The prediction that cleft clauses are obligatorily extraposed to VP is thus apparently borne out, despite the fact that this would often be string-vacuous in English.

The analysis also predicts that in the types of *only*-relative construction we have seen so far, the relative clause licensed by the particle must be extraposed. Once again, this is difficult to test for in English. However, German once again provides a more useful test case, since it allows *only*-relatives and shows overt evidence of extraposition. Interestingly, in German *only*-relatives, as in clefts, the relative licensed by *nur* 'only' must follow the verb in embedded contexts, indicating that it must be extraposed (Dirk Bury, p.c.):[74]

[74] Note that this requires an adverbial (i.e., VP-adjoined) analysis of German *nur*, parallel to that uncontroversially available in English. At first sight this does not seem plausible, since in German, unlike in English, *nur* must immediately precede the focused constituent. See Jacobs (1983), Büring and

(44) a. Ich habe nur JOHANN gesehen, der mir gefällt.
I have only Johann seen who me-DAT pleases
'I only saw JOHANN that I like.'

b. *Ich habe nur JOHANN, der mir gefällt, gesehen.
I have only Johann who me.DAT pleases seen

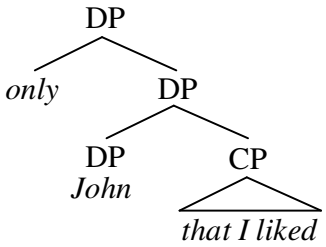
The analysis makes another prediction about *only*-relatives. The examples of this construction that we have looked at so far all involve 'adverbial' (i.e., pre-VP) *only*. There is another use of *only* for which the analysis makes a different prediction, namely the more 'compositional' use of *only* in which it forms a constituent with the focus with which it associates:

(45) a. I saw only JOHN.

b. Only JOHN came to the party.

In this case the analysis predicts that if *only* licenses a relative clause, extraposition of this relative should be optional. Suppose that a relative clause is added to the constituent *only John*, producing one of the plausible structures in (46), where I treat *only* as an adjunct to DP:

(46) a.



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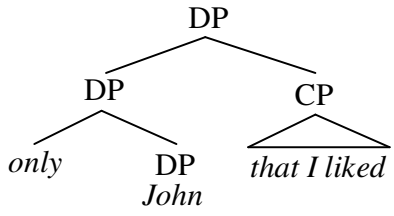

Hartmann (2001) and Kleemann-Krämer (2008), however, for strong arguments that German focus particles are always adverbial in this sense (though see Reis 2005 for a reply to Büring and Hartmann).

Incidentally, the fact that *only*-relatives require extraposition argues against a possible alternative analysis of *only*-relatives in which *only* starts out as a constituent with both the focused DP and the relative, perhaps as in (i), and *only* subsequently moves to pre-VP position:

(i) [$_{?P}$ only [$_{DP}$ [$_{DP}$ John] [$_{CP}$ that I like]]]

If the structure in (i) underlay all *only*-relatives, then there would be no motivation for obligatory extraposition, since both the syntactic and thematic licensing conditions could be satisfied by this structure.

Regardless of which structure is chosen, the relative clause should be licensed without having to move. In both structures, the relative and its syntactic antecedent *John* are immediately dominated by segments of the same category (DP), and *only* and the relative are in the requisite c/m-command relations.

Although judgements are difficult here, the prediction seems to be met. It is easiest to see whether extraposition has taken place in cases like (45b), where the constituent containing *only* is a subject. In this case, it does seem preferable to extrapose the relative licensed by *only*, as in (47a), but it also seems possible to leave it attached to the subject, as in (47b):

(47) a. Only JOHN came to the party that I liked.
b. ?Only JOHN that I liked came to the party.

Thus the analysis correctly predicts a distinction between clefts, in which extraposition is obligatory, and the type of *only*-relative constructions in (45), in which it is not.

Finally, the analysis predicts that all and only extraposable DP-internal modifiers should be able to be used in clefts and *only*-relative constructions. This seems to be correct, as shown by the following examples. As well as restrictive relatives, as in (48a), PP-modifiers, passive participial modifiers and present participial modifiers are permitted in as (48b-d) respectively. On the other hand, bare adjectives, as in (48e), can neither be extraposed nor be licensed by cleft *it* or *only*, as expected:[75,76]

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[75] All of the modifiers in (48b-d) are in fact ambiguous between nominal modifiers and predicates. Given that under the present analysis they occupy a position characteristic of subject-oriented secondary predicates (i.e., a VP-adjoined position), one might wonder why it is not possible to base-generate PPs, APs and so on in VP-adjoined position, as for secondary predicates, and then to θ-bind them with an *it* subject. This is of course impossible – that is, the following can only have readings in which the relevant phrase is a secondary predicate of an independently referential *it* subject:

(i) *It fell on the floor with blond hair.
(ii) *It fell on the floor tired from overwork.
(iii) *It hit me now sitting outside.

Under the 'mainstream' analysis of secondary predication (e.g., Chomsky 1981, Stowell 1981), in which secondary predicates occupy the predicate position of a small clause with a PRO subject, this problem would not arise, since the secondary predicate would be thematically saturated. Under a non-small clause analysis (e.g., Williams 1980), I would have to assume that the secondary predicate versions of these phrases are qualitatively different from the nominal modifier versions, such that only the latter can be θ-bound.

(48) a. i. I met a man yesterday that I liked.
ii. It was JOHN that I liked.
iii. I only saw JOHN that I liked.
b. i. I met a man yesterday with blond hair.
ii. It was JOHN with blond hair.
iii. I only saw JOHN with blond hair.
c. i. I saw a man yesterday tired from overwork.
ii. ?It was JOHN tired from overwork.
iii. I only saw JOHN tired from overwork.
d. i. I saw a man yesterday now sitting outside.
ii. It was JOHN sitting outside.
iii. I only saw JOHN sitting outside.
e. i. *I saw a man yesterday intelligent.
ii. *It was JOHN intelligent.
iii. *I only saw JOHN intelligent.

In summary, the present analysis makes three predictions which appear to be confirmed. The first is that in clefts and adverbial *only*-relative constructions, the relative must be extraposed to VP. The second is that in constituent *only*-relative constructions, the relative need not extrapose. The third is that in both constructions, all and only extraposable NP-modifiers should be able to be licensed by *it*/*only*.

3.3.2. The uniqueness of θ-binding I: restrictions on subjects

Recall that under Higginbotham's (1985) proposal, a determiner θ-binds a θ-role in its sister NP. This θ-role may in turn have arisen through the process of θ-identification,

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[76] A possible exception to this is infinitival relatives, which seem to be extraposable but which cannot function as cleft clauses (e.g., Declerck 1988):

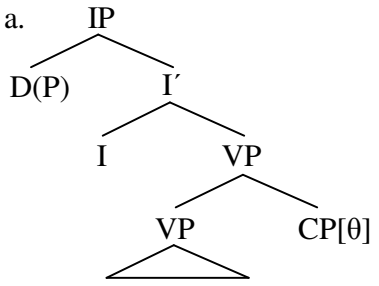
(i) He was the third man (yesterday) to be arrested.
(ii) *It was THE THIRD MAN to be arrested.

However, as Sleeman (2008) points out, infinitival relatives are typically licensed by other modifiers of the head NP, such as *third* in (i) (other licensers include *only* and superlative morphology). In (ii) the cleft clause cannot plausibly be licensed by *third*, since it does not semantically modify the DP.

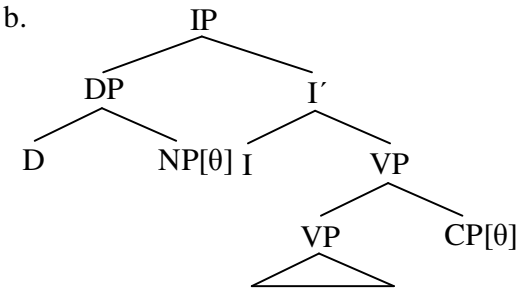
which applies to two θ-roles in sister nodes and results in a single θ-role in the mother node. What this means is that, no matter how many modifiers might be attached to an NP, the determiner only θ-binds one θ-role: namely, the θ-role in its sister resulting from θ-identification. This is of course expected if θ-binding is regulated in a similar way to θ-role-assignment, as expressed by Higginbotham's revised Θ-Criterion.

The present analysis, in which cleft *it* θ-binds the θ-role of the cleft clause, makes a clear prediction about what kinds of subjects will be permitted in clefts, structurally speaking. The prediction is that the D node of the subject must not have an NP complement; in other words, it must not θ-bind anything other than the θ-role of the cleft clause. Consider the two structures in (49); in (49a) the determiner takes no complement, while in (49b) the determiner takes an NP complement:

(49) a.



b.



In (49a), the determiner can bind the θ-role of the CP, since the thematic licensing condition is satisfied – the CP m-commands the D(P). In (49b), on the other hand, the determiner can either bind the θ-role of its NP complement or that of the CP, but not both, because of the θ-binding version of the Θ-Criterion. We thus expect only (49a) to be a possible structure.

The analysis thus correctly predicts that clefts cannot have phrasal subjects, as in (50):

(50) a.?*The man was JOHN that I saw.

b. *A man was JOHN that I saw.

As for which subjects *are* possible in clefts, the generalisation seems to be that only neuter singular pronominals, plus the expletive *there*, are permitted, regardless of the gender and number of the clefted XP:

(51) a. It was JOHN that I liked.
b. That was JOHN that I liked.
c. There was JOHN that I liked.
d. *He was JOHN that I liked.
e. It was THE TEACHERS that I liked.
f. *They were THE TEACHERS that I liked.

There is a long tradition of analysing pronouns as determiners with no NP complement (e.g., Postal 1966, Abney 1987). Supposing that this is correct, then the fact that neuter singular pronominals are possible in clefts is accounted for, since the determiner will only bind a single θ-role: that of the cleft clause.[77] As for those pronominal subjects that are disallowed, I suggest that this is because marked φ-feature specifications on pronouns force the determiner to take an NP complement, thus blocking θ-binding of the cleft clause.[78] This follows from the commonly made assumptions that neuter and singular represent unmarked, default or underspecified values of gender and number respectively

[77] Therefore, this type of *it* lacks both KP, a layer encoding Case and dominating DP proposed by some authors, and any projections ordinarily dominated by DP, such as NumP, AP and NP, as argued for weak pronouns in general by Quinn (2005). This means relaxing the idea that extended projections must always contain a lexical category (Grimshaw 1991, 2000) – i.e., we have to allow for the possibility of generating a D without an N. Alternatively, we could say that the D does take an NP, but that this NP is semantically empty and thus has no thematic role.

[78] Note that an explanation in terms of the 'intensionality' (e.g., Romero 2005) or predicatehood (e.g., Mikkelsen 2005) of specificational subjects will not be sufficient here. This is because there is no reason in principle why equatives and identificational sentences – that is, copular sentences in which the surface subject is indisputably referential – should not have a cleft clause, given that non-neuter and non-singular pronouns can be subjects of equatives and identificational sentences:

(i) He is John.
(ii) They are John and Mary.

The ungrammaticality of (51d,f) must therefore be due to other factors.

(e.g., Bierwisch 1967, Bennis 1995), and that φ-feature specifications are a property of lexical rather than functional categories.[79]

The present analysis thus allows us to capture what on alternative specificational approaches such as Percus (1997) would have to be captured by an ad hoc 'spellout rule'. Percus specifies such a rule, claiming that the string *the* + zero head N + trace of CP is spelled out as *it*. Presumably a distinct spellout rule would need to be specified for cleft subjects other than *it*. This is perhaps plausible in the case of *that*, but it is difficult to see how his account could be extended to *there*-clefts. On the present analysis, the range of possible cleft subjects follows from the plausible assumption that only when a D is specified for φ-features does it take an NP complement.

As noted by various authors (e.g., Bolinger 1972, Ball 1977, Hedberg 1990), 'predicational clefts' are an apparent exception to the generalisation that clefts only allow neuter singular pronominal subjects:

(52) a. They're just fanatics who are holding him. (Hedberg 1990)
b. But these are students who are rioting. (Hedberg 1990)
c. We are erstwhile friends and neighbours who are fighting with each other. (Bolinger 1972)
d. Those are real eyeglasses that Mickey is wearing. (Ball 1978)

If only determiners with an NP complement express marked φ-feature values, then these sentences apparently provide counterexamples to the present analysis, since the determiner should not be able to θ-bind the cleft clause without violating the Θ-Criterion.

In fact, there is evidence that the examples in (52) do not involve a true cleft structure at all, but rather are examples of extraposition from subject. There are various tests which distinguish such examples from 'true' predicational clefts, which exhibit the restriction to neuter singular pronominal subjects, and which pattern with specificational clefts with respect to these tests. First, recall that VP-fronting can include the cleft clause in

[79] For example, crosslinguistically plural forms are often derived from singular forms by the addition of an affix (e.g., Bierwisch 1967, Weerman and Evers-Vermeul 2002). Furthermore, Bennis (1995) notes that in Dutch, adjectives bear an agreement marker in all number/gender combinations except neuter singular.

specificational clefts, as in (53a), but cannot include a relative clause extraposed from subject, as in (53b):

(53) a. ?I said that it was JOHN that Mary saw, and John that Mary saw it was.
b. *They said that a man would come in who had lived in Boston, and come in who had lived in Boston a man did.

True predicational clefts also allow VP-fronting, as in (54a), while false predicational clefts do not, as shown in (54b):

(54) a. I said that it was an important thing that he did, and an important thing that he did it was.
b. ?*I said that they were just fanatics who are holding him, and fanatics who are holding him they are.

This suggests that true predicational clefts allow the cleft clause to adjoin to VP, while false predicational clefts do not. In this respect, false predicational clefts pattern with extraposition from subject, while true predicational clefts pattern with specificational clefts.

Second, recall that when the subject of a specificational cleft undergoes A-movement into a higher clause, Condition C and variable binding data show that an experiencer argument of the higher clause c-commands the cleft clause on the surface, suggesting that the cleft clause remains in the embedded clause. By contrast, a relative extraposed from a subject must 'track' the A-movement of the subject, surfacing in the higher clause. The relevant data are given in (55):

(55) a. ?*It seemed to her_i to be John that $Mary_i$ saw.
b. It seemed to every $girl_i$ to be John that she_i saw.

Once again, true predicational clefts pattern with specificational clefts, as shown in (56a-b), while false predicational clefts pattern with extraposition from subject, as shown in (56c-d):

(56) a. *It seemed to him$_i$ to be a good man who liked John$_i$.
b. It seemed to everyone$_i$ to be a good man who liked him$_i$.
c. They seemed to him$_i$ to be fanatics who were holding John$_i$.
d. *They seemed to everyone$_i$ to be fanatics who were holding him$_i$.

The data in (56) suggest that in true predicational clefts, the syntactic antecedent of the cleft clause is the clefted XP, just as in specificational clefts, but that in false predicational clefts, the syntactic antecedent of the relative clause is the moved subject, as in extraposition from subject cases.[80]

Another respect in which the two types of predicational cleft differ is in the types of postcopular XP they allow. We saw in chapter 2 that predicational clefts such as (57a) are disallowed. This was attributed to the fact that the clefted XP is the syntactic antecedent of the cleft clause and hence must be of an appropriate type to fill the gap position in the cleft clause, a requirement which is violated in (57a). Interestingly, false predicational clefts do not display this restriction on the postcopular XP, allowing a postcopular AP which does not correspond to the gap position in the relative, as in (57b):

(57) a. *It's stupid who are holding him.
b. ?They're stupid who are holding him.

[80] For some reason which is unclear to me, when the subject of a predicational cleft undergoes A-movement, both types uniformly seem to allow the cleft clause either to remain in the embedded clause or to track the subject:

(i) It was believed to be an important thing by everybody that he did.
(ii) It was believed to be an important thing that he did by everybody.
(iii) They were believed to be fanatics who were holding him by everybody.
(iv) They were believed to be fanatics by everybody who were holding him.

This is in contrast to specificational clefts, which require the cleft clause to remain in the embedded clause, and to extraposition from subject, which requires movement of the extraposed clause. I leave this problem for future research.

This relative freedom is of course expected if false predicational clefts are in fact instances of extraposition from subject, since in that case the postcopular XP is not the syntactic antecedent of the relative clause, and therefore the relative clause is not expected to impose any syntactic restrictions on the postcopular XP.

In conclusion, the apparent exceptions to the generalisation that only neuter singular pronouns can be subjects of clefts in fact receive a simple explanation – they are not clefts at all, but rather cases of extraposition from subject. The insight of the present analysis that θ-binding in clefts prevents subject-internal θ-binding is thus not affected. Under alternative specificational approaches such as Hedberg (1990) and Percus (1997), on the other hand, we would not expect the relevant differences between true and false predicational clefts to arise, since both would have to be analysed as involving extraposition from subject.

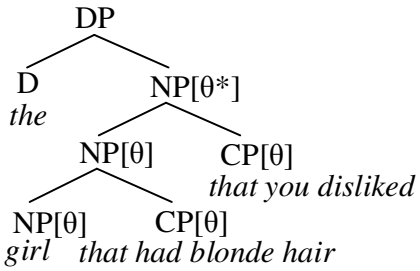
3.3.3. The uniqueness of θ-binding II: the ban on stacking

As well as predicting that a θ-binder binding outside of its maximal projection must not take an NP complement, the analysis makes the further prediction that a θ-binder will only be able to θ-bind a single relative clause in this way. Note first that it is possible to stack relative clauses, both DP-internally as in (58a) and in extraposed positions as in (58b):

(58) a. the girl that had blonde hair that you disliked
b. I saw a girl recently that had blonde hair that I disliked.

The question that these examples raise is how more than one relative clause can be licensed by a single antecedent. In the DP-internal case, this can be accounted for by the sisterhood-based versions of the two licensing principles. Under the structure we are assuming for DPs modified by restrictive relatives, (58a) will have the structure in (59):

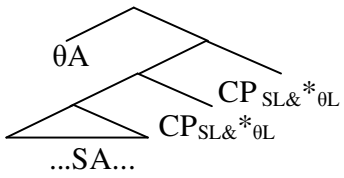
(59)



In this structure, the thematic licensing condition is satisfied because the θ-roles of both relative clauses undergo θ-identification with the external θ-role of the NP, and thus can be θ-bound uniquely by D in the topmost NP node. The syntactic licensing condition is satisfied because both relative clauses are adjoined to a nominal projection (NP).

The fact that extraposed relatives can also be stacked, as in (58b), suggests that the syntactic licensing condition imposes no uniqueness condition. On the other hand, as we have seen, the thematic licensing condition *does* impose uniqueness, since it is subject to the revised Θ-Criterion, which means that the thematic licenser can only license a single relative clause. Recall that in standard cases of relative clause extraposition, I suggested that satisfaction of the syntactic licensing condition is sufficient to allow θ-identification of the relative with the head NP. On the other hand, in clefts and *only*-relatives this type of θ-identification will not be possible, since the thematic and syntactic licensers are distinct elements. Thus, we expect that in these constructions stacking will not be possible, since this will entail θ-binding of multiple relative clauses by a single antecedent. The schema in (60) illustrates the relevant configuration:

(60)



The expectation that stacking is not possible in clefts and *only*-relatives is borne out: thus, (61a) is not a correct paraphrase of (61b), and (61c) is not a correct paraphrase of (61d):

(61) a. It was JOHN that Mary hit that Bill disliked.

b. The one that Mary hit that Bill disliked was JOHN.
c. I only saw JOHN that I like that Mary hit.
d. The only one that I saw that I like that Mary hit was JOHN.

Thus, the present analysis has a distinct advantage over alternative specificational approaches such as Hedberg (1990) and Percus (1997). Under these analyses, the relation between the cleft clause and *it* is exactly parallel to that between an extraposed relative and its antecedent. Such analyses therefore incorrectly predict that multiple cleft clauses should be possible, just as multiple extraposed relatives are.

Interestingly, there is evidence that the ban on stacking in clefts is not semantic: for example, it does not follow from a requirement that the background of a focus in a particular sentence be a unique constituent. Note first that we might expect the domain of the ι-operator represented by *it* in clefts to be able to be restricted by previous discourse as well as by an overt relative clause in the same sentence, since it is a property of quantifiers in general that their domains can be (and indeed, probably normally are) contextually restricted. For example, in (62a) it might be understood that *every worker that likes milkshakes* refers not to every worker that exists, but every worker in a particular office. (62b) shows that definite descriptions behave in the same way, and (62c) shows the same for the universally quantified part of the meaning of *only*:

(62) a. Every worker that likes milkshake also likes burgers.
b. The worker that likes milkshake is JOHN.
c. Only JOHN likes milkshakes.

We also know independently that *it* can be anaphoric to a previous DP in cases where there cannot be a hidden cleft clause, but in which the interpretation of the sentence is similar to that of a cleft, such as in the following:

(63) Q: What is that?
A: It's A PEBBLE (*that that is/*that is that).

Here the reference of *it* is entirely determined by *that* in the question. Interestingly, it is simultaneously possible for the domain of *it* to be anaphorically determined in this way and for *it* to license a clause-final relative clause which further restricts the domain of *it*:

(64) Q: Who has joined the company in the last two years?
A: Well, last year it was BILL AND SUE, and this year it was MARY AND JOHN that work in your office and TOM that works in mine.

In the answer, the relative clause is not a cleft clause, though it is arguably licensed in the same way. Rather, it further restricts the reference of an anaphoric pronoun *it*. Thus, the final clause in the answer is semantically parallel to the specificational sentence in (65a), in which an NP and a relative clause jointly restrict the reference of the definite determiner. On the other hand, as predicted, the equivalent cleft in (65b) is ruled out by the ban on stacking:

(65) a. This year the ones that joined the company that work in your office were MARY AND JOHN.
b.?* This year it was MARY AND JOHN that joined the company that work in your office.

That is, the syntactic restriction, due to the revised Θ-Criterion, preventing stacking in cases of long-distance relative clause licensing is independent of the possibility of semantically restricting the domain of the ι-operator with more than one predicate.

3.3.4. Movement of the thematic antecedent

There is an important difference between the syntactic and thematic licensing conditions on relative clauses. It is normally assumed that thematic relations are regulated by locality principles just as are other relations such as Case-assignment/checking and binding. However, the locality principles regulating thematic relations hold at an underlying level – deep structure in the Standard Theory, D-Structure in Government and Binding theory and on 'external Merge' in current Minimalism. That is, the underlying

locality between an argument and its θ-role-assigner can be obscured by subsequent operations. Given that θ-binding is also a thematic relation, we would naturally expect any locality principles regulating it to hold only at an underlying level, although this is more difficult to show given that NP complements of determiners are generally banned from moving (e.g., Abels 2003).[81] Assume nevertheless that this is the case. Then we expect it to be possible in principle for a relative clause thematically licensed by cleft *it* or *only* to be able to appear indefinitely far away from its licenser as long as the locality conditions on θ-binding are satisfied at an underlying level.

The same is not true of the syntactic licensing condition. An important aspect of Culicover and Rochemont's (1990) Complement Principle was that it applied at what was then referred to as S-Structure. The rationale for this was that it ruled out cases where an extraposed relative clause could have been in a government relation with its antecedent underlyingly, but not on the surface, such as the VP-fronting and pseudocleft examples in (66) (Culicover and Rochemont 1990:36-7):[82]

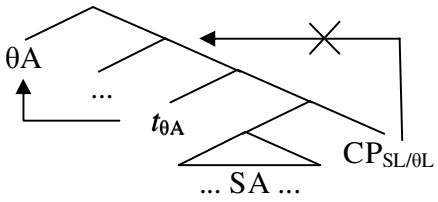
(66) a. *They said that a man would come in who had lived in Boston, and come in who had lived in Boston a man did.
b. *What someone did was COME INTO THE ROOM who had lived in Boston.

We saw in chapter 2 that this surface condition also applies to the cleft clause with respect to its syntactic antecedent (the clefted XP). Thus, in clefts and *only*-relative constructions, in which the relative clause has two distinct antecedents, the relative liberality of the thematic licensing condition is constrained by the fact that the relative clause must be local to its syntactic antecedent on the surface. This results in the relative clause being 'trapped' by the syntactic licensing condition even when movement of the relative clause to a higher clause would not violate the thematic licensing condition. This situation is schematically illustrated in (67):

[81] If one accepts the movement analysis of extraposition, then of course, this would be an example of a subsequent operation (extraposition) obscuring the locality of a thematic relation, but since this is controversial, I do not present it as a clear example.

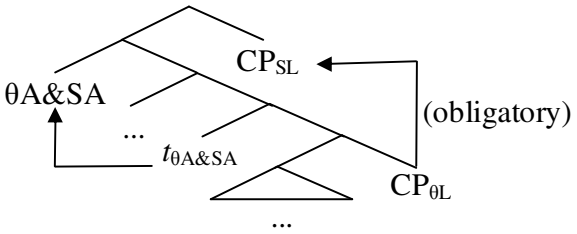
[82] Of course, under the present analysis the examples in (66) would be ruled out by the syntactic licensing condition anyway, since the relative would be immediately dominated by a node (VP) distinct from that dominating the potential anteccedent (IP). Given the evidence reviewed in this chapter and the last, however, the 'S-Structure requirement' appears to be independently well-motivated.

(67)



By contrast, in the case of relative clause extraposition, the same phrase is both the syntactic and thematic antecedent of the relative, and so if it undergoes movement, the relative is also forced to move. This situation is illustrated in (68):

(68)



We can thus account for the data presented in chapter 2 in which the subject undergoes A-movement into a higher clause. If the clefted XP remains in situ, it is correctly predicted that the cleft clause must remain in the embedded clause. This is shown by the fact that the cleft clause must precede the matrix passive *by*-phrase in (69), and by the fact that a Condition C violation arises in (70b), in which a matrix experiencer pronoun is coreferential with an R-expression in the cleft clause:

(69) a.?? It was believed to be JOHN by everybody that Mary saw.
b. It was believed to be JOHN that Mary saw by everybody.

(70) a. It seemed to $Mary_i$ to be JOHN that she_i saw.
b. ?*It seemed to her_i to be JOHN that $Mary_i$ saw.

This contrasts with extraposition from subject: if the subject undergoes A-movement into a higher clause, then the relative clause must surface in this higher clause. Thus, the extraposed relative in (71) must follow the matrix passive *by*-phrase, and no Condition C violation arises in (72b):

(71) a. ? A man was believed to have arrived by everybody that I had insulted.
b. * A man was believed to have arrived that I had insulted by everybody.

(72) a. A man seemed to Mary$_i$ to have arrived that she$_i$ knew from school.
b. A man seemed to her$_i$ to have arrived that Mary$_i$ knew from school.

The schema in (67) is also instantiated by *only*-relative constructions. As we saw in 3.2.4, the passive and Condition C tests show that when *only* appears in a higher clause than the focus with which it associates, the relative clause licensed by *only* must remain in the embedded clause – that is, the same clause as its syntactic antecedent. (Note that the thematic licensing condition requires that *only* must have moved from the embedded clause; this will be justified in 3.3.6):

(73) a.?*It was only believed that I saw JOHN by everyone that I liked.
b. ? It was only believed that I saw JOHN that I liked by everyone.

(74) a. It only seemed to Mary$_i$ that I saw JOHN that she$_i$ liked.
b. * It only seemed to her$_i$ that I saw JOHN that Mary$_i$ liked.

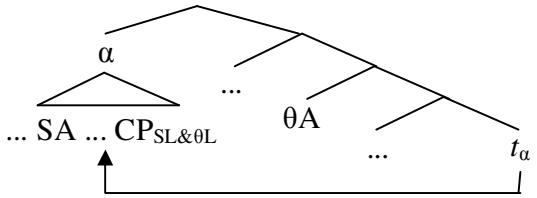
The analysis thus correctly predicts that in cases involving movement of the thematic antecedent alone (*it* in clefts, and *only* in *only*-relatives), the relative clause must not move. As we saw in chapter 2, this was a considerable problem for extraposition-based analyses such as Hedberg (1990) and Percus (1997), which predict that the relative clause *must* move.

3.3.5. Movement of the syntactic antecedent

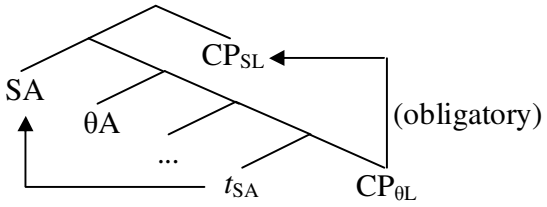
The analysis also accounts for data discussed in chapter 2 involving movement of the syntactic antecedent of a relative clause rather than of the thematic antecedent. The analysis predicts that two types of structures can arise from such movement: one in which a constituent containing both the relative clause and its syntactic antecedent undergoes movement, and a second in which the syntactic antecedent alone moves, and the relative

clause moves to a position local to the landing site of the syntactic antecedent. These situations are schematised in (75a-b) respectively:

(75) a



b.



Both of these schemata were instantiated in cleft data discussed in chapter 2. The first case involves VP-fronting. As we saw in chapter 2, VP-fronting is relatively acceptable in clefts, as shown in (76a). This instantiates schema (75a). Additionally, *John* may move alone in VP-fronting environments, as in (76b) (in fact, this is preferable):

(76) a. ?I said that it was JOHN that Mary saw, and John that Mary saw it was.
b. I said that it was JOHN that Mary saw, and John it was that Mary saw.

The analysis leads us to expect that in (76b), it is not the VP that is being fronted, but the DP *John* alone.[83] This is because the only way that the syntactic licensing condition could be satisfied is for the cleft clause to move as well, as in schema (75b), and from this position the cleft clause and *John* would only be immediately dominated by segments of the same category if *John* were not embedded in a moved VP. Culicover and Rochemont (1990) note that in cases of relative clause extraposition in which the antecedent of the relative is a moved *wh*-phrase, Condition C effects which would obtain if the *wh*-phrase were in its base position are obviated. Thus, compare (77a), in which the pronoun and R-

[83] That movement of a DP is sometimes possible in 'VP-fronting'-type contexts was noted by Dowty (1995), as in his example (i):

(i) She said she would hire a good syntactician, and by golly, a good syntactician she hired!

expression may not be coreferential, and (77b), in which they may (examples from Culicover and Rochemont 1990:42-3):

(77) a. *He$_i$ invited several girls to the party that John$_i$ dated in high school.
b. How many girls did he$_i$ invite to the party that John$_i$ dated in high school?

As far as the DP-fronting example in (77b) is concerned, the prediction is that a pronoun inside a matrix argument should be able to corefer with an R-expression in the cleft clause, because the cleft clause must move to a position in which it and the moved DP are immediately dominated by segments of the same category. The prediction seems to be correct, though the restricted discourse conditions for VP-fronting mean that (78) independently seems slightly awkward:

(78) ?I said that it was JOHN that Mary saw, and John it seemed to her$_i$ to be that Mary$_i$ saw.

A clearer case is provided by *wh*-movement of the clefted XP. As we saw in chapter 2, *wh*-movement of the clefted XP can obviate Condition C violations, as can be seen by comparing (79a,b):

(79) a. *It seemed to her$_i$ to be JOHN that Mary$_i$ saw.
b. Who did it seem to her$_i$ to be that Mary$_i$ saw?

Thus, both of the schemata predicted by the analysis are instantiated – (75a) by VP-fronting and (75b) by movement of the clefted XP.[84]

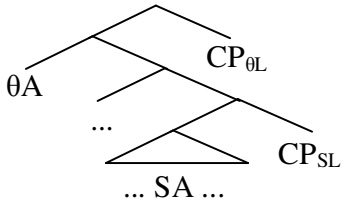
[84] Unfortunately, the predictions cannot be tested for the *only*-relative construction for independent reasons, since movement of the focus out of the c-command domain of *only* is not permitted:

(i) *Who did you only see? (meaning 'Who was the only person that you saw?')

3.3.6. Cases in which it is impossible to satisfy both conditions

The cases in 3.3.4-5 involve cases where the sentence is only grammatical if the relative clause appears in a position in which it can satisfy the syntactic licensing condition. The analysis also predicts the possibility of constructions in which neither licensing condition can be satisfied. This sort of case will arise if the position in which the relative clause can be thematically licensed is hierarchically higher than the position in which it can be syntactically licensed. This is schematically shown in (80):

(80)



The problem such structures create is that satisfaction of one condition necessarily implies violation of the other. If the relative clause starts in the position marked CP_{SL}, it cannot then move to the position marked CP_{TL}, since it must remain at CP_{SL} in order to satisfy the syntactic licensing condition on the surface, and thus cannot satisfy the thematic licensing condition. If, on the other hand, the relative clause starts at CP_{TL}, then it cannot move to CP_{SL} without violating the c-command condition on traces, leaving the syntactic licensing condition unsatisfied. Once again, in the case of relative clause extraposition we do not expect such conflicts to arise, since the same phrase is the syntactic and thematic antecedent of the relative, and thus the two licensing conditions can always be satisfied in a single position.

One construction which arguably realises the schema in (80) is the *tough*-construction. Consider the two synonymous sentences in (81):

(81) a. It was tough to hit John.
b. John was tough to hit.

These two sentence types were traditionally considered to be related by a transformation of '*tough*-movement', which moves the object of the embedded clause to the matrix

subject position (e.g., Ross 1967). This expresses the fact that in both cases *John* is an argument of the verb *hit*, and the matrix subject position is not a θ-position. Since at least Chomsky (1977), however, it has commonly been assumed that the two sentence types are not transformationally related; instead, *John* is base-generated in matrix subject position and interpretatively linked to a null operator in the embedded clause, which receives the internal θ-role of *hit*. Thus, (82b) would have a structure along the lines of (82b) (e.g., Browning 1987):

(82) a. John was tough to hit.
b. John_i was tough [$_{CP}$ Op_i [$_{IP}$ PRO to hit t_i]]

What is crucial here is that at no point does *John* occupy a position in the embedded clause. On the other hand, interpretatively *John* is an argument of the embedded clause, in which function the null operator stands proxy for it. Now consider the pair of sentences in (83) involving clefts. In (83a), cleft *it* is in the object position of *prevent*, and therefore appears to be a candidate for '*tough*-movement'. In fact, though, (83b) is ungrammatical:

(83) a. It was tough to prevent it from being JOHN that Mary hit.
b. *It was tough to prevent from being JOHN that Mary hit.

Although they do not mention clefts, Postal and Pullum (1988) claim that expletives are banned from the subject position of *tough*-constructions (though they do not provide an account of this). We saw in chapter 2, however, that cleft *it* is not an expletive, so this generalisation will not account for (83b). Under the present analysis, (83b) is ruled out because it instantiates the schema in (80). Consider the possible structures in (84) for (83b):

(84) a. it_i was tough [Op_i to prevent t_i from [PRO_i being John that Mary hit]]
b. it_i was tough [Op_i to prevent t_i from [PRO_i being John]] that Mary hit

If the cleft clause is base-generated in the most embedded clause, as in (84a), it will not be thematically licensed, since its thematic antecedent is base-generated in the matrix clause.[85] Furthermore, if the cleft clause could move to the matrix clause and be thematically licensed, it would then violate the syntactic licensing condition, which refers to overt configurations. If instead the cleft clause were base-generated in the matrix clause as in (84b), the thematic licensing condition could be satisfied, but it would then be impossible to satisfy the syntactic licensing condition, since this would require downward movement of the cleft clause into the most embedded clause. There is therefore no possible structure for (83b) that would allow both licensing conditions to be satisfied. Once again, the present analysis has an advantage over extraposition-based analyses such as Percus (1997). Since under such analyses the cleft clause extraposes from *it*, they would predict sentences such as (83b) to be grammatical.

Cases instantiating (80) can also be constructed for the *only*-relative construction. Recall that if *only* appears in a higher clause than the focus, then a relative clause licensed by *only* must remain in the same clause as the focus, as predicted by the syntactic licensing condition. However, although the syntactic licensing condition alone accounts for the data in (73-4), the claim that *only* is the thematic antecedent of the relative clause makes the prediction that in such cases, *only* must have moved from the embedded clause to the matrix clause, since the thematic licensing condition requires underlying locality between the antecedent and the relative. Of course, it is not clear from the examples in (73-4) whether movement of *only* has in fact taken place. However, the claim that movement must take place makes a clear prediction – that inserting an island boundary between the particle and the relative clause should lead to ungrammaticality. Of course, first we need to ensure that an island does not affect grammaticality in the absence of a relative clause. As noted by various authors (e.g., Anderson 1972, Jackendoff 1972), this is correct, as shown by the fact that all of (85b-e) (involving a

[85] Assuming, that is, that PRO may not thematically license the cleft clause. This seems to be correct. We saw in chapter 2 that cleft *it* may control PRO, but crucially the cleft clause linked to the controlling *it* may not be repeated inside the non-finite clause whose subject is PRO:

(i) It_i was the furniture that annoyed John on Sunday [despite PRO_i being the décor (*that annoyed him) the day before].

complex NP, a subject island, a *wh*-island and an adjunct island respectively) are as grammatical as (85a):[86]

(85) a. I (only) denied that I (only) saw JOHN.
b. I (only) denied the claim that I (only) saw JOHN.
c. I only denied that my seeing JOHN was annoying.
d. Mary only asked why I had seen JOHN.
e. I only got annoyed when I saw JOHN.

On the other hand, if *only* licenses a relative clause, as in (86a), inserting an island boundary does lead to ungrammaticality, as shown in (86b-e):

(86) a. I only denied that I saw JOHN that I liked.
b.?* I only denied the claim that I saw JOHN that I liked.
c. * I only denied that my seeing JOHN that I liked was annoying.
d. * Mary only asked why I had seen JOHN that I liked.
e.?* I only got annoyed when I saw JOHN that I liked.

The obvious explanation for the ungrammaticality of (86b-e) as compared with (85b-e) is that in order for *only* to license a relative clause in the embedded clause, it must originate in that clause to satisfy the thematic licensing condition, and must then move into the embedded clause, a movement which is blocked by the island boundary.[87] If instead *only* is base-generated in the matrix clause, then the illicit structure in (80) will be created, and the relative clause will not be able to satisfy both licensing conditions. In (85b-e), on the other hand, it is not necessary for *only* to be base-generated in the embedded clause, and

[86] Note that other authors argue that association with focus is island-sensitive, and that apparent island violations involve association with the entire island rather than with the smallest constituent bearing main stress (e.g., Drubig 1994, Krifka 2006). Clearly, this explanation will not account for the contrast between (86a) and (86b-e), however.

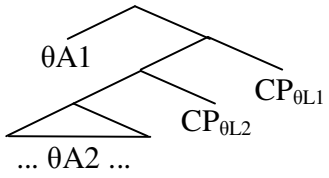
[87] Of course, this means that *only* must be analysed as phrasal, on a par with adverbs, and contrary to many previous analyses (e.g., Rothstein 1991, Bayer 1996, 1999). If *only* were a functional head, then the long-distance movement in (85) would violate the Head Movement Constraint. I have not investigated whether treating *only* as phrasal is otherwise well-motivated. Nevertheless, it is difficult to see how the contrast in (85-6) could be derived if *only* is a functional head.

hence it does not need to move across the island boundary; rather, it can be base-generated in the matrix clause.[88]

3.3.7. 'Relativised minimality' effects

Grammatical relations are restricted by locality in two senses. The first, which has been exemplified by the cases we have seen so far, is locality purely in terms of structural 'distance'; thus, for example, a relative clause may not be licensed by a DP if it is too 'far away' from that DP. The second sense of locality is that corresponding to 'relativised minimality' effects in the sense of Rizzi (1990) and others. That is, if there are two potential candidates for one participant in a particular syntactic dependency, the candidate which is closest to the other participant in the syntactic dependency is selected. We thus might expect there to be examples of clefts and *only*-relatives in which a closer potential licensee blocks θ-binding of another potential licensee. The relevant schema is given in (87):

(87)



[88] Another prediction of this general type is that if the syntactic licenser in an *only*-relative is not the complement of the verb to whose projection *only* is adjoined, but rather is properly contained within this complement, the result should be ungrammatical. Unfortunately, there are so many complications with the data that this prediction is difficult to test. For example, it seems that the acceptability of *only*-relatives is also conditioned by other factors; witness the contrast between (i)-(iii), which are structurally identical:

(i) I only saw JOHN that I like.
(ii) ??I only hit JOHN that I hate.
(iii) ?*I only bought CHOCOLATE HOBNOBS that I wanted.

On the other hand, it seems perfectly acceptable in some cases for the syntactic licenser to be a DP complement of a PP complement of the verb, as in (iv) – an environment in which relative clause extraposition is also possible, as in (v) – which suggests that the definition of the syntactic licensing condition needs to be refined:

(iv) I only danced with JOHN that I like.
(v) I danced with a man yesterday that I really like.

Clearly, the factors conditioning the acceptability or otherwise of *only*-relatives, which may well include the structural 'distance' between the syntactic licenser and *only*, need to be investigated thoroughly before a conclusion can be drawn regarding this prediction, a task which I leave to future research.

We saw in 3.3.3 that clefts and *only*-relatives disallow stacking: that is, two restrictive relative clauses in VP-adjoined position cannot both be thematically licensed by *it* or *only*. This does not in principle mean that it should not be possible for more than one relative clause to adjoin to VP in clefts. If θ-binding is constrained by 'relativised minimality', however, we do expect that in such a case only the closest relative to *it* or *only* may be licensed by it. Evidence that relatives in general are constrained by locality in this sense comes from sentences containing two relative clauses modifying distinct DPs, such as (88). As (88b,c) show, it is not possible for both of these relative clauses to be extraposed simultaneously, regardless of the resulting order of the relative clauses:

(88) a. I gave a man that I knew from school a book that I thought he would like.
b. *I gave a man a book yesterday that I knew from school that I thought he would like.
c. *I gave a man a book yesterday that I thought he would like that I knew from school.

This can be accounted for if thematic licensing (mediated here by syntactic licensing) is subject to relativised minimality: regardless of the structure assumed for double object constructions, one of the relative clauses will always be closer to both DPs, blocking licensing of the other relative clause.

As expected, we also find such effects in clefts. In (89a), although there are two relative clauses with the same syntactic antecedent (*a man*), they have distinct thematic antecedents, as in (88). Crucially, only the 'outer' relative may be interpreted as the cleft clause; the 'inner' relative must be interpreted as a restrictive modifier of *man*. That is, (89a) can only be paraphrased by (89b), not by (89c):

(89) a. It was a man that I knew from school that I gave a book to.
b. I gave a book to a man that I knew from school.
c. I knew a man that I gave a book to from school.

Similarly, in the *only*-relative construction in (90a), only the outer relative may be thematically licensed by *only*; thus, only the paraphrase in (90b), and not that in (90c), is appropriate:

(90) a. I only saw a man that I knew from school that I liked.
b. The only person that I saw that I liked was a man that I knew from school.
c. The only person that I saw that I knew from school was a man that I liked.

These data are as we would expect under the hypothesis that *it* and *only* in these examples are thematic licensers.

3.3.8. Summary

In this section I have explored some consequences of the proposal that clefts and *only*-relatives involve a single relative clause licensed by two distinct elements. These include the contrast between obligatory extraposition in clefts and optional extraposition in (certain) *only*-relatives; restrictions on cleft subjects and the ban on stacking, which are consequences of the revised Θ-Criterion; the fact that the relative remains local to the syntactic but not the thematic antecedent; the fact that clefts are banned from constructions in which one of the two conditions cannot be satisfied; and 'relativised minimality' effects.

3.4. Θ-binding in *it*-extraposition sentences

3.4.1. Introduction

In all the cases considered so far – relative clause extraposition, clefts and *only*-relative constructions – both of the licensing conditions need to be satisfied by the relative clause. This means that in all three cases, the relative clause is very much restricted in the positions it can occupy. Given the independence of the two conditions, one might wonder if there are cases in which one or the other does not apply. In this case we predict that all of the effects following from this condition will be absent, but that all of the effects following from the other condition will still apply. In this final section, I will argue that certain types of '*it*-extraposition' sentences instantiate this case.

There are various constructions in English which contain an *it* subject and a clause-final CP which is the semantic argument of the matrix predicate. Some examples are given in (91):

(91) a. It proved his guilt that John bought a gun.
b. It was obvious that Fred ate a hamburger.
c. It annoyed me that Mary opened the window.
d. It seemed that Bill liked garlic.
e. It was claimed that Sue drank the whisky.

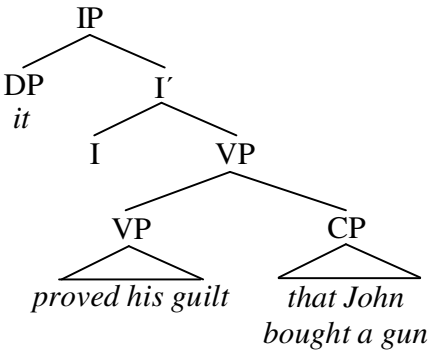
In many of these cases, there is a synonymous sentence in which the CP occupies the subject position in place of *it*:

(92) a. That John bought a gun proved his guilt.
b. That Fred ate a hamburger was obvious.
c. That Mary opened the window annoyed me.
d. *That Bill liked garlic seemed.
e. ?That Sue drank the whisky was claimed.

This led early generative researchers (e.g., Rosenbaum 1967, Emonds 1976) to derive most of the sentence types in (91) from their equivalents in (92) via 'extraposition' of the CP, replacing it with an expletive *it* subject. On this view, then, the CP is an argument of the matrix predicate in all the cases in (91); that is, it receives a θ-role from it. A necessary corollary of this, given the Θ-Criterion, is that *it* is an expletive (see also Chomsky 1981, Stowell 1981, Safir 1985 for other analyses of this type).

I would like to propose, contrary to this analysis, that in some sentences like (91), the subject *it* is an argument of the matrix predicate, and the CP is an adjunct to VP (see, e.g., Emonds 1970, Bennis 1986, Zaring 1994, Mezhevich 2004 for previous analyses of this type). Under this analysis, (91a), for example, has the structure in (93):

(93)



Since it is the CP rather than *it* that is semantically the argument of the matrix predicate, there must be some way of linking the CP to *it*, allowing 'transmission' of the θ-role to the CP. I will argue that this is achieved via θ-binding, just as cleft *it* θ-binds the cleft clause.[89] There is, however, an important difference between *it*-extraposition sentences and clefts in this respect, which is that the CP in *it*-extraposition does not have an 'open position' – that is, it is internally thematically saturated. We might then wonder how θ-binding can apply to a constituent that does not have an open position.

This problem disappears if we look more closely at the structure of DPs in which the noun takes a CP 'complement' (i.e., a CP which is internally thematically saturated), such as *guess*, *claim*, and *explanation* (examples from Stowell 1981:199).

(94) a. Andrea's guess that Bill was lying.
b. John's claim that he would win.
c. Paul's explanation that he was temporarily insane.

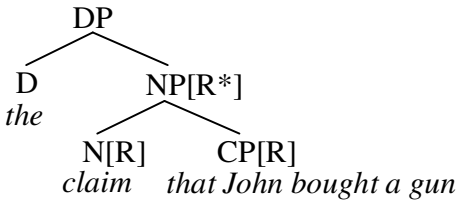
Stowell noticed that in sentences such as (94), the CP does not appear to function semantically as an argument of the noun, but rather as an apposition. That is, the 'derived nominals' in (94) do not refer to events of guessing, claiming and explaining respectively; rather, they refer to the same thing that their 'complement' CPs do, just as in apposition structures (see Stowell 1981:199-201 for further arguments). The most natural way of capturing this in terms of θ-roles is to claim that, rather than the head noun assigning an internal θ-role to the CP, both the noun and the CP bear external θ-roles, and

[89] See also Jackendoff (1977) for a related suggestion.

these undergo θ-identification. The idea that arguments bear a 'role' of some kind which itself must be 'saturated' is not a new one. For example, Williams (1989) argues that θ-role-assignment involves 'asymmetric linking' of the θ-role of a predicate and the 'R-role' (R for 'referential') of the argument.

In the same way, we can claim that in (94), the 'R-roles' of the noun and CP undergo θ-identification, giving rise to a single R-role on the higher NP node. Finally, this R-role is θ-bound by the determiner under sisterhood. This is schematised in (95):

(95)



Now consider *it*-extraposition again. Recall that in clefts, the subject *it* does not take an NP complement – in fact it cannot. This means that the external θ-role of the cleft clause is directly θ-bound without undergoing θ-identification first, in contrast to cases of DP-internal modification by a restrictive relative clause, in which the external θ-role of the relative undergoes θ-identification with that of the head noun and the two subsequently undergo θ-binding. In the same way, the absence of a head noun in *it*-extraposition sentences such as (91a-c) means that the R-role of the CP does not undergo θ-identification with the R-role of a noun first, but rather is directly θ-bound by *it*.

So far nothing has been said about the syntactic licensing condition. Recall from chapter 2 that one of the reasons why the clefted XP is the syntactic antecedent of the cleft clause is that the φ-features of the *wh*-operator in the cleft clause must agree with those of the clefted XP, and not with those of *it*. In this light, we can see the syntactic licensing condition as satisfying a requirement of the *wh*-operator: the requirement to be specified for φ-features. In *it*-extraposition sentences, by contrast, the CP contains no *wh*-operator. It thus seems reasonable to suppose that there is correspondingly no requirement on argument CPs to satisfy the syntactic licensing condition. I therefore propose that the CP in *it*-extraposition sentences must satisfy the thematic licensing condition in order to be

interpreted as an argument, but that it does not need to satisfy the syntactic licensing condition.

In the following sections I will show that this analysis of (certain) *it*-extraposition sentences correctly captures some properties which they share with clefts – namely, those that follow from the thematic condition – while also capturing some differences between the two constructions – those that result exclusively from the syntactic condition.

3.4.2. Parallels between it-*extraposition sentences and clefts*

It is uncontroversial that in *it*-extraposition sentences the CP is semantically interpreted as an argument of the matrix predicate. Where authors differ is whether the CP or *it* receives a θ-role from this predicate. Under the structure proposed, it is clear that *it* is the recipient of the θ-role, since the CP is in an adjunct position, a position not associated with θ-role-assignment. This makes two predictions: first, that *it* will behave like an argument, not an expletive, and second, that the CP will behave like a VP-adjoined CP, not like an argument CP. In this section I will show that some types of *it*-extraposition sentence – namely those in which the CP is an external argument of the matrix predicate – behave according to these predictions. They thus contrast with raising and passive sentences like (91d-e), which behave as if *it* is an expletive and the CP is a complement.

3.4.2.1. *It* is not an expletive

In chapter 2 I provided some examples showing that cleft *it* can control PRO, suggesting that it is referential/argumental rather than expletive (Chomsky 1981, Bennis 1986). The same test can be applied to *it*-extraposition *it*. In cases where the CP is an external argument, control is clearly possible. In all the other cases, control seems marginal or impossible:

(96) a. It proved his guilt, without PRO causing any problems, that John bought a gun.
b.?* It was obvious, without PRO causing any problems, that Fred ate a hamburger.
c. ? It annoyed me, without PRO causing any problems, that Mary opened the window.
d. * It seemed, without PRO causing any problems, that Bill liked garlic.

e. *It was claimed, without PRO causing any problems, that Sue drank the whisky.

Thus, there is clear evidence that at least in (96a), *it* must be referential/argumental, since PRO must be controlled by a DP of this type.

3.4.2.2. The CP is in VP-adjoined position

There is also evidence that the CP in *it*-extraposition sentences, as opposed to passive and raising sentences, patterns with adjuncts rather than with complements, as predicted by the analysis in (93). Initial evidence that the CP in *it*-extraposition sentences patterns with adjuncts comes from *so*-anaphora, VP-ellipsis and VP-fronting. *So*-anaphora replaces CPs in internal argument position, as in the following examples:

(97) a. Is the moon out? I believe so.
b. John's girlfriend is a lawyer, or so Joe believes.
c. Fred is crazy, and John told me so.

However, *so* cannot replace adjunct CPs:

(98) *Fred ate a hamburger whenever he wanted, and John bought a gun so.

Now consider the examples in (99):[90]

(99) a. *John bought a gun, and so it proved his guilt.
b. *Fred ate a hamburger, and so it was obvious.
c. *Mary opened the window, and so it annoyed me.
d. Bill liked garlic, or so it seemed.
e. Sue drank the whisky, or so it was claimed.

[90] Stowell (1987) (cited in Authier 1991) claims that *so* can only replace non-factive CPs, which would rule out the examples in (99a-c) independently. However, this claim is dubious, given that factive *regret* permits *so*, while non-factive *deny* does not:

(i) Did John buy a gun? I regret so.
(ii) *It was claimed that Sue drank the whisky, but she denied so.

It is clear that there is a split between the raising and passive cases, which allow *so*, and the *it*-extraposition cases, which disallow it. Thus, *it*-extraposition CPs pattern with adjuncts, and raising and passive CPs with arguments.

VP-ellipsis provides further evidence for the same split. First note CPs which are uncontroversially arguments of the verb cannot be stranded by VP-ellipsis, as in (100a), while uncontroversial adjunct CPs can, as in (100b):

(100) a. *I said that Bill liked garlic, and John did __ that Sue drank the whisky.
b. Fred ate a hamburger whenever he wanted, and Bill did __ whenever he wanted as well.

Consider the examples in (101):

(101) a. It didn't prove his guilt that John bought a water pistol, but it did __ that he bought a gun.
b. It wasn't obvious that Fred ate a salad, but it was __ that he ate a hamburger.
c. It didn't annoy me that Mary tipped over a chair, but it did __ that she opened the window.
d. ?It didn't seem that Bill liked chilli, but it did __ that he liked garlic.
e. ?It wasn't claimed that Sue drank the water, but it was __ that she drank the whisky.

Although the judgements are subtler here, there does seem to be a contrast between raising and passive CPs, which are not easily stranded, and *it*-extraposition CPs, for which stranding is fully acceptable.

Thus, we have seen that *it*-extraposition CPs pattern with adjuncts rather than arguments, as expected under the analysis in (93). There is also evidence of a split within the class of *it*-extraposition CPs, between those that are arguments of the verb and those that are adjuncts. As is well-known, CPs in certain positions are islands to extraction. Cinque (1990) identifies three cases based on the syntactic relationship between the CP and the verb, accounting for the differences in terms of whether the CP is a barrier to

government or binding, or both. A CP which is the sister of the verb is not a barrier to government or binding, and hence is not an island. A CP which is selected (in the 'canonical direction') by the verb, but which is not a sister to the verb, is a barrier to government but not for binding, is a weak island, banning adjunct extraction but not argument extraction. Finally, a CP which is not selected (or which is selected in the 'non-canonical direction') is a barrier to both government and binding, and is a strong island, banning all extraction. Since the analysis in (93) does not posit a selectional relationship between the verb and the CP – since such selection implies θ-role-assignment – the prediction is clear: the CP should be a strong island, banning both argument and adjunct extraction. For *it*-extraposition sentences in which the CP is an external argument, this prediction is correct, as shown in (102a). *It*-extraposition sentences in which the CP is an internal argument, however, behave like weak islands: they tolerate argument extraction but not adjunct extraction, as shown in (102b-c). Finally, CPs in raising and passive sentences behave like complements: they permit both types of extraction, as shown in (102d-e):

(102) a. i. ??What did it prove his guilt that John bought *t*?
ii. *How did it prove his guilt that John bought a gun *t*?
b. i. What was it obvious that Fred ate *t*?
ii. *How was it obvious that Fred ate a hamburger *t*?
c. i. ?What did it annoy you that Mary opened *t*?
ii. *How did it annoy you that Mary opened the window *t*?
d. i. What did it seem that Bill liked *t*?
ii. Why did it seem that Bill liked garlic *t*?
e. i. What was it claimed that Sue drank *t*?
ii. How was it claimed that Sue drank the whisky *t*?

In terms of Cinque's typology, the data in (102) suggest that: (i) *it*-extraposition sentences in which the CP is an external argument do not involve a selectional relationship between the verb and the CP; (ii) those in which the CP is an internal argument involve a selectional relationship, but not sisterhood, between the verb and CP;

and (iii) raising and passive sentences involve selection and sisterhood between the verb and CP. The extraction differences seen in (102) thus parallel the control differences seen in (96), as expected: if *it* is an expletive, then the CP must be selected; if *it* is an argument, then the CP must not be selected. The latter case is predicted by the structure in (93).

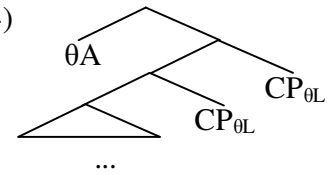
3.4.2.3. The uniqueness of θ-binding revisited

CP complements of nouns such as *claim* were analysed in 3.4.1 as involving θ-identification of the R-roles of the CP and head noun, and subsequent θ-binding by the determiner. However, it may still be necessary to say that in such cases the noun selects the CP, since stacking of this type of CP is banned:

(103)*the claim that Bill was wrong that John was right

This would be unexpected if the CP were an adjunct to the NP. Furthermore, there should be no problem for the Θ-Criterion, since θ-identification can iterate. Note that in *it*-extraposition sentences, by contrast, there is apparently no selection between the determiner (*it*) and the CP. In this case, therefore, selection has nothing to say about whether stacking should be allowed in *it*-extraposition sentences. The present analysis, however, independently makes the prediction that stacking should be disallowed, just as it is in clefts. This is because of the uniqueness condition on θ-binding imposed by the Θ-Criterion, which would be violated by a structure such as (104):

(104)



The prediction that stacking of CPs should be disallowed is correct; thus, (105b) is not a grammatical paraphrase of (105a):

(105) a. That Bill was wrong and John was right was obvious.
b. *It was obvious that Bill was wrong that John was right.

In conclusion, the analysis in (93) makes various correct predictions about the structure of certain *it*-extraposition sentences: that *it* does not behave like an expletive, that the CP behaves as if it is adjoined to VP, and that CPs cannot be stacked. In the next section we move on to consider some differences between *it*-extraposition sentences and clefts which are likewise expected under the present analysis.

3.4.3. Differences between it-extraposition sentences and clefts

3.4.3.1. Movement of the thematic antecedent

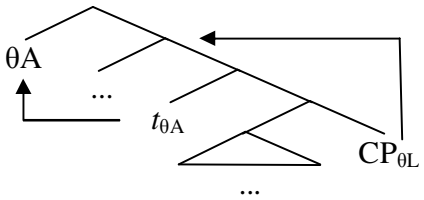
As we saw, in clefts and *only*-relative constructions, movement of the thematic antecedent does not force movement of the relative clause. If *it* is the thematic antecedent of the CP in *it*-extraposition sentences, then we correctly predict that A-movement of *it* into a higher clause does not force the CP to move into that clause, in contrast to relative clause extraposition:

(106) a. It was believed to have proved his guilt that John bought a gun once and for all.
b. It was believed to be obvious that Fred ate a hamburger to everyone.
c. It was believed to have annoyed me that Mary opened the window quite considerably.

On the other hand, the syntactic licensing condition, which is operative in clefts, *only*-relative constructions and relative clause extraposition, considerably restricts the positions in which the relative clause can appear on the surface. That is, it is essentially responsible for deriving the effects of the Right Roof Constraint of Ross (1967), which states that rightward 'movement' is clause-bounded, plus the later observations that rightward 'movement' from a VP-internal position is bounded by that VP (e.g., Baltin 1978, Culicover and Rochemont 1990). Under the present analysis of *it*-extraposition sentences, however, the syntactic licensing condition is inoperative. What this means is that *it*-extraposition CPs should show greater freedom of placement than relative clauses

in the above-mentioned constructions. That is, though they must at some point appear in a position in which the thematic licensing condition can be satisfied, they are not subsequently constrained by this condition, which does not hold of the surface representation. This situation is schematised in (107):

(107)



This allows us to account for the otherwise mysterious observation that *it*-extraposition CPs, in contrast to relative clauses, can sometimes violate the Right Roof Constraint (e.g., Baltin 1978, Bošković 2002). First, in some cases, it is possible for a CP thematically related to an embedded predicate to appear in a higher clause, as shown by its placement with respect to passive *by*-phrases in (108):

(108) a. ? It was believed to have proved his guilt by everyone that John bought a gun.
b. It was believed to be obvious by everyone that Fred ate a hamburger.
c. ? It was believed to have annoyed me by everyone that Mary opened the window.
d.?* It was believed to have seemed by everyone that Bill liked garlic.
e.?* It was believed to have been claimed by everyone that Sue drank the whisky.

This is as expected if the CP does not have a syntactic licenser within the embedded clause. We can also exclude the possibility that *it* is the syntactic (as well as the thematic) licenser in (108). The CP can in fact surface in a higher clause than *it*, as shown in (109):

(109) a. ? Mary believed it to have proved his guilt with all her heart that John bought a gun.
b. Mary believed it to be obvious with all her heart that Fred ate a hamburger.
c. ? Mary believed it to have annoyed me with all her heart that she opened the window.

d. *Mary believed it to have seemed with all her heart that Bill liked garlic.
e. *Mary believed it to have been claimed with all her heart that Sue drank the whisky.

On the other hand, the CP cannot appear in a *lower* clause than the predicate to which it is thematically related: thus, (110b) is not a grammatical paraphrase of (110a):

(110) a. It proved that he was distrusted by everyone that John bought a gun.
b. *It proved that he was distrusted that John bought a gun by everyone.

Thus, it seems that the CP must originate in the clause to which it is thematically related, but may surface in a higher clause, subject to additional constraints which remain mysterious. This is exactly as predicted under the current analysis: the thematic antecedent requires the CP to appear in the same clause as *it*, but it may subsequently undergo movement. Since movement may only be upward, not downward, the CP may appear in higher but not lower clauses than the base position of *it*.

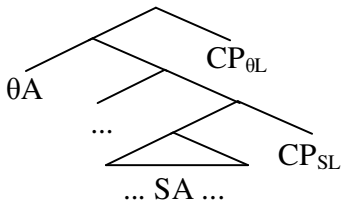
3.4.3.2. Other consequences of the lack of a syntactic antecedent

In 3.3.6 it was argued that cleft *it* cannot be the subject of a *tough*-predicate because the two licensing conditions on the cleft clause could not both be satisfied. This accounts for the contrast between (111a) and (111b):

(111) a. It was tough to prevent it from being John that Mary hit.
b. *It was tough to prevent from being John that Mary hit.

The structure instantiated by (111b) is repeated in (112):

(112)



In *it*-extraposition sentences, on the other hand, the syntactic licensing condition does not apply. This means that, in contrast to clefts, it should be possible to base-generate the relative clause in the matrix clause, thus satisfying the thematic licensing condition. Although (113a-c) seem stilted, they do not seem ungrammatical, in contrast to the raising verb example in (113d) and the cleft example in (113b):[91]

(113) a. ?It was tough to prevent from proving his guilt that John bought a gun.
b. ?It was tough to prevent from being obvious that Fred ate a hamburger.
c. ?It was tough to prevent from annoying me that Mary opened the window.
d. *It was tough to prevent from seeming that Bill liked garlic.
e. ?It was tough to prevent from being claimed that Sue drank the whisky.

3.4.4. Summary

I have shown that certain *it*-extraposition sentences instantiate a case of non-sisterhood-based thematic licensing of a CP without the need for syntactic licensing, a possibility which is predicted by the analysis of clefts and *only*-relatives proposed in this chapter. The claim that certain *it*-extraposition sentences involve thematic but not syntactic licensing explains why they show the properties of clefts and *only*-relatives that were argued to follow from the thematic condition (non-expletivehood of *it*, CP in VP-adjoined position, the ban on stacking), but not those that were argued to follow from the syntactic condition (the suspension of Right Roof effects).

3.5. Conclusion

This chapter began with a compositionality problem: how to reconcile the syntactic structure of clefts argued for in chapter 2 with the specificational semantics required to account for their interpretative properties – in particular, the much-discussed fact that clefts 'presuppose' the existence of some member of a relevant set which satisfies the cleft clause predicate (the existential presupposition), and that no other member of that set satisfies this predicate (exhaustivity). Drawing on the long-held view that this

[91] I have no explanation for the relative acceptability of (113e), except that perhaps it is possible for impersonal passives to have both the complement and adjunct structures.

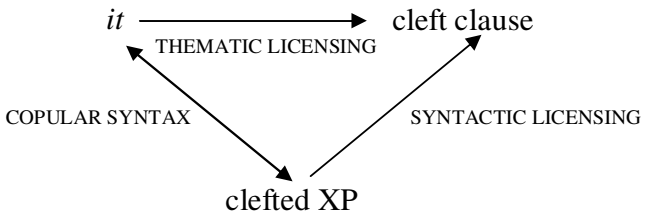
property of specificational sentences in general is due to the definiteness of the initial DP, I proposed that the cleft clause in effect has two 'antecedents' – one satisfying a thematic requirement of relative clauses (the need to discharge their open position), and one satisfying a syntactic requirement (providing the operator with the relevant features). Crucially, both of these requirements may be satisfied non-compositionally, as a result of a 'misinterpretation' of the standard compositional thematic and syntactic conditions. I showed that this accounts for various syntactic properties of clefts, as well as the closely-related *only*-relative construction, which are mysterious under competing accounts.

4. Clefts in Slavonic languages

4.1. Introduction

The analysis of English clefts that was proposed in chapters 2 and 3 has interesting implications for the crosslinguistic typology of clefts. It envisages a three-way dependency between *it*, the cleft clause and the clefted XP, which can be represented as in the diagram in (1):

(1)



This three-way dependency arises because the cleft clause is a relative clause, and therefore needs to be licensed in two ways: thematically licensed by *it*, and syntactically licensed by the clefted XP. In turn, *it* and the clefted XP are linked via the normal mechanisms of specificational copular syntax (a topic which we will postpone discussing until chapter 5). Notice, however, that only two of these three sub-dependencies are crucial to the syntax-semantics interface: namely, the link between *it* and the cleft clause, which saturates the open position of the cleft clause (via θ-binding), and the link between *it* and the clefted XP, which gives rise to an equative reading (broadly speaking) of the two XPs. That is, the syntactic licensing dependency only arises because the cleft clause is a relative clause. The analysis thus makes the typological prediction that there may exist clefts which do not contain a relative clause at all. There would be minimally three requirements on such clefts: (i) the cleft clause must be of the same semantic type as a relative clause (i.e., <*e,t*>); (ii) the cleft clause and the cleft pronoun must be in a local relation at some point, in order to satisfy the thematic licensing condition; and (iii) the cleft pronoun and the clefted XP must be semantically equated. My aim in this chapter will be to argue that this possibility is instantiated in some Slavonic languages, in particular in Russian. Some examples of the relevant constructions are given in (2):

(2) a. Èto BORIS vypil vodku. [Russian]
this Boris drank vodka
'It was Boris who drank the vodka.'

b. To MARIĘ Jan uderzył. [Polish; Mieszek 1979:113]
that Maria Jan hit
'It was Maria that Jan hit.'

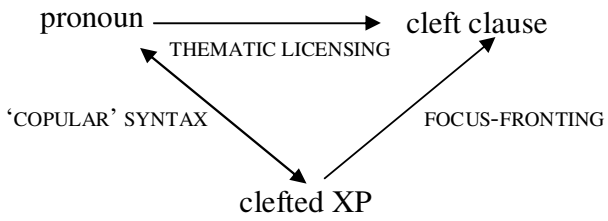
c. To Novak pliva. [Serbo-Croatian; Progovac 1998:5]
that Novak swims
'That's Novak swimming.'

d. To KAREL přišel pozdě. [Czech; Radek Simík, p.c.]
that Karel came late
'It was Karel that came late.'

Each of these constructions is introduced by what looks like a demonstrative pronoun, in most cases immediately followed by a contrastively focused XP, which in turn is followed by an 'open clause' interpreted as the background of that focus. Thus, in linear terms, the constructions resemble English clefts. On the other hand, there is no evidence that a copular verb intervenes between the pronoun and the focus, or that the 'open clause' is a relative clause. As has been pointed out by various authors (e.g., King 1993), this gives us good reason to doubt the claims of Gundel (1977) and Mieszek (1979) that the constructions in (2) are syntactically equivalent to English clefts. Indeed, I will argue in 4.2-3 that (most) Slavonic clefts of this type simply involve focus-fronting of the type found in non-clefts. On the other hand, I differ from previous authors in arguing that such clefts have two clausal subjects: that is, both the standard clausal subject (e.g., *Boris* in (2a)) and the demonstrative pronoun occupy SpecIP positions. Having argued that the syntax of Slavonic clefts differs considerably from that of English clefts, I will propose, contrary to most previous analyses, that Slavonic clefts really are clefts in the sense that the 'background' of the focus semantically restricts the reference of the demonstrative pronoun, and that this is achieved by the mechanism of non-sisterhood-based θ-binding proposed in chapter 3.

The basic argument of the chapter, then, is that Slavonic clefts differ syntactically from English clefts, but are semantically identical to English clefts. In particular, like English clefts, they involve thematic licensing of the 'cleft clause' by a pronoun which does not form a constituent with it. Furthermore, in chapter 5 I will argue that the relationship between the cleft pronoun and the clefted XP is specificational in both languages. This means that for Slavonic clefts, the dependency diagram in (1) can be revised to (3):

(3)



Before presenting the syntactic analysis, it will be useful to survey the previous analyses of Slavonic clefts in the literature.

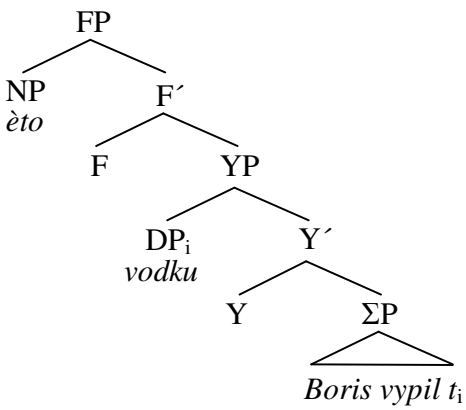
Early analyses of Slavonic clefts, such as Gundel (1977) and Mieszsek (1979), took them to be syntactically parallel to English clefts. For example, Gundel took both Russian and English clefts to be underlying pseudoclefts in which the *wh*-phrase undergoes right-dislocation, and is replaced by a pronoun (*it* in English; *èto* in Russian).[92] That is, in both languages the initial pronoun occupies the clausal subject position of a copular sentence with a null copular verb. Since then, however, most analyses of Slavonic clefts have been non-copular in this sense, and take the initial pronoun to be either a functional head in the extended projection of the 'cleft clause' verb, or a semantically 'light' element occupying a high specifier or adjunct position in this clause. What all these analyses have in common is that they consider the name 'cleft' to be a misnomer: the 'clefted XP' is simply an XP which has undergone focus-fronting to a high specifier or adjunct position in the 'cleft clause'.

As well as being distinguished by whether they treat the pronoun as a functional head or as a specifier/adjunct, these analyses differ in that some take Slavonic clefts to be essentially parallel to focus-fronting sentences, while others take them to be specificational in some sense. King (1993) and Junghanns (1997), who discuss the

[92] Similarly, Mieszek (1979) proposes that Polish and English clefts have equivalent derivations.

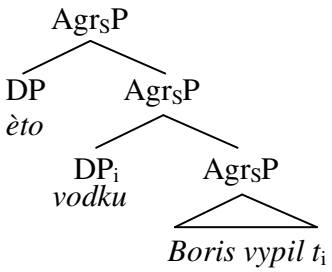
Russian cleft, argue for analyses of the first type: essentially they treat clefts as identical to focus-fronting sentences apart from the presence of the pronoun. Thus, in King's analysis, *èto* (which King does not assign any specific semantics) appears in the specifier of a functional head in the left periphery, and the clefted XP moves to the specifier of a lower functional head:

(4)



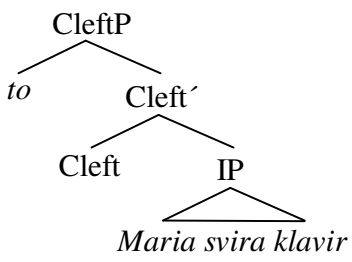
In Junghanns' analysis, on the other hand, both the pronoun (which Junghanns takes to be a 'topic') occupy positions adjoined to IP:

(5)

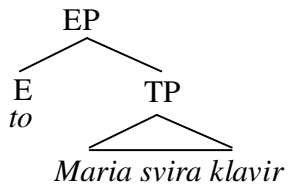


The two main analyses of Serbo-Croatian clefts in the literature – Halpern 1995 and Progovac 1998 – are also essentially of this type. Serbo-Croatian clefts differ from the other types of Slavonic cleft in that there is not normally a 'clefted XP': that is, the whole IP following the pronoun is in focus (see chapter 5, section 5.4.3 for more discussion of this difference). Nevertheless, under both analyses the pronoun *to* occupies the specifier of a left-peripheral functional head (for Halpern) or is itself a high functional head (for Progovac), as illustrated in (6):

(6) a.



b.



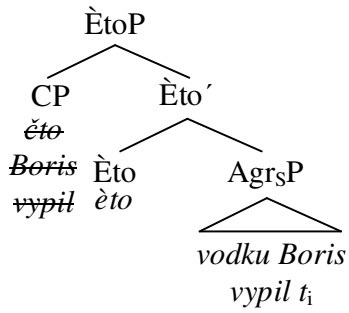
The other type of analysis takes Slavonic clefts to essentially involve the same syntax-semantics mapping as specificational copular sentences – specifically, that argued for by authors such as Ross (1972), Den Dikken et al. (2000) and Schlenker (2003). These authors argue that (certain types of) specificational sentences equate a question with its exhaustive answer, and furthermore that this is also reflected in the syntax; thus, a specificational sentence such as (7a) involves the underlying structure in (7b), in which the specificational subject is actually a full IP, the non-focal part of which is phonologically deleted:

(7) a. What I saw was JOHN.
b. What I saw was I saw JOHN.

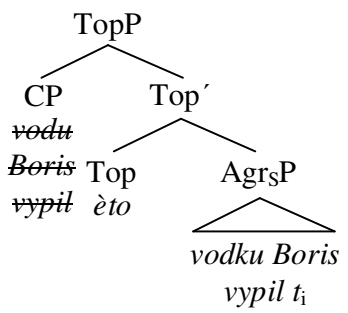
In the same spirit, Geist and Błaszczak (2000) and Markman (2008) propose that Russian and Polish clefts involve an underlying question-answer structure.[93] The pronoun is a functional head which takes the question CP as its specifier and the answer IP as its complement. In contrast to standard specificational sentences, in which the non-focal part of the answer is elided, in Russian and Polish clefts the entire question CP is elided. The relevant structures are given in (8) (Geist and Błaszczak's in (8a), Markman's in (8b)):[94]

[93] In Reeve (2008) I agreed that Russian clefts are interpreted as question-answer pairs. As I will argue in 4.6.4.1., however, I now believe this claim is mistaken. I provided one novel piece of evidence for the question-answer pair analysis: namely, the fact that Russian clefts disallow contrastive topics. Under the present analysis, however, this possibility is independently ruled out by the requirement for the focus to be adjacent to *èto*, plus the general ban on (contrastive) topics following foci in Russian (e.g., King 1995).
[94] The two analyses also differ in another sense: Geist and Błaszczak claim that clefts contain yes-no-questions; Markman claims that they contain *wh*-questions.

(5) a.



b.

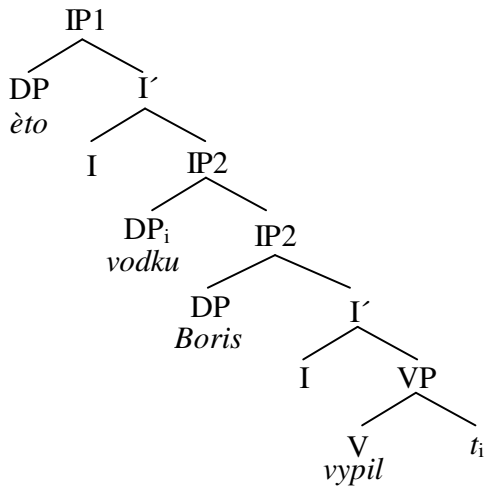


What all the analyses discussed have in common, with the exceptions of Gundel (1977) and Mieszek (1979), is that what follows the pronoun is a full IP (possibly with focus-movement of a smaller XP). Given the widely-held view that the syntax-semantics interface proceeds on the basis of strict compositionality, then, this structure lends itself naturally to one of the two types of semantic analysis assumed by these authors: that is, either clefts are semantically identical to focus-fronting sentences (perhaps *modulo* features encoding presuppositions and exhaustivity, as in É. Kiss's (1998) analysis of English clefts), or they involve equation of a question with its answer, the answer being a full IP. What this structure does not allow, given the assumption of strict compositionality, is an analysis on which the pronoun is semantically modified by the 'cleft clause' and semantically equated with the clefted XP, as in specificational analyses of English clefts. On the other hand, such an analysis is possible under the proposals made in chapter 3, given certain plausible assumptions. The aim of this chapter will be to argue that in fact, such an analysis is preferable on various grounds to the analyses surveyed in this section. Furthermore, it has the wider consequence of allowing the syntactic properties which motivate a 'focus-fronting' structure for Russian clefts to be reconciled with the properties that motivate a specificational interpretation.

4.2. Proposal

The syntactic analysis I would like to propose for Russian clefts is given in (9) (based on (1a)):

(9)



Like most of the analyses discussed in 4.1, the analysis in (9) takes what follows the pronoun to be a standard tensed IP, rather than a copular structure with a relative clause as in Gundel (1977). In cases where there is a 'clefted XP', as in (1a), this XP undergoes A´-movement adjoining it to the lower IP.[95] On the other hand, the present analysis agrees with Gundel that the pronoun occupies a clausal subject position (SpecIP). The analysis thus resembles certain treatments of the 'transitive expletive constructions' found in some Germanic languages, which also require two positions for 'subjects' (e.g., Jonas 1996). In (10), for example, there appear to be two subjects – *það* and *margir Íslendingar* – which Jonas takes to be in the specifier of Agr_S and T respectively:

(10) Það byggðu margir Íslendingar hús í Þórshöfn. [Icelandic]
there built many Icelanders houses in Tórshavn.
'Many Icelanders built houses in Tórshavn.'

In contrast to Jonas's analysis of transitive expletive constructions, however, I propose that in Russian clefts the functional categories hosting the 'genuine' subject and the pronoun are identical, or rather that they have the same 'functional value' in the sense of Grimshaw (1991, 2000). Grimshaw argues that lexical heads such as verbs and nouns, as well as the standard projections bearing their category labels, also form 'extended

[95] See, e.g., Stepanov (1998) and Bailyn (2001) for the claim that focus-movement adjoins the focused XP to IP.

projections' with the functional projections dominating them. Thus, verbs form extended projections with IP and CP (or perhaps a more fine-grained range of inflectional categories such as those proposed by Rizzi 1997 and Cinque 1999). Grimshaw's (2000:4) definition of extended projection is given in (11):[96]

(11) X is a *head* of YP, and YP is a *projection* of X iff:
   a. YP dominates X
   b. The categorial features of YP and X are consistent
   c. There is no inconsistency in the categorial features of all nodes intervening between X and Y (where a node *intervenes* between X and YP if YP dominates X and N, N dominates X, and N does not dominate YP).

Thus, for example, V, I and C are all specified as [+V, -N], and thus can form an extended projection if no differently specified node intervenes between them in the relevant sense. Furthermore, in order to capture the fact that the members of an extended projection are strictly hierarchically ordered, Grimshaw associates each head with a 'functional value' (*F*-value, notated *F0*, *F1*, *F2*, etc.) and considers two versions of a principle regulating this ordering:

(12) a. The *F*-value of X is lower than the *F*-value of YP.
   b. The *F*-value of X is not higher than the *F*-value of YP.

The difference between the two versions of the principle is that (12b) allows a head within an extended projection to select another instance of itself (or a head with the same *F*-value), while (12a) does not. (12b) thus allows (among others) C>CP, I>IP, V>VP, but still disallows the unattested combinations that Grimshaw mentions (I>CP, D>PP, I>PP, C>DP). Unlike these, the extra orders permitted by (12b) have been proposed for certain constructions in the literature. Instead of allowing these combinations, however, Grimshaw assumes condition (12a), and seems to suggest that the apparent cases of

[96] Grimshaw (2000:6 fn. 6) notes that specifiers must be excluded from belonging to the same extended projection as their heads.

C>CP, I>IP and V>VP should be analysed by giving the two instance of the same category distinct *F*-values, thus making them fall in line with (12a). I will assume, however, that the less restrictive condition in (12b) holds, and thus that the double-IP structure in (9) is permitted in principle. Clearly, however, there must be restrictions on IP-recursion, otherwise an indefinite number of instances of I per extended projection would be permitted, which would massively overgenerate.

Suppose, then, that what constrains recursion of a particular member of an extended projection is that its features can only be instantiated once per extended projection, and that, if they are uninterpretable in the sense of Chomsky (1995 et seq.), they must be checked as soon as possible, which under a derivational view of grammar means 'as low as possible'. Thus, I is typically associated with tense, nominative Case and φ-features (person and number), the latter two of which are uninterpretable on I, and thus need to be checked by an appropriate DP, which may or may not move to SpecIP to satisfy the EPP. Thus, if a second IP is projected, these features will not be available to the higher I, which means it cannot enter into an Agree relation with a DP. Assuming that the EPP of the higher I must be satisfied by some DP, there are two options: internal or external Merge. Internal Merge will face a minimality problem: if a DP undergoes A-movement over the subject in the lower SpecIP, it will cross another A-position, a violation of 'relativised minimality'. Given that the verb does not move out of the VP in Russian, there is good reason to think that 'equidistance' in the sense of Chomsky (1995) and Den Dikken (2006) cannot be invoked here either. The subject itself cannot move to SpecIP1, since it has already checked Case and is thus frozen in place. Thus the only option seems to be external Merge. If a non-expletive DP is Merged, then under standard assumptions it must be assigned a θ-role and check Case. However, since θ-role assignment external to the VP is normally taken to be unique, and the subject is the external argument, there is apparently no way for the higher DP to be assigned a θ-role. Furthermore, since the nominative Case feature of the extended verbal projection has already been checked by the lower I, the DP cannot check its Case feature either. The only remaining option is to merge a DP which requires neither a θ-role nor Case. Standardly it is assumed that only *there*-type expletives belong to this class. There is evidence, however, that *èto*, although not an expletive, has expletive-like properties in this sense. Junghanns (1997) notes that

one of the functions of *èto* is as a 'sentence connector', as in (13) (ibid.:176-7; examples from *Razgovornaja reč* corpus):

(13) a. [È]to zavisit i ot temperatura i ot vsego. Èto ja s toboj soglašus'.
this depends and from temperature and from everything this I with you agree
'It depends on temperature and on everything. (On this point) I agree with you.'

b. [Z]elënye limony, èto ja srazu vspomnila Šagala kartinu, pomniš?
green lemons this I immediately remembered Chagall's painting remember
'Green lemons, that immediately reminded me of Chagall's painting.'

Here *èto* contributes a meaning something like 'on this point', which suggests that it is functioning as a sentence adverbial, exceptionally among DPs in Russian. In fact, Junghanns notes that it fulfils a similar function in (13) to *da* in German, which is uncontroversially adverbial. Sentence adverbials are typically analysed as adjuncts to IP or specifiers of a high functional projection; in any case, they occupy positions which are not associated with Case. Thus it is expected that if a second IP is projected, its specifier may be occupied by *èto*, but not by other argumental DPs. In most cases the Case-based explanation will overlap with the θ-role-based explanation, since argumental DPs normally need both a θ-role and Case. On the other hand, if *èto* can appear in SpecIP1 without receiving a θ-role from the cleft clause predicate (as I will argue in chapter 5), the Case requirement can be tested independently. If there is no additional Case requirement, we might expect other neuter singular pronouns to be able to appear in SpecIP1. However, as shown in (14), the distal demonstrative *to* and the personal pronoun *ono* may not appear in clefts:[97]

[97] According to Progovac (1998), however, the neuter distal demonstrative and the neuter personal pronoun can appear in clefts. I have no explanation for why this should be so.

(14) *To/ono BORIS vypil vodku.
that/it Boris drank vodka
'It was Boris who drank the vodka.'

If the reason why these elements cannot appear in SpecIP1 is because, unlike *èto*, they require Case, then we also expect them to be banned from functioning as 'sentence connectors', since sentential adjunct positions are also Caseless. This expectation is correct: *èto* in (13a-b) cannot be replaced by *to* or *ono* (Elena Titov, p.c.). It thus seems that *èto* is unusual among Russian DPs in not requiring Case. Note that the restriction to *èto* would otherwise be mysterious, given that clefts in English, French and German (to name just three) allow neuter singular demonstratives as well as personal pronouns.

To summarise, then, the present analysis of Slavonic clefts is broadly similar to previous analyses (e.g., King 1993, Halpern 1995, Junghanns 1997, Progovac 1998, Geist and Błaszczak 2000, Šimík 2007, Markman 2008) in that it takes what follows *èto* to be a standard tensed IP (here labelled IP2). In 4.3 I will show that this aspect of the analysis makes correct predictions with respect to cleft clause ellipsis, the categories that can be clefted, and potential reconstruction effects. Furthermore, because it treats clefts as consisting of a single extended projection, it will also capture the insight of these analyses that Russian clefts, unlike English clefts, behave more like monoclausal than biclausal constructions in many ways. All of this evidence is problematic for copular accounts such as Gundel (1977) and Mieszek (1979). On the other hand, the fact that *èto* is treated as occupying a SpecIP position makes different predictions from fully 'monoclausal' analyses. certain predictions which previous analyses do not, predictions which I show to be correct in 4.4. The treatment of clefts as involving two instances of IP also accounts for certain facts which are puzzling under a monoclausal analysis. Although most of the evidence in 4.3 and 4.4 will be drawn from Russian, data from Serbo-Croatian will also be considered.

4.3. The parallels between clefts and focus-fronting

In contrast to the analysis of English clefts in chapters 2 and 3, the present analysis of Slavonic clefts predicts the material following the pronoun to behave in a parallel fashion

to a standard tensed IP with focus-fronting to a clause-initial position. In this respect, the analysis makes identical predictions to the analyses discussed in 4.1 (e.g., King 1993, Junghanns 1997, Geist and Błaszczak 2000, Markman 2008). In this section I will review some of these predictions, showing that they are correct, and thus favouring focus-fronting analyses such as the present one over copular analyses such as Gundel (1977) and Mieszek (1979).

4.3.1. No relative clause structure

In Russian, unlike in English, restrictive relatives must be introduced by a relative operator or a complementiser, as shown in (15a-b). As in English, these items are not possible in a focus-fronting sentence, as shown in (15c):

(15) a. Ja uvidela knigu, *(kotoraja/čto) ležit na stole.
I saw book which/that lies on table
'I saw the book which was lying on the table.'

b. Ja skazal, *(čto) ja ljublju pit' vodku.
I said that I love to.drink vodka
'I said that I love to drink vodka.'

c. VODKU (*kotoruju/čto) ja ljublju pit'.
vodka which/that I love to.drink
'VODKA, I love to drink.'

In this respect clefts pattern with focus-fronting sentences rather than restrictive relatives, since they also disallow a relative operator or complementiser after the clefted XP (King 1993:160):

(16) Èto IVANA, (*kotorogo/*čto) ja uvidel.
this Ivan who/that I saw

This is accounted for under the present analysis and those discussed in 4.1, which analyse the material following *èto* as syntactically identical to a focus-fronting IP. On the other

hand, it poses a serious problem for the claim of Gundel (1977) that clefts contain a restrictive relative as in English, which predicts a relative operator or complementiser to be obligatory.

4.3.2. Ellipsis of the 'cleft clause'

In English it is apparently possible to elide the cleft clause, creating a 'truncated cleft', as in (10a). This is expected to be possible, since restrictive relatives can also be elided provided they are recoverable from previous context. Thus, in (17b), it can be understood that Bill bought the vodka even if the relative is omitted. On the other hand, it is not possible to omit the material following the focus in a focus-fronting sentence, as shown in (17c):

(17) a. What did John say that Bill drank? John said that it was the vodka (that Bill drank).
b. John drank the vodka that Bill bought, and Mary drank the water (that Bill bought).
c. John said that Bill drank the water. No, John said that the vodka *(Bill drank).

The present analysis of Russian clefts, on the other hand, takes the part following *èto* to be parallel to a focus-fronting clause, and hence predicts that clefts and focus-fronting will behave in a similar way with respect to ellipsis, a prediction which is correct, as shown in (18):

(18) a. Maria skazal, čto Maša vypila vodu. Net, Maria skazal, čto VODKU *(Maša vypila).
Maria said that Masha drank water no Maria said that vodka Masha drank
'Maria said that Masha drank the water. No, Maria said that Masha drank THE VODKA.'

b. Maria skazal, čto Maša vypila vodu. Net, Maria skazal, čto èto VODKU *(Maša vypila).
Maria said that Masha drank water no Maria said that this vodka Masha drank

Once again, this provides evidence for the present analysis, and those discussed in 4.1, over that of Gundel (1977), who would predict that the cleft clause could be elided in (18b).

4.3.3. Possible clefted XPs

The analysis also predicts that any phrase which can undergo focus-fronting to a clause-initial position will also be able to be clefted, since both constructions involve the same movement operation – A´-movement to an IP-adjoined position. This seems to be correct. As well as DP, PP, CP, AP and AdvP can be both focus-fronted and clefted:

(19) a. Èto V PARKE ja videla Annu.
this in park I saw Anna
'It was in the park that I saw Anna.' (King 1993:157)

b. Èto ČTO JA GOLODEN emu ne nravilos'.
this that I hungry him.DAT not pleased
'It was that I was hungry that he didn't like.'

c. Èto PYANJM Ivan kažetsja umnym.
this drunk-INSTR Ivan seems clever-INSTR
'It is drunk that Ivan seems clever.'

d. Èto MEDLENNO on govoril.
this slowly he spoke
'It was slowly that he spoke.'

4.3.4. Connectivity effects

In chapter 2, we saw that English clefts sometimes show connectivity effects which their standard specificational counterparts do not. This was attributed to the possibility,

absent in standard specificational sentences, of a raising derivation of clefts, in which the clefted XP originates inside the cleft clause. Since the present analysis of Russian clefts always involves movement of the clefted XP, we expect to find connectivity effects parallel to those in focus-fronting sentences, and a superset of those found in standard specificational sentences.

As in English, both clefts and standard specificational sentences show connectivity effects with respect to reflexive binding, variable binding, intensionality and quantifier scope involving a focused indefinite, as shown in (20-21):

(20) a. Èto SEBJA Boris nenavidel.
this self Boris hated
'It was himself that Boris hated.'

b. Èto SVOJU KNIGU každyj student pročital.
this self's-ACC book-ACC every student read
'It was his book that every student read.'

c. Èto EDINOROGA Ivan iščet.
this unicorn-ACC Ivan seeks
'It is a unicorn that Ivan seeks.'

d. Èto KURITSU každaja sobaka s"el.
this chicken-ACC every dog ate
'It was a chicken that every dog ate.'

(21) a. Tot, kogo Boris nenavidel – èto SEBJA.
that who Boris hated this self
'The one that Boris hated was himself.'

b. To, čto každyj student pročital – èto SVOJA KNIGA.
that C every student read this self's.NOM book.NOM
'The thing that every student read was his book.'

c. To, čto Ivan iščet – èto EDINOROG.
that C Ivan seeks this unicorn.NOM
'The thing that Ivan seeks is a unicorn.'

d. To, čto každaja sobaka s”el – èto KURITSA.
that C every dog ate this chicken.NOM
‘The thing that every dog ate was a chicken.’

Since standard specificational sentences arguably do not involve movement of the focused XP from inside the surface subject (see chapter 2 for discussion), this evidence cannot be used to determine whether the clefted XP has undergone movement. As in English, however, there are some cases where clefts show connectivity effects that standard specificational sentences do not, which suggests that the clefted XP can have undergone A´-movement to its surface position. One such phenomenon is case-marking, as can be seen in the (b-d) examples in (20-1): the clefted XP must appear with the case it would have if it appeared in the gap position (accusative in (20b-d)), while the focused XP in specificational sentences must be nominative, the default case in Russian. Some more contrasts of this type are shown in (22-3). Clefts show connectivity for quantifier scope involving a focused universal and quantifier scope involving obligatory distributivity, as shown in (22). Standard specificational sentences, on the other hand, show ‘anti-connectivity’ effects for these phenomena, as shown in (23):

(22) a. Èto KAŽDAJA SOBAKA s”el kuritsu.
this every dog ate chicken
‘It was every dog that ate a chicken.’
b. Èto PO-ODNOJ KURITSE každaja sobaka s”el.
this a.different chicken every dog ate
‘It was a different chicken that every dog ate.’

(23) a. *To, čto s”el kuritsu, èto KAŽDAJA SOBAKA.
that C ate chicken this every dog
‘What ate a chicken was every dog.’
b. *To, čto každaja sobaka s”el, èto PO-ODNOJ KURITSE.
that that every dog ate this a.different chicken
‘What every dog ate was a different chicken.’

Thus, although many connectivity effects that are found in clefts are also found in other specificational sentences, where a movement derivation is implausible, there are cases in which we find connectivity effects in clefts and focus-fronting sentences, but anti-connectivity effects in specificational sentences. As with English clefts, this suggests that Russian clefts can be derived by A´-movement of the clefted XP.

4.3.5. No predicational clefts

Recall from chapter 2 that English sometimes allows a predicative interpretation of the clefted XP:

(24) a. It was an interesting meeting that I went to last night.
b. It was a kid who beat John.

The present analysis predicts that this should not be possible in Russian. One reason is that the clefted XP occupies an IP-adjoined position, and so is not local enough to *èto* to assign a θ-role to it. Even if a plausible mechanism could be devised to allow this type of θ-role assignment, however, a clefted predicative XP would have to have moved to IP-adjoined position, and thus should already have assigned its θ-role from its base position. Further θ-role assignment by this XP would therefore violate the Θ-Criterion. Of course, since (24a,b) can also have a specificational reading, we cannot simply use the Russian equivalents of these sentences to test the claim. Instead, we can use a similar test to the *consider*-test used for English. In chapter 2 we saw that clefts such as (24a-b) can be embedded under verbs like *consider* which only take predicational small clauses, while unambiguously specificational clefts (e.g., those in which a proper name is clefted) cannot:

(25) a. I consider it (to be) an interesting meeting that I went to last night.
b. I consider it (to be) a kid who beat John.
c. I consider it *(to be) John that Mary saw.

The Russian verb *sčitat'* 'to consider' similarly allows a small clause to be embedded under it provided that it is predicational (which forces DP2 to be in the instrumental case):

(26) a. Ja sčitaju ego interesnym čelovekom.
I consider him interesting-INSTR person-INSTR
'I consider him (to be) an interesting person.'
b. *Ja sčitaju ego Borisom.
I consider him Boris-INSTR
'I consider him *(to be) Boris.'

As (27) shows, it is not possible to embed a Russian cleft under *sčitat'*:

(27) *Ja sčitaju èto interesnym čelovekom ja vstretil včera večerom.
I consider this interesting-INSTR person-INSTR I met yesterday evening-INSTR
'I consider it an interesting person that I met last night.'

If Russian clefts are syntactically parallel to English clefts, as Gundel (1977) claims, the impossibility of predicational clefts in Russian is unexpected.

4.3.6. Further movement of the clefted XP

In chapter 2, it was observed that English matching clefts, but not raising clefts, allow further focus-movement of the clefted XP. On the other hand, both types of clefts allow *wh*-movement of the clefted XP. This was attributed to the generalisation that A´-movement licensed by the same interpretative phenomenon cannot be iterated. If the clefted XP in Russian is always moved, then we predict that it should pattern with raising clefts with respect to further movement of the clefted XP. This is correct, as shown in (28):

(28) a. *VODKU$_i$ èto *t*′$_i$ Boris vypil *t*$_i$.
vodka this Boris drank
'VODKA it was that Boris drank.'
b. Čto èto *t*′$_i$ Boris vypil *t*$_i$?
what this Boris drank
'What was it that Boris drank?'

That is, (28a) involves two operations of focus-movement on the same constituent, and is thus illegitimate, while (28b) involves one operation of focus-movement followed by one operation of *wh*-movement, which is permitted.

4.3.7. Summary

In this section I have discussed the prediction made by the present analysis that the material following *èto* behaves like a focus-fronting construction rather than a copular clause, a prediction shared with previous analyses such as King (1993) and Junghanns (1997). This prediction was shown to be correct with respect to various phenomena: cleft clause ellipsis, the possible range of clefted XPs, reconstruction effects, the possible positions of contrastive foci, and the lack of predicational readings for clefts. In all of these cases, the data are problematic for a copular analysis of Slavonic clefts along the lines of Gundel (1977) or Mieszek (1979).

4.4. The cleft as a single extended verbal projection

The present analysis takes Slavonic clefts to consist of a single extended verbal projection containing two functional categories with the same *F*-value (here labelled IP1 and IP2). This predicts that Slavonic clefts, unlike English clefts, will behave like monoclausal constructions in various ways, a prediction which is once again shared with analyses such as King (1993) and Junghanns (1997). These authors have provided various pieces of evidence for the monoclausal status of Russian clefts, which I will review in this section. Once again, such evidence is problematic for analyses such as Gundel (1977) and Mieszek (1979).

4.4.1. No copula or relative clause

In Russian, the copula *byt'* is not normally overt in the present tense, but must be overt in other tenses (past, future, infinitive). This gives rise to so-called 'bare copular sentences' of the type in (29a) alongside verbal copular sentences like (29b):

(29) a. Ivan – xrabryj soldat.
Ivan brave soldier
'Ivan is a brave soldier.'
b. Ivan byl xrabryj soldat.
Ivan was brave soldier
'Ivan was a brave soldier.'

Given the existence of sentences like (29a), then, the fact that no copula intervenes between *èto* and the clefted XP in clefts might not seem to be a problem for Gundel's (1977) claim that clefts are copular sentences as in English. Given that English clefts allow the copula to appear in tenses other than the present, though, a copular analysis of Russian clefts predicts that the copula should become overt in non-present tenses. As King (1993:161) shows, however, this is incorrect: no form of the copula may intervene between *èto* and the clefted XP:[98]

[98] I initially considered the possibility that the copula might be obligatorily null for reasons of redundancy: that is, deletion is licensed, and thus forced, by a principle of 'recoverability of deletion' (Chomsky 1964). However, this seems untenable, since null copulas may normally be made overt by stressing them in 'verum focus' contexts:

(i) A: Ivan ne doktor.
Ivan not doctor
'Ivan is not a doctor.'
B: Da, Ivan EST' doktor.
yes Ivan is doctor
'Yes, Ivan IS a doctor.'

Even in this type of context, however, it is not possible for an overt copula to appear in clefts:

(ii) A: Èto ne IVAN ljubit sobirat' griby.
this not Ivan loves to.collect mushrooms
'It's not Ivan that likes collecting mushrooms.'
B: * Da , èto i EST' IVAN ljubit sobirat' griby.
yes this and is Ivan loves to.collect mushrooms
'Yes, it IS Ivan that likes collecting mushrooms.'

(30) a. Èto (*byl) IVANA ja uvidel.
this was Ivan I saw
'It was Ivan that I saw.'
b. Èto (*budet) IVANA ja (u)vižu.
this will.be Ivan I see
'It will be Ivan that I (will) see.'

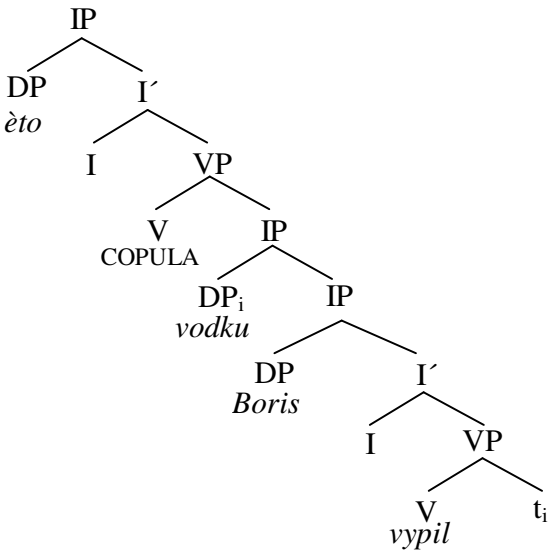
This is one of the primary motivations for adopting a monoclausal analysis in which *èto* is in some A´-position at the left edge of the clause, since under this analysis no copular verb would be expected to intervene between C and IP. Under the present analysis, this fact receives a similar explanation: since the IP hosting *èto* and the IP hosting the 'true' subject belong to the same extended projection, no lexical verb can intervene between the two. This is because according to Grimshaw's analysis, a lexical head is always the lowest member of an extended projection. In contrast to purely monoclausal analyses, it is crucial to the success of the present analysis that the copula in Russian is a lexical verb rather than base-generated as a functional head. Indeed, this seems to be the case, as the copula, like uncontroversially lexical verbs, must surface to the right of adverbs marking the left VP boundary, as well as sentential negation, which is assumed to sit in a similar position (examples and judgements in (31a-b) from Bailyn 2001; see also Slioussar 2007):

(31) a. Ivan často celuet Mašu.
Ivan often kisses Mary
'Ivan often kisses Mary.'
b. *Ivan celuet často Mašu.
Ivan kisses often Mary
c. Ivan ne celuet Mašu.
Ivan not kisses Mary
'Ivan does not kiss Mary.
d. *Ivan celuet ne Mašu.
Ivan kisses not Mary

The obligatory absence of the copula from clefts is thus accounted for under the present analysis.

One might wonder why it is not possible for the cleft to contain a copular verb. Consider the structure of a cleft if it were minimally altered to include a copula:

(32)



In this structure, the copula selects for the lower IP, and we thus have two extended verbal projections. The problem with this structure is that the copula in Russian does not select for clauses, either IP or CP, as shown in (33a). Instead, the sentence must be reformulated to include a postcopular PP, as in (33b):

(33) a. *Problema byla (čto) Ivan ljubit Mašu.
problem was that Ivan loves Masha
'The problem was that Ivan loves Masha.'

b. Problema byla v tom, čto Ivan ljubit Mašu.
problem was in that that Ivan loves Masha

This restriction must presumably be stated as a selectional restriction on the copula, in which case (32) will be ruled out as well, whether the clause selected by the copula contains a CP layer or not.

Finally, note also that treating clefts as a single extended projection also accounts for the absence of relative clause structure in clefts, which was discussed in 4.3.1. If the cleft clause were a restrictive relative, then we would expect a CP boundary to intervene between the clefted XP and cleft clause. But since C is higher than I in the extended verbal projection, this would necessitate positing two separate extended projections rather than one.

4.4.2. The types of adverbs permitted after èto

King (1993:159) claims on the basis of (34) that adverbs may not intervene between *èto* and the clefted XP:

(34) a. *Èto vsegda BORIS p'ët vs'ju vodku.
this always Boris drinks all vodka
'It is always Boris who drinks all the vodka.'
b. *Èto obyčno BORIS p'ët vs'ju vodku.
this usually Boris drinks all vodka
'It is usually Boris who drinks all the vodka.'

This claim is not entirely correct, however. The adverbs *vsegda* 'always' and *obyčno* 'usually' belong to the class of adverbs traditionally called VP-adverbs, or, according to Cinque's (1999) hierarchy, adverbs belonging to the low IP (aspect-related) area. In contrast to (34), IP-adverbs, or adverbs belonging to the high IP (modality and tense-related) area are permitted in this position::[99]

(35) a. Èto k sčast'ju BORIS vypil vodku.
this to happiness Boris drank vodka
'Fortunately, it was Boris that drank the vodka.'

[99] Even if King's claim were true, it is not clear that it would be an argument either for her analysis or against Gundel's, since (i) VP-adverbs may also not appear in null copula sentences with *èto* as subject, and (ii) she does not make it clear what rules out adjoining an adverb to the YP projection hosting the clefted XP in its specifier.

b. Èto jakoby BORIS vypil vodku.
this allegedly Boris drank vodka
'It was allegedly Boris that drank the vodka.'

c. Èto verojatno BORIS vypil vodku.
this probably Boris drank vodka
'It was probably Boris that drank the vodka.'

d. Èto odnaždy BORIS vypil vodku.
this once Boris drank vodka
'Once, it was Boris that drank vodka.'

In terms of the simple (C-I-V) clause structure assumed here, the contrast between (34) and (35) can be accounted for if we assume that VP(low IP)-adverbs adjoin to a projection of V, and that IP(high IP)-adverbs adjoin to a projection of I. Since there is no projection of V between *èto* and the clefted XP, this rules out VP(low IP)-adverbs from this position. On the other hand, IP(high IP)-adverbs may appear here, since a projection of I intervenes (either the intermediate projection of I1 or the maximal projection of I2).

4.4.3. Imperative clefts

As in English, imperatives in Russian are a matrix phenomenon. Thus, the imperatives in (36) are ungrammatical:

(36) a. *I told John (that) be quiet.

b. *Ja zakazal Ivanu, čto molči.
I told Ivan-DAT that be.quiet

The fact that the cleft clause may not contain an imperative verb in English thus provides further confirmation of its biclausal nature:

(37) Be quiet. *No, it's YOU that be quiet.

An anonymous *Lingua* reviewer notes, however, that Russian allows clefts with imperative verbs, as in (38):

(38) Molči. Net, èto TY molči.
be.quiet no this you be.quiet
'Be quiet. No, you be quiet.'

Under the present analysis of clefts, the main verb of the cleft clause is in fact the matrix verb, since IP1 (the root category) as well as IP2 belong to its extended projection. Thus it is expected that clefts will allow matrix phenomena such as imperatives. Once again, the possibility of imperative clefts is entirely unexpected under Gundel's copular approach, in which the cleft clause is an embedded clause.

4.4.4. Clitic-climbing

Further evidence for the monoclausal nature of Slavonic clefts from Serbo-Croatian. Like most authors analysing the Russian cleft, Halpern (1995) and Progovac (1998) both conclude that the Serbo-Croatian cleft is monoclausal. In addition to the lack of evidence for copular or relative clause structure, they give a further argument in favour of a monoclausal structure concerning the position of clitics, an issue which does not arise in Russian. Serbo-Croatian has various types of elements known as 'second-position clitics', so named because they must appear after either the first constituent or the first word of an extended verbal projection (e.g., Franks and King 2000). For example, when the auxiliary clitic *je* originates in a main SVO clause, it appears after the (first word of the) subject, as in (39a), but when it originates in an embedded SVO clause introduced by a complementiser, it appears between the complementiser and the subject, as in (39b) (examples from Halpern 1995:15/22):

(39) a. Čovek je voleo Mariju.
man AUX love.PART Marija
'The man loved Marija.'

b. Ja mislim da je ona kupila šešir.
I think C AUX she buy.PART hat
'I think that she bought the hat.'

In clefts, which in Serbo-Croatian are introduced by another demonstrative-like element, *to*, second-position clitics such as *je* must appear immediately after *to* in a declarative, or before *to* in a *wh*-question cleft like (40b):

(40) a. To je ova devojka svirala klavir.
that AUX that girl play.PART piano
'It's that girl that's playing the piano.'
b. Ko je to koga udario?
who.NOM is that who.ACC hit
'Who is it that hit whom?'

If the cleft were a biclausal copular construction, as under Gundel's (1977) analysis of Russian clefts, then the clitic placement in (40) would be an exception to the rule that second-position clitics remain within the extended verbal projection to which they are selectionally related. Under the monoclausal analyses of Halpern and Progovac, as under the present analysis, the clitic placement facts are as expected.

In fact, the present analysis has an advantage over previous analyses, since it does not posit otherwise unmotivated structure to account for the clitic placement facts. Halpern first considers an analysis in which clitics, cleft *to* and focus-moved XPs all adjoin to IP. Thus, he assigns the sentence in (40b) the structure in (41):[100]

(41) $[_{CP}\ ko_i\ [_{IP}$ je $[_{IP}$ to $[_{IP}\ koga_j\ [_{IP}\ t_i$ udario $t_j]]]]]$

Halpern then rejects this analysis, since it does not predict the fact that *je*, *to* and *koga* must appear in a fixed order. Instead, he posits a null functional element, $Cleft^0$, which

[100] Following Rudin (1988), Halpern assumes that in multiple *wh*-questions, the highest *wh*-phrase moves to SpecCP while lower *wh*-phrases undergo focus-movement adjoining them to IP.

appears between CP and IP. Cleft *to* appears in SpecCleftP, while clitics adjoin to CleftP. Focus-moved XPs adjoin to IP as before. This automatically gives the correct order of *je*, *to* and *koga*:

(42) $[_{CP}$ ko$_i$ $[_{CleftP}$ je $[_{CleftP}$ to $[_{Cleft'}$ Cleft^0 $[_{IP}$ koga$_j$ $[_{IP}$ t$_i$ udario t$_j$]]]]]]

However, there is no independent motivation for Cleft^0 – it is never pronounced, and its only function is to host cleft *to* in its specifier. Furthermore, the only evidence for clitics adjoining to CleftP rather than IP comes from cases like (40b). It is therefore hard to imagine how the learner could infer the presence of CleftP at all. Progovac (1998) proposes instead that *to* realises an event-related functional head high in the IP domain. This would give the correct order of the initial elements in (40b), but it similarly seems a stipulative solution, and also subject to the learnability problem, given that no material other than *to* realises the posited event-related head. Under the present analysis, *to* occupies a clausal subject position, just as it may do in its use as an argumental pronominal DP.

4.4.5. Summary

This section has reviewed some of the evidence that Slavonic clefts consist of a single extended verbal projection: the lack of a copula or relative clause; restrictions on the adverbs that can intervene between the pronoun and the clefted XP, the existence of 'imperative clefts'; and clitic-climbing. The data are as expected under the present analysis, as well as previous analyses such as King (1993) and Junghanns (1997), but are once again problematic for copular analyses such as Gundel (1977) and Mieszek (1979).

4.5. Consequences of the 'double-subject' structure

4.5.1. Introduction

The previous two sections have established that the material following *èto* behaves in a parallel fashion to focus-fronting sentences; that is, the clefted XP behaves as if it has undergone focus-movement from inside the cleft clause. This is in stark contrast to English clefts, in which the relationship of the cleft clause to the clefted XP is basically

that of a relative clause to its antecedent. In this section, I will move on to the part of the present analysis which most distinguishes it from previous analyses: the idea that clefts involve 'recursion' of IP, or, more accurately, that the extended verbal projection in clefts contains two functional categories with the same *F*-value. A key part of this claim is the idea that *èto* occupies a SpecIP position. The evidence for IP-recursion is accordingly of two types. First, there is evidence that there are two instances of the same functional category, I. Second, there is evidence that *èto* occupies a clausal subject position.

4.5.2. Evidence for two IPs

4.5.2.1. Sentential vs. constituent negation

King (1993) claims that the only element that may intervene between *èto* and the clefted XP is constituent negation of the clefted XP. Thus, in (43), King would take *ne* and *Ivan* to form a constituent:

(43) Èto ne IVAN vypil vodku.
this not Ivan drank vodka
'It wasn't Ivan that drank vodka.'

If true, this would be an argument against a biclausal analysis, since this would predict matrix sentential negation to be possible, as it is in English clefts. Under a monoclausal analysis, taking *ne* in (43) to be constituent negation is the only option, since the only position for sentential negation in an SVO sentence is between subject and verb.

One way of testing whether *ne* in (43) must be constituent negation is to add sentential negation to the cleft clause. As in English, sentential negation is not normally compatible with constituent negation within the same clause. Thus, the focused DP *vodku* in (44) may not be modified by constituent negation whether it appears *in situ*, as in (44a), or in a focus-fronted position, as in (44b):

(44) a. *Ivan ne vypil ne VODKU(, a VODU).
Ivan not drank not vodka but water
'*Ivan didn't drink not vodka(, but water).'

b. *Ivan ne VODKU ne vypil(, a VODU).
Ivan not vodka not drank but water
c. *Ne VODKU Ivan ne vypil(, a VODU).
not vodka Ivan not drank but water

It is possible, however, to add sentential negation to the cleft clause of (43) and preserve grammaticality, just as in the equivalent English cleft:

(45) Èto ne VODKU Ivan ne vypil(, a VODU).
this not vodka Ivan not drank but water
'It wasn't vodka that Ivan didn't drink(, but water).'

This suggests that in fact the higher negation in (43) must be sentential, arguing against a monoclausal analysis. However, it is not necessary to posit a full copular structure to account for this possibility. It is normally assumed that sentential negation appears in a VP-external position. In terms of the simple C-I-V structure assumed in the theory of extended projection, it could be analysed as adjoining to a projection of I. In that case, the possibility of double sentential negation in (43) results from the presence of two potential adjunction sites for sentential negation – namely, IP1 and IP2.

4.5.2.2. Superiority effects in Serbo-Croatian

Another argument for IP-recursion comes from Serbo-Croatian, a language which exhibits Superiority effects in multiple *wh*-questions, unlike Russian. More specifically, Superiority is obeyed in embedded questions (illustrated here using correlatives), long-distance questions and matrix questions with the lexical complementiser *li*, but not in standard matrix questions (Rudin 1988, Bošković 1997b):

(46) a. Ko koga vidi?
who.NOM who.ACC sees
'Who sees who(m)?'

b. Koga ko vidi?
who.ACC who.NOM sees

c. Ko koga voli, taj o njemu govori.
who.NOM who.ACC loves that.one about him talks
'Everyone talks about the person they love.'

d. *Koga ko voli, taj o njemu govori.
who.ACC who.NOM loves that.one about him talks

e. Ko si koga tvrdio da je istukao?
who.NOM are.2.SG who.ACC claimed that is beaten
'Who did you claim beat who(m)?'

f. *Koga si ko tvrdio da je istukao?
who.NOM are.2.SG who.ACC claimed that is beaten

g. Ko li je koga istukao?
who.NOM C is who.ACC beaten
'Who beat who(m)?'

h. *Koga li je ko istukao?
who.ACC C is who.NOM beaten

In order to account for the difference between standard matrix questions and the other contexts, Bošković proposes that Serbo-Croatian is parallel to French, a language in which overt *wh*-movement is optional in matrix questions but obligatory in embedded and long-distance questions. That is, he argues that the apparent *wh*-movement in (46a-b) is not *wh*-movement at all, but rather focus-movement of the two *wh*-phrases, adjoining them to IP. Thus, the only relevant difference between Serbo-Croatian and French is that Serbo-Croatian has obligatory focus-movement of *wh*-phrases. Since focus-movement, unlike *wh*-movement, is not subject to Superiority, multiple *wh*-questions in which the *wh*-phrases undergo focus-movement do not show Superiority effects. As for the reason why overt *wh*-movement only takes place in (46c-h) and not (46a-b), Bošković argues that the trigger for overt *wh*-movement is the merger in overt syntax of a C bearing the [Q] feature, which must be checked immediately by *wh*-movement to SpecCP. In matrix questions, C need not be merged overtly – merger can be delayed until LF. In embedded

questions such as (46c), however, merger of C cannot be delayed until LF, since this would violate the extension condition – the requirement for merger to be at the root of the tree. In (46g), on the other hand, it is clear that C has been merged overtly because it has phonetic content (*li*), and thus *wh*-movement is forced. The final case is long-distance questions such as (46e). Bošković argues, following Chomsky (1995), that LF *wh*-movement is feature-movement, and hence head-movement, rather than movement of the whole *wh*-phrase. If the *wh*-phrases remained in the embedded clause, this would require extremely long head-movement, something which is not attested. Thus, delaying merger of matrix C until LF is not possible because the feature of the highest *wh*-phrase would not be able to move to the matrix C. Thus, overt merger of C is forced, which in turn forces overt *wh*-movement.

Let us turn, now, to clefts. It does not seem possible to analyse clefts as containing an overt matrix C. The only candidate for this is *to*, which is not restricted to questions, and which may itself be embedded under a declarative complementiser (Halpern 1995). Since there is no independent evidence that Serbo-Croatian allows null complementisers, it seems reasonable to suppose that clefts do not contain a complementiser, and that clefts cannot be reduced to the case in (46g-h). In the remaining cases (matrix questions, embedded questions and long-distance questions), Superiority depends on whether the *wh*-phrases originate in the matrix clause or in an embedded clause. Thus, Superiority provides a potential diagnostic for whether clefts are monoclausal or biclausal. If they are monoclausal, then the *wh*-phrases will originate in the matrix clause, and no Superiority effects are expected to hold. In fact, Superiority does hold in clefts (Sandra Stjepanović, p.c.):

(47) a. Ko je to koga udario?
who.NOM is this who.ACC hit
'Who was it that hit whom?'

b. *Koga je to ko udario?
who.ACC is this who.NOM hit

This means that clefts pattern with long-distance questions, providing a strong argument against a purely monoclausal analysis of clefts. Nevertheless, it is clear that Bošković's generalisation – that Superiority effects arise when the C node(s) on the path of *wh*-movement must be merged overtly – will not cover clefts. Suppose that Bošković is correct in arguing that when C is merged overtly, a *wh*-phrase must move to its specifier. Then a generalisation which will correctly account for clefts as well as the cases in (46) is that in (48):

(48) Superiority effects arise in multiple *wh*-questions when one or more of the *wh*-phrases move across an IP node.

In clefts such as (47), it is clear that under the present analysis, one *wh*-phrase crosses an IP node (IP2). Under the generalisation in (48), this forces Superiority effects. By contrast, in matrix questions, the *wh*-phrases undergo focus-movement adjoining them to IP, since merger of interrogative C can be delayed until LF. Assuming that the segment/category distinction is relevant for determining whether a node has been crossed by movement, the *wh*-phrases will therefore not have crossed an IP node. The remaining cases will all pattern with clefts, according to (48). In embedded questions, interrogative C will be merged overtly, forcing a *wh*-phrase to move to its specifier, and thus to cross the embedded IP node. In long-distance questions, a *wh*-phrase overtly crosses the embedded IP node. In cases with an overt lexical complementiser too, a *wh*-phrase moves overtly to SpecCP, thus crossing the matrix IP node. In most cases, then, the condition in (48) overlaps with Bošković's claim that Superiority effects only arise when interrogative C must be merged overtly. In the case of clefts, however, there is no apparent reason why interrogative C must be merged overtly, and yet Superiority effects arise. This case is thus covered by (48) but not by Bošković's condition. In summary, then, Superiority effects in Serbo-Croatian provide evidence that clefts contain two I-related functional projections, one hosting the 'true' subject and one hosting the cleft pronoun.

4.5.3. Evidence that èto *is a DP specifier*

4.5.3.1. *Èto* in 'bare copular sentences'

Under the present analysis, cleft *èto* is a pronominal DP occupying the specifier of an I-related functional projection. One advantage of this approach is that it allows cleft *èto* to be assimilated to the undeniably pronominal use of *èto* in examples such as the following (from Mezhevich 2004):

(49) a. Èto udivljaet, čto Max – špion.
this surprises that Max spy
'It's surprising that Max is a spy.'

b. Èto prijatno, čto my guljaem v parke.
this pleasant that we walk in park
'It's pleasant that we're walking in the park.'

It also allows us to relate cleft *èto* to the *èto* that appears in 'bare copular sentences' such as (50), since this is arguably a DP in the specifier of an I-related projection (the analysis will be developed further in chapter 5):

(50) a. Ciceron èto Tullij.
Cicero this Tully
'Cicero is Tully.'

b. Zevs èto Jupiter.
Zeus this Jupiter
'Zeus is Jupiter.'

Roughly speaking, *èto* is optional in bare copular sentences in which DP2 can be interpreted as a predicate, and obligatory in bare copular sentences in which such an interpretation is not possible, the clearest case being when DP2 is a proper name, as in (50). There are two analytical approaches one might take to bare copular sentences with *èto*. One possibility is to treat *èto* here as the realisation of a functional head (e.g., Geist and Błaszczak 2000, Citko 2007, Markman 2008), and DP1 as its specifier. The second

possibility is that *èto* is a DP interpreted as coreferential with DP1 (e.g., Geist 2007). There is good reason to prefer the latter analysis. I suggest that bare copular sentences with *èto* are parallel to the so-called 'pronoun-doubling' construction found in colloquial Russian, and illustrated in (51) (e.g., Sirotinina 1974, McCoy 1998, Pereltsvaig 2001):

(51) Žizn' ona voobše nelegkaja.
life it usually not.easy
'Life is usually not easy.'

In the pronoun-doubling construction, a DP in leftmost position is 'doubled' by a pronoun adjacent to it, bearing identical Case-marking. Superficially, pronoun-doubling looks like left-dislocation, which is also found in Russian (example from Pereltsvaig 2001:128):

(52) Policejskie oni veli sebja užasno.
policemen they behaved self terribly
'As for policemen, they behaved terribly.'

In this example, *oni* 'they' is interpreted as coreferential with the DP *policejskie* 'policemen'. Crucially, however, pronoun-doubling differs from left-dislocation in that in pronoun-doubling, the 'doubled' DP need not bear the intonational contour associated with contrastive topics (called IK3 in the literature, following Bryzgunova 1971), and also need not be followed by an intonational break. By contrast, these are both obligatory properties of left-dislocated DPs.

If *èto* in bare copular sentences is a pronoun coreferential with DP1, then we might expect it to be structurally parallel to one of these two constructions. The fact that DP1 in bare copular sentences with *èto* need not bear IK3, and need not be followed by an intonational break, suggests they are parallel to pronoun-doubling. A fuller analysis of the structure of bare copular sentences with *èto* will be presented in chapter 5. For the purposes of this chapter, what is important is that treating bare copular sentences as a type of pronoun-doubling construction has a significant advantage over the functional

head analysis. Although IK3 and an intonational break are not obligatory in such sentences, they are possible, as shown in (53a) (| indicates an intonational break). In this case it seems reasonable to treat the sentence as involving left-dislocation. Interestingly, though, the dislocated DP may not be doubled by a pronoun in the position immediately preceding *èto*, as in (53b):

(53) a. Ciceron(IK3) |èto Tullij.
Cicero this Tully
'As for Cicero, he is Tully.'
b. *Ciceron(IK3) | on èto Tullij.
Cicero he this Tully

In addition, since *èto* can also undeniably be used as a DP, the functional head analysis incorrectly predicts sentences as (54) to be possible:[101]

(54) *Èto èto Ivan.
this this Ivan
'This, this is Ivan.'

If, on the other hand, *èto* in bare copular sentences is treated as a DP occupying SpecIP, the impossibility of (53b) is expected, since *èto* itself is playing the role of the doubling pronoun in (53a), and a second doubling pronoun is therefore impossible. As for (54), this is clearly impossible for the same (presumably pragmatic) reasons that it is not normally possible to double a left-dislocated pronoun:

(55) a. *Oni oni veli sebja užasno.
they they behaved self terribly
'They, they behaved terribly.'

[101] In addition, assuming that they could be extended to copular sentences containing *èto*, one would also expect sentences such as (54) to be possible under the analyses of King (1993) and Junghanns (1997).

b. *Ona ona voobše nelegkaja.
it it usually not.easy
'It, it is usually not easy.'

There are thus good reasons to treat *èto* in bare copular sentences as a DP, just as in pronoun-doubling sentences. Given this, there is a clear motivation to treat cleft *èto* in the same way, since it would otherwise be the only plausible candidate left out of the uses of *èto* for a functional head analysis.

4.5.3.2. The positions of adverbs

In 4.2.2 it was shown that while VP-adverbs may not intervene between *èto* and the clefted XP, IP-adverbs may. This is captured under the present analysis by the proposal that *èto* is in SpecIP1, the clefted XP is adjoined to SpecIP2, and that IP1 and IP2 form part of the same extended projection, and thus cannot be interrupted by a potential host for VP-adverbs. As well as indicating the structure of the clause, adverbs can also be used as a diagnostic for the position in which *èto* appears. If *èto* is a structural subject as under the present analysis, it is predicted that only those adverbs which can normally immediately follow a subject will be able to follow *èto*.

Two examples of IP-adverbs which cannot follow a subject are *čestno* 'frankly' and *možet byt'* 'perhaps', as illustrated in (56a-b):

(56) a. *Boris čestno vypil vodku.
Boris frankly drank vodka
'Frankly, Boris drank the vodka.'
b. *Boris možet byt' vypil vodku.
Boris may be drank vodka
'Perhaps Boris drank the vodka.'

As expected, these adverbs may not intervene between *èto* and the clefted XP:

(57) a. *Èto čestno BORIS vypil vodku.
this frankly Boris drank vodka
'Frankly, it was Boris that drank the vodka.'
b. *Èto možet byt' BORIS vypil vodku.
this may be Boris drank vodka
'Perhaps it was Boris that drank the vodka.'

This follows naturally from the proposal that *èto* in (57) is in a subject position. (It is also consistent with the idea that *èto* is in I/T, as in Citko's 2007 analysis of Polish bare copular sentences.) Under analyses in which *èto* occupies a position higher than IP or adjoined to IP (e.g., King 1993, Junghanns 1997, Geist and Błaszczak 2000, Markman 2008), however, the judgements in (57) are not expected. This is especially clear when we consider that these adverbs may appear clause-initially following a complementiser, which indicates that they may adjoin to IP:

(58) a. Ja skazal, čto čestno, Boris vypil vodku.
I said that frankly Boris drank vodka
'I said that frankly, Boris drank the vodka.'
b. Ja skazal, čto možet byt' Boris vypil vodku.
I said that may be Boris drank vodka
'I said that perhaps Boris drank the vodka.'

If clefts are syntactically parallel to bare copular sentences with *èto*, then the present analysis predicts that bare copular sentences will display the same restrictions as clefts with respect to the type of adverbs permitted, which is correct, as shown in (59):[102]

[102] Bare copular sentences also appear to disallow VP-adverbs:

(i) *Napitok, kotoryj ja p'ju, èto vsegda vodka.
drink which I drink this always vodka
'The drink that I drink is always the vodka.'
(ii) *Napitok, kotoryj ja p'ju, èto obyčno vodka.
drink which I drink this usually vodka
'The drink that I drink is usually the vodka.'

(59) a. Napitok, kotoryj ja p'ju, èto k sčast'ju vodka.
drink which I drink this to happiness vodka
'Fortunately, the drink that I am drinking is the vodka.'

b. Napitok, kotoryj ja p'ju, èto k sčast'ju vodka.
drink which I drink this to happiness vodka
'The drink that I am drinking is fortunately the vodka.'

c. Napitok, kotoryj ja p'ju, èto jakoby vodka.
drink which I drink this allegedly vodka
'The drink that I am drinking is allegedly the vodka.'

d. Napitok, kotoryj ja p'ju, èto verojatno vodka.
drink which I drink this probably vodka
'The drink that I am drinking is probably the vodka.'

e. *Napitok, kotoryj ja p'ju, èto čestno vodka.
drink which I drink this frankly vodka
'Frankly, the drink that I am drinking is the vodka.'

f. *Napitok, kotoryj ja p'ju, èto možet byt' vodka.
drink which I drink this may be vodka
'Perhaps the drink that I am drinking is the vodka.'

The restrictions on the types of adverbs that may intervene between *èto* and the clefted XP thus provide further support for the idea that *èto* is in SpecIP.

4.5.3.3. Control complements

Under the present analysis, *èto* occupies a clausal subject position c-commanding the 'true' subject position. This predicts that any locality principle making reference to A-positions will be sensitive to the cleft/non-cleft distinction. One such principle relates to control, which, as in English, involves a local relationship between a null subject (PRO) and the closest c-commanding DP in an A-position. The present analysis thus predicts

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This suggests that bare copular sentences also lack the VP layer, or whatever layer of functional structure hosts such adverbs (aspect-related functional heads in Cinque 1999). If the former is the case, this might seem to weaken the relevance of the impossibility of VP-adverbs in clefts to the question of whether they contain a null verb or not, but I consider the weight of the evidence to show that they do not.

that clefts will not be able to appear as complements of control verbs such as *xotet'* 'to want', which is correct:

(60) a. On xočet pit' vodu.
he wants to.drink water
'He wants to drink beer.'
b. On xočet VODU pit'.
he wants water to.drink
c. *On xočet èto VODU pit'.
he wants this water to.drink
'He wants it to be water that he drinks.'

In (60a), the word order in the complement clause is unmarked. (60b) shows that the object can be focus-fronted. On the other hand, turning the complement clause into a cleft is unacceptable, as shown in (60c), in contrast to the acceptable English translation. Under the present analysis, this is because *èto*, since it occupies an A-position, blocks the local relationship between PRO in IP2 and the controller *on*. Note that under monoclausal analyses, this is unexpected. Since focus-fronting is possible in control complements, King (1993), Junghanns (1997) and Markman (2008) all predict that adding *èto* should make no difference to grammaticality. Under King's analysis, *èto* occupies the specifier of the focus head, under Junghanns' analysis it occupies an IP-adjoined position above the focus, and under Markman's analysis *èto* is the specifier of a topic head. All of these are A´-positions, and so should not interfere with the relationship between the controller and PRO.

4.5.4. Summary

In this section I have shown that the present analysis of clefts accounts for certain properties which remain mysterious under purely monoclausal analyses such as King (1993), Junghanns (1997), Geist and Błaszczak (2000) and Markman (2008). In particular, I have argued that these follow from the idea that clefts involve 'IP-recursion'. First, this accounts for the existence of 'double sentential negation', since there are two

IPs which can independently host sentential negation. We have also seen that the fact that Serbo-Croatian clefts show Superiority effects causes problems for Bošković's (1997b) account of Superiority. I suggested a new generalisation based on the idea that Superiority effects arise when an IP boundary is crossed. The claim that clefts contain two instances of IP also entails that *èto* occupies SpecIP, which has the advantage of allowing us to generalise over its use in clefts, bare copular sentences and as a standard argumental DP. It also accounts for the fact that the (high) IP-adverbs that can follow *èto* are precisely those that can normally follow a subject, as well as the impossibility of using clefts in control complements.

4.6. Russian clefts as specificational sentences

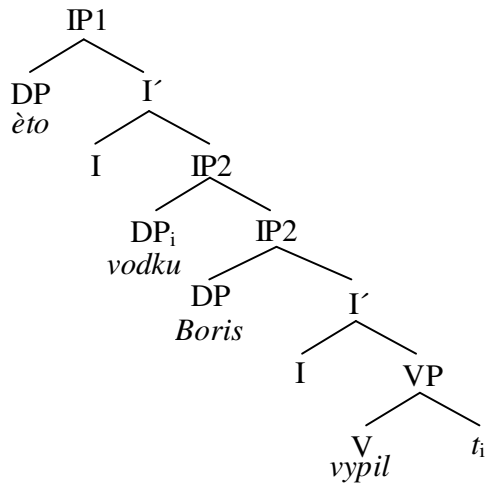
4.6.1. Introduction

According to the analysis of English clefts in chapters 2 and 3, cleft clauses and relative clauses licensed by *only* are unusual among relative clauses in that they take two antecedents. These two antecedents differ, however, in the licensing function they perform: the focused XP satisfies a syntactic licensing condition (essentially corresponding to Culicover and Rochemont's 1990 Complement Principle), while *it*/*only* satisfies a thematic licensing condition ('long distance' θ-binding). Other types of restrictive relatives, on the other hand, are both syntactically and thematically licensed by the same DP.

The question that will be addressed in this section is how the syntax-semantics mapping works for clefts in which the cleft clause cannot be said to be a relative clause, or indeed a modifier of any kind. As we have seen, this is true of clefts in Russian. I have argued that such clefts involve neither copular nor relative clause syntax, but rather a structure with two 'subjects' in a single extended verbal projection. Thus, the Russian cleft in (61a) was analysed as in (61b):

(61) a. Èto Boris vypil vodku.
this Boris drank vodka
'It was Boris who drank the vodka.'

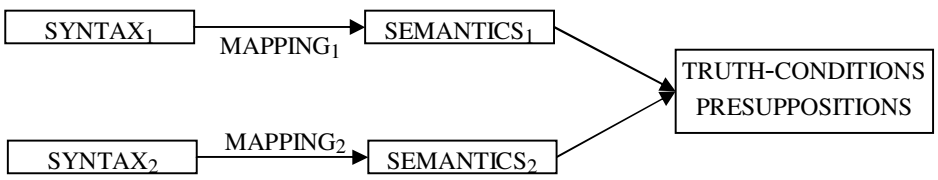
b.



As we have seen, sentences such as (61a) are arguably not 'clefts' in the syntactic sense, assuming that by 'cleft' we mean a type of copular sentence. I would like to argue, however, that such sentences are parallel to English clefts in their interpretation. That is, they have the interpretation of specificational sentences rather than that of focus-fronting sentences.

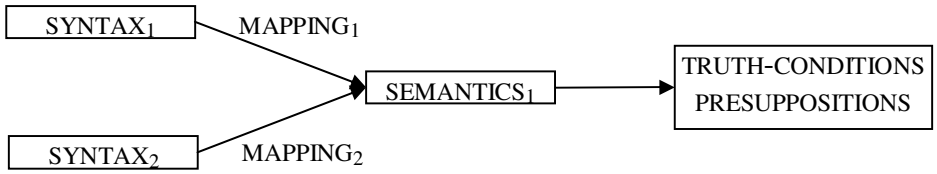
The fact that Russian clefts are largely interpretatively parallel to English clefts despite diverging syntactically from them raises the question of how the syntax-semantics mapping operates to provide identical interpretations from non-identical syntactic structures. There are various possibilities. One could take the position that the two types of cleft have distinct semantic interpretations, and thus distinct syntax-semantics mappings, but that the two semantic interpretations happen to result in the same truth-conditions and presuppositions:

(62)



Alternatively, one could propose that the two types of cleft have identical semantic interpretations (and thus identical interpretative properties), but that these are arrived at via distinct mapping procedures:

(63)



Finally, the most restrictive hypothesis, and hence the most desirable from the point of view of Universal Grammar, would be to propose that the two types of cleft are identical in all respects except in their overt syntactic structure: that is, they have identical semantic interpretations which are arrived at by an identical mapping procedure:

(64)

Clearly, this last option would require a syntax-semantics mapping which is syntactically somewhat underspecified, given the considerable syntactic differences between Russian and English clefts. In fact, the analysis provided in chapter 3 is underspecified in precisely the right sense. That is, since it relies on gross constituency and locality rather than on the precise syntactic identity and merge relations of the relevant constituents, Russian clefts can be mapped to a specificational semantics in exactly the same way as English clefts. What is crucial is that the cleft clause should be local to the pronoun, as prescribed by the thematic licensing condition, and that whatever syntactic mechanism is used in specificational and equative sentences in a particular language is also used in clefts.

4.6.2. Previous analyses

Most previous analyses of Slavonic clefts have concentrated on their syntactic structure. By contrast, their interpretative properties have been somewhat neglected in the literature. Gundel (1977:550/553) assumes that Russian clefts are both syntactically and semantically parallel to English clefts, but provided no compelling evidence for this. The analyses of King (1993) and Junghanns (1997), on the other hand, seem to assume that

clefts are essentially synonymous with their equivalent focus-fronting or unmarked sentences. Both analyses take clefts to be syntactically similar or identical to focus-fronting sentences except for the presence of the pronoun *èto*. However, for King *èto* appears to make no contribution to the semantics or information structure of the construction; it merely appears as the specifier of a head which assigns a focus feature to the clefted XP. Junghanns argues that *èto* is the topic of the sentence, a role for which its deictic and anaphoric properties make it suited, and claims that "*èto* itself is only inserted to compensate the non-availability of another topic" (ibid.:182). There are two problems with this view. First, it is of course not necessary for a focus-fronting sentence in Russian to contain an overt topic. Thus, it seems somewhat unlikely that *èto* is inserted purely to compensate for the lack of another topic. Second, the idea that what *èto* contributes is a deictic or anaphoric interpretation seems unlikely given that in focus-fronting sentences the background of the focus is arguably anaphoric in this sense already, since such sentences cannot normally be uttered 'out of the blue'. Thus, under Junghanns' analysis, *èto* seems somewhat redundant.

As we saw in the introduction, Geist and Błaszczak (2000) and Markman (2008) propose that clefts have the interpretation of question-answer pairs, just as has often been proposed for pseudoclefts (e.g., Ross 1972, Den Dikken et al. 2000, Schlenker 2003). For Geist and Błaszczak, the relevant question is a *wh*-question, while for Markman, it is a yes-no-question. An immediate problem for this type of analysis is that the supposed question, which occupies the specifier of *èto*, can never be overt in clefts, as shown in (65a-b), which relate to the *wh*-question and yes-no-question analyses respectively:

(65) a. *Kto vypil vodku èto BORIS vypil vodku.
Ivan drank vodka this Boris drank vodka
b. *IVAN vypil vodku èto BORIS vypil vodku.
who drank vodka this Boris drank vodka
c. What John bought was he bought some wine.
(Higgins 1973:47)

Given that one of the main arguments for a question-answer treatment of English pseudoclefts is the possibility of 'full-IP' pseudoclefts, as shown in (65c), this means we would need to make the assumption that deletion of the non-focused part of the IP in English pseudoclefts is optional, but deletion of the question CP in Russian clefts is obligatory, surely not a desirable state of affairs.

In summary, previous analyses have treated Russian clefts as essentially synonymous with specificational sentences (Gundel), focus-fronting sentences (King, Junghanns) or question-answer pairs (Geist and Błaszczak, Markman). In the remainder of the chapter I will argue that Gundel is correct in taking clefts to be interpreted specificationally. That is, although Russian clefts have the syntactic structure of focus-fronting sentences, they have the semantics of specificational sentences.

4.6.3. Applying the θ-binding analysis to Russian clefts

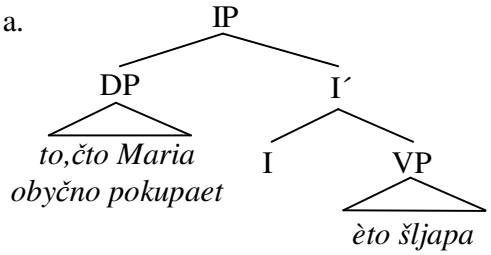
4.6.3.1. Problems for compositionality

In chapter 3 we saw that the optimal syntactic and semantic analyses of English clefts lead to an apparent paradox, given the assumption that the syntax-semantics mapping is strictly compositional. At the very least, the syntax-semantics mapping for clefts cannot be parallel to that for specificational sentences if strict compositionality is to be maintained. The same problem arises for Russian, given the syntactic structure in (61b) and the assumption that it is mapped to a specificational semantics. For example, assuming that the specificational sentence in (66a) has the overt syntactic structure in (67a), a compositional mapping to a specificational semantics is straightforward, but this is not the case for the cleft in (66b), which has the structure in (67b):

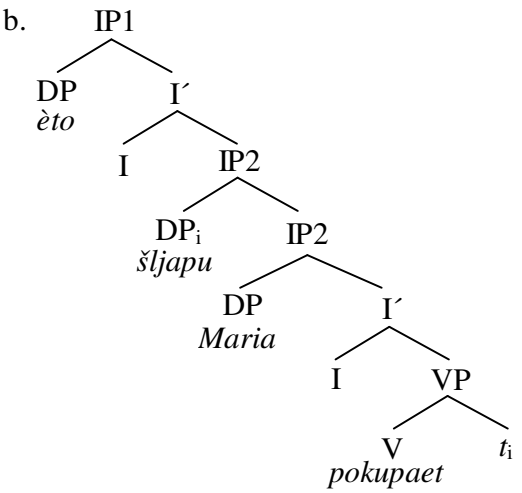
(66) a. To, čto Maria obyčno pokupaet - èto ŠLJAPA.
that C Maria usually buys this hat
'What Maria usually buys is A HAT.'

b. Èto ŠLJAPU Maria obyčno pokupaet.
this hat Maria usually buys
'It's A HAT that Maria usually buys.'

(67) a.



b.



As I mentioned in chapter 3, the fact that the structures in (67-b) are not isomorphic does not itself mean that clefts and specificational sentences cannot be mapped to an identical semantics in a strictly compositional fashion. However, the appeal of such an approach is reduced by the implausibility of the mechanisms that would be needed to achieve it. The problem for such an approach is even more acute in Russian than in English, given that the cleft clause is an IP rather than a CP. This is because bare IPs cannot modify NPs in Russian, as is obvious from the fact that the C domain must always be filled:

(68) a. čelovek [$_{CP}$ kogo C [$_{IP}$ ja ljublju *e*]]
person who I love
'the person who I love'

b. *čelovek [$_{IP}$ ja ljublju *e*]
person I love

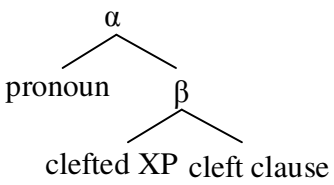
Thus, the cleft clause in Russian, lacking an overt C domain, is not a plausible syntactic modifier of *èto*, even at a covert level such as LF.

4.6.3.2. Θ-binding of the 'cleft clause'

Although it is syntactically implausible that the 'cleft clause' is licensed through adjunction to *èto*, it is still plausible that the relationship between *èto* and the 'cleft clause' can be one of θ-binding. As we saw in chapter 3, it is not the syntactic category of

the θ-bindee that is relevant for determining whether it can be θ-bound. Thus, as well as CPs, we saw that APs, PPs, and VPs can be θ-bound in clefts as well as DP-internally. Rather, what is required is (i) locality between the binder and the bindee, and (ii) the presence of an unsaturated θ-role in the maximal projection of the bindee. Both of these conditions hold in Russian clefts just as in English clefts. Thus, in both languages clefts involve the gross syntactic structure in (69), in which the pronoun c-commands the cleft clause and the cleft clause m-commands the pronoun (that is, α and β are not distinct categories, where only all the segments of an adjunction structure count as categories):

(69)



Thus, the locality requirement of the non-sisterhood-based thematic licensing condition, repeated and updated in (70), is met by the structure in (67b):

(70) *Thematic licensing condition:* The θ-role borne by the bindee must be θ-bound by a c-commanding determiner which it m-commands.

Furthermore, the 'cleft clause' in Russian is parallel to the cleft clause in English in the sense that it contains an open position.[103]

[103] It does seem unlikely, however, that this open position could be represented as a θ-role. This is because the trace of the clefted XP, occupying an A-position, will be assigned a θ-role, and hence the cleft clause will be internally thematically saturated. In fact the same problem arises in relative clauses (and thus in English clefts; see fn. 54), since the relative operator will receive the relevant θ-role. Nevertheless, in order for Higginbotham's θ-identification and θ-binding mechanisms to work, relative clause CPs must bear some 'role' that is of an appropriate type to be identified and/or bound. The relevant notion of 'open position' here seems to be a requirement for an XP providing 'referential content' to the trace and/or *wh*-operator. Although this is slightly vague, I will leave the matter here.

4.6.4. Consequences of the θ-binding analysis

4.6.4.1. The interpretative properties of Russian clefts

In chapter 3 I cited various tests from the literature which show that English clefts pattern in various ways with specificational sentences rather than with unmarked and focus-fronting sentences. In particular, these tests show that clefts give rise to an existential presupposition and exhaustivity. In this section I will show that all the tests give exactly the same results for Russian clefts as for English clefts. This is surprising from the point of view of most previous analyses of Russian clefts, which have proposed or assumed that they are interpretatively identical to focus-fronting sentences or question-answer pairs.

That Russian clefts give rise to an existential presupposition is shown by the fact that focusing a bare negative quantifier gives bad results, as in specificational sentences, but in contrast to unmarked and focus-fronting sentences and question-answer pairs:

(71) a. *Èto NIČEGO ja ne el.
this nothing I not ate
'*It was NOTHING that I ate.'

b. *To, čto ja (ne) (s'')el – èto NIČEGO.
that C I not ate this nothing
'*What I ate was NOTHING.'

c. NIČEGO ja ne el.
nothing I not ate
'NOTHING, I ate.'

d. Čto ty s''el? Ja NIČEGO ne el.
what you ate I nothing not ate
'What did you eat? I ate NOTHING.'

e. Ty s''el MJASO? Net, ja NIČEGO ne el.
you ate meat no I nothing not ate
'Did you eat meat? No, I ate NOTHING.'

That cleft focus is exhaustive is shown by the fact that particles such as *takže* 'also' and *daže* 'even' cannot appear before the clefted XP. In this respect they pattern with specificational sentences, but not with unmarked and focus-fronting sentences:

(72) a. *Èto takže/daže ŠLJAPU Maria obyčno pokupaet.
this also/even hat Maria usually buys
'*It's also/even A HAT that Maria usually buys.'
b. *To, čto Maria obyčno pokupaet – èto takže/daže ŠLJAPA.
that C Maria usually buys this also/even hat
'*What Maria usually buys is also/even A HAT.'
c. Takže/daže ŠLJAPU Maria obyčno pokupaet.
also/even hat Maria usually buys
'Also/even A HAT, Maria usually buys.'

Similarly, clefts disallow a bare universal quantifier as the clefted XP, again like specificational sentences and unlike unmarked and focus-fronting sentences and question-answer pairs:

(73) a. *Èto VSË Maria obyčno pokupaet.
this everything Maria usually buys
'*It's EVERYTHING that Maria usually buys.'
b. *To, čto Maria obyčno pokupaet - èto VSË.
that C Maria usually buys this everything
'*What Maria usually buys is EVERYTHING.'
c. VSË Maria obyčno pokupaet.
everything Maria usually buys
'EVERYTHING, Maria usually buys.'
d. Čto ty s''el? Ja VSË s''el.
what you ate I everything ate
'What did you eat? I ate EVERYTHING.'

e. Ty s''el MJASO? Net, ja VSË s''el.
you ate meat no I everything ate
'Did you eat meat? No, I ate EVERYTHING.'

Finally, two clefts with the same background but different foci cannot be conjoined, as with specificational sentences. Once again, unmarked and focus-fronting sentences and question-answer pairs do not show this restriction:

(74) a. *Èto ŠLJAPU Maria obyčno pokupaet i èto KURTKU ona obyčno pokupaet.
this hat Maria usually buys and this coat she usually buys
'*It was A HAT that Maria bought and it was A COAT that she bought.'

b. *To, čto Maria obyčno pokupaet – èto ŠLJAPA, i èto KURTKA.
that C Maria usually buys this hat and this coat
'*What Maria bought was A HAT and it was A COAT.'

c. ŠLJAPU Maria obyčno pokupaet i KURTKU ona obyčno pokupaet.
this hat Maria usually buys and coat she usually buys
'A HAT, Maria bought and A COAT, she bought.'

d. Čto Maria obyčno pokupaet? Maria obyčno ŠLJAPU pokupaet i ona obyčno KURTKU pokupaet.
what Maria usually buys Maria usually hat buys and she usually coat buys
'What does Mary usually buy? Maria usually buys A HAT and she usually buys A COAT.'

e. Maria obyčno pokupaet ŠARF? Net, Maria obyčno ŠLJAPU pokupaet i ona obyčno KURTKU pokupaet.
Maria usually buys scarf no Maria usually hat buys and she usually coat buys
'Does Mary usually buy a scarf? No, Maria usually buys A HAT and she usually buys A COAT.'

There is therefore plentiful evidence that clefts are interpretatively parallel to specificational sentences, in that they express an existential presupposition and exhaustivity.

Recall from chapter 3 that one way in which clefts differ interpretatively from specificational sentences is that in some cases they require a contrastive interpretation of the clefted XP, unlike the corresponding specificational sentence. In Russian this difference is even more marked – a contrastive interpretation of the focus is obligatory in all cases (with one exception to be discussed below). Thus, clefts cannot normally be used as answers to *wh*-questions, contexts which mandate a new information focus, as in (75a). By contrast, providing a contrastive context as in (75b) makes the cleft answer acceptable:

(75) a. A: Čto Maria kupila?
what Maria bought
'What did Maria buy?'
B: #Èto ŠLJAPU ona kupila.
this hat she bought
'It was a hat that she bought.'

b. A: Maria kupila ŠLJAPU.
Maria bought hat
'Maria bought a hat.'
B: Net, èto KURTKU ona kupila.
no this coat she bought
'No, it was a coat that she bought.'

In this respect clefts pattern with focus-fronting sentences rather than specificational sentences; compare (76), showing that specificational sentences can be used in either type of context, and (77), showing that focus-fronting sentences may only be used in a contrastive context:

(76) a. A: Čto Maria kupila?
B: To, čto ona kupila - èto ŠLJAPA.
that C she bought this hat
'What she bought was a hat.'
b. A: Maria kupila ŠLJAPU.
B: Net,to, čto ona kupila - èto KURTKA.
no that that she bought this coat
'No, what she bought was a coat.'

(77) a. A: Čto Maria kupila?
B: #Ona ŠLJAPU kupila.
she hat bought
'A hat, she bought.'
b. A: Maria kupila ŠLJAPU.
B: Net,ona KURTKU kupila.
no she coat bought
'No, a coat, she bought.'

As with English clefts derived by raising, the obligatory contrastivity of cleft foci in Russian can be accounted for by the fact that the clefted XP undergoes A´-movement.

4.6.4.2. 'Adjacency' effects

In English, the clefted XP and the cleft clause form distinct syntactic constituents for syntactic reasons: since English has only head-external relative clauses, the clefted XP, being the 'head' of the cleft clause, must surface externally to it. According to the syntactic analysis proposed in this chapter, there is no syntactic reason why in Russian the clefted XP and the cleft clause should form distinct constituents. This is because contrastive foci in general may occupy not just clause-initial position, in which case the focus and its background do form distinct constituents, but also a pre-verbal position following the subject, in which case the focus 'interrupts' the background (e.g., Krylova and Xavronina 1984, King 1995):

(78) a. Maria IVANA uvidela(,a ne BORISA).
Maria Ivan saw and not Boris
'I saw IVAN (, not BORIS).'

b. IVANA Maria uvidela(, a ne BORISA).
Ivan Maria saw and not Boris
'I saw IVAN (, not BORIS).'

We might therefore expect the same possibilities to be available in Russian clefts. If, however, the cleft interpretation requires θ-binding of the 'cleft clause' by the pronoun *èto*, this predicts that only clause-initial position will be available for clefted XPs. In the cases most closely corresponding to contrastive English clefts, this seems to be correct: for example, in (79), in which a cleft is used to contrast *Ivan* with *Boris*, there is a distinct preference for the clefted XP to appear in clause-initial position:

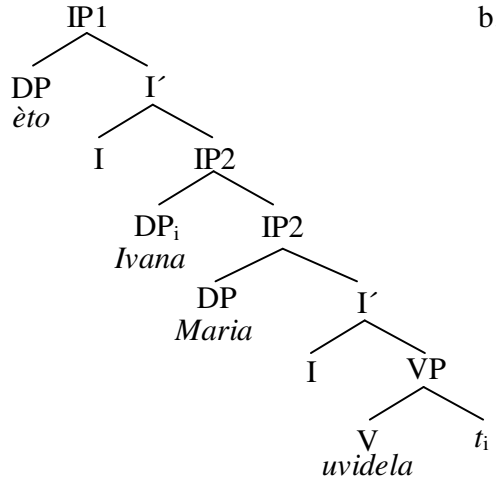
(79) A: Maria uvidela Borisa.
Maria saw Boris
'Maria saw Boris.'

a. B: Net, èto IVANA Maria uvidela.
no this Ivan Maria saw
'No, it was IVAN that Maria saw.'

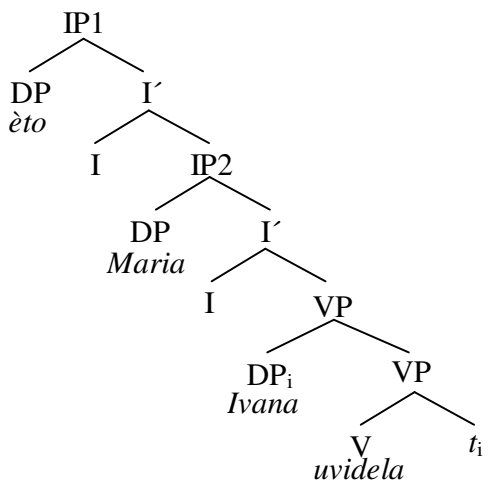
b. B:?#Net, èto Maria IVANA uvidela.
no this Maria Ivan saw

Consider the structures for (79a-b) in (80a-b) respectively:

(80) a.



b.



In (80a), the clefted XP and the 'cleft clause' are distinct constituents (labelled DP and IP2 respectively). Furthermore, IP2 and *èto* are in the syntactic configuration required to satisfy the thematic licensing condition: that is, *èto* c-commands IP2 and IP2 m-commands *èto*. Θ-binding of the 'cleft clause' by *èto* is thus allowed in this case. In the pre-verbal case in (80b), the clefted XP and the 'cleft clause' are not distinct constituents. Furthermore, IP2 does not have an open position, since both arguments of the verb are contained within it, and hence IP2 is not a candidate for θ-binding in any case. The problem with (80b), then, is that movement of the DP *Ivana* to VP-adjoined position does not create a category with an open position which is local enough to *èto* to be θ-bound by it.

It is hard to see how this 'adjacency effect' can be captured under most alternative analyses, except by stipulation. King (1993) captures adjacency by proposing that the clefted XP must move to the specifier of a functional category adjacent to *èto*, but this does not explain why focus-movement in non-clefts is not similarly restricted.[104] By contrast, question-answer pair analyses such as Geist and Błaszczak (2000) and Markman (2008) assimilate the portion of clefts following *èto* to a standard IP, which does not explain why clefts show adjacency effects, or even why the clefted XP must move at all. This is a particularly serious problem for Geist and Błaszczak, who claim that clefts contain a silent *wh*-question. If the focus in the answer of a *wh*-question is a new

[104] É. Kiss's (1998) analysis of English clefts faces a similar problem, since it requires the clefted XP to move to SpecFP overtly only in the case of clefts.

information focus, then the clefted XP would not be expected to be able to move at all, since new information foci appear clause-finally in Russian (e.g., Neeleman and Titov 2009).

4.6.4.3. Apparent cases of non-adjacency

Junghanns (1997) notes that there are examples of 'clefts' in which a narrow focus appears non-adjacent to *èto*, which is unexpected under the view expressed in King (1993) that cleft foci move to a clause-initial specifier position: (ibid.:171):

(81) a. Èto ja ODIN rjad posyplju pudroj potom drugoj.
this I one row sprinkle sugar-INSTR then other
'First I sprinkle one row with icing sugar, then another.'

b. Èto ja VAS včera vstretil na ulice?
this I you yesterday met on street
'Was it you I met outside yesterday?'

In both examples, it appears that the pronoun *ja* 'I' separates the clefted XP from *èto*, which suggests that the clefted XP need not be adjacent to *èto*, contrary to the predictions of the present analysis. In fact, these types of sentences are plausibly not clefts at all in terms of their interpretation. As Junghanns observes, there are other uses of *èto* in which it is not associated with a narrow focus. First, *èto* can be used as a 'sentence connector' parallel to German *da*, and in some cases English *there* (ibid.:176-7):

(82) a. … èto zavisit i ot temperatura i ot vsego. Èto ja s
… this depends and from temperature and from everything this I with
toboj soglašus'.
you agree
'… it depends on temperature and on everything. (On this point) I agree with you.'

b. … zelënye limony, èto ja srazu vspomnila Šagala kartinu,
… green lemons this I immediately remembered Chagall's painting
pomniš?
remember
'… green lemons, that immediately reminded me of Chagall's painting.'

c. Èto vas kto-to obmanul.
this you someone took-in
'Someone took you in (there).'

Second, it is also possible to have 'broad focus' clefts, in which the entire IP following *èto* is focused, such as Junghanns' (1997) corpus examples in (83). In this case *èto* seems to refer to some external auditory or visual stimulus, and the following IP describes the source of this stimulus:[105]

(83) a. (There was a knock on the dinner table.)
Èto Nikanor Ivanovič uronil ložku na kleënku.
this Nikanor Ivanovich dropped spoon on oilcloth
'Nikanor Ivanovich had dropped the spoon on the oilcloth.' (ibid.:176)

b. Net,èto menja zovut, mne pora, –pojasnil master [...].
no this me call.3.PL me.DAT time explained master
'No, they are calling me, it's time to go, explained the master.' (ibid.:171)

Assuming these are the only other uses of clause-initial *èto*, the present analysis forces us to analyse examples like (81) as either broad focus clefts or as sentences with a clause-initial sentence connector. The first possibility is at least plausible in some cases, since,

[105] It is tempting to assimilate broad focus clefts to Delahunty's (2001) 'inferential sentences', such as (i):

(i) He had got past the stage of reason, even his power of mocking at himself was dead, or perhaps it was that there seemed no longer anything that could be mocked at.

Although there is overlap between the two in many cases, there are cases where Russian broad focus clefts cannot be translated with inferential sentences: (83a) is an example:

(ii) (There was a knock on the dinner table.) #It was that Nikanor Ivanovich had dropped the spoon on the oilcloth.

as noted for English by Neeleman and Szendrői (2004), it is possible for a sentence to contain a narrow focus embedded in a wide focus domain:

(84) Father: What happened?
Mother: You know how I think our children should read decent books. Well, when I came home, rather than doing his homework, [$_{IP}$ Johnny was [$_{VP}$ reading [$_{DP}$ SUPERMAN] to some kid]].

In (84), the broad focus domain is IP, since this constituent constitutes the answer to Father's *wh*-question. However, this broad focus domain also contains a narrow focus, namely *Superman*. This is a contrastive focus, since *Superman* is being contrasted with *decent books* in Mother's first sentence. This is possible in Russian, both with and without clause-initial *èto*, particularly when surprise is expressed about the identity of the narrow focus. Thus, if A and B hear a noise, the following mini-dialogue might occur:

(85) A: Čto slučilos'?
what happened
'What happened?'
B: (Èto)[$_{IP}$ Ja [$_{VP}$ [$_{DP}$ ČELOVEKA S RUŽ'ËM]$_i$ uvidel t_i]].
this I person with gun saw
'I saw a man with a gun (of all things).'

In B's reply, it is clear that *čeloveka s ruž'ëm* 'a man with a gun' is a contrastive focus, since it appears VP-initially, rather than clause-finally as would be expected if it were (part of) a new information focus. On the other hand, the whole IP must be a new information focus, since it constitutes the answer to A's *wh*-question. Given the existence of cases like (85), it is possible that at least some cases of narrow foci non-adjacent to *èto* are in fact 'Superman sentences' of this type, though this is difficult to test.

Furthermore, there is evidence that the 'double-IP' structure which was argued to be instantiated by narrow focus clefts in Russian is not involved in cases such as (81). This means that they are not plausibly analysable in this way. A more likely possibility is that

they involve clause-initial 'sentence connector' *èto*. First, sentences such as (81) permit a focused bare universal quantifier, which, as we saw, is not possible in clefts involving adjacency:[106]

(86) Èto ja VSEX včera vstretil na ulice?
this I everyone yesterday met on street
'Did I meet EVERYONE outside yesterday?'

Second, elements that indicate the presence of a 'higher' IP structure, such as sentential negation and post-subject adverbs, cannot immediately follow *èto* in this type of sentence, in contrast to narrow-focus clefts:

(87) a. *Èto ne ja VAS včera ne strečal na ulice?
this not I you yesterday not met on street
'Was it not you I didn't meet outside yesterday?'
b. *Èto točno ja VAS včera vstretil na ulice?
this definitely I you yesterday met on street
'Was it definitely you that I met outside yesterday?'

Thus, rather than being evidence against the present analysis, in fact the analysis correctly predicts that cases of apparent clefts in which a narrow focus appears non-adjacent to *èto* do not pattern with true clefts at all; rather, they are more plausibly analysed as involving a single-IP structure with 'sentence connector' *èto* adjoined to IP.

4.6.4.4. Why Russian does not have English-style clefts

We have seen that English and Russian clefts differ considerably in their syntax, though not in their semantics. One question that this raises is why this should be so. The analysis I have proposed gives reasons why Russian clefts take the form they do, but does not

[106] Admittedly, it is not clear why the 'sentence connector' use of *èto* should not extend to cases where the narrow focus is adjacent to *èto*, thus permitting a bare universal quantifier. Regardless of the reason for this difference, it is clear that the case involving adjacency patterns with English clefts, while the case not involving adjacency does not.

explain why Russian should not also allow English-style clefts, as shown by the contrast between (88a,b), which differ in that (88b) contains a form of the copular verb and a relative pronoun:

(88) a. Èto Boris vypil vodku.
this Boris drank vodka
'It was Boris who drank the vodka.'
b. *Èto byl Boris, kotoryj vypil vodku.
this was Boris which drank vodka
'It was Boris who drank the vodka.'

In fact, the unavailability of (88b) follows from the analysis of English clefts in chapter 2 and 3. A crucial part of that analysis was that the cleft clause must be extraposed to VP in order to be thematically licensed. There is evidence, however, that Russian lacks relative clause extraposition of this type. In order to be certain that we are dealing with extraposition of a restrictive relative, rather than of a non-restrictive relative, I use universal QPs as antecedents, which allow extraposition of restrictive relatives in English:

(89) a. Everyone came who was interested in the exhibition.
b. I read every book last week that you recommended to me.

Interestingly, the equivalents of the sentences in (89) are ungrammatical in Russian:

(90) a. *Vse prišli, kotorye interesovalisja vystavkoj.
all came which were.interested exhibition-INSTR
b. *Ja pročital každuju knigu v prošloj nedele,kotoruju ty mne rekomendoval.
I read every book in last week which you me.DAT recommended

Thus, (88b) fails for the same reason as (90b): the cleft clause cannot be extraposed to VP.[107] This means that it cannot reach a position where it can be thematically licensed by *èto*.[108] Interestingly, there are some Slavonic languages in which English-style clefts are possible: for example, Bulgarian and Czech:

(91) a. To beše Maria kojato Ivan vidja.
that was Maria who Ivan saw
'It was Maria that Ivan saw.' (Bulgarian; Roumyana Pancheva, p.c.)

b. Je to manželka, kdo rozhoduje.
is that wife who decides
'It's the wife who decides.' (Czech; Bytel 1988, cited in Junghanns 1997)

In these languages, extraposition of restrictive relatives appears to be possible, unlike in Russian:[109]

(92) a. Momčeto se obadi, koeto ti beše obeštalo biletite za koncerta.
boy-the self called who you was promised tickets-the for concert-the
'The boy called who had promised you tickets to the concert.' (Bulgarian; Roumyana Pancheva, p.c.)

b. Každy přišel, kdo se o tu výstavu zajímal.
everyone came who self in the exhibition interested
'Everyone came who was interested in the exhibition.' (Czech; Radek Šimík, p.c.)

[107] This prediction of analyses involving obligatory cleft clause extraposition was noted by Wirth (1978) but not explored there.

[108] Note that there is a grammatical reading of (88b), namely as a copular sentence with a non-restrictive relative modifying *Boris*. This would mean that some contextually identified person was Boris, and that furthermore he drank the vodka. Clearly, in this case the impossibility of thematic licensing by *èto* is irrelevant.

[109] Roumyana Pancheva (p.c.) notes that cases of extraposition such as (92a) are characteristic of colloquial style. Radek Šimík (p.c.) notes that although (92b) is possible, it requires contrastive stress on the universal quantifier.

Thus, the prediction of the analysis that the possibility of English-style clefts depends on the availability of restrictive relative clause extraposition seems to be well-supported.
Returning to Russian, why should extraposition of the type in (90) be impossible? It cannot be that right-adjunction to VP or IP is impossible in principle, since right-dislocation is possible in Russian, as in this example from Gundel (1977:554):

(93) Èto ne byl Arxangel'skij sobor, tot kotoryj sgorel.
this not was Archangelsk cathedral that which burned.down
'It wasn't Archangelsk Cathedral, the one that burned down.'

I suggest that the crucial difference is that right-dislocation requires an intonational break between the CP and what precedes it, whereas restrictive relatives disallow such a break. Suppose, then, that what differentiates Russian and English is that in Russian, when a CP appears right-adjoined to VP or IP, it is automatically preceded by an intonational break, whereas this is optional in English. Thus, the reason why (88b) and (90a,b) are impossible is that restrictive relatives are incompatible with the intonational break that is forced on them by being adjoined to VP/IP.

In that case, we expect that as well as English-style clefts, *it*-extraposition sentences of the type found in English should be impossible, given the analysis in chapter 3. This is because such sentences must either involve adjunction of the CP to VP, and θ-binding by a subject pronoun, or θ-assignment within VP, in which case no overt pronoun would be possible in subject position, since Russian does not have overt expletives (e.g., Gundel 1977, Mezhevich 2004). The prediction that Russian does not have *it*-extraposition is borne out, though it may not appear so at first sight, given that examples such as (94) are possible:

(94) a. Èto udivljaet, čto Max - špion.
this surprises that Max spy
'It's surprising that Max is a spy.'

b. Èto prijatno, čto my guljaem v parke.
this pleasant that we walk in park
'It's pleasant that we're walking in the park.'

Mezhevich (2004) convincingly argues that *èto* in these examples is not an expletive, contra Franks (1990), and that two structures are possible: one in which the CP is a VP-adjunct interpretatively linked to *èto*, and a second in which *èto* does not appear, and the CP is a complement of the verb. This is roughly what was argued by Bennis (1986) for Dutch and Zaring (1994) for French, and in chapter 3 for English.[110]

There is reason to think, however, that sentences such as (94) are not parallel to English *it*-extraposition sentences, and thus plausibly do not involve θ-binding of the CP by *èto*. First, as Mezhevich notes, such sentences must be read with an intonation characteristic of right-dislocation sentences rather than *it*-extraposition sentences; that is, there is an intonational boundary between the CP and the rest of the sentence. On the other hand, when *èto* is absent, this intonational boundary is not required, just as in English.

Furthermore, sentences such as (94) behave like right-dislocation sentences syntactically as well as intonationally. Recall that *it*-extraposition sentences allow VP-fronting to take along the CP, as in (95a). By contrast, the equivalent right-dislocation sentence disallows this, as shown in (95b):

(95) a. I said he would arrive late, and arrive late he did, John.
b. *I said he would arrive late, and arrive late, John, he did.

Sentences such as (94) pattern with right-dislocation sentences with respect to movement of the VP, as shown in (96):[111]

[110] Mezhevich's argument, like those of Bennis and Zaring, as well as the argument presented in chapter 3, takes the form of evidence that when *èto* appears, it is non-expletive and the CP is an adjunct. First, *èto*-CP sentences are not possible with unaccusative and passive verbs, which suggests that the presence of *èto* is sensitive to whether the subject position is a θ-position or not. Second, the CP behaves as an island for extraction only when *èto* is present, as expected if it is an adjunct in that case.

[111] Since Russian lacks VP-fronting of the type found in English, I have instead used the so-called 'predicate cleft' construction (e.g., Abels 2001). This differs from English VP-fronting in that the verb appears twice: once, in infinitival form, in the fronted VP, and a second time, in finite form, in the main clause (the analogue of *do*-support in English). The fact that the finite verb appears in the main clause gives

(96) a. Udivljat'-to, èto UDIVLJAET, čto Max –špion.
to.surprise-*to* this surprises that Max spy
'As for being surprising, it IS surprising that Max is a spy.'
b. *Udivljat', čto Max –špion, èto UDIVLJAET.
to.surprise that Max spy this surprises

Thus, sentences such as (94) must be interpreted as right-dislocation sentences rather than *it*-extraposition sentences, the reason being that adjoining a CP to VP or IP forces an intonational break to precede the CP. The problem is thus not a failure of thematic licensing of the right-adjoined CP, but rather an inappropriate intonational structure.

4.6.4.5. Summary

In this section I have shown that applying the θ-binding analysis of clefts to Russian has some desirable consequences. It accounts for the fact that clefts pattern in terms of their presuppositions with specificational sentences rather than focus-fronting sentences or question-answer pairs. Furthermore, it captures the observation, not to my knowledge previously made in the literature, that 'narrow focus' clefts require 'adjacency' between the clefted XP and *èto*, as well as the possibility of 'broad focus' clefts and 'Superman' clefts. Finally, I discussed the question of why Russian does not have English-style clefts, and argued that this is because it does not allow extraposition of restrictive relative clauses, something which, according to the analysis in chapter 3, is essential to link the cleft clause interpretatively with the cleft pronoun.

4.7. Conclusion

This chapter has argued that clefts can vary in their syntax quite considerably between languages while still retaining a specificational interpretation. I focused on Russian clefts, which have in the past been argued not to be clefts at all, but rather a type of focus-fronting sentence, or alternatively a question-answer pair. In 4.2-4.5 I argued that these authors are correct to reject a syntactic analysis of Russian clefts which assimilates them

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the impression that this construction involves base-generation of the fronted VP; however, see Abels (2001) for arguments that the construction in fact involves remnant VP-movement.

to English clefts. In 4.6, however, I argued that Russian clefts involve the same mechanism relating the 'cleft clause' to the cleft pronoun – namely 'long-distance' θ-binding of the type proposed in chapter 3.

5. The syntax of specificational sentences

5.1. Introduction

The preceding two chapters have explored various problems concerning the relationship between the cleft clause and the cleft pronoun. I argued that in both English and Russian, the cleft clause arguably restricts the reference of the cleft pronoun semantically, despite apparently not being in any conceivable syntactic relationship with it which would allow such modification. In this final chapter, I would like to explore another problem of this type raised by the analysis so far: namely, the problem of semantically relating the cleft pronoun to the clefted XP, and more generally of semantically relating the two XPs linked by the copula in specificational and equative sentences. In the most straightforward case – English clefts derived by 'matching' – there appears to be no real compositionality problem, since the clefted XP occupies the complement position of the copular verb, and hence could simply be treated as an argument of it. In the other types of clefts we have considered, however – English clefts derived by 'raising', and Russian clefts – an analysis of this type is not appropriate, since the clefted XP arguably does not occupy a position in which it could be an argument of the copula, or be related to a functional head encoding specificational/equative semantics.

The solution I propose is to treat specificational and equative sentences as a kind of 'association with focus' construction. This means that, for English at least, the parallel between clefts and the '*only*-relative' construction discussed in chapter 3 is even closer than was argued in that chapter. That is, in both constructions a particle or pronoun thematically licenses a relative clause, and the focus of the clause syntactically licenses the relative; furthermore, the particle or pronoun is in an 'association with focus' relationship with the focus. I will argue, however, that in the case of clefts, the association with focus operator is not the pronoun itself, but rather a functional head in the extended verbal projection, which I label Eq. This head has the semantic effect of applying Partee's (1987) *ident* type-shifting operator to XP2, turning it into an 'identity predicate' which is then predicated of XP1. Crucially, the relationship between Eq and XP2 is one of 'association with focus'. Given certain assumptions about the semantics of focus-sensitive particles, this means that the superficial non-compositionality of the

semantic relationship between XP1 and XP2 can be accounted for in the same way as the superficial non-compositionality of association with focus generally.

In 5.2 I begin by outlining the 'compositionality problem' posed by clefts, and then I suggest briefly how this could be solved by an association with focus account. I then present a syntactic analysis of specificational sentences involving Eq. 5.3 explores some consequences of this analysis for specificational sentences: some well-known (and not so well-known) restrictions on the placement of focus, the predicted non-existence of 'inverse specificational sentences' alongside their string-identical predicational counterparts, restrictions on the extraction of XP1 and XP2, the possibility of multiple foci, and the impossibility of focus projection. 5.4 discusses some further issues raised by the present analysis. First I note that it allows us to rule out an extraposition from subject analysis of clefts. Then I discuss some further extraction properties of specificational sentences, notably the fact that the possibility of extracting XP2 is dependent on the 'relative weight' of the other constituents. Finally I discuss the difference between Russian and Serbo-Croatian clefts, the latter of which seem to be more restricted in their possible interpretations. 5.5 is the conclusion.

5.2. The specificational syntax of clefts

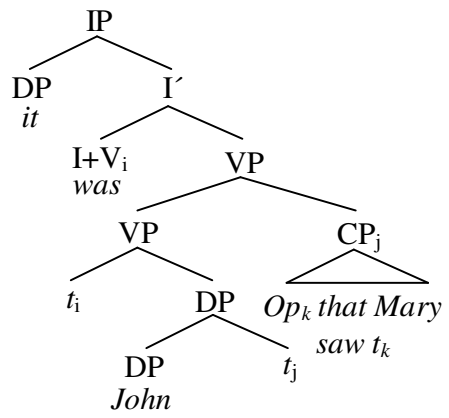
5.2.1. Problems for compositionality II

The focus of the preceding chapters has been on the syntactic and semantic relation between the cleft pronoun and the cleft clause. The fundamental problem that was discussed was that the syntactic structures of clefts, in both English and Russian, preclude a strictly compositional account of this relation. What has not yet been discussed is the fact that a similar problem arises with respect to the syntactico-semantic relation between the cleft pronoun and the clefted XP. It has been assumed, following various authors, that the semantics of specificational sentences, of which clefts are a type, involves equation between the two XPs linked by the copula. This is implemented in different ways by different authors, but a fundamental assumption in almost all cases is that the syntactic structure of specificational sentences is transparently compositional. A traditional assumption about the copula is that it is lexically ambiguous between a predicational and an equative use (the 'two-*be*' approach; e.g., Russell 1919, Higgins 1973, Higginbotham

1987, Sharvit 1999, Schlenker 2003, Han and Hedberg 2008). An analysis of specificational sentences in this vein, then, might treat the copula as a transitive verb equating two XPs of the same semantic type (e.g., type *e*). This would require a structure identical to that in clauses with standard transitive verbs: for example, one in which XP2 is the complement of the copular verb. A second type of approach takes there to be only a single copula, but which likewise acts like a transitive verb, taking one argument of type *e* and another of type <*e,t*> (the 'one-*be*' approach). The difference between specificational and predicational sentences would then be that the copula takes its arguments in different orders in the two types of sentence (e.g., Williams 1983, Partee 1986). Like the one-*be* approach, however, this approach would require a syntax on which one of the arguments was the complement of the copular verb. Under a third type of approach, there is still a single copular verb, but in this case it is semantically empty, and selects for a small clause containing the two XPs (Partee 1998 calls this the 'no-*be*' approach). The relationship between the two XPs is thus mediated internally to the small clause, rather than via the copula. There are two versions of this approach: one on which the two XPs are of types *e* and <*e,t*>, as under the 'one-*be*' approach (e.g., Moro 1990, 1997, 2000, Heycock 1994, Adger and Ramchand 2003, Den Dikken 2006, Adger 2008), and a second on which the two XPs are both of the same type (e.g., type *e*), as under the 'two-*be*' approach (e.g., Heycock and Kroch 1999, Rothstein 2001). Although under 'no-*be*' approaches neither of the XPs is a complement of the copular verb, it is still assumed that the relationship between the two is parallel to that between a subject and its predicate. For example, Den Dikken (2006) argues that the two XPs originate as specifier and complement of the functional head (which he calls the 'relator') projecting the small clause. In all three types of analysis, then, one of the XPs originates as a complement, either of the copular verb or of a functional head mediating semantically between the two XPs.

The analysis in chapter 2 of English clefts derived by 'matching' shares this property, as it assigns them the structure in (1):

(1)



Here, the clefted XP is base-generated in the complement position of the copula, as under two- and one-*be* approaches, and the cleft clause is base-generated as an adjunct to the clefted XP.

English clefts derived by 'raising', and all Russian clefts, on the other hand, do not conform to this pattern. It is generally assumed that when an XP undergoes movement, the new category resulting from that movement is labelled not by the moving XP, but rather by the phrase targeted by movement (e.g., Chomsky 1995).[112] Given this, English raising clefts cannot have the structure in (2a), giving a 'surface structure' parallel to (1), since this would require the raised clefted XP to label the newly created category occupying the complement position of the copula. This suggests that the correct structure for raising clefts involves movement of the clefted XP to an adjoined or specifier position of the cleft clause CP, which itself appears as the complement of the copula.[113] The requirement for the cleft clause to extrapose suggests that the clefted XP must move to adjoined position, as in (2b), assuming that intermediate projections cannot move (e.g., Kayne 1994, Nunes 1998):

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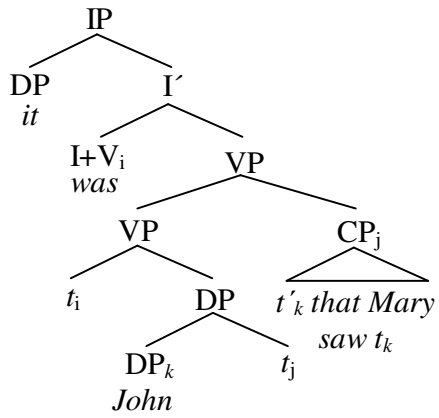
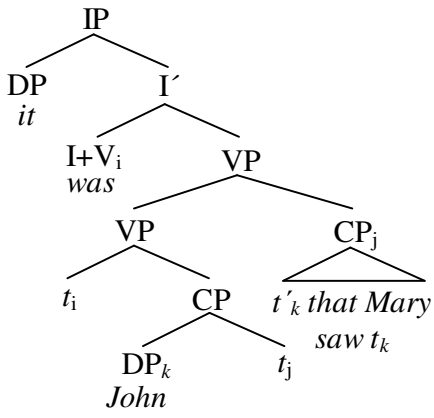
[112] In fact, several works have challenged this assumption, arguing that various constructions involve 'reprojection' of a moved category (e.g., Ackema et al. 1992, Bury 2003, Donati 2007, Georgi and Müller 2008). On the other hand, there is no evidence, to my knowledge, that APs can project when they move, which is what would be necessary if raising clefts involved reprojection of the clefted XP.

[113] One might wonder why, if (2b) is the correct structure, we do not find CPs headed by *that* with adjoined DPs, APs and PPs in more environments than just clefts. Given that CPs headed by *that* are generally arguments, however, and it is generally accepted that it is not possible to adjoin to arguments (e.g., Chomsky 1986, McCloskey 1992), such cases should be ruled out in the majority of cases. On the other hand, they should be possible in clefts if, as I have argued, the two XPs in specificational sentences are not arguments in the sense of receiving θ-roles.

(2) a.



b.



This is supported by the fact that clefts whose main verb is *become* instead of *be* disallow AP-clefts. *Become*, unlike *be*, subcategorises for nouns and adjectives; in particular, it disallows a CP complement as in (3c):

(3) a. Mary was/became a doctor.
b. Bill was/became morose.
c. The problem was/?*became that he was an idiot.

Thus, if the structure in (2a) is correct, we predict that AP-clefts, which require a raising structure, should be permitted with *become*. If, on the other hand, the structure in (2b) is correct, we predict that AP-clefts should be disallowed with *become*. The data in (4) thus suggest that (2b) is correct:

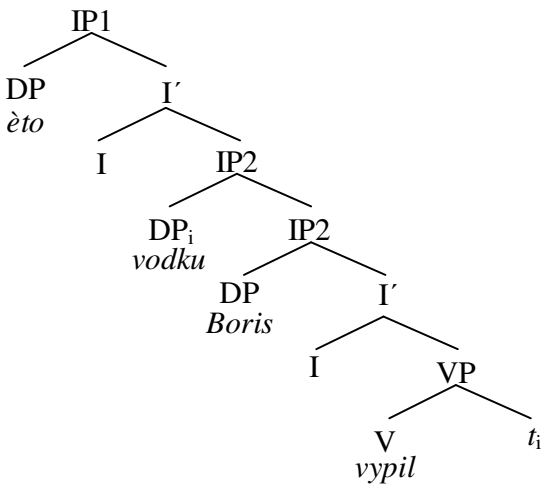
(4) a. It was/became Mary that was responsible for the patients.
b. It was/*became morose that Bill seemed to be above all.

If (2b) is the correct structure for raising clefts, this means that the clefted XP in such cases is not in a canonical position for being semantically equated with the cleft pronoun; that is, it does not occupy the complement position of the copula. Note that the structure in (2b) also immediately rules out an analysis in which the copula is a transitive verb taking two arguments, since this would entail a violation of the Θ-Criterion, as well as non-canonical θ-marking. Assuming that such a copula would be like other transitive

verbs in assigning two θ-roles, this would in many cases require the copula to assign a θ-role to a category (or 'chain') which is already θ-marked. Furthermore, it is generally assumed that θ-marking cannot be 'exceptional' in the same way as Case-marking: that is, it must take place under sisterhood or some comparable syntactic configuration (see, e.g., Neeleman and van de Koot 2002).[114]

The compositionality problem posed by raising clefts arises in a similar form in Russian clefts, which, according to chapter 4, have the structure in (5):

(5)



Here, the 'copula as transitive verb' approach to specificational sentences is immediately ruled out, since there is no copular verb in Russian clefts (see chapter 4). Nor is the clefted XP in the complement position of a functional head which could conceivably link it to the pronoun *èto*, either by predication (i.e., with *èto* being predicated of *vodku* as in Geist's 2007 analysis of bare copular sentences) or equation.

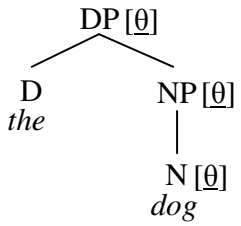
5.2.2. Specificational syntax and association with focus

The solution I would like to propose is based on the idea that clefts, and specificational sentences in general, are not 'inverted' forms of predicational sentences, but rather a type of equative, as argued by Heycock and Kroch (1999). In fact, given the analysis in chapters 3 and 4 of the relation between the clefted XP and the cleft clause, this is the

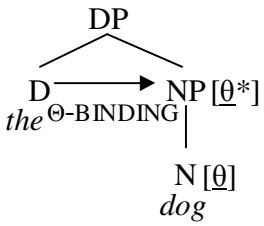
[114] Though see Pesetsky (1995) for the claim that some cases of 'exceptional Case-marking' also involve 'exceptional' assignment of a θ-role to the embedded subject.

only tenable option of the two. In those chapters, I argued that the cleft pronoun carries out a 'θ-binding' operation on the cleft clause, saturating its open position, in the same way that a determiner θ-binds the open position of its NP complement. The crucial purpose of θ-binding as conceived by Higginbotham (1985) was to account for the fact that DPs can be used both predicatively and referentially. In the predicative use of DPs, Higginbotham argues that the external θ-role associated with the head noun 'percolates' up to the DP level, allowing it to be a θ-role assigner. By contrast, if the DP is to be used referentially, the external θ-role of the head noun is not assigned to any DP, but rather is saturated by the determiner, via θ-binding. The structures of predicative and referential DPs are schematised in (6a) and (6b) respectively:

(6) a.



b.



If the cleft pronoun is a determiner carrying out θ-binding, therefore, we expect the surface subject of specificational sentences to pattern with referential DPs rather than with predicative DPs. This, however, is incompatible with the idea that specificational sentences are 'inverted' forms of predicational sentences, as this entails that XP1 (and therefore the cleft pronoun) is a predicate.[115]

Instead, I would like to argue that the syntax of specificational sentences (and equatives) involves a functional head (Eq) in the extended verbal projection which is not found in predicational sentences. This has the semantic effect of applying Partee's (1986, 1987) *ident* operation to XP2, turning it into an identity predicate which can then be applied to XP1 (see also Rothstein 2001), giving rise to an equative reading. What is

[115] Büring (1998) provides arguments that cleft *es* in German is also unlikely to be an inverted predicate. For example, *es* cannot function as a predicate in initial position in other contexts; instead, *das* 'that' must be used:

(i) Guildo ist nicht besonders attraktiv. Das/*es ist dafür seine Band.
Guildo is not particularly attractive that/it is instead his band
'Guildo is not particularly attractive. Instead his band is.'

unique about the present proposal as compared with previous equative approaches, however, is that Eq bears the same relation to XP2 as focus-sensitive particles such as *only* and *even* bear to the focus of their clause: that is, it 'associates' with the focus. Since Jackendoff (1972), it has been well-known that association with focus is often superficially non-compositional, in that the focus-sensitive particle is not directly combined with the focused XP. Thus, for example, as well as the transparently compositional use of *only* in (7a), in which it forms a constituent with the focused DP, *only* may also appear in a 'VP-adverbial' position in which it is not adjacent to the focused DP, as in (7b). This sentence, as well as having a reading in which the VP adjacent to *only* is the focus, can also have the same reading as (7a), which can be paraphrased by the specificational sentence in (7c):

(7) a. I saw [only [$_{DP}$ JOHN]].
b. I [only [$_{VP}$ saw JOHN]].
c. The only person that I saw was JOHN.

There have been various attempts in the literature to express the relationship between the focus-sensitive particle and the focus compositionally, perhaps the best-known of which are the 'alternative semantics' approach associated with Rooth (1985, 1992) and the 'structured meanings' approach associated with von Stechow (1981), Jacobs (1983) and Krifka (1992), among others. Both accord the focus-background partition of a particular constituent a special status in accounting for association with focus, but in different ways. I will concentrate on the structured meanings approach, which seems best suited to capture the properties of the clefts in (2) and (5).

A structured meaning in this sense is an ordered pair consisting of a focus and its background (which must have a semantic type such that it can be applied to the focus), written in the form in (8a). This means that focus-sensitive operators can be defined such that they directly take the focus as an argument, even if not directly combined with the focus. For example, Krifka (1992:19) defines the semantics of *only* as in (8b):

(8) a. <focus, background>

b. only(<α,β>) $=_{def}$ α(β) & ∀X[X is comparable with β & α(X) → X= β],
where X is a variable of the type of β.

Thus, Krifka's semantics for the two sentences in (9), which both have main stress on *Sue* but which differ in whether the DP *Sue* or the VP is the focus, are as in (10a,b) respectively:

(9) a. John only introduced Bill to [$_F$ SUE].
b. John only [$_F$ introduced Bill to SUE].

(10) a. introd'(j.s.b) & ∀x[x is comparable with s & introd'(j,x,b) → x=s]
b. introd'(j,s,b) & ∀P[P is comparable with λx.introd'(x,s,b) & P(j) →
P=λx.introd'(x,s,b)]

In order to define the semantics of Eq in this way, the background part of the structured meaning (i.e., the cleft clause) would need to be ignored and introduced as part of the second argument of Eq, perhaps as in (11):[116]

(11) Eq(<α,β>) $=_{def}$ λX[X = α]
where X is a variable of the type of α.

Applying this to an English raising cleft such as (12a) would give the semantics in (12b-c):

(12) a. It was green that her eyes were.
b. Eq(<λx.green'(x), λP.P(eyes')>) = λQ[Q = λx.green'(x)]
c. λQ[Q = λx.green'(x)](ιR.R(eyes')) = [by λ-conversion]
ιR.R(eyes') = λx.green'(x)

[116] Recall that the 'adjacency' effects discussed with respect to Russian in chapter 4 result not from requirements on the relation between *èto* and the focus, but from requirements on the θ-binding of the cleft clause by *èto*. That is, the analysis in this chapter does not require the focus and background to be separate constituents, leading to adjacency, but in practice this does happen because of the θ-binding requirement.

Thus, the structured meanings approach to focus-sensitive particles provides us with a means of capturing the superficial non-compositionality of certain cases of association with focus. This allows us to circumvent the problem posed by clefts involving movement of the clefted XP, since what is crucial for the semantics of Eq is that its first argument be the focus of the clause; its categorial label and syntactic position are irrelevant.

5.2.3. The syntax of Eq

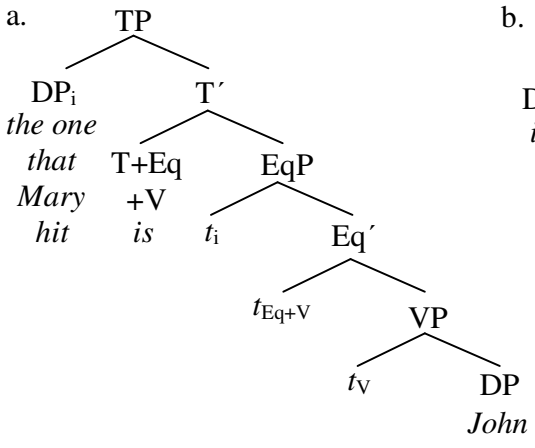
Having proposed that specificational syntax involves association with focus, I move on to the syntactic structure of specificational sentences. I have suggested that the equative functional head Eq belongs to the extended verbal projection. As we saw in chapter 4, Grimshaw (1991, 2000) claimed that the members of an extended projection are distinguished by their *F*-values; thus, if a particular head X has a higher *F*-value than a distinct head Y in the same extended projection, then XP dominates YP. In chapter 4, I used the functional category I, not committing myself to whether it can be further broken down as in Cinque (1999). If specificational sentences involve Eq, it is necessary to specify where it appears in the extended verbal projection; that is, what its *F*-value is relative to other members. I would like to suggest that the *F*-value of Eq is underspecified, and thus that it can potentially appear in different positions in the extended projection. In practice, however, the permissible positions of Eq will be limited by other factors. I propose that one such limitation is that Eq, having no intrinsic overt lexical content of its own, must be overtly filled by some lexical element, either via head-movement or merger of an XP in its specifier. This accounts for a generalisation often noted in the literature: that crosslinguistically it is very common for equatives and specificational sentences to require some overt material – either a verbal copula as in English, or a 'pronominal copula' as in Russian and Polish – between the two XPs. Predicational sentences, on the other hand, do not require this overt material unless it is required independently. In English, this can be shown by embedding a copular clause under the verb *consider*. When XP2 of this clause can be interpreted as a predicate of which XP1 is subject, the copula is optional, as shown in (13a). On the other hand, when

XP2 cannot be interpreted this way, as in specificational and equative sentences, the copula becomes obligatory, as shown in (13b) (Moro 1997:37):

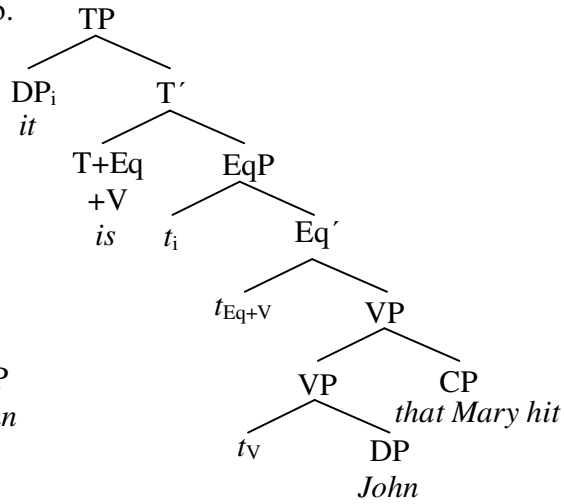
(13) a. John considers a picture of the wall (to be) the cause of the riot.
b. John considers the cause of the riot *(to be) a picture of the wall.

This asymmetry can be accounted for if the absence of the copula entails the absence of Eq. In (13a), Eq is not required, since DP2 (which can be of type <*e,t*>) can be directly applied to DP1 (of type *e*). In (13b), on the other hand, there is no way to interpret the two DPs in (13b) in the absence of Eq, assuming the impossibility of inverse predication. The presence of the copula saves the structure, according to the present analysis, because it undergoes head-movement to Eq, fulfilling the lexicalisation requirement of Eq. Thus, the structure of an English specificational sentence will be as in (14a). This means that we can revise the structure proposed for clefts to (14b):[117]

(14) a.



b.



In Russian, on the other hand, lexicalisation of Eq can be performed either by head-movement of the copula, as in English, or by merger of the pronoun *èto* in SpecEqP. In non-present tenses, in which an overt copula is available in Russian, there is no way of

[117] Note that although Eq undergoes subsequent head-movement to T in (14), the lexicalisation requirement is still satisfied, since the copula is pronounced in the position in which Eq ends up.

distinguishing different types of copular sentence, since the copula is obligatory in all of them; this is shown for the past tense in (15a-c) (predicational, specificational and equative respectively; examples based on Geist and Błaszczak 2000:117-8):[118]

(15) a. Pëtr *(byl) moj drug.
Pëtr was my friend
'Pëtr was my friend.'
b. Moj drug *(byl) Pëtr.
my friend was Pëtr
'My friend was Pëtr.'
c. Zevs *(byl) Jupiter.
Zeus this Jupiter
'Zeus was Jupiter.'

In the present tense, however, no overt form of the copula is available. In this case predicational sentences differ from specificational and equative sentences. In predicational sentences, simple juxtaposition of the two XPs is possible, but in specificational and equative sentences, the pronoun *èto* must be inserted between the two XPs. Consider the examples in (16):

[118] Interestingly, the different types of copular sentence can be distinguished in the past tense in Polish, and behave as expected. In Polish, unlike in Russian, an overt copula requires one of the XPs (that interpreted as the predicate) to be in the instrumental case. Thus, we expect that cases like (15c), with the identity reading, actually disallow an overt copula, regardless of the tense, since neither of the DPs is an appropriate predicate of the other. This is correct (Beata Zacharska, p.c.):

(i) *Zeus jest/był Jowiszem.
Zeus is/was Jupiter-INSTR
'Zeus is/was Jupiter.'

As for how the identity interpretation is combined with past tense, given that *to* (the equivalent of *èto*) alone implies present tense, it is possible to use the 'dual copula', a combination of *to* and the past tense copula, as in (ii):

(ii) Zeus to był Jowisz.
Zeus that was Jupiter.NOM
'Zeus is/was Jupiter.'

Crucially, in this case both DPs must be nominative (e.g., Citko 2007), and so the problem of predicational interpretation is avoided.

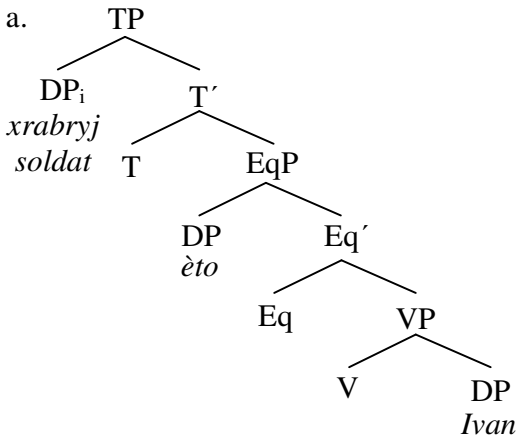
(16) a. Pëtr (èto) moj drug.
Pëtr this my friend
'Pëtr is my friend.'
b. Moj drug (èto) Pëtr.
my friend this Pëtr
'My friend is Pëtr.'
c. Zevs *(èto) Jupiter.
Zeus this Jupiter
'Zeus is Jupiter.'

In (16a), it is possible to interpret DP2, *moj drug* 'my friend', as a predicate of which DP1 is the subject. Accordingly, insertion of the pronoun *èto* is optional. In (16c), on the other hand, both DPs are equally referential: a case of a true equative. In this case, insertion of *èto* is obligatory. (16b) might seem to be problematic for the idea that specificational sentences require an overt element between the two XPs, and hence that Eq is necessarily present, since *èto* is optional. Interestingly, however, the absence of *èto* is only possible under restricted conditions: namely, when DP1 receives the intonation and interpretation characteristic of a contrastive topic. This is not the case in (16a); absence of *èto* does not force DP1 to be interpreted as a contrastive topic. In general, contrastive topic intonation and interpretation is only obligatory if a DP undergoes A´-movement (e.g., Titov 2008). What this suggests is that when *èto* is absent, cases like (16c) are in fact canonical predicational sentences in which DP1 is underlyingly a predicate of DP2, and undergoes A´-movement, giving the impression of predicate inversion.[119] By contrast, when *èto* is present, a contrastive topic interpretation of DP1 is not obligatory. This is consistent with the idea that in such cases the two DPs are base-generated in their surface order, DP1 appears in clausal subject position, and Eq is obligatorily licensed by the presence of *èto*. That is, while (16a) represents the canonical predicational sentence (in which *èto* is optional), and (16c) the canonical equative sentence (in which *èto* is obligatory), (16b) is ambiguous between the two sentence types.

[119] Another complication is that predicate inversion is arguably available in Russian copular sentences too (Partee 1998). This is only possible, however, if there is an overt copula, in which case XP1 can take instrumental Case, which is characteristic of predicative DPs:

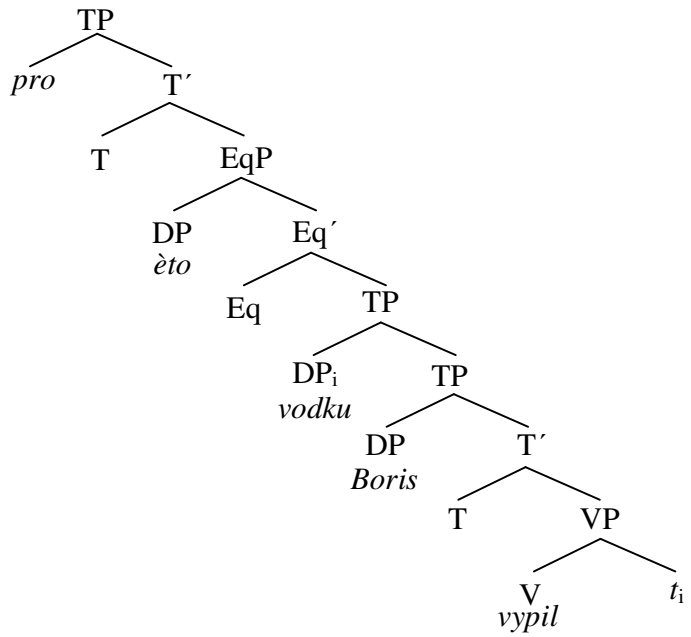
Thus, I propose that the structure of specificational sentences in Russian is essentially the same as that in English, except that *èto* is merged in SpecEqP; this is shown in (17a). Russian has another option which is not available in English. Since it has a DP which need not be Case-marked, namely *èto*, Eq can be generated higher than T, and its specifier can be filled by *èto*, satisfying the lexicalisation requirement. This gives the structure proposed for Russian clefts in chapter 4, where instead of two instances of IP we have two functional categories, EqP and TP. This is shown in (17b):[120]

(17) a.



[120] The structure for the cleft in (17b) includes *pro* in the higher SpecTP. This is because *èto* cannot move to this position, being the overt licenser for Eq. Although Russian is only a partial *pro*-drop language, it does arguably allow expletive *pro*, assuming that Russian T has the EPP property (see, e.g., Lavine and Freidin 2002, Bailyn 2004, Slioussar 2007). Recall from chapter 4 that *èto* arguably does not need Case. It also does not trigger subject-verb agreement. Thus, there is no requirement for a featural relationship between *èto* and the higher T. This means that the only requirement that needs to be satisfied on the higher T is the EPP, and hence that expletive *pro* can occupy this SpecTP.

b.



In the rest of this chapter I will show that this view of specificational sentences has various beneficial empirical consequences, both for clefts and for specificational sentences in general. In particular, the claim that specificational sentences involve association with focus accounts for some peculiar facts about them which are mysterious under alternative approaches.

5.3. Consequences of association with focus

5.3.1. Restrictions on the placement of focus

5.3.1.1. XP2 must be the focus

One property of focus-sensitive particles such as *only* is that they place restrictions on the position of the focus with which they associate. These apparently vary between particles and between languages. For example, *only* strictly requires its focus to surface in its c-command domain, as shown by the fact that adverbial *only* cannot associate with a focused subject or focused *wh*-moved object:

(18) a. John only saw MARY. (i.e., 'Mary is the only person that John saw')
b. *JOHN only saw Mary. (i.e., 'John is the only person that saw Mary')

c. *Who did John only see *t*? (i.e., 'Who is the person *x* such that John saw only *x*?')

On the other hand, *even* is more liberal: it allows the subject to be the focus even though this does not surface in its c-command domain, but still disallows *wh*-movement of the focus:

(19) a. John even saw MARY.
b. JOHN even saw Mary.
c. *Who did John even see *t*?

Finally, some focus-sensitive particles in other languages require underlying c-command of the focus, but not surface c-command. Thus, notes that Dutch *pas* 'just' must immediately c-command the focus, as shown in (20a-b), yet the focus may undergo A´-movement from this position, as in (20c) (Barbiers 1995:68, Ad Neeleman p.c.):

(20) a. Jan heeft pas TWEE BOEKEN gekocht.
Jan has just two books bought
'Jan has bought just two books.'
b. *JAN heeft pas twee boeken gekocht.
Jan has just two books bought
'Just Jan has bought two books.'
c. Hoeveel boeken denk je dat Jan pas gekocht heeft?
how.many books think you that Jan just bought has
'*How many books do you think that Jan has just *t* bought?'

The generalisation we can state over these three cases is that a focus-sensitive particle must associate with the base position of a focus, and that particles differ in whether they must c-command this position or not, and in whether the focus must occupy its base position overtly. These properties are summarised in (21):

(21)

Particle	C-command base position?	Overtly in base position?
only	yes	yes
even	no	yes
pas	yes	no

Consider now the claim that Eq, the functional head present in specificational and equative but not predicational sentences, is a focus-sensitive head in this sense. Given the partial typology of particles in (21), we might therefore expect it to place restrictions on where the focus can appear in specificational and equative sentences, restrictions which should not be present in predicational sentences, which lack Eq. Indeed, this seems to capture the long-noted fact (discussed in chapter 2) that specificational sentences appear to have a 'fixed' information structure.

First, notice that it accounts for the fact that clefts cannot be 'inverted': that is, the pronoun must be the surface subject (e.g., Sornicola 1988, Den Dikken 2008):

(22) a. It's John that's the mayor.
b. *John is it that's the mayor.

Under the syntactic analysis presented in this chapter, the surface subject (XP1) is base-generated in SpecEqP. Supposing that Eq must c-command its focus, like the focus-sensitive particles *only* and *pas*, this accounts for why inversion is impossible in (22). *It* is a 'weak pronoun' in the sense of Cardinaletti and Starke (1999), and one property of weak pronouns is that they cannot be focused. Thus, only the clefted XP can be focused, which means it must be XP2, since XP1 is not c-commanded by Eq.

A similar asymmetry is found in standard specificational sentences, though the situation here is complicated by additional factors. Consider the question-answer pairs in (23) (adapted from Williams 2003:255):

(23) a. A: Which one is the mayor?
B1: The mayor is JOHN.
B2: JOHN is the mayor.
b. A: What is John?
B1: John is THE MAYOR.
B2:*THE MAYOR is John.

Both *wh*-questions in (23) have been designed to force an answer in which *John* is 'more referential' than *the mayor*; that is, the *wh*-phrase in (23a) is D-linked, forcing a referential reading of the focus, and *what* in (23b) is not an appropriate referential *wh*-word for a human. In (23a), in which the focus is forced to be *John*, the order of the two DPs makes no difference to grammaticality. (23b), on the other hand, forces the focus to be *the mayor*. Here, the order of the DPs affects grammaticality: the focus must be clause-final.[121] This is as expected if Eq requires the focus to be base-generated in its c-command domain, like *pas* and *only*. On the other hand, as far as I can see, the asymmetry in (23) does not follow from most inverse predication analyses (except Williams 2003), since such analyses do not provide a way of giving preference to focus-final orders.

5.3.1.2. Extraction of XP1/2

We saw above that Eq patterns with *only* in that it only associates with a focus base-generated in its c-command domain. On the other hand, Eq seems to pattern with *pas*, rather than *only* or *even*, in that the focus can undergo *wh*-movement out of the c-command domain of Eq. It has often been claimed in the literature that specificational and equative sentences disallow extraction of either XP, in contrast to predicational sentences, and indeed other types of sentence (e.g., Moro 1997, Heycock and Kroch 1999, Den Dikken 2006). Thus, (24a,b) show that extraction of both XP1 and XP2 is possible in predicational sentences:

[121] Note that DP1 *can* be the focus, but in this case DP2 must be a 'second occurrence' focus. This is therefore parallel to cases with focus-sensitive particles in which the particle does not associate with the main focus (e.g., von Fintel 1994:44ff.).

(24) a. What kind of teacher$_i$ do you think Harold is t_i? (Heycock and Kroch 1999:377)
b. Which teacher$_i$ do you think t_i is a vindictive teacher?

On the other hand, in specificational sentences extraction of either XP1 or XP2 is commonly claimed to be impossible, as illustrated by (25a,b) respectively:

(25) a. *Which of the themes$_i$ do you think t_i is that phrase of music? (ibid.:377)
b. *Which phrase of music$_i$ do you think one of the themes is t_i? (ibid.:371)

Furthermore, Heycock and Kroch (1999) note that true equatives behave like specificational sentences in this way: thus, both (26a,b) are unacceptable (ibid.:377):

(26) a. *Whose opinion of Edinburgh$_i$ do you think t_i is your opinion of Philadelphia?
b. *Whose opinion of Philadelphia$_i$ do you think your opinion of Edinburgh is t_i?

Inverse predication analyses are generally designed to prevent extraction of XP2 categorically (e.g., Moro 1997, Den Dikken 2006). Heycock and Kroch (1999) note, however, that the fact that XP1 apparently behaves in the same way is a problem for such analyses, which place no restrictions on extraction of XP1. Under the present analysis, by contrast, there is no reason why either XP1 or XP2 should be banned from moving. In 5.4.2, I will show that in the case of extraction of XP2, there are other factors which condition extractability, specifically the 'relative weight' of the stranded material. For now what is important to note is that the present analysis predicts that extraction of either XP should be possible in principle if XP1 is not the focus and XP2 is the focus, because Eq, the focus-sensitive operator, c-commands XP2 but not XP1. As noted by Williams (2003), there is indeed a contrast between cases where the extracted XP2 is an interrogative *wh*-phrase and cases where it is a relative *wh*-phrase:[122]

[122] I have altered Williams' examples so that the *wh*-phrase is D-linked, since this facilitates a referential reading, avoiding the possibility that the sentences are actually predicational (e.g., Den Dikken 2006).

(27) a. I wonder which person$_i$ the mayor is t_i.
b. *I met the person who$_i$ the mayor is t_i.

Williams' explanation for the contrast relies on the idea, common in the literature, that interrogative *wh*-phrases are inherently focal, while relative *wh*-phrases are not (e.g., Rochemont 1978, Rizzi 1997, É. Kiss 1998),[123] and the preference for focus to occur clause-finally. Under the present analysis, the contrast arises because in (27a), XP2 is an appropriate focus, while in (27b) it is not. In addition, we predict that if XP2 is a non-*wh*-phrase, it must be a focus, and cannot be a topic, since this would entail that XP1 is the focus. This is also correct: thus, (28a) contrasts with (28b) (where underlining indicates the topic, which is normally marked with a B-accent in the sense of Bolinger 1965):

(28) a. THE PERSON ON THE RIGHT$_i$, the mayor is t_i.
b. *<u>The person on the right</u>$_i$, THE MAYOR is t_i.

Now consider extraction of XP1. In this case, the present analysis predicts the reverse of the pattern of judgements seen in (27-8). In order to ensure that XP1 has been extracted, we need in some cases to add an intervening clause. However, we need to make sure that this clause cannot be interpreted as a parenthetical, since in that case what precedes it might not have moved. To obviate this possibility, we can take advantage of the observation that parentheticals are 'islands' for variable binding (e.g., Safir 1986), and add a binder in the intervening clause binding into the unmoved XP2. Thus, the following examples show that XP1 can only be extracted if it is not a focus:

(29) a. *He asked which official$_i$ t_i was John.
b. Mary asked which one was the mayor, which$_i$ t_i was in fact JOHN.
c. *THE MAYOR$_i$, everyone$_j$ thought t_i was his$_j$ mother.
d. <u>The mayor</u>$_i$, everyone$_j$ thought t_i was HIS$_j$ MOTHER.

[123] For example, Rizzi (1997) argues that while interrogative *wh*-phrases move to SpecFoc(us)P, relative *wh*-phrases move to SpecForceP, the projection associated with clause-typing.

Thus, the prediction of the present analysis that specificational sentences do not in principle disallow extraction of either XP1 or XP2 is met. The latter case in particular is a serious problem for inverse predication analyses such as Moro (1990, 1997) and Den Dikken (2006), which are designed in order to prevent extraction of XP2 categorically. Furthermore, the present analysis correctly predicts an asymmetry between extraction of XP1 and extraction of XP2 (a prediction shared with Williams 2003): the former cannot be a focus, and the latter must be.

5.3.1.3. The non-existence of 'inverse specificational sentences'

The analysis makes another interesting prediction relating to the placement of focus. As we have just seen, if the order of the XPs in a copular sentence is 'more referential > less referential', as in predicational sentences, either XP1 or XP2 may be the new information focus. For inverse predication approaches, such sentences are unambiguously predicational: they represent the case where no 'inversion' has occurred. On the other hand, for equative approaches, such sentences are potentially ambiguous between predicational and equative readings. The present analysis, on the other hand, predicts that such sentences are only ambiguous if XP2 is the focus, in which case they may either be predicational or specificational/equative (involving Eq). If focus falls on XP1, they must be predicational; if they contained Eq, then the focus would be outside the c-command domain of Eq.

Although this is a somewhat difficult prediction to test, owing to the insecurity of the judgements, there are two pieces of evidence suggesting that this may be correct. The first has to do with the semantic types of the XPs in copular sentences. If Eq is present in a copular sentence, this means that the two XPs it links must be of the same semantic type. In the case under discussion, the two DPs would need to be of type *e*. If Eq is absent, on the other hand, DP1 should be of type *e*, and DP2 of type <*e,t*>. One test used by Rothstein (1995) and Heycock and Kroch (1999) to show that true equatives really exist involves modification by non-restrictive relatives. They note that predicative DPs may not normally be modified by a non-restrictive relative with a non-attributive interpretation. Thus, the fact that sentences such as (30) are possible shows, according to

them, that true equatives exist, since both DPs can simultaneously be modified in this way:

(30) a. The duty nurse, who is very efficient, is Rina, who I am very fond of.
b. Your opinion of Edinburgh, which you learned from your parents, is my opinion of Philadelphia, which I learned from mine.

We thus expect that the sentences in (23a) above, which both involve focus placement on *John* but involve different orders of the two DPs, should differ in that in B1 but not B2 should allow non-restrictive modification of *the mayor*. As far as I can tell, this is correct:

(31) A: Which one is the mayor?
B1: The mayor, who cleaned up this city, is JOHN.
B2:#JOHN is the mayor, who cleaned up this city.

The second piece of evidence comes from a phenomenon noted by Higgins (1973) and discussed by several other authors, namely the 'emotive' use of the modal *should*, illustrated in (32). In both sentences, *should* may either have the standard deontic reading, expressing obligation, or a reading on which the modal expresses some sort of negative emotion on the part of the speaker:

(32) a. It's a pity that John's job should be so uninteresting.
b. It's a pity that John should be so proud of himself.

Higgins (1973:302) noted that specificational sentences display 'connectivity' with emotive *should* – that is, it must appear next to the same instance of *be* that it would in the corresponding simple sentence, as shown in (33) (see also Bošković 1997, Heycock and Kroch 1999, Den Dikken et al. 2000):

(33) a. It's a pity that what John should be is proud of himself. (deontic/emotive)
b. It's a pity that what John is should be proud of himself. (deontic only)

On the other hand, predicational 'pseudoclefts' such as (34) disallow the emotive reading of *should* when it appears in this position (Heycock and Kroch 1999:370):

(34) a. It's a pity that what John should do is so uninteresting. (deontic only)
b. It's a pity that what John does should be so uninteresting. (deontic/emotive)

If 'inverse specificational sentences' were truly specificational, we would therefore expect them to pattern with (33) rather than with (34). As noted by Den Dikken et al. (2000:79-80), this expectation is not borne out, as shown by the examples in (35):

(35) a. It's a pity that this plastic duck is what John should have bought. (deontic only)
b. It's a pity that this plastic duck should be what John bought. (deontic/emotive)

This suggests that, like *uninteresting* in (32a), the *wh*-phrase in (35) must be a predicate.

5.3.2. The possibility of multiple foci

A major topic in the discussion of association with focus has been the existence of cases in which a single focus-sensitive particle associates with multiple foci, as in the following example from Krifka (1992:21) (see also Taglicht 1984, Rooth 1985, Jacobs 1988, von Stechow 1989):

(36) John only introduced BILL to SUE.

What this sentence means is that there is only one pair of people such that John introduced the first to the second, and that that pair is Bill and Sue. That is, the particle *only* takes the combination of *Bill* and *Sue* as its focus 'argument'. Given the existence of such cases, we predict that specificational sentences should allow multiple foci if there are no independent syntactic reasons preventing this. Delahunty (1981:187) notes that in some cases clefts apparently have multiple clefted XPs, providing the example in (37):

(37) It was [at Knock] [a century ago] that the Virgin appeared to local peasants.

While the natural reading of this sentence is as an 'informative-presupposition' cleft (Prince 1978), in which the new information focus falls on the cleft clause rather than the clefted XP(s), it is also possible to read it with focus on the clefted XPs. The obvious way of analysing the example in (38) syntactically is to use the raising structure, using multiple adjunction of the PPs to the cleft clause CP. In fact, though, this may not be the only option, since it is possible to construct a specificational sentence equivalent to (37):

(38) The time and place that the Virgin appeared to local peasants was [at Knock] [a century ago].

One possibility, therefore, is that the copula takes a single complement PP, and the remaining PP is right-adjoined to VP. In any case, the existence of cases such as (37) and (38) supports the present analysis, and also presents a serious problem for alternative analyses.[124] Inverse predication analyses such as Partee (1986) and Den Dikken (2006) envisage a single predicate being predicated of a single subject. In cases such as (37) and (38), however, they would need to allow for multiple subjects of a single predicate. Yet the copula does not normally tolerate more than two 'arguments', as shown by the impossibility of equative sentences such as (39a), with the paraphrase in (39b):

(39) a. *The Morning Star is the Evening Star the Midday Star.
b. The Morning Star, the Evening Star and the Midday Star are identical.

In Den Dikken's case, the subject and predicate of specificational sentences are instantiated as the specifier and complement respectively of a small clause functional head. But since specifier and complement positions are assumed to be unique, this will

[124] A more extreme case of multiple foci in clefts is found in Japanese. Hiraiwa and Ishihara (2002) note that one type of cleft in Japanese allows two focused DPs in cleft position:

(i) Taro-ga ageta-no-wa HANAKO-NI RINGO-O da.
Taro-NOM gave-C-TOP Hanako-DAT apple-ACC COP
'*It was [APPLES] [TO TANAKO] that Taro gave.'

Whatever the reason for the difference between English and Japanese in this respect, it is clear that an association with focus analysis will be well-placed to account for this possibility.

clearly not allow for cases such as (37) and (38). The small clause equative approach of Heycock and Kroch (1999) will face the same problem, for the same reason.

5.3.3. The impossibility of focus projection

A third consequence of the analysis is that it accounts for the fact that focus cannot 'project' from XP2 to higher nodes. In English, if the main sentence stress occurs in the canonical position (approximately, rightmost in the VP), the focus may be any constituent containing this main stress (e.g., Selkirk 1984, Reinhart 2006). Thus, in (40a), the focus may be (at least) any of IP, VP or the object DP, since these contain the main sentence stress (indicated by small capitals); this is shown by the fact that (40a) may answer any of the *wh*-questions in (40b-d). On the other hand, the subject DP or the verb in (40a) cannot be focused, since these constituents do not contain the main sentence stress; this is shown by the fact that (40a) cannot answer the questions in (40e-f) (examples based on Reinhart 2006:156):

(40) a. [$_{IP}$ [$_{DP}$ My neighbour] is [$_{VP}$ [$_{V}$ building] [$_{DP}$ a DESK]]].
b. What's this noise? (IP)
c. What's your neighbour doing these days? (VP)
d. What's your neighbour building these days? (object DP)
e. Who's building a desk? (subject DP)
f. What's your neighbour doing to a desk? (V)

Thus, the focus seems to 'project' to larger constituents from the single constituent that receives main stress.

It has been noted by various authors that specificational sentences, along with locative inversion sentences, do not allow focus projection from the postcopular XP, despite standardly having canonical main sentence stress (e.g., Guéron 1992, Den Dikken 2006). That is, such sentences require a narrow focus on XP2. For example, Den Dikken (2006:82-3) notes that the predicational sentence in (41) contrasts with the specificational sentence in (42). Thus, assuming that the 'follow-up' sentence starting 'She does not...' should have the same focus as the initial sentence, the oddness of the 'follow-up'

sentence completions in (42b-d), as compared with those in (41) and (42a), shows that the focus in (42) cannot be anything other than XP2:

(41) Imogen considers Brian the best CANDIDATE. She does not...
  a. ...consider him to be the best [$_{NP}$ MAGISTRATE].
  b. ...consider him to be [$_{DP}$ the devil INCARNATE].
  c. ...consider him to [$_{VP}$ have the brains to GRADUATE].
  d. ...consider [$_{IP}$ the country to need another WATERGATE].
  e. ...[$_{VP}$ think that the test results would be easy to REPLICATE].

(42) Imogen considers the best candidate to be BRIAN. She does not...
  a. ...the best candidate to be [$_{DP}$ RYAN].
  b. #...the best candidate to [$_{VP}$ have been LYING].
  c. #...[$_{IP}$ this pilot to be particularly good at FLYING].
  d. #...[$_{VP}$ think those allegations about her sex life to be worth DENYING].

Under the hypothesis that specificational, but not predicational sentences involve association with focus, this pattern is not surprising, since the same results obtain with uncontroversial cases of association with focus. Consider the examples in (43-4), built on the model of (41-2) above. (44) minimally contrasts with (43) in containing the focus-sensitive particle, which here unambiguously modifies *Bill*. In (43), focus can easily project from *Bill*, as shown by the fact that all of the follow-ups in (43a-d) are felicitous. By contrast, in (44) only the follow-up with focus on the object DP is felicitous:

(43) Imogen considers Brian to like BILL. She does not...
  a. ...consider him to like [$_{DP}$ WILL].
  b. ...consider him to [$_{VP}$ be able to KILL].
  c. ...consider [$_{IP}$ life to be better after the PILL].
  d. ...[$_{VP}$ think she ought to buy a HAND-DRILL].

(44) Imogen considers Brian to like only BILL. She does not...

a. ...consider him to like [$_{DP}$ WILL].

b. #...consider him to [$_{VP}$ be able to KILL].

c. #...consider [$_{IP}$ life to be better after the PILL].

d. #...[$_{VP}$ think she ought to buy a HAND-DRILL].

The fact that specificational sentences pattern with bona fide association with focus constructions in terms of focus projection thus provides strong support for the present analysis.

5.4. Further consequences of the analysis

5.4.1.Extraposition in specificational sentences

Another property of the present analysis of specificational sentences that differentiates it from inverse predication analyses is that the base position of XP1 is essentially syntactically equivalent to the base position of agentive subjects. Most recent analyses assume that such subjects are base-generated externally to VP, for example in Spec*v*P (e.g., Chomsky 1995). Under the present analysis, XP1 in specificational sentences is base-generated in SpecEqP, which, like *v*, is a functional category in the extended verbal projection, and external to VP. This property of the analysis allows us to account for a restriction on extraposition which is not available to inverse predication approaches.

Recall that Percus (1997), following many previous authors, argues that the cleft clause in English originates in the surface subject and undergoes rightward extraposition. He assumes a general analysis of specificational sentences along the lines of Moro (1990); that is, a predicate inversion analysis. More specifically, he follows Moro in claiming that what we have been calling the 'more referential' XP of the two is always the base subject. Thus, in clefts, the clefted XP would be the base subject, since it is 'more referential' than the definite description consisting of *it* and the cleft clause. Citing Johnson's (1985) generalisation that it is generally impossible to extrapose relatives from base subjects, he claims that this provides an account of why the dialogue in (45a) is acceptable but that in (45b) is not (in both cases *Bill* is taken to be more referential than *the President of the United States*):

(45) a. A: Who do you think is the President of the United States?
B: I think it's BILL who is the President of the United States.
b. A: Who do you think Bill is?
B: #I think it's THE PRESIDENT OF THE UNITED STATES that Bill is.

If the 'more referential' XP is the base subject, then this means that in (45b), *it* is a base subject, and hence disallows extraposition of the cleft clause from it. In (45a), on the other hand, Bill is the base subject, and so cleft clause extraposition is permitted.

We saw in chapter 2 that Percus's analysis is unlikely to be correct. In fact, if the 'base subject generalisation' is correct, then it provides an additional argument against his analysis, since it would be unable to account for the possibility of predicational clefts (see chapter 2), in which *it* would be more referential than the clefted XP. On the other hand, the view of specificational sentences presented in this chapter, plus the analysis of clefts in chapters 2 and 3, account for a distinction between clefts and other specificational sentences with respect to extraposition, which for Percus can only be expressed by a rather *ad hoc* spell-out rule. Consider first clefts. Under the analysis in chapters 2 and 3, the cleft clause in both specificational and predicational clefts is extraposed not from *it*, but from the clefted XP. Under the analysis in this chapter, this means that the cleft clause is not extraposed from a base subject, and hence extraposition is correctly predicted to be acceptable. On the other hand, in non-clefts specificational sentences, extraposition of a relative clause from XP1 – the 'base subject' – is generally unacceptable:

(46) a. A/the man who was very much like my father was BILL.
b. *A/the man was BILL who was very much like my father.

The present analysis thus reduces a contrast between clefts and specificational sentences to a more general contrast, something which is not possible under 'traditional' specificational and/or inverse predication analyses.

5.4.2. More on extraction of XP2

As we saw in 5.3.1.3, various authors have claimed that XP2 cannot be extracted in specificational and equative sentences, in contrast to predicational sentences. We saw there that one factor conditioning extractability is focus: XP2 can only be extracted if it is an appropriate focus. However, the cases discussed by Moro (1997), Heycock and Kroch (1999) and Den Dikken (2006) involved cases where XP2 is an appropriate focus, and yet cannot be extracted. The relevant examples are repeated in (47):

(47) a. *Which phrase of music$_i$ do you think one of the themes is t_i?
b. *Whose opinion of Philadelphia$_i$ do you think your opinion of Edinburgh is t_i?

As have seen, the present analysis does not predict the ungrammaticality of (47a,b), since XP2 should behave just like any other complement of V. In this section, I will show in this section that crucial data relating to extraction of XP2 have been overlooked, which provide further evidence against analyses placing a categorical restriction on such extraction. I will argue instead that the unacceptability of certain cases of extraction should be seen in terms of the relative 'heaviness' of the constituents left behind by extraction.

There is evidence that the degree of extractability of XP2 is dependent on the 'relative weight' of the unmoved XP1 and the material following it. This is reminiscent of the 'Gesetz der wachsenden Glieder' ('law of growing constituents') of Behaghel (1909), which imposes a preference for constituents to occur further rightwards the 'heavier' they are. In generative grammar, this effect has been observed for Heavy NP Shift, extraposition (e.g., Truckenbrodt 1995a) and particle placement (e.g., Kayne 1985).

Two factors appear to condition the extractability of XP2: (i) the 'heaviness' of XP1; and (ii) the 'heaviness' of the functional material following XP1. Thus, as expected under the 'Gesetz', the worst situation is one in which XP1 is heavy and the functional material is light, as in (48aii). Keeping the weight of the functional material constant, we can see that extractability of XP2 improves the lighter XP1 becomes (XP1 being a free relative in (48a), a definite DP modified by a relative in (48b), an unmodified definite DP in (48c) and cleft *it* in (48d)):

(48) a. i. What caused the riot was a picture of the wall.
ii. *[Which of these pictures]$_i$ do you think what caused the riot was t_i?
b. i. The thing that caused the riot was a picture of the wall.
ii.??[Which of these pictures]$_i$ do you think the thing that caused the riot was t_i?
c. i. The cause of the riot was a picture of the wall.
ii. ?[Which of these pictures]$_i$ do you think the cause of the riot was t_i?
d. i. It was a picture of the wall that caused the riot.
ii. [Which of these pictures]$_i$ do you think it was t_i that caused the riot?

Similarly, increasing the weight of the functional material following XP1 improves acceptability further, as shown in (49):[125]

(49) a. *[Which of these pictures]$_i$ do you think what caused the riot might have been t_i?
b. ?[Which of these pictures]$_i$ do you think the thing that caused the riot might have been t_i?
c. [Which of these pictures]$_i$ do you think the cause of the riot might have been t_i?
d. [Which of these pictures]$_i$ do you think it might have been t_i that caused the riot?

A similar effect is found in Russian, which, like English, has been claimed to disallow extraction of XP2 in specificational sentences (e.g., Citko 2007). In fact, extraction of XP2 seems to be banned – in both specificational and predicational sentences – only if both XP1 and *èto* are present. As shown in (50), extraction of XP2 from a predicational sentence without *èto* is acceptable:

[125] As shown by (48) and (49), there is a stark contrast between pseudoclefts and other types of specificational sentence, in that increasing the weight of XP1 and/or the weight of the functional material following XP1 does not improve the acceptability of extraction at all in the case of pseudoclefts. There are various possible reasons for this. It could be that the analysis of specificational sentences presented in Heggie (1988), and adopted by Heycock (1994) for pseudoclefts (though not other specificational sentences) is appropriate in this case. Under this analysis, the *wh*-phrase moves to SpecCP rather than SpecIP, thus blocking movement via that position. The analysis thus provides a unified explanation for the impossibility of extraction and the impossibility of 'subject-auxiliary inversion', first noted by Higgins (1973), neither of which are seen fully in other types of specificational sentence.

(50) a. Pëtr moj drug.
Pëtr my friend
'Pëtr is my friend.'
b. [Kto takoj]$_i$ Pëtr t_i?
who such Pëtr
'Who is Pëtr?'

On the other hand, extraction of DP2 from predicational and specificational sentences containing *èto* is totally ungrammatical, as shown in (51):

(51) a. Pëtr èto moj drug.
Pëtr this my friend
'Pëtr is my friend.'
b. *[Kto takoj]$_i$ Pëtr èto t_i?
who such Pëtr this
'Who is Pëtr?'
c. Moj drug èto Pëtr.
my friend this Pëtr
'My friend is Pëtr.'
d. *[Kto takoj]$_i$ moj drug èto t_i?
who such my friend this
'Who is my friend?'

If, however, no DP1 is present – that is, if just *èto* and DP2 are present, as in (52a-b) – then extraction of DP2 is acceptable. Furthermore, extraction of a clefted XP is also possible in principle, as noted in in chapter 4; the relevant examples are given in (52c-d):

(52) a. Èto Pëtr.
this Pëtr
'It/this is Pëtr.'

b. Kto$_i$ èto t_i?
who this
'Who is it/this?'

c. Èto vodku Boris vypil.
this vodka Boris drank
'It was the vodka that Boris drank.'

d. Čto$_i$ èto t'_i Boris vypil t_i?
what this Boris drank
'What was it that Boris drank?'

Thus, as in English, the picture regarding extraction of XP2 from specificational sentences is not so simple as it is sometimes presented. The extractability of XP2 depends on the 'heaviness' of the unmoved material.

The main implication of the English and Russian data discussed above is that any analysis imposing an outright ban on extraction of XP2 will be empirically inadequate, since the question of whether a particular XP2 is extractable is not determined in a categorical fashion. This is therefore a strong argument against both predicate inversion analyses such as Moro (1990, 1997) and Den Dikken (2006) and equative analyses relating the ban on extractability to the presence of a functional head, such as Heycock and Kroch (1999) and Citko (2007), as well as Guéron (2003), who relates non-extractability to the 'fact' that XP2 is in a 'constructional focus' position. Moro, for example, argues that the two XPs originate in a small clause, and the 'predicate' moves to the clausal subject position. He also assumes that the copula, not being lexical, is not a proper governor of the small clause subject position. This means that extraction of XP2 (i.e., the small clause subject) will violate the Empty Category Principle. Den Dikken, on the other hand, argues that movement of the small clause head to T, where the copula is spelled out, 'extends' the small clause phase to TP. XP2, now not being on the 'edge' of the phase, is frozen for further extraction. Citko, discussing similar restrictions in Polish,

argues that the equative head is parallel to a conjunction head, and therefore that extraction of one of the XPs will violate the Co-ordinate Structure Constraint.[126]

The fact that extractability is gradient, and conditioned by relative weight, rather than categorical and conditioned by purely syntactic factors, suggests a parallel with particle-verb constructions, which show similar gradient acceptability dependent on relative weight (e.g., Kayne 1985, Den Dikken 1995). Thus, if the particle *up* precedes the object of the particle verb, as in (53a), the weight of this object does not affect grammaticality. On the other hand, if the particle follows the object, as in (53b), grammaticality decreases if the object is made heavier. However, if the particle is modified with *right*, as in (53c), acceptability increases:

(53) a. I looked up the information (that I had been meaning to look up for ages).
b. I looked the information (??that I had been meaning to look up for ages) up.
c. I looked the information (?that I had been meaning to look up for ages) right up.

The same effect is found in sentences in which the complement of a preposition is extracted. When the remnant PP occurs to the right of a 'heavy' DP, as in (54a-b), or a 'heavy' adverbial phrase, as in (54c-d), the resulting sentence is quite degraded in acceptability:

(54) a. I gave the book that I published after a long row with the publishers to a student.
b.?? [Which student]$_i$ did you give that book that you published after a long row with the publishers to t_i?
c. I ran faster than I ever could have believed was possible through the park.
d.?? [Which park]$_i$ did you run faster than you ever could have believed was possible through t_i?

[126] Strangely, Citko nevertheless assumes that the subject moves from the specifier of the equative head to SpecTP, which should equally violate the Co-ordinate Structure Constraint. This illustrates another serious defect of the functional head account of the extraction data.

The factors conditioning the possibility of extraction in specificational sentences, and in the constructions in (53-4), can be expressed as follows. If a lexical XP precedes overt functional material clause-finally: (i) the heavier the XP, the worse the sentence, and (ii) the heavier the functional material, the better the sentence. This is expressed by the table in (55) (where judgements are merely intended to be relative):

(55)

Lexical XP	Functional material	Acceptability
light	light	ok
light	heavy	ok
heavy	heavy	?
heavy	light	??-*

Interestingly, in all the cases above an alternative word order is available which does not violate the 'Gesetz'. Thus, most of the English specificational sentences in (48-9) can be paraphrased by predicational sentences, as in (56a-b); the particle-verb sentences in (53) can be reordered such that the particle precedes the DP object, as in (56c); and the examples involving extraction of the complement of a preposition in (54) can be reordered such that the 'heavy' material is clause-final, as in (56d-e):

(56) a. [Which of these pictures]$_i$ do you think t_i was the thing that caused the riot?
b. [Which of these pictures]$_i$ do you think t_i was the cause of the riot?
c. I looked up the information that I wanted.
d. [Which student]$_i$ did you give that book to t_i that you published after a long row with the publishers?
e. [Which park]$_i$ did you run through t_i faster than you ever could have believed was possible?

Similarly, the unacceptable Russian sentences in (57) can be paraphrased by sentences without *èto*:

(57) a. [Kto takoj]$_i$ Pëtr t_i?
who such Pëtr
'Who is Pëtr?'
b. [Kto takoj]$_i$ moj drug t_i?
who such my friend
'Who is my friend?'

On the other hand, in many cases the word order of predicational sentences cannot be changed; thus (58a) cannot be paraphrased as (58b):

(58) a. What$_i$ do you think the man over there in the corner is t_i?
b. *What$_i$ do you think t_i is the man over there in the corner?

Nevertheless, (58) is configurationally exactly the same as the specificational sentences in (48-9) (minus Eq), and thus should be subject to the 'Gesetz'. What this suggests is that a violation of the 'Gesetz' is tolerated only if there is no alternative word order available which obeys the 'Gesetz'. This is the case in (58), but not in the unacceptable examples in (48-54), which have 'Gesetz'-obeying paraphrases.

5.4.3. The dissociation of specification and θ-binding: the case of Serbo-Croatian

Under the present analysis, the mechanism by which the cleft pronoun is related to the cleft clause (θ-binding) is independent of the mechanism by which the cleft pronoun is related to the clefted XP (the Eq head). We might therefore expect cleft-like constructions to vary in whether both of these mechanisms are used, or only one. We saw in chapter 3 that *it*-extraposition sentences in English are arguably one case where θ-binding but not Eq is used, and that specificational sentences involve Eq but not long-distance θ-binding. Interestingly, there is evidence that such variation is found even between cleft-like

constructions. As we saw in chapter 4, Serbo-Croatian has a construction which is structurally quite similar to the Russian cleft (examples from Progovac 1998):[127]

(59) a. To Novak pliva.
that Novak swims
'That is Novak swimming.' (ibid.:6)

b. ?To je Marija umorna.
that is Marija tired
'What you see/witness is Maria's being tired.' (ibid.:6)

c. To je Novak plivao.
that is Novak swim.PART
'From what I see/witness, Novak was swimming.' (ibid.:8)

Interpretatively, however, the Serbo-Croatian cleft differs somewhat from its Russian (and Czech and Polish) counterparts. Progovac (1998) provides a description of the interpretation of Serbo-Croatian clefts. According to her, sentences such as (59a-b) "would be uttered in a situation in which the event of swimming or the state of being tired are manifesting themselves. Here, *to* deictically points to the scene playing out the event. However, *to* can also be uttered in a situation in which the event itself is not observable, but there is some evidence that it has taken place, as in [(59c)] [...] Thus, a more accurate description of *to* in this use is that *to* refers deictically to a scene that establishes the existence of an event, whether or not the scene contains the event itself" (ibid.:7-8). In fact, this corresponds to the 'broad focus' use of Russian clefts discussed in chapter 4. There, it was suggested that this corresponds to the case where Eq semantically links the cleft pronoun to the entire TP complement of Eq, and there is no cleft clause, and hence no θ-binding. If Serbo-Croatian is like Russian in that *to* can license the presence of Eq higher than TP, then the possibility of a broad focus interpretation of Serbo-Croatian clefts is expected. As implied by Progovac's discussion, however, what is not possible in Serbo-Croatian is a 'narrow focus' cleft in which some focused XP moves

[127] Note that in (59b-c) *je* follows *to* because it is a second-position clitic. That is, (59b-c) are not copular sentences in which *je* links *to* with what follows it; for example, in (59b) the 'base position' of the copula is between *Marija* and *umorna*.

to a position adjacent to *to* (Ljiljana Progovac, p.c.). For example, a cleft may not felicitously be used in a contrastive context such as that provided in (60A):

(60) A: Marija pliva.
Marija swims
'Maria's swimming.'
B: #Ne, to NOVAK pliva, ne Marija.
no that Novak swims not Marija
'No, it's Novak that's swimming, not Marija.'

In other words, in Serbo-Croatian, unlike in Russian, the 'broad focus' interpretation of clefts appears to be obligatory. Recall that the motivation for the movement of the clefted XP to IP-adjoined position in Russian was that the non-focused material, in order to be interpreted as a modifier of the pronoun, must form a constituent local enough to the pronoun to satisfy the thematic licensing condition. If such movement is not possible in Serbo-Croatian clefts, this suggests that thematic licensing of the relevant type is not available in Serbo-Croatian. That is, although Eq is able in principle to associate with a focus smaller than its entire TP complement, there would be no way to interpret the non-focused material, which would violate whatever principle requires material merged into the structure to contribute to the overall interpretation of the clause (e.g., the Principle of Full Interpretation of Chomsky 1986b).

The present analysis thus allows Serbo-Croatian and Russian clefts to be seen as related constructions which differ in just one respect: the availability of long-distance θ-binding by the pronoun. Given that they otherwise show so many similarities (as in fact noted by Progovac 1998:22 fn. 15), this is clearly a desirable result. It is not clear how alternative analyses could express this similarity in an economical way.

5.5. Conclusion

In this final chapter I have argued that clefts, and specificational sentences in general, contain a functional head (Eq) in the extended verbal projection which has the semantic function of identifying the two XPs. Crucially, Eq has the same relation to XP2 as a

focus-sensitive particle such as *only* has to the focus of its clause – that is, it 'associates' with the focus. This provides a solution, although admittedly not fully worked-out, to the syntactic problem posed by English raising and Russian clefts: namely, that they appear to disallow a strictly compositional interpretation of the semantic relation between the two XPs. The analysis also has several other advantages over previous approaches to the syntax of specificational sentences, accounting for restrictions on the placement of focus, the non-existence of 'inverse specificational sentences', the possibility of multiple foci, and the impossibility of focus projection. I also showed that the analysis allows us to rule out an extraposition from subject analysis of clefts, which otherwise might seem to be possible in principle. Furthermore, I argued in 5.4 that the evidence on which certain previous analyses of specificational sentences have been based – namely that purporting to show that XP2 cannot be extracted – is an oversimplification, and that extraction of XP2 should not be categorically banned in specificational sentences. Finally, I noted that the analysis allows us to express in an economical way both the similarities and differences between Russian and Serbo-Croatian clefts.

6. Conclusion

The main conclusion of this thesis is that there are constructions for which the most plausible syntactic structure cannot be semantically interpreted in a strictly compositional fashion. It is of course not a new observation that some constructions show apparent syntax-semantics mismatches: the most basic syntactic data exemplify this at every turn. However, the traditional way of resolving such apparent mismatches in generative grammar has been to posit a level of representation at which no mismatch occurs. For example, quantifier scope ambiguities are normally resolved by invoking movement at LF. I showed in chapter 3 that this is not plausible in the case of English clefts and *only*-relative constructions. Instead, I essentially argued that we need to broaden our conception of what we mean by 'compositional' beyond the 'rule-to-rule hypothesis'. Thus, for example, the licensing of relative clauses can be appropriately restricted without having recourse to a sisterhood requirement, while at the same type allowing cases of discontinuous modification such as extraposition, clefts and *only*-relatives. Yet this means giving up the idea, prevalent in approaches such as categorial grammar and some varieties of minimalism, that the semantics of a constituent is determined uniquely by the semantics of the constituents which make it up, plus the way in which they are combined. Essentially, what this means is that syntax and semantics do not always work 'in tandem', a conclusion which recalls the so-called 'autonomy of syntax' thesis associated with Chomsky's early work (esp. Chomsky 1957).

This argument is taken further with the claim in chapter 4 that Russian clefts, whose syntax diverges quite considerably from that of English clefts, nevertheless involve the same mapping from syntax to semantics. Quite apart from the arguments for this approach from interpretation and adjacency effects, there is a broader conceptual argument. Given that one of the major goals of the generative enterprise is the characterisation of Universal Grammar, it seems sensible to make the strongest (that is, the most restrictive) proposal possible about what is universal: that is, invariant across languages. Any analyst who aims to be true to the syntactic facts will be forced to say that English and Russian clefts differ syntactically. Yet given their common interpretative properties, the strongest proposal is that at some level (in a non-technical sense) the two

constructions are identical. In chapter 4 I claimed that the relevant 'level' is semantic: that is, both types of cleft have a specificational interpretation in which the pronoun and cleft clause are interpreted as a definite description. A question for future research, which would not have been formulable under a weaker proposal, is thus to what extent this holds for 'clefts' in other languages. For example, it has independently been observed in the literature that cleft-like constructions in other languages (not even genetically related to English and Russian) show the same type of adjacency effects as Russian and, though this is independently forced, English. For example, Cheng (2008) notes that Chinese *shi-de* constructions require the focused XP to surface adjacent to the copula *shi*, even though the focused XP cannot be analysed as the complement of the copula (see also Hole and Zimmermann 2008). Similarly, Abels and Muriungi (2008) show that in Kîîtharaka, a Bantu language, moved foci surface right-adjacent to a 'focus marker', even though, once again, the focus cannot be analysed as the complement of the focus marker. Although their analysis differs from the analysis of Russian I have proposed, they propose that association with focus is involved in targeting the relevant XP. Additionally, both the Chinese and Kîîtharaka constructions show exhaustivity of the focus, just like English and Russian clefts. In fact, Hole and Zimmermann (2008), who also look at Burmese, Chinese and Japanese 'clefts', argue that an 'overt partition' into focus and background (essentially, adjacency of the focus to the copula or focus marker) is a necessary (but not sufficient) condition for obligatory exhaustivity. An interesting question for future research is therefore to what extent the present analysis of Russian clefts, which differs from the analyses proposed in the references cited, can be extended to cases such as these.

Another question raised by the analyses proposed in this thesis is to what extent the variation in usage between cleft-like structures can be captured. For example, recall that Russian clefts allow either a narrow focus reading on the XP adjacent to *èto* or a broad focus reading of the whole IP following *èto*. In English, on the other hand, only a narrow focus reading is possible: we do not get cases like (1):

(1) Q: What was that noise?
A: #It was John that fell down the stairs.

Yet clefts in French, which are structurally similar to English clefts, may be used in such a situation (e.g., Clech-Darbon et al. 1999). It is difficult to see how analyses such as Percus (1997) and É. Kiss (1998) are suited to deal with such variation. For Percus, the clefted XP and cleft clause do not form a constituent, and so should not be able to constitute a single focus. For É. Kiss, we would expect the entire IP to move to SpecFP in French, which clearly does not happen. Under the present analysis, there is at least a basis for investigating the difference, since French also allows so-called 'pseudo-relatives' in complements of perception verbs (e.g., Radford 1977):

(2) J' ai vu Marie qui courait à toute vitesse.
I have seen Marie who ran at all speed
'I saw Marie running at full speed.'

Here again, the DP and the relative clause arguably form a constituent, just as I have argued is the case in clefts, and they also both form part of a single focus. Yet such structures are not possible in English; as shown by the translation, a participial structure is required. It seems that whatever allows (2) in French but not in English must be related to whatever allows the equivalent of (1) in French but not in English.

Another type of variation in cleft-like structures, which was touched on in chapter 2, is the variation in cleft subjects. In particular, we have seen that as well as *it* and *that*, which under the present analysis correspond to the definite determiners *the* and *that*, the 'expletive' *there* can appear as the subject of clefts. This raises the question of what the interpretation of *there*-clefts should be. I noted that the existence of *there*-clefts is a problem for expletive analyses such as É. Kiss (1998), but it equally appears to be a problem for specificational analyses, given that *there* is normally analysed as an expletive (e.g., Chomsky 1995). One possibility is that *there* here is equivalent to the indefinite determiner; thus, the *there*-cleft in (3a) is semantically equivalent to the specificational sentence in (3b):

(3) a. There's JOHN who's causing us trouble.
b. A person who's causing us trouble is JOHN.

This suggests an analysis of *there* as an indefinite determiner with a null (or no) NP complement, which means that it cannot be an expletive (something which has in fact been argued; e.g., Freeze 1992). Instead, it would have to be analysed as contributing existential quantificational force, either inherently or via 'existential closure' (Heim 1982).

A further issue is what permits the kind of 'misinterpretations' of the sisterhood-based licensing conditions on relative clauses that were proposed in chapter 3. In that chapter I merely claimed that such 'misinterpretations' were possible, and that in the vast majority of cases they would give the same results as the sisterhood-based conditions. However, a legitimate question here is why two separate versions of a single condition should be permitted at all: economy considerations would suggest that only one type of condition is permitted. I think that, given the methodologically desirable assumption that strict compositionality holds wherever possible, it is worth retaining the idea that modification is canonically under sisterhood. One way of accounting for the exceptional nature of cases such as extraposition, clefts and *only*-relatives is thus to adopt an approach along the lines of Williams (2003), who argues that violations of conditions holding at one level may be permitted in order to avoid a violation of a condition holding at another level. The relevant notion of 'violation' in the present case would be to use the c/m-command-based licensing conditions rather than the sisterhood-based conditions. Thus, one might argue that 'non-compositional' relative clause licensing is only possible if there is compensation at another 'level'. For example, one might argue that one motivation for using a cleft rather than the equivalent specificational sentence is to create a 'tail' in the sense of Vallduví (1993), as is implicit in his brief discussion of clefts (ibid.:136ff.). Thus, while (4a) would have the information structure in (4b) under Vallduví's analysis, (4c) would have the information structure in (4d):

(4) a. The one that Mary saw was JOHN.
b. [$_{\text{LINK}}$ the one that Mary saw] [$_{\text{FOCUS}}$ John]
c. It was JOHN that Mary saw.
d. [$_{\text{LINK}}$ it] [$_{\text{FOCUS}}$ John] [$_{\text{TAIL}}$ Mary saw]

Thus, one might argue that in (3b), a syntactic violation (the use of non-canonical modification) is compensated for by an advantage at the level of information structure. In the case of *only*-relatives, one might argue that the relevant 'advantage' is at the level of truth-conditional semantics. That is, non-canonical modification by the relative clause in this case allows an extra restriction to be put on the domain of the quantifier part of *only*: that is, (5a) is interpreted as in (5b), where the extra restriction is highlighted in bold:

(5) a. I only saw JOHN that I like.
b. saw(John)(I) & ∀y[saw(y)(I) & **like(y)(I)** → y=John]]

This could be extended to cases of relative clause extraposition, and indeed Williams (2003) provides an analysis of this type. It has been shown that extraposition is generally only possible under certain information-structural conditions: in particular, when the DP hosting the extraposed element is a focus (e.g., Rochemont 1986, Huck and Na 1990). From the present perspective, then, extraposition can be seen as a case of non-canonical modification licensed by the preference for a clause-final focus. These suggestions are of course tentative, and are merely intended to indicate directions for future research.

References

Abels, Klaus (2001). The predicate cleft construction in Russian. In: S. Franks, T. H. King and M. Yadroff (eds.), *Proceedings of the Tenth Annual Conference on Formal Approaches to Slavic Linguistics: the Indiana meeting 2000*, 1-19. Ann Arbor, MI: Michigan Slavic Publications.

Abels, Klaus (2003). *Successive-cyclicity, anti-locality, and adposition stranding*. Ph.D. thesis, University of Connecticut.

Abels, Klaus (2008). Towards a restrictive theory of (remnant) movement. *Linguistic Variation Yearbook* 7, 53-120.

Abels, Klaus and Luisa Marti (2009). German negative indefinites and split scope: a movement approach. Ms., University College London & CASTL, Tromsø.

Abels, Klaus and Peter Muriungi (2008). The focus marker in Kîîtharaka: syntax and semantics. *Lingua* 118, 687-731.

Abney, Steven (1987). *The English noun phrase in its sentential aspect.* Ph.D. thesis, MIT.

Ackema, Peter, Ad Neeleman and Fred Weerman (1993). Deriving functional projections. In: A Schafer (ed.), *Proceedings of NELS 23*, 17-31. Amherst, MA: GLSA.

Adger, David (2008). Clefts and nominal predicates. Presentation at the Cleft Workshop 2008, ZAS, Berlin, 29/11/2008.

Adger, David and Gillian Ramchand (2003). Predication and equation. *Linguistic Inquiry* 34, 325-359.

Akmajian, Adrian (1970). On deriving cleft sentences from pseudo-cleft sentences. *Linguistic Inquiry* 1, 149-168.

Akmajian, Adrian, Susan Steele and Thomas Wasow (1979). The category AUX in Universal Grammar. *Linguistic Inquiry* 10, 1-64.

Allwood, Jens, Lars-Gunnar Andersson and Östen Dahl (1977). *Logic in linguistics*. Cambridge: Cambridge University Press.

Anderson, Stephen R. (1972). How to get 'even'. *Language* 48, 893-906.

Andrews, Avery (1975). *Studies in the syntax of relative and comparative clauses*. Ph.D. thesis, MIT.

Aoun, Joseph and Yen-hui Audrey Li (2003). *Essays on the representational and derivational nature of grammar: the diversity of wh-constructions*. Cambridge, MA: MIT Press.

Atlas, Jay and Stephen Levinson (1981). *It*-clefts, informativeness, and logical form. In: P. Cole (ed.), *Radical pragmatics*, 1-62. New York: Academic Press.

Authier, J.-Marc (1991). V-governed expletives, Case Theory, and the Projection Principle. *Linguistic Inquiry* 22, 721-740.

Authier, J.-Marc and Lisa Reed (2005). The diverse nature of non-interrogative *wh*. *Linguistic Inquiry* 36, 635-647.

Bach, Emmon (1976). An extension of classical transformational grammar. In: R. Saenz (ed.), *Problems of linguistic metatheory: proceedings of the 1976 conference*, 183-224. East Lansing, MI: Michigan State University.

Bach, Emmon and Stanley Peters (1968). Pseudo-cleft sentences. Ms.

Bailyn, John Frederick (2001). On scrambling: a reply to Bošković and Takahashi. *Linguistic Inquiry* 32, 635-658.

Bailyn, John Frederick (2004). Generalized Inversion. *Natural Language and Linguistic Theory* 22, 1-49.

Ball, Catherine N. (1977). Th-clefts. *Pennsylvania Review of Linguistics* 2, 57-69.

Ball, Catherine N. and Ellen Prince (1978). A note on stress and presupposition. *Linguistic Inquiry* 8, 585.

Baltin, Mark (1978). *Toward a theory of movement rules*. Ph.D. thesis, MIT.

Baltin, Mark (1981). Strict bounding. In: C. L. Baker and J. J. McCarthy (eds.), *The logical problem of language acquisition*, 257-295. Cambridge, MA: MIT Press.

Barbiers, Sjef (1995). *The syntax of interpretation*. Ph.D. thesis, Leiden University.

Barss, Andrew (1986). *Chains and anaphoric dependence*. Ph.D. thesis, MIT.

Bayer, Josef (1996). *Directionality and Logical Form: on the scope of focusing particles and wh-in-situ*. Dordrecht: Kluwer.

Bayer, Josef (1999). Bound focus in German or how can association with focus be achieved without going semantically astray? In: G. Rebuschi and L. Tuller (eds.), *The grammar of focus*, 55-82. Amsterdam: John Benjamins.

Beck, Sigrid (2000). The semantics of *different*: comparison operator and relational adjective. *Linguistics and Philosophy* 23, 101-139.

Behaghel, Otto (1909). Beziehungen zwischen Umfang und Reihenfolge von Satzgliedern. *Indogermanische Forschungen* 25, 110-142.

Bennis, Hans (1986). *Gaps and dummies*. Dordrecht: Foris.

Bennis, Hans (1995). The meaning of structure: the *wat voor* construction revisited. In: M. den Dikken and Kees Hengeveld (eds.), *Linguistics in the Netherlands 1995*, 25-36. Amsterdam: John Benjamins.

Bianchi, Valentina (1999). *Consequences of antisymmetry: headed relative clauses*. Berlin: Mouton de Gruyter.

Bierwisch, Manfred (1967). Syntactic features in morphology: general problems of so-called pronominal inflection in German. In: *To honor Roman Jakobson: essays on the occasion of his seventieth birthday*, 239-270. The Hague: Mouton.

Birner, Betty (1994). Information status and word order: an analysis of English inversion. *Language* 70, 223-259.

Bolinger, Dwight (1965). *Forms of English: accent, morpheme, order*. Cambridge, MA: Harvard University Press.

Bolinger, Dwight (1972). A look at equations and cleft sentences. In: E. Scherabon Firchow, K. Grimstad, N. Hasselmo and W. A. O'Neil (eds.), *Studies for Einar Haugen presented by his friends and colleagues*, 96-114. The Hague: Mouton.

Borsley, Robert D. (1997). Relative clauses and the theory of phrase structure. *Linguistic Inquiry* 28, 629-647.

Bošković, Željko (1997a). Pseudoclefts. *Studia Linguistica* 51, 235-277.

Bošković, Željko (1997b). Superiority effects with multiple *wh*-fronting in Serbo-Croatian. *Lingua* 102, 1-20.

Bošković, Željko (2002). A-movement and the EPP. *Syntax* 5, 167-218.

Bošković, Željko and Howard Lasnik (2003). On the distribution of null complementizers. *Linguistic Inquiry* 34, 527-546.

Brame, Michael (1968). A new analysis of the relative clause: evidence for an interpretive theory. Ms., MIT.

Browning, Marguerite (1987). *Null operator constructions*. Ph.D. thesis, MIT.

Bryzgunova, Elena (1971). O smyslorazličitel'nyx vozmožnostjax russkoj intonacii. *Voprosy jazykoznanija* 4, 42-51.

Büring, Daniel (1998). Identity, modality, and the candidate behind the wall. In: D. Strolovitch and A. Lawson (eds.), *Proceedings of SALT VIII*, 36-54. Ithaca, NY: CLC Publications.

Büring, Daniel and Katharina Hartmann (1997). Doing the right thing. *The Linguistic Review* 14, 1-42.

Büring, Daniel and Katharina Hartmann (2001). The syntax and semantics of focus-sensitive particles in German. *Natural Language and Linguistic Theory* 19, 229-281.

Bury, Dirk (2003). *Phrase structure and derived heads.* Ph.D. thesis, University College London.

Bytel, A. (1988). 'Gespaltene Sätze' im Tschechischen, Deutschen und anderen Sprachen. *Linguistische Arbeitsberichte der Sektion Theoretische und angewandte Sprachwissenschaft der Karl-Marx-Universität Leipzig* 66, 2-8.

Cardinaletti, Anna and Michal Starke (1999). The typology of structural deficiency: on the three grammatical classes. In H. van Riemsdijk (ed.), *Clitics in the languages of Europe*, 145-233. Berlin: Mouton de Gruyter.

Carlson, Greg N. (1977). Amount relatives. *Language* 53, 520-542.

Carlson, Greg N. (1987). *Same* and *different*: some consequences for syntax and semantics. *Linguistics and Philosophy* 10, 531-566.

Cecchetto, Carlo (2001). Syntactic or semantic reconstruction? Evidence from pseudoclefts and clitic left dislocation. In: C. Cecchetto, G. Chierchia and M. T. Guasti (eds.), *Semantic interfaces*, 90-144. Stanford, CA: CSLI Publications.

Cheng, Lisa Lai-Shen (2008). Deconstructing the *shi … de* construction. *The Linguistic Review* 25, 235-266.

Chomsky, Noam (1957). *Syntactic structures*. The Hague: Mouton.

Chomsky, Noam (1964). *Current issues in linguistic theory*. The Hague: Mouton.

Chomsky, Noam (1977). On *wh*-movement. In: P. Culicover, T. Wasow and A. Akmajian (eds.), *Formal syntax*, 71-132. New York: Academic Press.

Chomsky, Noam (1981). *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam (1986a). *Barriers*. Cambridge, MA: MIT Press.

Chomsky, Noam (1986b). *Knowledge of language: its nature, origin and use*. New York: Praeger.

Chomsky, Noam (1995). *The minimalist program*. Cambridge, MA: MIT Press.

Cinque, Guglielmo (1990). *Types of A´-dependencies*. Cambridge, MA: MIT Press.

Cinque, Guglielmo (1999). *Adverbs and functional heads*. Oxford: Oxford University Press.

Citko, Barbara (2007). Small clauses reconsidered: not so small and not all alike. *Lingua* 118, 261-295.

Clech-Darbon, Anne, Georges Rebuschi and Annie Rialland (1999). Are there cleft sentences in French? In: G. Rebuschi and L. Tuller (eds.), *The grammar of focus*, 83-118. Amsterdam: John Benjamins.

Cottell, Siobhán (2002). *The comparative syntax of cleft constructions*. Ph.D. thesis, University of Wales, Bangor.

Culicover, Peter and Ray Jackendoff (2005). *Simpler syntax*. Oxford: Oxford University Press.

Culicover, Peter and Michael Rochemont (1990). Extraposition and the Complement Principle. *Linguistic Inquiry* 21, 23-47.

Culicover, Peter and Michael Rochemont (1997). Deriving dependent right adjuncts in English. In: H. van Riemsdijk, D. LeBlanc and D. Beermann (eds.), *Rightward movement*, 278-300. Amsterdam: John Benjamins.

Davidse, Kristin (2000). A constructional approach to clefts. *Linguistics* 38, 1101-1131.

Declerck, Renaat (1988). *Studies on copular sentences, clefts and pseudo-clefts*. Leuven: Leuven University Press.

Delahunty, Gerald (1981). *Topics in the syntax and semantics of English cleft sentences*. Ph.D. thesis, University of California, Irvine.

Delahunty, Gerald (1984). The analysis of English cleft sentences. *Linguistic Analysis* 13, 63-113.

Delahunty, Gerald (2001). Discourse properties of inferential sentences. *Linguistics* 39, 517-545.

Delin, Judy (1989). *Cleft constructions in discourse*. Ph.D. thesis, University of Edinburgh.

Dikken, Marcel den (1995). *Particles: on the syntax of verb-particle, triadic, and causative constructions*. New York: Oxford University Press.

Dikken, Marcel den (2006). *Relators and linkers: the syntax of predication, predicate inversion, and copulas*. Cambridge, MA: MIT Press.

Dikken, Marcel den (2008). A cleft palette: on the landscape of cleft constructions and their syntactic derivations. Paper presented at the Cleft Workshop 2008, ZAS, Berlin.

Dikken, Marcel den, André Meinunger and Chris Wilder (2000). Pseudoclefts and ellipsis. *Studia Linguistica* 54, 49-89.

Donati, Caterina (2006). On *wh*-head movement. In: L. Cheng and N. Corver (eds.), *Wh-movement: moving on*, 21-46. Cambridge, MA: MIT Press.

Donnellan, Keith S. (1966). Reference and definite descriptions. *Philosophical Review* 75, 281-304.

Dowty, David R. (1995). Toward a minimalist theory of syntactic structure. In: H. Bunt and A. van Horck (eds.), *Discontinuous constituency*, 11-62. Berlin: Mouton de Gruyter.

Dowty, David R., Robert E. Wall and Stanley Peters (1981). *Introduction to Montague Semantics*. Dordrecht: Reidel.

Drubig, H. Bernhard (1994). Island constraints and the syntactic nature of focus and association with focus. *Arbeitspapiere des Sonderforschungsbereichs* 340/51.

É. Kiss, Katalin (1998). Identificational focus versus information focus. *Language* 74, 245-273.

É. Kiss, Katalin (1999). The English cleft construction as a focus phrase. In: L. Mereu (ed.), *Boundaries of morphology and syntax*, 217-229. Amsterdam: John Benjamins.

Emonds, Joseph (1970). *Root and structure-preserving transformations*. Ph.D. thesis, MIT.

Emonds, Joseph (1976). *A transformational approach to English syntax*. New York: Academic Press.

Franks, Steven (1990). On the status of null expletives. *Lingua* 81, 1-24.

Franks, Steven and Tracy Holloway King (2000). *A handbook of Slavic clitics*. New York/Oxford: Oxford University Press.

Freeze, Ray (1992). Existentials and other locatives. *Language* 68, 553-595.

Frege, Gottlob (1892). Über Sinn und Bedeutung. *Zeitschrift für Philosophie und philosophische Kritik* 100, 25-50.

Gazdar, Gerald, Ewan Klein, Geoffrey K. Pullum and Ivan Sag (1985). *Generalized phrase structure grammar*. Oxford: Blackwell.

Geist, Ljudmila (2007). Predication and equation in copular sentences: Russian vs. English. In: I. Comorovski and K. von Heusinger (eds.), *Existence: semantics and syntax*, 79-105. Berlin: Springer.

Geist, Ljudmila and Joanna Błaszczak (2000). Kopulasätze mit dem pronominalen Elementen *to*/*èto* im Polnischen und Russischen. In: E. Lang (ed.), *ZAS Papers in Linguistics* 16, 115-139. Berlin: ZAS.

Georgi, Doreen and Gereon Müller (2007). Noun phrase structure by reprojection. *Linguistische Arbeitsberichte* 85, 263-301.

Geurts, Bart and Rob van der Sandt (2004). Interpreting focus. *Theoretical Linguistics* 30, 1-44.

Grice, H. Paul (1975). Logic and conversation. In: P. Cole and J. P. Morgan (eds.), *Syntax and semantics 3: speech acts*, 41-58. New York: Academic Press.

Grimshaw, Jane (1991). Extended projection. Ms., Brandeis University.

Grimshaw, Jane (2000). Locality and extended projection. In: P. Coopmans, M. Everaert and J. Grimshaw (eds.), *Lexical specification and insertion*, 115-133. Amsterdam/Philadelphia: John Benjamins.

Guéron, Jacqueline (1980). On the syntax and semantics of PP-extraposition. *Linguistic Inquiry* 11, 637-678.

Guéron, Jacqueline (1992). Types syntaxiques et types sémantiques: la phrase copulative comme *palimpseste*. *Révue québécoise de linguistique* 22, 77-115.

Guéron, Jacqueline (2003). On the asymmetry of the specificational copular sentence. In: A.-M. di Sciullo (ed.), *Asymmetry in grammar: syntax and semantics*, 145-164. Amsterdam: John Benjamins.

Guéron, Jacqueline and Robert May (1984). Extraposition and Logical Form. *Linguistic Inquiry* 15, 1-31.

Gundel, Jeanette (1974). *The role of topic and comment in linguistic theory*. Ph.D. thesis, University of Texas, Austin.

Gundel, Jeanette (1977). Where do cleft sentences come from? *Language* 53, 543-559.

Halpern, Aaron (1995). *On the placement and morphology of clitics*. Stanford, CA: CSLI Publications.

Halvorsen, Per-Kristian (1978). *The syntax and semantics of cleft sentences*. Ph.D. thesis, University of Texas at Austin.

Han, Chung-hye and Nancy Hedberg (2008). Syntax and semantics of *it*-clefts: a Tree Adjoining Grammar analysis. *Journal of Semantics* 25, 345-380.

Harries-Delisle, Helga (1978). Contrastive emphasis and cleft sentences. In: J. Greenberg (ed.), *Universals of human languages, 4: Syntax*, 419-486. Stanford, CA: Stanford University Press.

Hedberg, Nancy (1990). *The discourse function of cleft sentences in English*. Ph.D. thesis, University of Minnesota.

Hedberg, Nancy (2000). On the referential status of clefts. *Language* 76, 891-920.

Heggie, Lorie (1988). *The syntax of copular structures*. Ph.D. thesis, University of Southern California.

Heggie, Lorie (1993). The range of null operators: evidence from clefting. *Natural Language and Linguistic Theory* 11, 45-84.

Heim, Irene (1982). *The semantics of definite and indefinite noun phrases*. Ph.D. thesis, University of Massachusetts.

Heim, Irene and Angelika Kratzer (1998). *Semantics in generative grammar*. Oxford: Blackwell.

Heycock, Caroline (1994). *Layers of predication: the non-lexical syntax of clauses*. New York: Garland.

Heycock, Caroline and Anthony Kroch (1999). Pseudocleft connectedness: implications for the LF interface. *Linguistic Inquiry* 30, 365-397.

Heycock, Caroline and Anthony Kroch (2002). Topic, focus, and syntactic representations. *Proceedings of WCCFL* 21, 101-125.

Higginbotham, James (1985). On semantics. *Linguistic Inquiry* 16, 547-593.

Higginbotham, James (1987). Indefiniteness and predication. In: E. Reuland and A. ter Meulen (eds.), *The representation of (in)definiteness*, 43-70. Cambridge, MA: MIT Press.

Higgins, Roger (1973). *The pseudo-cleft construction in English*. Ph.D. thesis, MIT.

Hiraiwa, Ken and Shinichiro Ishihara (2002). Missing links: cleft, sluicing, and *no da* construction in Japanese. *MIT Working Papers in Linguistics* 43, 35-54.

Hole, Daniel and Malte Zimmermann (2008). Clefts in (South) East Asian. Paper presented at the Cleft Workshop 2008, ZAS, Berlin.

Horn, Laurence (1969). A presuppositional analysis of *only* and *even*. In: R. I. Binnick, A. Davison, G. Green and J. Morgan (eds.), *Papers from the 5th Regional Meeting of the Chicago Linguistic Society*, 97-108. Chicago, IL: Chicago Linguistic Society.

Horn, Laurence (1981). Exhaustiveness and the semantics of clefts. In: V. Burke and J. Pustejovsky (eds.), *Proceedings of NELS 11*, 125-142. Amherst, MA: GLSA.

Huang, C.-T. James (1982). *Logical relations in Chinese and the theory of grammar*. Ph.D. thesis, MIT.

Huber, Stefan (2002). Es-*clefts und* det-*clefts: zur Syntax, Semantik und Informationsstruktur von Spaltsätzen im Deutschen und Schwedischen*. Stockholm: Almqvist & Wiksell International.

Huck, Geoffrey and Younghee Na (1990). Extraposition and focus. *Language* 66, 51-77.

Huddleston, Rodney (1984). *Introduction to the grammar of English*. Cambridge: Cambridge University Press.

Hulsey, Sarah and Uli Sauerland (2006). Sorting out relative clauses. *Natural Language Semantics* 14, 111-137.

Inaba, Jiro (2005). Extraposition and the directionality of movement. In: S. Blaho, L. Vicente and E. Schoorlemmer (eds.), *Proceedings of ConSOLE XIII*, 157-169. Leiden: University of Leiden.

Jackendoff, Ray (1972). *Semantic interpretation in generative grammar.* Cambridge, MA: MIT Press.

Jackendoff, Ray (1977). *X-bar syntax: a study of phrase structure*. Cambridge, MA: MIT Press.

Jacobs, Joachim (1983). *Fokus und Skalen: Zur Syntax und Semantik der Gradpartikeln im Deutschen*. Tübinden: Niemeyer.

Jacobs, Joachim (1988). Fokus-Hintergrund-Gliederung und Grammatik. In: H. Altmann (ed.), *Intonationsforschungen*, 89-134. Tübingen: Niemeyer.

Jacobson, Pauline (1994). Binding connectivity in copular sentences. In: M. Harvey and L. Santelmann (eds.), *Proceedings of the Fourth Conference on Semantics and Linguistic Theory*, 161-178. Ithaca, NY: CLC Publications.

Jespersen, Otto (1927). *A modern English grammar on historical principles. Part III: Syntax*. Heidelberg: C. Winter.

Jespersen, Otto (1937). *Analytic syntax*. London: Allen and Unwin.

Johnson, Kyle (1985). *A case for movement.* Ph.D. thesis, MIT.

Jonas, Dianne (1996). Clause structure, expletives, and verb-movement. In: W. Abraham, S. D. Epstein, H. Thráinsson and J.-W. Zwart (eds.), *Minimal ideas: syntactic studies in the minimalist framework*. Amsterdam: John Benjamins.

Junghanns, Uwe (1997). On the so-called *èto*-cleft construction. In: M. Lindseth and S. Franks (eds.), *Proceedings of the Sixth Annual Workshop on Formal Approaches to Slavic Linguistics: the Connecticut meeting 1997*, 166-190. Stanford: CSLI Publications.

Kayne, Richard (1983). Chains, categories external to S, and French complex inversion. *Natural Language and Linguistic Theory* 1, 107-139.

Kayne, Richard (1985). Principles of particle constructions. In: J. Guéron, H.-G. Obenauer and J.-Y. Pollock (eds.), *Grammatical representation*, 101-140. Dordrecht: Foris.

Kayne, Richard (1994). *The antisymmetry of syntax.* Cambridge, MA: MIT Press.

Kenesei, István (1986). On the logic of word order in Hungarian. In: A. Abraham and S. de Mey (eds.), *Topic, focus and configurationality*, 143-159. Amsterdam: John Benjamins.

King, Tracy Holloway (1993). *Configuring topic and focus in Russian*. Ph.D. thesis, Stanford University.

Kiss, Tibor (2005). Semantic constraints on relative clause extraposition. *Natural Language and Linguistic Theory* 23, 281-334.

Kleemann-Krämer, Anja (2008). *The functional structure of deverbal nominals in German*. Ph.D. thesis, Queen Mary, University of London.

Koster, Jan (2000). Extraposition as parallel construal. Ms., University of Groningen.

Krifka, Manfred (1992). A compositional semantics for multiple focus constructions. In: J. Jacobs (ed.), *Informationsstruktur und Grammatik*, 17-53. Opladen: Westdeutscher Verlag.

Krifka, Manfred (2006). Association with focus phrases. In: V. Molnár and S. Winkler (eds.), *The architecture of focus*, 105-136. Berlin & New York: Mouton de Gruyter.

Krylova, Olga and S. A. Xavronina (1984). *Porjadok slov v russkom jazyke*. Moscow: Russkij jazyk.

Kuno, Susumo (1973). Constraints on internal clauses and sentential subjects. *Linguistic Inquiry* 4, 363-386.

Lavine, James E. and Robert Freidin (2002). The subject of defective T(ense) in Slavic. *Journal of Slavic Linguistics* 10, 251-287.

Link, Godehard (1984). Hydras: on the logic of relative constructions with multiple heads. In F. Landman and F. Veltman (eds.), *Varieties of formal semantics*, 245-247. Dordrecht: Foris.

Markman, Vita G. (2008). Pronominal copula constructions are what? Reduced specificational pseudo-clefts! In: C. B. Chang and H. J. Haynie (eds.), *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 366-374. Somerville, MA: Cascadilla Proceedings Project.

McCawley, James (1981). The syntax and semantics of English relative clauses. *Lingua* 53, 99-149.

McCloskey, James (1992). Adjunction, selection, and embedded verb second. Linguistics Research Report LRC-92-07, University of California, Santa Cruz.

McCoy, Svetlana (1998). Individual-level predicates and pronoun doubling in Colloquial Russian. In: Ž. Bošković, S. Franks and W. Snyder (eds.), *Proceedings of the Sixth Annual Workshop on Formal Approaches to Slavic Linguistics: the Connecticut meeting 1997*. Ann Arbor, MI: Michigan Slavic Publications.

Meinunger, André (1998). A monoclausal structure for (pseudo-)cleft sentences. In: P. N. Tamanji and K. Kusumoto (eds.), *Proceedings of NELS* 28, 283-298. Amherst, MA: GLSA.

Mezhevich, Ilana (2004). On Russian 'expletive' *èto* and post-verbal clauses. In: O. Arnaudova, W. Browne, M. L. Rivero and D. Stojanović (eds.), *Proceedings of the Twelfth Annual Workshop on Formal Approaches to Slavic Linguistics: the Ottawa meeting 2003*, 313-332. Ann Arbor, MI: Michigan Slavic Publications.

Mieszek, Aleksandra (1979). Focus constructions: cleft sentences in English and their counterparts in Polish. *Papers and Studies in Contrastive Linguistics* 9, 113-126.

Mikkelsen, Line (2005). *Copular clauses: specification, predication and equation*. Amsterdam: John Benjamins.

Milsark, Gary Lee (1974). *Existential sentences in English*. Ph.D. thesis, MIT.

Molnár, Valéria (2006). On different kinds of contrast. In: V. Molnár and S. Winkler (eds.), *The architecture of focus*, 197-233. Berlin: Mouton de Gruyter.

Moro, Andrea (1990). *There*-raising: principles across levels. Paper presented at the 13th GLOW Colloquim, Cambridge, UK.

Moro, Andrea (1997). *The raising of predicates.* Cambridge: Cambridge University Press.

Moro, Andrea (2000). *Dynamic antisymmetry*. Cambridge, MA: MIT Press.

Neeleman, Ad and Hans van de Koot (2002). The configurational matrix. *Linguistic Inquiry* 33, 529-574.

Neeleman, Ad and Kriszta Szendrői (2004). Superman sentences. *Linguistic Inquiry* 35, 149-159.

Neeleman, Ad and Elena Titov (2009). Focus, contrast, and stress in Russian. *Linguistic Inquiry* 40, 514-524.

Nunes, Jairo (1998). Bare X-bar theory and structures formed by movement. *Linguistic Inquiry* 29, 160-168.

Partee, Barbara (1975). Montague grammar and transformational grammar. *Linguistic Inquiry* 6, 203-300.

Partee, Barbara (1986). Ambiguous pseudoclefts with unambiguous *be*. In: S. Berman, J.-W. Choe and J. McDonough (eds.), *Proceedings of NELS* 16, 354-366. Amherst, MA: GLSA.

Partee, Barbara (1987). Noun phrase interpretation and type-shifting principles. In: J. Groenendijk, D. de Jongh and M. Stokhof (eds.), *Studies in Discourse Representation Theory and the theory of generalized quantifiers*. Dordrecht: Foris.

Partee, Barbara (1998). Copula inversion puzzles in English and Russian. In: K. Dziwirek, H. Coats and C. Vakareliyska (eds.), *Proceedings of the Seventh Annual Workshop on Formal Approaches to Slavic Linguistics: the Seattle meeting 1998*, 361-395. Ann Arbor, MI: Michigan Slavic Publications.

Percus, Orin (1997). Prying open the cleft. In: K. Kusumoto (ed.), *Proceedings of NELS* 27, 337-351. Amherst, MA: GLSA.

Pereltsvaig, Asya (2001). *On the nature of inter-clausal relations: a study of copular sentences in Italian and Russian*. Ph.D. thesis, McGill University.

Perlmutter, David and John R. Ross (1970). Relative clauses with split antecedents. *Linguistic Inquiry* 1, 350.

Pesetsky, David (1987). *Wh*-in-situ: movement and unselective binding. In: E. Reuland and A. ter Meulen (eds.), *The representation of (in)definiteness*, 98-129. Cambridge, MA: MIT Press.

Pesetsky, David (1995). *Zero syntax: experiencers and cascades*. Cambridge, MA: MIT Press.

Pinkham, Jessie and Jorge Hankamer (1975). Deep and shallow clefts. In: R. E. Grossman, L. J. Sen and T. J. Vance (eds.), *Papers from the 11th Regional Meeting of the Chicago Linguistic Society*, 429-450. Chicago, IL: Chicago Linguistic Society.

Postal, Paul M. (1966). On so-called 'pronouns' in English. In: F. Dinneen (ed.), *Report on the Seventeenth Annual Round Table Meeting on Linguistics and Language Studies*, 177-206. Washington, D.C.: Georgetown University Press.

Postal, Paul M. (1974). *On raising: one rule of grammar and its theoretical implications*. Cambridge, MA: MIT Press.

Postal, Paul M. and Geoffrey K. Pullum (1988). Expletive noun phrases in subcategorized positions. *Linguistic Inquiry* 19, 635-670.

Prince, Ellen F. (1978). A comparison of *wh*-clefts and *it*-clefts in discourse. *Language* 54, 883-906.

Progovac, Ljiljana (1998). Event pronominal *to*. *Journal of Slavic Linguistics* 6, 3-39.

Quinn, Heidi (2005). *The distribution of pronoun case forms in English*. Amsterdam: John Benjamins.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik (1985). *A comprehensive grammar of the English language*. London: Longman.

Radford, Andrew (1975). Pseudo-relatives and the unity of subject-raising. *Archivum Linguisticum* 6, 32-64.

Reeve, Matthew (2007). Relatives and pronouns in the English cleft construction. *UCL Working Papers in Linguistics* 19, 157-182.

Reeve, Matthew (2008). A pseudo-biclausal analysis of Slavonic clefts. *UCL Working Papers in Linguistics* 20, 63-85.

Reinhart, Tanya (1980). The position of extraposed clauses. *Linguistic Inquiry* 11, 621-624.

Reinhart, Tanya (2006). *Interface strategies: optimal and costly computations*. Cambridge, MA: MIT Press.

Reinhart, Tanya and Eric Reuland (1993). Reflexivity. *Linguistic Inquiry* 24, 657-720.

Reis, Marga (2005). On the syntax of so-called focus particles in German: a reply to Büring and Hartmann. *Natural Language and Linguistic Theory* 23, 459-483.

Rizzi, Luigi (1982). *Issues in Italian syntax*. Dordrecht: Foris.

Rizzi, Luigi (1986). Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17, 501-557.

Rizzi, Luigi (1990). *Relativized minimality*. Cambridge, MA: MIT Press.

Rizzi, Luigi (1997). The fine structure of the left periphery. In: L. Haegeman (ed.), *Elements of grammar: handbook of generative syntax*, 281-337. Dordrecht: Kluwer.

Rochemont, Michael (1978). *A theory of stylistic rules in English*. Ph.D. thesis, University of Massachusetts, Amherst.

Rochemont, Michael (1986). *Focus in generative grammar*. Amsterdam: John Benjamins.

Romero, Maribel (2005). Concealed questions and specificational subjects. *Linguistics and Philosophy* 28, 687-737.

Rooth, Mats (1985). *Association with focus*. Ph. D. thesis, University of Massachusetts, Amherst.

Rooth, Mats (1992). A theory of focus interpretation. *Natural Language Semantics* 1, 75-116.

Rooth, Mats (1996). Focus. In: S. Lappin (ed.), *Handbook of contemporary semantic theory*. Oxford: Blackwell.

Rooth, Mats (1999). Association with focus or association with presupposition? In: P. Bosch and R. van der Sandt (eds.), *Focus: linguistic, cognitive, and computational perspectives*, 232-244. Cambridge: Cambridge University Press.

Rosenbaum, Peter S. (1967). *The grammar of English predicate complement constructions*. Cambridge, MA: MIT Press.

Ross, John R. (1967). *Constraints on variables in syntax*. Ph.D. thesis, MIT.

Ross, John R. (1972). Act. In: D. Davidson and G. Harman (eds.), *Semantics of natural language*, 70-126. Dordrecht: Reidel.

Rothstein, Susan (1991). Heads, projections, and category determination. In: K. Leffel and D. Bouchard (eds.), *Views on phrase structure*, 97-112. Dordrecht: Kluwer.

Rothstein, Susan (1995). Small clauses and copular constructions. In: A. Cardinaletti and M. T. Guasti (eds.), *Small clauses*, 27-48. San Diego, CA: Academic Press.

Rothstein, Susan (2001). *Predicates and their subjects*. Dordrecht: Kluwer.

Rudin, Catherine (1988). On multiple questions and multiple *wh*-fronting. *Natural Language and Linguistic Theory* 6, 445-501.

Russell, Bertrand (1919). *Introduction to mathematical philosophy*. London: George Allen and Unwin.

Safir, Ken (1985). *Syntactic chains*. Cambridge: Cambridge University Press.

Safir, Ken (1986). Relative clauses in a theory of binding and levels. *Linguistic Inquiry* 17, 663-689.

Sauerland, Uli (1998). *The meaning of chains*. Ph. D. thesis, MIT.

Schachter, Paul (1973). Focus and relativization. *Language* 49, 19-46.

Schlenker, Philippe (2003). Clausal equations: a note on the connectivity problem. *Natural Language and Linguistic Theory* 21, 157-214.

Selkirk, Elisabeth (1984). *Phonology and syntax: the relation between sound and structure*. Cambridge, MA: MIT Press.

Sharvit, Yael (1999). Connectivity in specificational sentences. *Natural Language Semantics* 7, 299-339.

Šimík, Radek (2007). The Czech invariant demonstrative *to* is a Foc head. In: M. Dočekal, P. Karlík and J. Zmrzlíková (eds.), *Czech in generative grammar*, 139-160. Munich: LINCOM.

Sirotinina, O. B. (1974). Konstrukcii s pleonastičeskim mestoimeniem v razgovornoj reči. In: G. A. Zolotov (ed.), *Sintaksis i norma*, 204-219. Moscow: Nauka.

Sleeman, Petra (2008). Clefts and the licensing of infinitival subject relatives. Paper presented at the Cleft Workshop 2008, ZAS, Berlin.

Slioussar, Natalia (2007). *Grammar and information structure: a study with reference to Russian*. Ph.D. thesis, Utrecht University and St Petersburg State University.

Smith, Carlota S. (1964). Determiners and relative clauses in a generative grammar of English. *Language* 40, 37-52.

Smits, Rik (1989). *Eurogrammar: the relative and cleft constructions of the Germanic and Romance languages*. Dordrecht: Foris.

Sornicola, Rosanna (1988). *It*-clefts and *wh*-clefts: two awkward sentence types. *Journal of Linguistics* 24, 343-379.

Stepanov, Arthur (1998). On *wh*-fronting in Russian. In: P. N. Tamanji and K. Kusumoto (eds.), *Proceedings of NELS 28*, 453-467. Amherst, MA: GLSA.

Stowell, Tim (1981). *Origins of phrase structure*. Ph.D. thesis, MIT.

Stowell, Tim (1987). As *so*, not so *as*. Ms., University of California, Los Angeles.

Svenonius, Peter (1998). Clefts in Scandinavian. In: A. Alexiadou, N. Fuhrhop, P. Law and U. Kleinheinz (eds.), *ZAS Papers in Linguistics* 10, 163-190. Berlin: ZAS.

Szabolcsi, Anna (1981). The semantics of topic-focus articulation. In: J. Groenendijk, T. Janssen and M. Stokhof (eds.), *Formal methods in the study of language 2*, 513-540. Amsterdam: Matematisch Centrum.

Taglicht, Josef (1984). *Message and emphasis: on focus and scope in English*. London and New York: Longman.

Titov, Elena (2008). Word order variation in Russian thetic and categorical statements. Ms., University College London.

Truckenbrodt, Hubert (1995a). Extraposition from NP and prosodic structure. In: J. N. Beckman (ed.), *Proceedings of NELS* 25, 503-517. Amherst, MA: GLSA.

Truckenbrodt, Hubert (1995b). *Phonological phrases: their relation to syntax, focus, and prominence*. Ph. D. thesis, MIT.

Vallduví, Enric (1992). *The informational component*. New York: Garland.

Vergnaud, Jean-Roger (1974). *French relative clauses*. Ph.D. thesis, MIT.

Vikner, Sten (1995). *Verb movement and expletive subjects in the Germanic languages*. Oxford: Oxford University Press.

von Fintel, Kai (1994). *Restrictions on quantifier domains*. Ph.D. thesis, MIT.

von Stechow, Arnim (1989). Focusing and backgrounding operators. Technical report, Sonderforschungsbereich 99, Universität Konstanz.

Weerman, Fred and Jacqueline Evers-Vermeul (2002). Pronouns and case. *Lingua* 112, 301-338.

Wexler, Kenneth and Peter W. Culicover (1980). *Formal principles of language acquisition*. Cambridge, MA: MIT Press.

Williams, Edwin (1980). Predication. *Linguistic Inquiry* 11, 203-238.

Williams, Edwin (1983). Semantic vs. syntactic categories. *Linguistics and Philosophy* 6, 423-446.

Williams, Edwin (1989). The anaphoric nature of θ-roles. *Linguistic Inquiry* 20, 425-456.

Williams, Edwin (1994). *Thematic structure in syntax*. Cambridge, MA: MIT Press.

Williams, Edwin (1997). Blocking and anaphora. *Linguistic Inquiry* 28, 577-628.

Williams, Edwin (2003). *Representation theory*. Cambridge, MA: MIT Press.

Wirth, Jessica (1978). The derivation of cleft sentences in English. *Glossa* 12, 58-81.

Wittenburg, Kent (1987). Extraposition from NP as anaphora. In: G. Huck and A. Ojeda (eds.), *Discontinuous constituency*. New York: Academic Press.

Zaring, Laurie (1994). On the relationship between subject pronouns and clausal arguments. *Natural Language and Linguistic Theory* 12, 515-569.

Ziv, Yael and Peter Cole (1974). Relative extraposition and the scope of definite descriptions in Hebrew and English. In: M. W. La Galy, R. A. Fox and A. Bruck (eds.), *Papers from the 10th Regional Meeting of the Chicago Linguistic Society*, 772-786. Chicago, IL: Chicago Linguistic Society.