

*Relatives and Pronouns in the English Cleft Construction**

MATTHEW REEVE

Abstract

In this paper I propose a new analysis of the English cleft in which the cleft clause is a restrictive relative clause adjoined to the clefted XP. I provide evidence showing that both ‘matching’ and ‘raising’ derivations are possible, that the initial *it* of clefts is not an expletive, and that the cleft clause undergoes obligatory extraposition to VP. Taken together, this evidence favours the present analysis over (a) analyses in which the cleft clause is extraposed from subject position, and (b) analyses in which the cleft clause is a complement of the copula or a focus head.

1 Introduction

The English cleft construction has been much discussed in the generative literature.¹ An example is given in (1a), which has the simple sentence paraphrase in (1b).²

- (1) a. It was [_{XP} THE SNAKE] [_{YP} that the mongoose caught].
b. The mongoose caught the snake.

The cleft has the same propositional meaning as its simple sentence paraphrase, but typically makes the clefted XP prominent in some way. This prominence is often described as contrastive or identificational focus (see, e.g., Rochemont 1986 for the former term and É. Kiss 1998 for the latter), though a contrastive topic reading of the XP (in the sense of Büring 2003) is also possible. In addition, the cleft generates existential and exhaustiveness presuppositions; thus, (1a) presupposes

* I would like to thank my supervisor Ad Neeleman for much discussion and guidance. I am also grateful to David Adger, Theresa Biberauer, Paul Elbourne, Alison Hall, Vikki Janke, Hans van de Koot, Peter Svenonius, Rob Truswell and Reiko Vermeulen for discussion, judgements and help in general.

¹ The term ‘cleft sentence’ was coined by Jespersen (1927). As far as I know, the earliest generative work dealing specifically with clefts is Lees (1963).

² I will henceforth refer to XP in (1a) as the ‘clefted XP’, and to YP as the ‘cleft clause’.

that there is something that the mongoose caught, and that the snake is all that the mongoose caught.

In this paper I propose a new analysis of clefts. In particular, I make the following claims: (i) the cleft clause is a restrictive relative (RRC), but is right-adjoined to the clefted XP rather than to an NP (in Abney's sense); (ii) the clefted XP is either base-generated in its surface position and associated in some way with a moved operator in the cleft clause (the 'matching' derivation), or raised out of the cleft clause to its surface position (the 'raising' derivation); (iii) the cleft clause is obligatorily extraposed and right-adjoined to VP; (iv) the cleft pronoun *it* is a standard pronoun rather than an expletive element. Since a central part of the analysis is that the cleft clause is a relative clause adjoined to the clefted XP (where X can be one of a number of lexical categories), I refer to it as the 'XP-relative analysis'. An illustration of the analysis is given in (2), which represents the structure of (1a):^{3 4}

- (2) [VP [VP it was [DP [DP the snake]_i t_j]] [CP Op_i/t'_i that the mongoose caught t_i]_j]

In section 2, I present evidence that the cleft clause is an RRC adjoined to the clefted XP, proceeding from the observation that the cleft clause is internally essentially identical to an RRC, a fact which suggests that it is an adjunct. I then show that both matching and raising derivations must be available for clefts, which rules out analyses in which the cleft clause is extraposed from the subject. I also discuss a constraint on predicational interpretations of clefts which supports the idea that the cleft clause is attached to the clefted XP. In section 3, I show that cleft *it* cannot be an expletive. The evidence for this comes from the fact that cleft *it* is obligatory in Germanic, the fact that cleft *it* can control PRO, and the possibility of replacing cleft *it* with a demonstrative. In section 4, I claim that an obligatory process of extraposition takes place in clefts, basing this on evidence from topicalisation, VP-fronting, the insertion of parentheticals, and cleft extraposition in other Germanic languages. Section 5 contains a conclusion and some brief speculations on why adjunction of RRCs to non-NPs should be possible in clefts but impossible elsewhere.

³ I assume that both subject and copular verb end up outside VP, presumably in SpecIP and I respectively. Alternatively, the copular verb might be generated in I and thus never appear inside VP.

⁴ One important aspect of the XP-relative analysis is that the cleft clause adjoins to the clefted XP even under the raising derivation; in other words, the moved item rather than the target of movement projects. Although there has been debate about whether such operations are possible, I assume for the purposes of this paper that nothing rules them out in principle.

2 Where is the cleft clause generated?

2.1 Previous analyses

There are two dominant lines of analysis in the generative literature on clefts. The first, foreshadowed by Jespersen (1927), takes the cleft clause to originate in subject position, either as a free relative headed by a *wh*-operator or as part of a definite description (e.g., Akmajian 1970, Schachter 1973, Emonds 1976, Gundel 1977, Wirth 1978, Percus 1997).⁵ These authors would thus take (1a) to have the same source as one of (3a-b):^{6 7}

- (3) a. [_{CP} What the mongoose caught] was the snake.
 b. [The one [_{CP} that the mongoose caught]] was the snake.

Under this view, (1a) would be derived from one of the underlying structures in (3) by extraposition of the CP, plus *it*-insertion or conversion of the definite description remnant to *it* (for 3a and 3b respectively). I will refer to analyses of this type as ‘extraposition-from-subject’ analyses.

The second type of analysis, which can be traced back to Jespersen (1937), takes the cleft clause to be base-generated as the sister of the copular verb or of a functional head encoding focus (e.g., Chomsky 1977, Halvorsen 1978, Delahunty 1982, Rochemont 1986, Heggie 1993, É. Kiss 1998, 1999). The clefted XP either occupies a left-peripheral position in the cleft clause (Chomsky, Heggie, É. Kiss) or is a sister of both the copular verb and the cleft clause (Halvorsen, Delahunty). I will refer to analyses of this type as ‘expletive analyses’, since they take the initial *it* to be an expletive rather than a semantically interpreted pronoun or the head of a definite description.

Finally, a small number of authors have claimed that the cleft clause is in some sense construed with the initial (non-expletive) *it*, but does not form an underlying syntactic constituent with it (e.g., Smits 1989, Hedberg 2000). As should be clear, this is the general approach I wish to defend here.

⁵ Various problems with deriving clefts from *wh*-pseudoclefts were pointed out by Higgins (1973). As Percus (1997) suggests, deriving clefts from *th*-pseudoclefts instead may provide a way to avoid these. Nevertheless, the criticisms presented in this section apply to both types of analysis.

⁶ I will refer to both types of sentence in (3) as ‘pseudoclefts’. Where the two need to be distinguished, I will use ‘*wh*-pseudocleft’ for sentences like (3a) and ‘*th*-pseudocleft’ for sentences like (3b).

⁷ In fact, Schachter (1973) proposes that the underlying structure of the cleft includes the initial *it*. Presumably extraposition would have to be obligatory under this analysis, given the ungrammaticality of the variant without extraposition (**It that the mongoose caught was the snake*).

2.2 Cleft clauses and relative clauses

As has been pointed out many times in the literature (e.g., Schachter 1973), cleft clauses bear a closer resemblance to relative clauses, and in particular to RRCs, than to other *wh*-constructions. Three types of evidence point to this conclusion. The first is that the set of *wh*-operators found in cleft clauses is a subset of that found in relative clauses:

(4)	<i>Cleft</i>	which, who(m), (?)where, (?)when, *how, *why
	<i>RRC</i>	which, who(m), where, when, *how, *why
	<i>NRRC</i>	which, who(m), where, when, *how, *why
	<i>Wh-question</i>	what, which, who, where, when, how, why

Notably, this is also the case in other languages with English-like clefts (e.g., the other Germanic languages, French, Italian), and so cannot be considered to be an English-specific phenomenon.

Second, the alternation found in cleft clauses between a *wh*-operator and the complementiser *that* is also found in RRCs, but not in other '*wh*-constructions':

- (5)
- It was the snake which/that/0 the mongoose caught. (cleft)
 - the snake which/that/0 the mongoose caught (RRC)
 - the snake, which/*that/*0 the mongoose caught (NRRC)
 - What/*that/*0 did the mongoose catch? (*wh*-question)
 - The snake, *which/*that/*0 the mongoose caught. (topicalisation)

Third, the '*that*-trace effect' found in complement CPs does not appear in clefts or RRCs:

- (6)
- It was the mongoose that *t* caught the snake.
 - the mongoose that *t* caught the snake
 - Which animal did you say (*that) *t* caught the snake?

It seems clear, then, that cleft clauses are a type of RRC. This being so, an analysis of clefts should ideally capture the various similarities between the two types of clause. Under expletive analyses, which treat cleft clauses as complements rather than adjuncts, these similarities are unexpected.⁸ If, however, the cluster of

⁸ Not everyone takes relatives to be adjuncts, of course – under Kayne's (1994) antisymmetry approach, relatives are CP complements of a determiner, and the head NP originates in the relative clause itself, raising to SpecCP. Kayne suggests that clefts should be analysed along similar lines, the difference being that the CP (the cleft clause) is selected by the copular verb rather than by a determiner. Again, though, this approach would not distinguish relatives and

properties distinguishing clefts and relatives from other *wh*-constructions is related to the fact that both cleft clauses and relatives are adjuncts to a non-verbal projection, in contrast to the other *wh*-constructions, then we have the beginnings of an account of the differences.⁹

If the cleft clause is right-adjoined to a non-verbal projection, then, we rule out expletive analyses of clefts, as well as analyses in which the cleft clause is base-generated as adjoined to a clausal projection (e.g., Smits 1989, who proposes that cleft clauses are base-generated adjuncts to the matrix VP).

2.3 The cleft clause is adjoined to the clefted XP

Having determined that the cleft clause is a type of RRC and thus an adjunct, we now have two alternatives: either the cleft clause is adjoined to the subject *it* and then extraposed (as in extraposition-from-subject analyses), or the cleft clause is adjoined to the clefted XP (as in the XP-relative analysis). There are various pieces of evidence suggesting that the latter possibility is correct. Most of the evidence for adjunction to the clefted XP is in a sense indirect, in that it supports the idea of a ‘dual derivation’ for clefts (i.e., that both matching and raising derivations are possible).¹⁰ This in turn suggests that the cleft clause cannot have originated in the subject position, since under this view a raising derivation would be impossible, given the now widely-accepted view that movement to a non-c-commanding position is impossible.¹¹

2.3.1 Subextraction and freezing. Pinkham and Hankamer (1975) observe that subextraction (i.e., extraction of a proper subconstituent) from the clefted constituent is possible only in certain types of cleft:¹²

clefts from other *wh*-constructions with respect to the occurrence of *wh*-operators and the *that*-trace effect. In any case, Borsley (1997) provides many reasons to think that Kayne’s analysis of relatives is incorrect (though see the reply by Bianchi 2000).

⁹ I have said ‘non-verbal projection’ because while all of DP, PP, AP and AdvP are apparently cleftable, VP and IP do not seem to be. The status of CP is unclear – apparent CP-clefts exist, but the CPs in question could be headed by a null DP.

¹⁰ Indeed, such a duality of derivation would be expected if cleft clauses are a type of restrictive relative, as it has been shown by various authors, including Carlson (1977), Sauerland (1998) and Aoun and Li (2003), that both matching and raising derivations are required for standard restrictive relatives.

¹¹ When this view was not widely accepted, some authors, such as Schachter (1973) and Emonds (1976), analysed clefts as involving both raising of the clefted XP and extraposition of the cleft clause from subject position. I assume that such analyses are now not in contention.

¹² The slight deviance of (7a) is attributed by Pinkham and Hankamer to the general awkwardness of extracting from a clause-non-final constituent (Kuno 1973).

- (7) a. ?Who was it a picture of that he decorated his door with?
 b. *Who was it with a picture of that he decorated his door?

Making use of the generalisation later known as the Freezing Principle (Wexler and Culicover 1980), which rules out subextraction from a moved constituent, they conclude that there must be two types of derivation for clefts: one in which the cleft is essentially derived from an underlying pseudocleft (as in the analysis of Akmajian 1970), and a second in which the cleft is derived from its simple sentence paraphrase, the clefted XP being extracted to a clause-external position, and the *it* and copular structure being generated subsequently. The two types of derivation correspond to extraposition-from-subject and expletive analyses respectively. Crucially, in the first type of derivation (the ‘deep cleft’, which Pinkham and Hankamer claim is restricted to DP-clefts), the clefted XP does not move, and hence can be subextracted from, while in the second (the ‘shallow cleft’, which is possible in all cases), the clefted XP moves, preventing further subextraction from it.

The argument from subextraction has been criticised by Gundel (1977), who questions the validity of the data presented by Pinkham and Hankamer. I agree with her that the contrast between the examples in (7) does not seem to be sufficient to motivate different derivations for DP- and PP-clefts, but it seems that, at least for some speakers, the possibilities for subextraction are wider, not narrower, than Pinkham and Hankamer claim. For example, subextraction from PP-clefts does seem to be possible when the entire complement of the P is extracted, as in the examples in (8):¹³

- (8) a. Which national park was it in that the mongoose caught the snake?
 b. Which year was it in that Tony Blair became Prime Minister?
 c. ?Whose picture was it with that he decorated his door?

The ‘deep cleft’ (matching) structure must therefore be available for at least some PP-clefts as well as DP-clefts. But crucially, when we turn to AP-clefts, we find strong motivation for the claim that some clefts allow only the shallow/raising structure. It has often been noted in the literature that AP-clefts are often marginal in acceptability, though they often improve if an appropriately contrastive context is set up. However, Heggie (1993) notes that AP-clefts in which the AP is a secondary predicate are often much better than, for example, AP-clefts in which the AP is the predicate of a copular clause.

¹³ In general, it seems to be easier to subextract from locative clefted PPs than from other clefted PPs.

- (9) a. It's drunk that John sounds intelligent.
 b. It was undressed that the clown looked pitiful.
 c. It's raw that Bill usually likes his meat.

AP-clefts with a secondary predicate AP thus provide a good testing-ground for the subextraction argument, at least for those adjectives, such as *drunk*, that take complements. It appears that subextraction from these clefted APs is unacceptable, as shown in (10):

- (10) a. ?*What is it drunk on that John sounds intelligent?
 b. ?*What was it dressed in that the clown looked pitiful?

This restriction cannot be a subcase of a general restriction on extraction from complements of APs, since such extractions are usually fully acceptable. Similar judgements apply to other types of clefts (e.g., CP- and IP-clefts). We thus seem to have at least some cases of clefts where the Freezing Principle is operative, and thus where only a raising derivation is available. In fact, the fundamental divide between derivationally ambiguous (matching/raising) and raising-only clefts seems to correspond roughly to the distinction between extended nominal (of category D, P) and extended non-nominal projections (of category A, Adv, C, I, etc.). A further indication that this is the case comes from the possibility of overt *wh*-operators, which only seems to be realised in DP- and (some) PP-clefts:

- (11) a. It was a picture of John which/that he decorated his door with.
 b. It was in the Kruger National Park ?where/that the mongoose caught the snake.
 c. It's drunk *which/that John sounds intelligent.
 d. It's drunk *which/that John seems to be.
 e. It was that you left so early ??which/that bothered John.
 f. It was far too slowly *which/that John walked home.

Furthermore, those PP-clefts which allow subextraction seem in the main to correspond to those which allow *wh*-operators (though there are exceptions, such as those with *with*):¹⁴

¹⁴ Again, those PP-clefts that tolerate *wh*-pronouns most easily seem to involve locative PPs, which of course take *where*. As (b), shows, temporal PP-clefts with *when* are also possible. This suggests that only where a *wh*-operator is possible is a null operator also possible, since otherwise we would expect all PP-clefts and AP-clefts to allow a matching structure with a null operator, and thus to allow subextraction. The more limited distribution of the matching structure as compared with the raising structure is thus plausibly related to the limited inventory of *wh*-operators, though it is not clear what property of *wh*-operators prevents them from being linked to,

- (12) a. It was in the Kruger National Park ?where/that the mongoose caught the snake.
 b. It was in 1997 ?when/that Tony Blair became Prime Minister.
 c. It was with a picture of John *which/that he decorated his door.
 d. It was to China ?*where/that John travelled.
 e. It was into the kitchen ?*where/that Bill walked.

In common with Pinkham and Hankamer's analysis, the XP-relative analysis allows for a derivational ambiguity of the type required, but with the advantage that it does not require radically different underlying structures for the two types of clefts. For example, it has been pointed out that Pinkham and Hankamer's raising derivation requires the derivation of *it* plus the copular structure by a transformation, which should rule out the insertion of extra elements in the matrix clause, such as modals and adverbials. This problem is avoided under the present analysis, since the *it* plus copular structure is not created by a clefting transformation, but is generated independently, in the same way as in copular sentences in general.

2.3.2 *Scope ambiguities.* É. Kiss (1999) points out that clefts, unlike RRCs and complement clauses, permit a universal quantifier in the embedded clause to take matrix scope. There is thus a contrast between (13a) and (13b-c):

- (13) a. It was some paper by Chomsky that everybody wanted to read.
 b. I have some paper by Chomsky that everybody wanted to read.
 c. He said about some paper by Chomsky that everybody wanted to read it.

She takes this to indicate that a raising derivation, and hence syntactic reconstruction of the indefinite DP to a position c-commanded by the quantifier, is possible in clefts, but not in the other types of construction.¹⁵ Of course, the possibility of raising is afforded by the XP-relative analysis as well as by her (expletive) analysis. Nevertheless, a potential problem for the view that such scope ambiguities are always due to syntactic reconstruction is posed by the fact that pseudoclefts of both types (*wh*- and *th*-) also display such ambiguities:

say, APs, especially given that in non-restrictive relatives APs (as well as VPs, IPs and CPs) can be linked to *which*. Furthermore, it is not clear why PP-clefts with *with* should allow subextraction but not a *wh*-operator.

¹⁵ Or, at least, that the indefinite determiner *some* could not be part of the material reconstructed; in the restrictive relative in (14b), it is entirely possible that the NP *paper by Chomsky* could have raised (as in the analyses of Kayne 1994, Aoun and Li 2003 and Hulsey and Sauerland 2006, for example).

- (14) a. What everybody wanted to read was some paper by Chomsky.
b. The one that everybody wanted to read was some paper by Chomsky.

Although some analyses of pseudoclefts have posited derivations in which the pseudoclefted constituent is extracted from the *wh*-clause or reconstructed into it at LF (e.g., Akmajian 1970, Bošković 1997), it has generally been accepted since Higgins (1973) that pseudoclefts do not have a raising derivation. How, then, can we account for the fact that both clefts and pseudoclefts display scope ambiguities?

A promising line of attack is suggested by data from Williams (1994), who notes that there is a gap in the scope connectivity paradigm for pseudoclefts:

- (15) What bothered someone in the class was every paper by Chomsky.

Unlike (14a), (15) does not allow a reading under which the universal quantifier takes scope over the indefinite. Crucial for our purposes is the fact, not discussed by Williams, that the equivalent cleft does seem to allow this reading:¹⁶

- (16) It was every paper by Chomsky that bothered someone in the class.

It is clear that under the XP-relative analysis, as well as under expletive analyses, this reading of (16) is predicted to exist, since the universal QP c-commands the indefinite at LF under both matching and raising derivations. This is important evidence against extraposition-from-subject analyses, since if (17) were derived from something like (15), the appropriate c-command relation would never arise.

There remains the problem of why inverse scope is possible in (14a). As Williams and Heycock and Kroch (1999) have pointed out, modifying the indefinite in (14a) with an overt distributive operator such as *different* blocks the reading whereby the universal takes scope over the indefinite:

- (17) What everybody wanted to read was a different book by Chomsky.

(17) only allows the reading where there is a single book which is different from some other, contextually specified book, not the reading where each person is associated with a distinct book. Given that distributivity is generally possible with universal>indefinite scope readings, this is an important indicator that (14a) does not involve true scope reconstruction. Williams proposes that so-called ‘inverse scope’ arises in (16a) because the trace in the *wh*-clause generates a ‘functional’

¹⁶ It should be pointed out that universal quantifiers are somewhat deviant as clefted constituents (e.g., Schachter 1973), a fact which should be allowed for when considering the examples.

reading, the indefinite being unselectively bound. The fact that distributivity is incompatible with a functional reading thus explains why (17) does not allow a distributive reading.

Now compare the cleft equivalent of (17):

(18) It was a different book by Chomsky that everybody wanted to read.

It seems clear that (18) allows the distributive reading much more easily than (17), particularly if *different* receives main stress, thus being the element contrasted. This being the case, it seems that true inverse scope subordination is possible in clefts. To the extent that such scope subordination is a result of c-command at LF, therefore, this contrast between clefts and pseudoclefts supports the availability of a raising derivation for clefts, and argues against extraposition-from-subject analyses.¹⁷

2.3.3 *Idioms*. Brame (1968) and Schachter (1973) claim that the behaviour of idioms like *keep track of* provides evidence for a raising analysis of relatives:

- (19) a. She's keeping careful track of her expenses.
 b. *The careful track pleases me.
 c. The careful track that she's keeping of her expenses pleases me.

The distinction in acceptability between (19a) and (19b) is evidence that (*careful*) *track* must be generated as the complement of *keep* for the idiomatic reading to be available. This in turn suggests that in (19c), *careful track* has raised from the complement position of *keep* inside the relative clause.

A similar argument can be constructed for clefts. As in relative clauses, the idiomatic sense of *keep track of* is possible if the object is clefted. In the equivalent pseudocleft, however, the idiomatic reading is not available. The inverse pseudocleft in (20c) shows that this cannot simply be a linearity effect:

- (20) a. It was careful track that she kept of her expenses.
 b. *What she kept of her expenses was careful track.
 c. *Careful track was what she kept of her expenses.

¹⁷ If the matching derivation accounts for the possibility of subextraction and the raising derivation accounts for inverse scope, it is expected that subextraction will block inverse scope readings. Thus, inverse scope should be impossible in (i):

- (i) What was it a picture of that everybody bought?

My judgements are unclear on this, but I feel that the inverse scope reading is very awkward.

Idioms, then, provide further evidence that a raising derivation is available in clefts but not in pseudoclefts, ruling out extraposition-from-subject analyses of the former.

2.3.4 Wh-blocking. It has been observed by Aoun and Li (2003) that certain connectivity effects displayed by RRCs are blocked when a *wh*-operator occurs in the relative. For example, (21a) appears to allow inverse scope between the *every*-phrase and the *two*-phrase much more easily than does (21b), which features an overt *wh*-operator:

- (21) a. I phoned the two patients (that) every doctor will examine.
b. I phoned the two patients who every doctor will examine.

Authier and Reed (2005) claim that this ‘*wh*-blocking’ effect does not extend to clefts. In my judgement, though, *wh*-blocking effects are just as strong in clefts as in relatives:

- (22) a. It was some paper by Chomsky which everybody wanted to read.
b. ?*It was careful track which she kept of her expenses.

The *wh*-blocking effect receives a natural account under the XP-relative analysis: when a *wh*-operator appears, only the matching derivation is possible, since under the raising derivation the *wh*-operator and clefted constituent would be competing for the same position (SpecCP of the cleft clause). Of course, under the matching derivation, syntactic reconstruction of the clefted constituent into the cleft clause will not take place, and hence connectivity effects which depend on reconstruction will not be visible. Under extraposition-from-subject analyses, on the other hand, it is not clear how *wh*-blocking could be accounted for, since in *wh*-pseudoclefts there must always be a *wh*-operator, and yet no *wh*-blocking effects are seen. And in *th*-pseudoclefts, it is not clear that the presence of a *wh*-operator makes any difference to the possibility of connectivity effects. In any event, if, as is argued above, there is no scope reconstruction in pseudoclefts, *wh*-blocking effects would not be expected anyway.

2.3.5 Specificational versus predicational readings. Since Higgins (1973), copular sentences have commonly been divided into various classes according to the semantic properties of the elements linked by the copula. Higgins himself distinguished four subtypes: specificational, predicational, identificational and identity sentences. For our purposes, it will be sufficient for now just to consider the first two subtypes, specificational and predicational sentences. Both clefts and

pseudoclefts proper are specificational sentences: that is, they provide a value (represented by the (pseudo)clefted constituent) for a variable in the cleft/*wh*-clause. In addition, a copular sentence with a *wh*-clause subject allows a predicational interpretation of the postcopular constituent (such sentences are commonly termed ‘predicational pseudoclefts’).

- (23) a. What I am pointing at is the cat. (specificational)
 b. What I am pointing at is feline. (predicational)

Though ‘predicational clefts’ are also possible under certain circumstances (e.g., Declerck 1983), the clefted constituent seems to be restricted to DP: an AP can never appear in such a position:

- (24) a. It is a clever person that can solve puzzles like that.
 b. *It is clever that can solve puzzles like that.

This is a very strong piece of evidence in favour of the XP-relative analysis, and a problem for extraposition-from-subject analyses. Take, for example, the analysis of Percus (1997), who posits a post-syntactic rule converting the remnant of the definite description subject to *it* after extraposition of the cleft clause.

- (25) Spellout rule: [+def] 0 t_{CP} => *it*

Percus attempts to provide independent motivation for this conversion rule by claiming that it also applies in cases of clausal extraposition more generally – that is, cases where the underlying definite description subject would be argumental rather than an inverted predicate, which Percus assumes the definite description subject of clefts to be. Thus, sentence (26a) would result from extraposition of the clausal subject and application of the spellout rule in (25):

- (26) a. It is widely believed on Wall Street that the shares are overvalued.
 b. That the shares are overvalued is widely believed on Wall Street.

It is clear, though, that generalising the rule in this way means that ‘predicational AP-clefts’ such as (24) should also be generated, since the spell-out rule now applies both to argumental and predicational (superscriptional) definite description remnants, and should hence allow the creation of an argumental *it* subject, regardless of what follows the copula. If, on the other hand, the rule is to apply only to predicational definite descriptions – in effect restricting its application to specificational copular sentences – then it seems merely to be a stipulatory device.

Under the XP-relative analysis, however, sentences like (24) are excluded. The cleft clause is a relative clause on the clefted constituent, and so must contain a corresponding gap or operator. In (24), however, there is no gap or operator in the cleft clause corresponding to the. In the predicational DP-cleft examples, however, there is an appropriate gap or operator, and hence predicational DP-clefts are acceptable in principle.¹⁸

2.3.6 Extraposition of the cleft clause. One claim made in this paper is that the cleft clause is obligatorily extraposed, a view naturally shared by proponents of extraposition-from-subject analyses such as Percus (1997). Nevertheless, the two types of analysis make different predictions about the possible landing site(s) of cleft extraposition, since Percus's analysis claims that extraposition is from subject position (SpecIP), while the XP-relative analysis claims that it is from inside VP. Since Baltin (1981), it has generally been accepted that extraposition from subjects targets IP, while extraposition from objects targets VP.¹⁹ Evidence for this comes from examples like (27) involving VP-ellipsis:

- (27) 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.

In (27a), where the relative clause is extraposed from the subject *not many people*, VP-ellipsis does not obligatorily delete the relative clause, which suggests that it is not inside VP. In (27b), on the other hand, where the relative clause is extraposed from the object *people*, the relative clause must be included with the elided material, and therefore must be inside VP.

¹⁸ It is marginally possible to have clefts where the gap or operator in the cleft clause plays a predicational role, given the correct context (see Declerck 1983 for discussion). In (i), the AP does have a corresponding gap in the cleft clause, and hence the sentence is expected to be acceptable. (ii) shows that this structure is also possible with predicate nominals:

- (i) It's pretty that Mary is, more than anything else.
(ii) It is a teacher that he is, not a butcher!

It seems clear, however, that the clefted constituents in (i-ii) could not then be playing a predicational role with respect to the matrix clause. Again, this is as expected.

¹⁹ In fact, Culicover and Rochemont (1990) show that extraposition from subject can target VP as well as IP ('target' being used here in a loose sense, since their analysis involves base-generation of the extraposed clause). This is irrelevant to the present argument, however, since it is the possibility of adjoining a clause to IP that is being tested.

Under the XP-relative analysis, extraposition of the cleft clause is assumed to be from inside VP, as for objects, and therefore the analysis predicts that the only possible landing site is VP, a prediction borne out by (28):²⁰

- (28) *Although it wasn't John who cooked the stew, it was ___ who baked the cake.

Since VP-ellipsis must delete the cleft clause, it can be concluded that the clause can be extraposed no higher than VP. This is further evidence against extraposition-from-subject analyses, which also predict IP to be a possible landing site.

2.3.7 Summary. In this section I have presented evidence that the cleft clause is a type of restrictive relative adjoined to the clefted XP, rather than a complement as in expletive analyses. Second, I have shown that both matching and raising derivations are possible, which causes trouble for extraposition-from-subject analyses.

3 The status of the cleft pronoun

3.1 Evidence that cleft *it* is not an expletive

This section presents evidence that cleft *it* is not an expletive, but should instead be analysed as a full pronoun. Naturally, this presents a problem for expletive analyses, but can be handled by the XP-relative analysis, assuming that *it* and the cleft clause can be associated in some way. I present some speculations on how this might be achieved in section 5.

3.1.1 'Expletives' in English. There are two subject elements which have in the past been considered to have expletive uses in English: *it* and *there*, the former found in weather sentences, extraposition contexts, and clefts, and the latter typically found in existential sentences. These various contexts are illustrated in (29):

- (29) a. It rained. (weather *it*)
 b. It is good that you have come. (extraposition *it*)
 c. It was this car that she wanted to buy. (cleft *it*)
 d. There are many solutions to that problem. (existential *there*)

²⁰ I am of course assuming here that both subject and copular verb are not inside VP by the time VP-ellipsis applies.

While *there* in (29d) is generally accepted to be a true expletive, weather and extraposition *it* have often been claimed to be ‘quasi-arguments’ (a term originating from Chomsky 1981). The aim of this section is to show that cleft *it* patterns with these ‘quasi-arguments’ (and, in fact, with real arguments as well) rather than with expletives.

3.1.2 Control. It has been pointed out that weather *it* and certain instances of extraposition *it* can control PRO – this is illustrated by (30a-b) (Chomsky 1981, Bennis 1986).²¹ The acceptability of (30c) shows that cleft *it* also has this property:

- (30) a. It sometimes rains after [PRO snowing]. (Chomsky 1981:325)
b. It was clear [PRO after having been explained to us] that we were wrong.
c. It was John who Bill spent all his time with [despite PRO being Mary the day before].

Chomsky (1981:323) notes that obligatory PRO generally takes an argument as its binder, pointing out that *it* in *it seems that...* (plausibly another type of extraposition *it*) and existential *there*, as in *there are three men...*, cannot bind PRO. Furthermore, PRO normally takes on the referential properties of its binder.²² In this respect, (30a) seems odd, since weather *it* is apparently non-referential. Chomsky thus refers to weather *it* as a ‘quasi-argument’, meaning that it receives a theta-role but is non-referential. Thus the fact that cleft *it* can control PRO does not entail that this *it* is referential, but suggests that it at least has the status of a quasi-argument rather than an expletive (though it is not clear whether it should receive a theta-role, a question which I touch on in section 5). The control diagnostic thus distinguishes the three types of *it* in (30) from *seem*-type *it* and existential *there*.

3.1.3 The obligatoriness of cleft pronouns. The three types of *it* discussed above – weather, extraposition and cleft *it* – can be distinguished in some Germanic languages with respect to their obligatoriness in certain contexts.²³ Previous research on *IT* in Germanic has tended to focus on the first two types, to the exclusion of cleft *IT*. It has been noted that some of these languages allow or require certain instances of *IT* to be dropped in inversion contexts. Notably, though,

²¹ This also appears to be true in Dutch (Bennis 1986), German (Safir 1985) and Danish (Vikner 1995:228).

²² Chomsky points out that it is important to distinguish this sense of ‘referential’, meaning ‘denoting a member of the domain D of individuals that serve as values of variables and as denotata’, and the sense pertaining to relations between language and the real world. The term is used here in the former sense only.

²³ For ease of exposition, when I wish to refer to these three types of *it* and their other Germanic equivalents together, I will use *IT* as a cover term.

cleft *IT* can never be dropped in any of these languages, even under inversion, suggesting that it does not occur purely for EPP-related reasons, but has an interpretation essential to the interpretation of the cleft as a whole.

The Germanic languages apart from English are verb-second (V2) languages, and thus the presence of an initial adverbial in a matrix clause triggers ‘subject-verb inversion’. In this situation, *IT* subjects vary in their behaviour between languages and between uses of *IT*: in some cases the pronoun must be dropped, in other cases it may optionally be dropped, and in still other cases it must be retained, as shown in the examples in (31-33), taken from Vikner (1995). In Danish, *det* must be retained under inversion in weather and extraposition sentences. In German, *es* must be retained under inversion in weather sentences, but can be dropped in some extraposition sentences. Finally, in Icelandic, weather *það* must be dropped under inversion, while extraposition *það* is optionally dropped:

- (31) a. I går regnede *(det).
yesterday rained it
b. Naturligvis er *(det) godt at du er kommet.
of-course is it good that you are come
- (32) a. Gestern regnete *(es).
yesterday rained it
b. Natürlich ist (es) gut, dass du gekommen bist.
of-course is it good that you come are
- (33) a. Í gær rigndi (*það).
yesterday rained it
b. Að sjálfsögðu er (það) gott að þú ert kominn.
of-course is it good that you are come

A fact which has to my knowledge not been pointed out before is that in all three languages (in fact in all modern Germanic languages), cleft *IT* must be retained under inversion.²⁴

- (34) a. I går var *(det) DEN JAKKE som Björn købte.
yesterday was it the jacket that Björn bought
b. Gestern war *(es) DIESER WAGEN, den sie kaufen wollte.
yesterday was it this car which she to-buy wanted

²⁴ Peter Svenonius (p.c.) confirms this for Icelandic. What this suggests is that cleft *það* might be an instance of demonstrative *það* rather than an *it*-like pronoun, since demonstrative *það* is also obligatory under inversion. Given that demonstratives are optionally possible as cleft pronouns in (at least) English, Dutch and German, this would not be surprising.

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

What can we conclude from this? If cleft *IT* is the only type of *IT* which can never be dropped under inversion in Germanic, its occurrence is clearly independent of EPP-related considerations.²⁵ Therefore it is likely to be playing some role other than a purely syntactic one.²⁶ There are various explanations one could offer for the fact that weather and extraposition *IT* can sometimes be dropped, but unfortunately I cannot discuss the issue further here. The important thing is that the presence of cleft *IT* seems to be essential to the interpretation of clefts, rather than just a placeholder as expletive analyses would suggest.

3.1.4 *Demonstratives in clefts.* Yet another fact about clefts which suggests that the initial *it* is not an expletive is that it can alternate with demonstratives, as shown in (35a) (Smits 1989, Hedberg 2000). This option is not limited to English; Smits (1989) reports that it is also available in Dutch and German, as shown in (35b-c).²⁷

- (35) a. It/that was THE SNAKE that the mongoose caught.
b. Het/dat was DE REGISSEUR die zo hardgrondig vloekte.
c. Das bin ICH, den du dort am Rande siehst.

Some instances of weather *IT* and extraposition *IT* also have this property. For instance, German and Dutch weather *es/het* can sometimes be replaced by a demonstrative, as shown in (36a-b) (Vikner 1995, quoting Gisbert Fanselow, p.c.),

²⁵ It has often been assumed that the Germanic languages which drop *IT* under inversion have a non-referential *pro* in these cases (e.g., Vikner 1995). Some recent work (e.g., Biberauer 2003) has challenged the desirability of postulating such a *pro* in Germanic, however. In any case, the non-occurrence of a non-referential *pro* in clefts would still be consistent with the idea that cleft *IT* does more than just satisfy the EPP.

²⁶ A distinction between cleft pronouns and weather/extraposition pronouns is also evident in Russian (as pointed out by Gundel 1977). The ‘*èto*-cleft’, which is interpretatively similar to the English cleft (though it does not tolerate relative operators or complementisers), obligatorily features the pronoun *èto* ‘this, it’, yet *èto* does not appear in weather and *seem*-type extraposition sentences, and is optional in other types of extraposition sentences (Mezhevich 2003). Yet another language in which cleft pronouns can be distinguished from weather and extraposition pronouns is French – while the latter two contexts only permit *il*, clefts only permit *ce*.

²⁷ This option seems to be available only if no element of the cleft clause is in focus, as shown by the unacceptability of (i-ii) with *that*, (i) being a contrastive topic cleft, in which *the mongoose* is contrastively focused, and (ii) being an example of Prince’s (1978) ‘informative-presupposition’ clefts, in which the cleft clause contains new information focus:

- (i) It/*that was the snake that THE MONGOOSE caught.
(ii) It/*that was just about 50 years ago that Henry Ford gave us the weekend.

and English extraposition *it* can sometimes be replaced by *that*, as in (36c). (Again, in the latter case no part of the extraposed clause can be in focus.)

- (36) a. Es/das regnet ja doch wieder.
 b. Dit regent toch weer.
 c. It/that was good that you baked a cake for me.

As expected, ‘seem’-type *it* and existential *there* cannot be replaced by demonstratives:

- (37) a. It/*that seems that John is standing in the corner.
 b. There/*that are many solutions to that problem.

Alternation with a demonstrative is, of course, a characteristic of argumental pronouns, and, as (37) indicate, is not a characteristic of expletive elements. Once again, therefore, cleft *it* appears to pattern with argumental pronouns rather than with expletives.²⁸

3.1.4 Summary. In the preceding subsections, it has been shown that cleft *IT* patterns with argumental pronouns, as well as with ‘quasi-arguments’ such as weather *IT* and (some instances of) extraposition *IT* in at least three ways: it can control PRO, it cannot be dropped in inversion contexts, and it can alternate with demonstratives. In all these respects, it differs from existential *there* and ‘seem’ *it*.

4 Extraposition of the cleft clause

4.1 Evidence for obligatory extraposition

²⁸ A demonstrative introducing a cleft may be used deictically:

- (i) That’s JOHN that’s standing in the corner.

Since deictic elements cannot generally have linguistically represented antecedents, this could be considered to be further evidence against the view that the cleft pronoun must be construed syntactically with the cleft clause in some way, either as part of an underlying definite description (e.g., Akmajian 1970, Percus 1997), or as a pronoun taking the cleft clause as an extraposed complement (Hedberg 2000). In fact, the possibility of deixis suggests that the cleft pronoun should be interpreted in the same way as the pronoun in right-dislocation sentences (as claimed by Gundel 1977), since RD-pronouns can also be deictic demonstratives:

- (ii) That’s JOHN, the one that’s standing in the corner.

In this section, I attempt to show that clefting involves obligatory extraposition of the cleft clause to VP.

4.1.1 Topicalisation and VP-fronting. Data from McCawley (1981) suggest that the clefted constituent and cleft clause do not make up a surface constituent. First, he notes that both restrictive and appositive relatives can be topicalised along with their antecedents, but the antecedent cannot be topicalised alone. With clefts, however, the situation is reversed: the clefted constituent and cleft clause cannot be topicalised together, but the clefted constituent can be topicalised alone.

- (38) a. The fish that I caught, Bill ate.
a'. *The fish, Bill ate that I caught.
b. Stella, who I love, many people can't stand.
b'. *Stella, many people can't stand, who I love.
c. *Bill who I talked to, it may have been.
c'. ?Bill, it may have been who I talked to.

As McCawley observes, this suggests that a restrictive or appositive relative forms a constituent with its antecedent, but the cleft clause does not form a constituent with the clefted constituent, or at least not a constituent of the right type for topicalisation. Obligatory extraposition in clefts accounts for this contrast, since after this operation the clefted XP and cleft clause do not form a surface constituent; thus, topicalising the two together would either be an instance of double topicalisation (of DP and CP separately) or of VP-topicalisation (VP being the smallest constituent containing both clefted XP and cleft clause), both of which are generally impossible in English. There is, however, a construction in English which does allow dislocation of VP, namely VP-fronting. As (39) show, it seems that in a VP-fronting-type environment the clefted constituent and cleft clause can be moved as a unit:

- (39) a. John said that he would arrive early, and arrive early he did.
b. ?John said that it was Bill who I talked to, and Bill who I talked to it was.

If the moved material in (38c) and (39b) made up a surface DP, (38c) would be expected to be acceptable, and (39b) would be expected to be unacceptable, contrary to what is actually found. We thus have evidence that VP in clefts is the smallest constituent containing both the clefted constituent and cleft clause. This in turn implies that the cleft clause has undergone obligatory extraposition to VP.

4.1.2 *Parentheticals.* The second contrast McCawley discusses relates to the insertion of parentheticals between the relative and the antecedent. As the data in (40) show, this is less acceptable for restrictive and appositive relatives than for clefts (and pseudorelatives):

- (40) a. *Tom cooked a dish, as you know, that I always enjoy.
 b. ?Tom cooked twice-cooked pork, as you know, which I always enjoy.
 c. It was Sam, as you know, that Lucy was talking to.

Given that parentheticals are presumably adjoined to the extended verbal projection (C, I, V), the fact that (40c) is acceptable suggests that there is some such adjunction site between the clefted constituent and cleft clause. If extraposition of the cleft clause is to VP, then this projection would also be VP.²⁹

4.1.3 *Extraposition in SOV languages.* It is obviously not possible to discern from the surface form of English clefts whether extraposition of the cleft clause is obligatory, since it would in many cases be string-vacuous. In SOV languages such as German and Dutch, on the other hand, there are certain types of clauses in which it is obvious whether extraposition has taken place – namely, those in which there is an auxiliary and hence a clause-final infinitive, and embedded finite clauses, in which the finite verb must appear clause-finally. Thus, if extraposition has taken place in such clauses, the extraposed phrase will always follow the verb.

In German and Dutch, as in English, extraposition of relative clauses is normally optional where it is possible; for example, the German examples in (41), from Kiss (2005), are equally acceptable:

- (41) a. ...weil jeder Mann, der schläft, schnarcht.
 because every man who sleeps snores
 b. ...weil jeder Mann schnarcht, der schläft.
 because every man snores who sleeps

In clefts, however, extraposition of the cleft clause is obligatory, as shown by the following German examples (Smits 1989:282/320):

²⁹ It must be admitted that VP seems a less likely adjunction site for parentheticals than IP. One possibility is that parentheticals are not directly integrated into the syntactic representation at all, but that the relative acceptability of insertion sites is related to the syntax-phonology mapping. Under this view, one might propose that the presence of a right VP boundary, resulting from extraposition, between the clefted constituent and cleft clause, is what allows insertion of a parenthetical, because it is mapped to the right boundary of an intonational phrase. I leave this question for future research.

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

Of course, the fact that extraposition is obligatory in German and Dutch clefts does not mean that the same holds of English clefts, but given the strong syntactic and interpretative similarities between clefts in these three languages, the facts in (41-2) strongly suggest this possibility.

5 Conclusion and a loose end

5.1 Conclusion

In this paper, I have attempted to defend the XP-relative analysis over alternatives such as the extraposition-from-subject analysis of Percus (1997) and the expletive analysis of É. Kiss (1999). It was shown that the cleft clause must be adjoined to the maximal projection of the clefted XP, given the evidence that it is a relative modifier rather than a complement clause (contra expletive analyses), and that a raising as well as a matching derivation must be available (contra extraposition-from-subject analyses). Furthermore, it was shown that cleft *it* is unlikely to be an expletive. Finally, an obligatory process of extraposition was shown to apply to the cleft clause, adjoining it to VP.

The conclusions reached so far clearly raise some difficult questions, not the least of which is how the cleft construction as a whole is semantically interpreted. Related to this is the question of how the possible information-structural interpretations of clefts are derived. Then there are further questions relating to the syntax of the construction: why should ‘relative clause’ extraposition be obligatory in clefts but not elsewhere, and why can an apparent RRC be adjoined to a non-NP (DP, PP, etc.) in clefts, but not more generally? For reasons of space I will only discuss the last of these questions here: adjunction to non-NPs.

5.2 A loose end: adjunction of RRCs to non-NPs

It was proposed in section 2 that cleft clauses are a type of RRC. Given that RRCs are normally assumed to be adjoined to NP (where NP is the complement of D), an obvious question raised by the XP-relative analysis is why clefts allow adjunction of an RRC to DP, PP, AP and CP.

Although I cannot develop a full answer to this question here, I believe that part of the answer lies in the unusual thematic properties of copular constructions, and of equatives in particular. Heycock and Kroch (1999) argue convincingly that pseudoclefts should be analysed as equatives – sentences asserting identity between the two elements related by the copula – rather than as inverted predications, as proposed for example by Moro (1997). If so, then it seems reasonable to assume that clefts are also equatives, given the strong interpretative parallels between pseudoclefts and clefts. It has been observed in the literature that there is no obvious sense in which the elements linked by the copula in an equative can be said to receive or assign theta-roles (see, e.g., Pereltsvaig 2001:182ff). Therefore, adjunction of cleft clauses to DP, PP, AP and CP might be permitted because these are never arguments when clefted, and so such adjunction does not fall foul of the ban on adjunction to arguments proposed by Chomsky (1986:6) and McCloskey (1992) (who calls it the Adjunction Prohibition).³⁰ In general, DP, PP, AP and CP are either arguments or predicates, and adjunction of RRCs to them will be ruled out by the Adjunction Prohibition in the former case.

One way of implementing the effects of the Adjunction Prohibition on clefts might be to adopt the proposal of Neeleman and van de Koot (2002) that theta-role assignment involves satisfaction of a ‘thematic function’ (which percolates upwards from V to VP) by direct domination of a node of the appropriate category. Consider the following structures, which represent adjunction of an RRC to NP and DP respectively, where the DP in both cases is complement of V:

- (43) a. [_{VP} V [_{DP} D [_{NP} NP CP]]]
 b. [_{VP} V [_{DP} [_{DP} D NP] CP]]

Suppose that RRCs (and cleft clauses) bear a thematic function which must also be satisfied (Higginbotham 1985 proposes that this is via ‘theta-binding’ by a determiner), but that it must be satisfied by a zero-level category (a head). Thus, when an RRC is adjoined to NP, as in (43a), its thematic function will percolate first to NP (where it will collapse with the thematic function of NP to form a single function, according to the system of Neeleman and van de Koot), and then to DP. Having reached this position, the thematic function directly dominates the D node, which can thus satisfy the function. On the other hand, when an RRC adjoins to a DP, as in (43b), the thematic function of the RRC percolates up to the higher of the two DP nodes, which does not directly dominate the D node. The thematic function is thus not yet satisfied by this point and must percolate further, this time to VP.

³⁰ Furthermore, this might account for why, under the raising derivation, raising of the XP from its base position via SpecCP (an A'-position) to its surface position does not violate the ban on improper movement, since this latter position is arguably neither a theta-position nor a Case position, the two types of A-positions generally assumed.

Where DP is an argument, V bears its own thematic function(s), in which case the thematic function of the RRC must collapse with one of V's thematic functions into a single function. This will presumably cause problems. Either the RRC's function will collapse with a function of V which is satisfied by an XP distinct from that to which the RRC is adjoined (presumably causing a violation of the theta-criterion, since the RRC will 'modify' two distinct arguments), or the RRC's function will collapse with the function of V which is satisfied by the XP to which the RRC is adjoined (which will be ruled out by Neeleman and van de Koot's condition banning satisfaction of a function by a node which contains that function). Thus, adjunction of an RRC to an argumental DP should be ruled out. In the case of clefts, however, V is assumed to bear no thematic functions.³¹ Thus, in a DP-cleft with the structure in (43b), the thematic function of the cleft clause can percolate up to VP and then to IP without collapsing with any other thematic functions. Once it has reached the IP node, it may be satisfied by a D element in subject position. Under the bare phrase structure assumption that pronouns are zero-level D elements, the function may be satisfied or theta-bound by *it*, demonstratives and expletive *there*, accounting for the existence of *it*-clefts, demonstrative clefts and *there*-clefts (Davidse 2000). On the other hand, the function will not be satisfied by phrasal subjects. Thus, sentences such as (44) will be ruled acceptable, while sentences such as (45) will be ruled out:

- (44) a. [_D It] was THE SNAKE that the mongoose caught.
 b. [_D That] was THE SNAKE that the mongoose caught.
 c. [_D There] was only THE SNAKE that the mongoose caught.
- (45) a. *_{[DP} That/The animal] was THE SNAKE that the mongoose caught.
 b. *_{[DP} What John is] is A DOCTOR that John is.
 c. *_{[DP} THE SNAKE that the mongoose caught] is THE SNAKE that the mongoose caught.

So far, however, we might be led to expect, contrary to fact, that RRCs can in general adjoin to predicative XPs (e.g., AP), since these are also non-arguments. One explanation that suggests itself is based on the observation made earlier that AP-clefts only allow a raising derivation. A predicative AP has a thematic function to discharge, which it must do in its base position. This means that after raising, the AP will have no thematic function left to discharge. In a cleft, this is not a problem on the assumption that clefts are equatives, since the equated elements in an equative neither satisfy nor discharge a thematic function. Apart from this

³¹ If equative *be* is indeed of category V, that is. The argument would not be affected if *be* were an I element, though previous arguments in the paper might be.

exceptional case, however, APs which have raised from inside a clause to head the structure will not be usable as predicates, and hence plausibly not usable at all outside clefts. Note that this explanation also extends to predicative-DP-clefts, which are also plausibly raising-only, given that they do not tolerate *wh*-operators in the cleft clause:

(46) *It is a doctor which he is.

Adjunction of an RRC to predicative DPs in general is thus ruled out in the same way as adjunction to predicative APs. The XP-relative analysis thus partially divorces the acceptability of adjunction to an XP from its syntactic category, instead relating it to the thematic status of the XP.³²

Clearly much more work needs to be done to establish this as a viable analysis, however. In particular, the apparently paradoxical fact that the cleft clause seems to take both the initial *it* and the clefted XP as ‘antecedents’ must be captured somehow. Nevertheless, if this and other theoretical problems can be resolved, the XP-relative analysis seems to be well suited to capturing the various puzzling properties of English clefts.

References

- Akmajian, Adrian. 1970. On deriving cleft sentences from pseudo-cleft sentences. *Linguistic Inquiry* 1. 149-168.
- Aoun, Joseph & Yen-hui Audrey Li. 2003. *Essays on the representational and derivational nature of grammar*. Cambridge, MA: MIT Press.
- Authier, J.-Marc and Lisa Reed. 2005. The diverse nature of non-interrogative *wh*. *Linguistic Inquiry* 36. 635-647.
- Baltin, Mark. 1981. Strict bounding. In C. L. Baker and John J. McCarthy (eds.), *The logical problem of language acquisition*, 257-295. Cambridge, MA: MIT Press.
- Bennis, Hans. 1986. *Gaps and dummies*. Dordrecht: Foris.
- Bianchi, Valentina. 2000. The raising analysis of relative clauses: a reply to Borsley. *Linguistic Inquiry* 31. 123-140.
- Biberauer, Theresa. 2003. *Verb Second (V2) in Afrikaans: a Minimalist investigation of word-order variation*. Ph. D. dissertation, University of Cambridge.
- Borsley, Robert D. 1997. Relative clauses and the theory of phrase structure. *Linguistic Inquiry* 28. 629-647.
- Bošković, Željko. 1997. Pseudoclefts. *Studia Linguistica* 51. 235-277.
- Brame, Michael. 1968. A new analysis of the relative clause: evidence for an interpretive theory. Ms, MIT.
- Büring, Daniel. 2003. D-trees, beans, and B-accent. *Linguistics and Philosophy* 26. 511-545.
- Carlson, Greg N. 1977. Amount relatives. *Language* 53. 520-542.

³² This view has precedents in the literature, notably Heggie (1993).

- Chomsky, Noam. 1977. On *wh*-movement. In: Peter W. Culicover, Thomas Wasow and Adrian Akmajian (eds.), *Formal syntax*, 71-132. New York: Academic Press.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.
- Culicover, Peter W. and Michael S. Rochemont. 1990. Extraposition and the Complement Principle. *Linguistic Inquiry* 21. 23-47.
- Davidse, Kristin. 2000. A constructional approach to clefts. *Linguistics* 38. 1101-1131.
- Declerck, Renaat. 1983. Predicational clefts. *Lingua* 61. 9-45.
- Delahunty, Gerald. 1982. *Topics in the syntax and semantics of English cleft sentences*. Ph.D. dissertation, University of California, Irvine.
- 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 Lunella Mereu (ed.), *Boundaries of morphology and syntax*, 217-229. Amsterdam: Benjamins.
- Emonds, Joseph. 1976. *A transformational approach to English syntax: root, structure-preserving, and local transformations*. New York: Academic Press.
- Gundel, Jeanette. 1977. Where do cleft sentences come from? *Language* 53. 34-59.
- Halvorsen, Per-Kristian. 1978. *The syntax and semantics of cleft constructions*. Ph.D. dissertation, University of Texas, Austin.
- Hedberg, Nancy. 2000. On the referential status of clefts. *Language* 76. 891-920.
- Heggie, Lorie. 1993. The range of null operators: evidence from clefting. *Natural Language and Linguistic Theory* 11. 45-84.
- Heycock, Caroline and Anthony Kroch. 1999. Pseudocleft connectedness: implications for the LF interface level. *Linguistic Inquiry* 30. 365-397.
- Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16. 547-593.
- Higgins, Roger. 1973. *The pseudo-cleft construction in English*. Ph.D. dissertation, MIT.
- Hulsey, Sarah and Uli Sauerland. 2006. Sorting out relative clauses. *Natural Language Semantics* 14. 111-137.
- Jespersen, Otto. 1927. *A modern English grammar on historical principles. Part III: Syntax. Second Volume*. Heidelberg: Carl Winters.
- Jespersen, Otto. 1937. *Analytic syntax*. New York: Holt, Rinehart and Winston.
- Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.
- Kiss, Tibor. 2005. Semantic constraints on relative clause extraposition. *Natural Language and Linguistic Theory* 23. 281-334.
- Kuno, Susumo. 1973. Constraints on internal clauses and sentential subjects. *Linguistic Inquiry* 4. 363-386.
- Lees, Robert B. 1963. Analysis of the 'cleft sentence' in English. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 16. 371-388.
- McCawley, James D. 1981. The syntax and semantics of English relative clauses. *Lingua* 53. 99-149.
- McCloskey, James. 1992. Adjunction, selection and embedded verb second. Ms., University of California, Santa Cruz.
- Mezhevich, Ilana. 2003. On Russian 'expletive' *èto* and post-verbal clauses. FASL presentation.
- Moro, Andrea. 1997. *The raising of predicates*. Cambridge: Cambridge University Press.
- Neeleman, Ad and Hans van de Koot. 2002. The configurational matrix. *Linguistic Inquiry* 33. 529-574.
- Percus, Orin. 1997. Prying open the cleft. *Proceedings of NELS* 27. 337-351.
- Pereltsvaig, Asya. 2001. On the nature of intra-clausal relations: a study of copular sentences in Russian and Italian. Ph. D. dissertation, McGill University.

- Pinkham, Jessie and Jorge Hankamer. 1975. Deep and shallow clefts. *Papers from the Eleventh Regional Meeting of the Chicago Linguistic Society* 11. 429-450.
- Rochemont, Michael. 1986. *Focus in generative grammar*. Amsterdam: John Benjamins.
- Safir, Kenneth. 1985. *Syntactic chains*. Cambridge: Cambridge University Press.
- Sauerland, Uli. 1998. *The meaning of chains*. Ph. D. dissertation, MIT.
- Schachter, Paul. 1973. Focus and relativization. *Language* 49. 19-46.
- Smits, R. J. C. 1989. *Eurogrammar: the relative and cleft constructions of the Germanic and Romance languages*. Dordrecht: Foris.
- Vikner, Sten. 1995. *Verb movement and expletive subjects in the Germanic languages*. Oxford: Oxford University Press.
- Wexler, Kenneth and Peter W. Culicover. 1980. *Formal principles of language acquisition*. Cambridge, MA: MIT Press.
- Williams, Edwin. 1994. *Thematic structure in syntax*. Cambridge, MA: MIT Press.
- Wirth, Jessica. 1978. The derivation of cleft sentences in English. *Glossa* 12. 58-81.