Deep and Shallow Clefts

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0. Introduction

Hankamer (1974) showed that sentences like (1) are
derivationally ambiguous:

(1) What she was eating was a banana.

being derived either from a source essentially identi-
cal to the surface structure, except for WH-movement in
the subject clause (the "headless relative" construc-
tion; the subject clause is a headless relative as it
unambiguously is in "What she was eating came from my
lunch box") or by a rule of WH-Clefting, which extracts
the element banana from a sentence of the form

(2) She was eating a banana.

In this paper we will show that sentences like

(3) It was a banana that she was eating.

are similarly dual-natured. We will argue that there
is a source for (3) in which the focus constituent ba-
nana is underlyingly in predicate position in a copula
construction with a headless subject clause:

(4) S
    NP
    be
    NP

she was eating a banana

where a process similar to relativization takes place
in the subject clause, and it is at some point extrapo-
posed to its surface position, leaving an it in its
place. We will call this the it-relative construction.

We will also argue, however, that (3) has a deri-
vation from a source like (2) by a rule of (It-)Clefting
which extracts the focus element, creates the upper S
structure with the copular be, and places the exct-
ted constituent in predicate ("focus") position. The
original S is extrapoed to post-focus position, result-
ing in (3), which is thus derivationally ambiguous.

1. Background and Preliminaries

We are claiming that Cleft sentences arise in two
terribly different ways: either they are "cleft" in
underlying structure (the it-relative construction), or they are "cleft" by a transformational cleaving process at a relatively shallow stage. Neither of these proposals is new; an extraction analysis essentially nondistinct from that contemplated here was proposed by Jespersen (1937), and Chomsky (1971) suggested an analysis essentially identical to our it-relative analysis. We will show, however, that neither analysis alone can account for the full range of syntactic behavior exhibited by It-Clefts, and that we are in fact forced to accept both.

1.1 Connectivity

The classical way to establish the correctness of an extraction analysis would be to look for evidence that the focus constituent had at some stage been inside the extraposed clause; any mark of former clause-matehood, or "syntactic connectivit}' between the focus constituent and constituents within the clause would indicate that the focus constituent was not underlyingly external, but must at some point have been extracted from the clause.

Minimally, we would expect the focus constituent to conform to selectional restrictions imposed by the context on an element in the position it would have occupied in the clause. In fact, we find that it does:

(5) *I denied a banana.
   *It was a banana that I denied.

(6) *Bill's incompetence was frightened by the gorilla.
   *It was Bill's incompetence that was frightened by the gorilla.

When we look for more syntactic evidence of connectivity, however, things become complicated. If Cleft sentences are derived by extraction, we would expect the focus constituent to be reflexive if it would have been reflexive within the clause:

(7) It's myself that I dislike.
(8) It's me that I dislike.

We find, however, that both reflexive and nonreflexive forms are possible, while only the reflexive form would be allowed within the clause. This apparent optionality of reflexivization cannot be due simply to the fact that the pronoun is to the left of its original position, for ordinarily leftward movements do not absorb a pronoun of the necessity of being reflexive, if it had to be reflexive in its original place:

(9) Myself, I only dislike; him, I actually despise.
   *Me, I only dislike...

The grammaticality of (7) appears to be evidence in favor of an extraction analysis; (8), however, should not be derivable under such an analysis.

If we investigate further the behavior of reflexives in It-Clefts, we find that the appearance of a reflexive in focus position cannot be used to prove connectivity with the clause. Consider (10), a typical example of a violation of the clause-mate constraint on reflexivization:

(10) *Bill asked Sue to wash himself.

Yet the corresponding Cleft sentence is grammatical:

(11) It was himself that Bill asked Sue to wash.

And in fact the Cleft with a nonreflexive pronoun in focus position cannot be interpreted with Bill and him coreferrential:

(12) *It was him that Bill asked Sue to wash.

Apparently, the distribution of reflexive and nonreflexive pronouns in Cleft constructions (perhaps in emphatic constructions in general) involves factors other than those that control ordinary clause-bounded reflexivization. We have no idea how to account for these facts, but one thing that is clear is that the presence of a reflexive in focus position cannot be used as an argument for an extraction analysis of It-Clefts.

When we look for other kinds of clause-connectivity evidence, we fare no better. Consider example (13), which is odd because of a violation of the referential inclusion constraint (discussed in Postal (1974)):

(13) *We elected me treasurer.

This constraint prohibits pairs of NP's which overlap in reference from being clause-mates at the end of a cycle. Subsequent removal of one of the NP's into another clause does not generally save the sentence:

(14) *We appear to have decided to elect me treasurer.
   *Me, it has been suggested that we elect treasurer.

We would consequently expect, if Cleft sentences are derived exclusively by extraction, that an inclusion violation within the clause would result in ungrammaticality of the Cleft sentence, even if one of the offending NP's is removed by Clefting. In fact, however, the result appears to be perfectly grammatical:
(15) It was me that we elected treasurer.

Either Clefting miraculously saves the sentence that otherwise cannot be saved, or (15) is not derived by Clefting, but rather has a derivation in which me was never a clause-mate of we. If there is, as we propose, such a non-extracting derivation, the grammaticality of (15) is unproblematic; it also has no bearing whatever on the question of the existence of an It-Clefting rule.

We will consider briefly two other clause-bounded processes, neither of which provides connectivity evidence for Clefting:

(16) *It's each other that we can't stand.
(17) *It's any more sentences like this that they won't be able to take.

In fact, it would seem that the impossibility of getting clause-controlled items like each and any in the focus position constitutes counterevidence to a theory that postulates a rule of It-Clefting, unless some independent reason can be found for such sentences to be ungrammatical.

This quick search for connectivity evidence to support an extraction analysis of Cleft sentences has been entirely fruitless, except for the selectinal connectivity illustrated in examples (5)-(6). Upon closer examination, that argument disappears as well, for it is clear that whatever device or set of devices accounts for "selectinal" restrictions must compute cross-clause relations in any case:

(18) *I ate what Charley denied.
    *What elapsed was what had been admiring Betty.

Since a headless relative clause is an NP which is coreferent to an NP contained within it, it is not surprising that selectinal restrictions within the clause must be compatible with selectinal restrictions on the clause itself imposed by the higher context.

We conclude then that there is no connectivity evidence for an extraction analysis for Clefts with NP focus.

1.2 It-Relatives and It-Clefts

In spite of the negative result of the previous section, we will argue here that there nevertheless exists a rule of It-Clefting which extracts a focus constituent from the clause, and that there is also an it-relative construction which does not involve extraction of the focus. The structure of the argument will be to show that the two constructions have different properties, and that the differential behavior follows from the nature of the two analyses we propose.

Our proposed analysis for it-relatives involves the assumption that the focus constituent is underlyingly identified (by means of the semantics of the copular construction) with the headless it-relative. It follows from this that the only constituent type allowed in focus position in this construction is NP. There can be no headless it-relative source for sentences like the following, which have constituents other than NP in focus position:

(19) It was under the rug that he hid the money.
(20) It was during the war that he acquired his wounds.
(21) It was at five o'clock that he was supposed to come.
(22) It's only when it rains that we have to sweep the court.
(23) It was under very adverse circumstances that they attempted to take the city.
(24) It was with a hammer that he repaired the lock.
(25) It was by kissing a gorilla that she ruined her reputation.
(26) It was pea green that he painted his boat.
(27) It's only since Christmas that we've had this typewriter.
(28) It was (purely) out of spite that he assigned it that number.
(29) It was only reluctantly that he agreed to swim at all.
(30) It was when they were due that he was asking.
(31) It's whether they're fat or not that he's most concerned about.

The focus of an It-Cleft can be a PP (19,20,21), an adjective (26), an adverbial phrase or clause (22,29), or an indirect question clause (30,31). For many people, these Clefts with non-NP focus seem not quite perfect (in contradistinction to the NP-focus ones, which are absolutely unobjectionable); and there appears to be a hierarchy of clefability for constituent types, so that NP is most easily clefted, PP is next (with locative PP, whether temporal or spatial, more easily clefted than others), adjective and adverb phrases considerably more difficult. This looks roughly like a kind of nouniness scale -- the more NP-like a constituent is, the more easily clefted.

Despite these minor reservations, the examples cited are clearly English sentences, and for them at least the headless-relative analysis is excluded.
The observed range of examples also eliminates any proposal which attempts to derive all it-Clefts from a headed relative construction. Such an analysis would, for example, derive (3) from (32):

(3) It was a banana that she was eating.
(32) The thing that she was eating was a banana.

with extraposition of the relative clause and a rule converting the thing to it. This proposal is no more readily extended to cases with non-NP foci than the headless relative analysis. It might at first seem feasible to accommodate examples like (19) and (21) by deriving them from headed relative constructions with the place and the time as heads, with an appropriate extension of the head-to-it rule; for (24), then, the head would have to be the way, or something like that, and for (26) it would have to be the color. This tactic ultimately fails, however, for there are examples which have no corresponding headed relative at all, such as (23). The only imaginable headed-relative source would have to look something like

(33) *The circumstances under which they attempted to take the city was under very adverse circumstances.

Examples like (28) and (29) pose similar difficulties:

(34) *The reason (?) he assigned it that number was purely out of spite.
(35) *The manner (?) in which he agreed to swim (at all) was only reluctantly.

Cleftable constituents simply do not in general correspond to possible headed relative clauses. This is in fact apparent even for PP clefts other than locatives:

(36) It was from his vest pocket that he pulled the derringer.
(37) *The place that he pulled the derringer was from his vest pocket.

Finally, and conclusively, a passive by-phrase can be clefted, demonstrating the kind of syntactic connectivity which could not be found for NP-clefts:

(38) It was by the Romans that this bridge was constructed.

Again, there is no headed-relative source:

(39) *The way (?) this bridge was constructed was by the Romans.

Needless to say (almost), a headless it-relative analysis is equally helpless in the face of this example.

These examples also render untenable the proposal of Akamjan (1970b) that It-Clefts are derived from the corresponding WH-Cleft. There is no conceivable WH-Cleft source for (23) or (27), for example:

(40) *How (?) they attempted to take the city was under very adverse circumstances.
(41) *When we've had this typewriter is only since Christmas.

Sentences like (36) and (38) are just as embarrassing for an analysis deriving such sentences from a WH-Cleft source as for a headless or headed relative analysis:

(42) *Where he pulled the derringer was from his vest pocket.
(43) *How this bridge was constructed was by the Romans.

Thus even if one ignores the problem, barely acknowledged by Akamjan, that for most speakers there are no WH-Clefts with any WH other than what, there remain numerous It-Clefts that are not derivable from any WH-Cleft.

We conclude that at least for It-Clefts with non-NP focus there must be a Clefting rule which extracts the focus constituent. We have observed that the more NP-like the extracted constituent is, the more readily this rule can extract it; hence it is reasonable to suppose that that the rule extracts NP foci as well as non-NP foci, even though an it-relative analysis is available for NP-Clefts.

In the remainder of this paper we will establish differences between Clefts with NP focus and Clefts with non-NP focus, and show that these differences are explicable under the assumption that NP-Clefts have an it-relative analysis as well as a derivation by Clefting, whereas the rest are derivable only through Clefting.

2. Negation in Cleft Sentences

Sentence (44) below is unambiguously derived by a rule of WH-Clefting; sentence (45) is unambiguously a headless relative construction (see Higgins (1973), Hankamer (1974) for discussion):

(44) What he is is important to himself.
(45) What he is is important to him.

Higgins noted the following contrast in ability of the copula in these two constructions to take negation:

(46) *What he is isn't important to himself.
(47) What he is isn't important to him.
What is impossible in (46), it should be noted, is ordinary neutral sentence-negation; constituent negation under contrast is possible:

(48) What he is isn't important to himself, but proud of himself.

No such contrast is required for well-formed negation in (47).

This observed difference can be accounted for under the following assumptions: (a) that sentential negation is associated with particular clauses in underlying structure; and (b) that WH-Clefting itself creates the higher S structure and inserts a dummy copula. Under these assumptions the copula in genuine WH-Cleft sentences can never acquire sentential negation, since it is created by a rule and does not exist in underlying structure, where sentential negation is assigned. 8

2.1 Under our proposal that there are two analyses for It-CLEFTs, with only the non-NP CLEFTs being unambiguously derived by a CLEFTing rule, we can make the following prediction: only the It-CLEFTs with NP focus, which have a derivation as an it-relative construction, should allow sentential negation on the copula; the non-NP CLEFTs, which are all derived by a CLEFTing rule which introduces the copula transformationally in the course of creating the higher S structure, should not be able to take sentence negation. In fact, we find exactly the predicted difference:

(49) It wasn't Paul that Mary went to the movies with.
(50) *It wasn't with Paul that Mary went to the movies.

Again, constituent negation under contrast on with Paul is possible, giving

(51) It wasn't with Paul that Mary went to the movies, it was with Bill.

Such contrast is not required in (49). The following context will make the difference clearer:

(52) Mary went to the movies with some guy, I don't know who. All I know is it wasn't Paul that she went with.
*...it wasn't with Paul that she went.

Where it is clear from context that no contrast is possible, only the NP-CLEFT allows negation; the non-NP-CLEFT forbids it.

The same contrast can be brought out in other ways; consider the following pair of sentences:

(53) It wasn't a hammer that he repaired this lock with -- there aren't any dents.
(54) *It wasn't with a hammer that he repaired this lock -- there aren't any dents.

(55) I know it wasn't his vest pocket that he pulled the pistol from -- he was wearing his two-piece suit.
(56) *I know it wasn't from his vest pocket that he pulled the pistol -- he was wearing his two-piece suit.

Another way to eliminate the possibility of constituent negation on the focus is to place stress on some other element in the clause, which eliminates the contrastive prominence of the focus required for the constituent negation interpretation:

(57) It wasn't a hammer that he repaired the LOCK with.
(58) *It wasn't with a hammer that he repaired the LOCK.

These contrasts are explained under our hypothesis. Similarly we can account for the badness of all the following (where contrastive constituent negation is to be understood as eliminated):

(59) *It isn't when it rains that we have to sweep the court.
(60) *It wasn't under adverse circumstances that they attempted to take the city.
(61) *It isn't only since Christmas that we've had this typewriter.
(62) *It wasn't out of spite that he assigned it that number.
(63) *It wasn't when they were due that he was asking.

We conclude that these contrasts constitute evidence for our contention that non-NP CLEFTs are produced transformationally, while NP CLEFTs have an it-relative analysis, with the upper S and its copular verb present in underlying structure.

2.2 A somewhat unexpected contrast is illustrated in the following examples:

(64) It was Paul that Mary didn't want to go to the movies with.
(65) *It was with Paul that Mary didn't want to go to the movies.

(66) It was a hammer that he wasn't able to repair the lock with.
(67) *It was with a hammer that he wasn't able to repair the lock.

It appears that in general certain PP complements cannot be preposed out of the scope of a negative:

(68) He didn't put the book on the table.
(69) The book, he didn't put on the table.
(70) *On the table, he didn't put the book.

This restriction correlates exactly with Clefting possibilities:

(71) It was the book that he didn't put on the table.
(72) *It was on the table that he didn't put the book.

What seems to be involved is an inability of some adverbial elements to take scope over negation, for when we consider an adverb which is known to be able to take both inside and outside scope, we find that it is prepositional (of course it then unambiguously takes outside scope): 9

(73) It was because he wanted to annoy us that he didn't come.

2.3 We have shown in the last two subsections that (a) the upstairs he in a non-NP Cleft cannot take sentence negation; (b) a prohibition on extraction of adverbial complements out of the scope of negation makes it impossible, generally, to get negation on the downstairs verb. These two effects account for the striking contrast observed below, where we find that NP-Clefts allow double negation quite readily, but non-NP Clefts prohibit it entirely:

(74) It wasn't Paul that she didn't want to go to the movies with.
(75) *It wasn't with Paul that she didn't want to go to the movies.
(76) It wasn't a hammer that he couldn't repair the lock with.
(77) *It wasn't with a hammer that he couldn't repair the lock.

If we extract one of the elements that can take outside scope, the ban on double negation is reduced, but not eliminated (as long as we exclude contrastive constituent negation):

(78) *It wasn't because he wanted to annoy us that he didn't come. [Can be made good by continuing: -- It was because he got sick last time]

Similarly, if we extract a Q-complement (which are not subject to the prohibition against extraction out of negative scope), we get somewhat lessered but still distinct ungrammaticality with double negation:

(79) It was when they were due that he didn't want to find out.
(80) *It wasn't when they were due that he didn't want to find out.

The ungrammaticality of these last examples is due entirely to the impossibility of getting sentential negation on the copula introduced by the Clefting rule. These examples reinforce the point made in section 2.1: The observed contrasts are explicable if we propose that NP Clefts have an it-relative analysis, with a genuine underlying copula capable of taking negation, while non-NP Clefts are unambiguously derived by a Clefting rule which creates the superstructure of the cleft sentence transformationally, supplying a dummy copula.

3. Extraction

In this section we will exhibit another contrast between NP Clefts and non-NP Clefts: we will show that the focus constituent of a non-NP Cleft is an extraction island, while the focus constituent of an NP-Cleft is not. This difference is accounted for, under our dual analysis, by the difference in derivational history between it-relative constructions and constructions derived by the Clefting transformation. The focus of a sentence derived by Clefting has itself been extraced from the clause; and there is an independently established principle (cf. Pinkham 1975) that an extracted element becomes an island to further extraction. The focus of an it-relative construction, on the other hand, has never been extracted, but sits in its surface position from the very beginning of its existence. Consequently the prohibition against further extraction does not apply.

Very striking contrasts can be produced by comparing the results of subsequent extraction of an NP from a PP focus and simple movement of the corresponding NP focus:

(81) What was it that she fixed the lock with? *What was it with that she fixed the lock?
(82) Who was it that he was telling stories about? *Who was it about that he was telling stories?

These contrasts, however, do not provide an argument for our hypothesis, because the operations on the foci are not parallel. In the NP Clefts the focus has been
moved, in the PP Clefts it has been extracted from. It is in general the case that striking ungrammaticality is produced when a PP which has been dislocated from its normal position is deprived of its head, thus stranding the preposition; and if this is avoided by pied-piping the preposition, the result is much better: 10

(83) ?About whom was it that he was telling stories? (84) ?With which tool was it that she fixed the lock?

These seem to be no worse than their non-Cleft counterparts.

Consider, however, pairs like the following:

(85) It was a picture of Marx that he decorated his door with.

(86) It was with a picture of Marx that he decorated his door.

According to our hypothesis, (85) may have an it-relative analysis; (86) is unambiguously derived by Clefting. Now if we extract an NP from the position of Marx in each case, we predict a contrast, with the extraction in (86) significantly worse than the extraction in (85).

Extraction in (85) is already somewhat impeded by the constraint noted in Kuno (1973) on extraction from clause-nonfinal constituents:

(87) ?Who was it a picture of that he decorated his door with?

Still, extraction from the focus in (86) is definitely worse:

(88) *Who was it with a picture of that he decorated his door?

Here the preposition is not stranded; the operation is extraction in both cases; the only difference between the two constructions is that in (88) we have extracted from a non-focus, which under our proposed theory has already been extracted itself, and in (87) we are extracting from an NP focus, which under the it-relative analysis has never moved.

We offer here several more examples of the contrast:

(89) ?What was it a review of that they had that argument about?

(90) *What was it about a review of that they had that argument?

(91) ?Which books is it the covers of that we've got to paste these labels on?

(92) *Which books is it on the covers of that we've got to paste these labels?

The marginality of the examples with extraction from NP focus interferes to some extent with the judgment of the contrast; note, however, that (87), (89), and (91) are exactly as bad as they are expected to be, given that they involve extraction from clause-nonfinal constituents: 11

(93) ?Who did he tack a picture of on his door? (94) ?Which book did you put a review of on reserve?

Sentences like (93)-(94) (and (87),(89),(91)) are clumsy, but they do get said from time to time. (88),(90), (92), on the other hand, are virtually unsayable. This difference is a consequence of our proposed analysis.

We will conclude this section, and our argument, by showing that our hypothesis can account for the interaction of It-Clefts and WH-Clefts, an interaction which would otherwise be quite mysterious. It has been noted (cf. Higgins (1973)) that It-Clefting cannot apply to extract a constituent from the focus constituent of a transformationally derived WH-Cleft: 12

(95) What she was doing was eating a banana. (96) *It was a banana that she was doing was eating.

Though the entire focus constituent of a WH-relative construction can be It-Clefted:

(97) It was a banana that she was eating turned out to be.

Similarly, the focus constituent of an It-Cleft, if it is NP, can be WH-Clefted:

(98) It was a banana that she was eating. (99) *What it was that she was eating was a banana.

which, of course, is exactly as expected. Neither of the two analyses of (98), so far as we know, involves anything that would block extraction of the focus by WH-Clefting.

If, however, we attempt to WH-Cleft out of the focus constituent of an It-Cleft, we find the operation to be just as impossible as the reverse:

(100) It was with a picture of the Pru that he decorated his door.

(101) *What it was with that he decorated his door was a picture of the Pru.

(102) *What it was with a picture of that he decorated his door was the Pru.

The ungrammaticality of these examples parallels that of example (96), and the explanation is the same: the
It-Clef ting cannot in general reapply to their own output; the constraint against extracting from an extracted constituent has certainly been violated; and for many people a transformationally derived It-Cleif does not felicitously undergo raising or allow modification of the copula. But all of the possible explanations presuppose just the distinction which we have been at pains to establish: there is a nontransformationally derived it-relative construction with NP in predicate position, and a transformationally derived Cleft construction involving extraction.

4. Conclusion

We have shown that the "It-Cleif" construction in English represents two radically different syntactic derivations: an it-relative construction, and a transformationally cleft construction. The difference parallels that previously established between the headless WH-relative construction and the transformational WH-Cleft construction, in that the transformationally derived Cleft construction mimics the gross structural character of the nontransformational construction, but has somewhat extended scope in terms of what may appear in focus position.

The principal interest of this result, beyond the fact that a number of otherwise mysterious properties of It-Clef ting constructions can be accounted for, is the very difficulty of establishing it. One cannot help but marvel at the striking propensity for Clefting rules to model their outputs after nontransformationally derived headless relative construction, to the extent that in what might be called the "core" cases, there is no perceptible difference between the two.

We suggest, of course, that this is not an accident. The Clefting rules perform severe structural deformations of the clauses on which they operate; yet they apply freely in any kind of embedded clause, so long as their basic incompatibility with extraction rules is not violated. Accepting the basic insight of Emonds (1970), we might say that these Clefting processes are "structure-preserving", and that any such drastic restructuring process, if it is to be able to apply in nonroot clauses, must create an output structure which conforms to some pattern established by the base rules of the language.

Emonds' particular formulation of the Structure-Presuming Hypothesis, however, does not predict just what we find. As we have seen, the focus of a transformational It-Cleif can be a PP of various kinds, and it can also be an Adjective or Adverb Phrase; while the

first Clefting in each case extracts its focus constituent: this constituent once extracted becomes an island, and the subsequent extraction by the second Clefting process is blocked. In the following example, which has an it-relative analysis not involving extraction of the It-Cleif focuses, extraction from the focus by WH-Cleif ting is possible (though not quite perfect due to the fact that the focus is a clause-nonfinal constituent):

(103) It was a picture of the Pru that he decorated his door with.

(104) What was a picture of that he decorated his door with was the Pru.

Finally, we are able to account for the existence of double It-Cleifs. Given our two postulated constructions, we would expect them to be able to interact, in that there is no reason not to expect an it-relative construction to serve as input to the It-Cleif ting rule. The result of this in the case of (103), for example, sounds pretty stupid:

(105) ??It was a picture of the Pru that it was that he decorated his door with.

However, if the it-relative construction has more than just the copula between it and the focus, i.e. if the copula is modified or transposed around a raising verb, the result is much more felicitous:

(106) It was Sally that it usually was that Charley went to the movies with.

(107) It was a picture of the Pru that it turned out to be that he decorated his door with.

Furthermore, it is expectedly possible to produce a double It-Cleif by Clefting an NP out of the focus constituent of an it-relative construction:

(108) It's the Pru that it turns out to be a picture of that he's decorated his door with.

(As before, the slightly marginal status of the example is attributable entirely to the fact that it involves extraction from a clause-nonfinal constituent.) When we construct an example in which the first clefting is unambiguously a result of the It-Cleif ting transformation, however, we produce the following monstrosity:

(109) *It's the Pru that it turns out to be with a picture of that he's decorated his door.

There are several things that might be wrong with such a sentence: it is conceivable that such rules as
focus of an it-relative can only be an NP. The transformational Cleft does not copy exactly the structural properties of the static model, but generalizes to some extent the nature of the element extractable into focus position. On a strict interpretation of Emonds' SPH, no constituent type should be extractable into the post-copular position except those that are base-generable there; this should, it seems, exclude adverbial phrases such as because he got sick last time, only when it rains, somewhat reluctantly, etc. Yet such phrases are freely cleftable.

This fact can be made compatible with Emonds' version of the SPH only by de-sensitizing the structure-preservation constraint to certain details of structure: for example, the node-label over be could be taken to be V, with the point that adverb phrases may be assumed to be base-generable after verbs; or adverb phrases might be taken to be nondistinct, for the purposes of structure-preservation, from adjective phrases. Any such move, in practical terms, weakens the structure-preservation constraint to near vacuity: if it predicts anything anymore, it definitely does not predict that the outputs of Clefting rules will have just the properties that they have.

Thus Emonds' theory fails to predict what types of constituents will be extractable, failing to account for the differences between transformational Clefts and base Clefts. At the same time it fails to predict the similarities as well: since the structure-preservation constraint must be de-sensitized to all but the grossest constituent-type labeling, it cannot account for the fact that except for the observed generalization of the focus position, the transformational Cleft constructions imitate exactly the structure of the model. Thus the copulating element is in both cases, and not something else; the WH-Cleft construction copies not only the gross structure of a WH-relative construction, but also the details, for example the subject clause is a WH-clause, and not, for example, a that-clause. Thus Emonds' theory does not rule out, so far as we can tell, Clefts like the following:

(111) *That she's eating is a banana.
(112) *It's a banana what she's eating.

We conclude that although Cleft constructions constitute the most striking and convincing examples of structure-preservation, Emonds' theory as formulated is powerless to account for them. That theory, taken seriously, is far too restrictive, and must be abandoned or evacuated, it doesn't matter which; and the modeling of transformational Clefts on base Clefts still remains to be explained.

What we propose as an alternative is a much more articulated theory of the possible nonroot restructurings, which recognizes the unique status of Clefting rules. We propose that the possible nonroot reorderings for purposes of according prominence to particular elements of the clause are limited, consisting in certain restricted kinds of shifts (including, at least, rightward shifts to clause-final position (e.g. Heavy NP Shift) and adverb shifts to initial position (e.g. 'The fact that whenever he's sick he drinks beer ...')); and that the only alternative means of informational restructuring available to nonroot clauses is an extraction rule of the Clefting type, which builds an output structure by exact analogy to an existing "base cleft", or headless relative type construction. The transformational Cleft construction will differ from the model only in that it extracts directly from the clefted clause, thus at times exhibiting evidence of clause- connectivity between the clefted constituent and the clause, and in what the range of constituent types extractable into focus position is not subject to the same restrictions as are imposed by the base Cleft construction on its predicate.

This theory essentially says that Clefting rules produce outputs on analogy to existing copular constructions. What it predicts, and Emonds' theory does not, is that a language cannot have a Clefting rule unless it has an essentially similar headless relative type construction: in other words, we come to the rather surprising conclusion that the initially baffling syntactic syncretism exhibited by the Cleft constructions not only is not accidental, but is an essential feature of Cleft constructions: we claim that there exist no Clefting transformations that do not produce such syncretism.

FOOTNOTES

1. Bach (1969) (a paper which we have unfortunately not seen) apparently has argued for the same conclusion on quite different grounds. Higgins (1973), on the other hand, while recognizing a number of syntactic differences between the two constructions, treats them as derivationally nondistinct.

2. A source for It-Clefts essentially nondistinct from this is suggested, but not defended, in Chomsky (1971). Akmajian (1970a,b) proposes a headed relative source, but then proceeds to reject it (1970b) in favor of a derivation of It-Clefts from the corresponding WH-Cleft or WH-relative construction.
3. The headless relative clause in (4), which we will refer to as an it-relative, is distinguished from the WH-relative of (1) in several ways. The two most obvious differences are (a) that the WH-relative cannot be extrapoosed, whereas the it-relative must be:

(i) *It was a banana what she was eating.
(ii) *That she was eating was a banana.

[(i) is good with a comma after banana, under the appropriate discourse circumstances, as a tight dislocation]

and (b), that the WH-relative allows for most speakers only the WH-word what, marginally for some speakers other interrogative WH-words, while the it-relative allows only genuine relative clause introducers who and that (and somewhat less commonly which):

(iii) *Which she was eating was a banana.

??Who finally spilled the beans was Bill.

(iv) It was the pistol which finally convinced him. It was Bill who finally spilled the beans.

4. It might be thought that the ungrammaticality of (12) is due to the fact that a pronoun precedes and commands its antecedent (under at least one of the possible guesses at the surface structure of (12)). This explanation would not be available, however, for cases like (i), where the same sort of prohibition seems to obtain:

(i) *The one John wants them to hire is him.

[The sentence is grammatical, of course, without coreference between John and him.] Here the antecedent precedes the pronoun, and furthermore precedes it at every stage of the derivation, under whatever analysis you choose. It would do no good, in any case, to attempt to attribute the ungrammaticality of (i) to a violation of the precede/command constraint at some earlier stage, with a subsequent reordering to the surface configuration, because the other order of pronoun and antecedent is just as bad or worse:

(ii) *The one he wants them to hire is John.

It appears that what is involved is a peculiar restriction on the predicate position of copular sentences. An NP in that position cannot participate in anaphoric relations with an NP contained within the subject of the sentence.

5. There is, in fact, evidence that such independent reasons do exist. In the case of each other, it seems that it is only cases where each other entirely occu-
pies focus position that are disallowed:

(i) It was pictures of each other that they exchanged.

It's private details of each other's lives that we should try not to talk about in public.

These sentences should not be derivable if there were no rule of It-Cleffing. This reluctance of each other to occupy a position of focus is not restricted to the Cleft construction, either:

(ii) *Each other, we get along with quite well.

(iii) Private details of each other's lives, we refuse to discuss in public.

So whatever constraint is involved in the prevention of Topicalization in (ii) might reasonably be expected to prevent Clefting in (16) as well.

As for any, it seems that when it is the result of the some-any rule, it is in general unformidable:

(iv) *Any more sentences like this, they won't be able to take.

This is clearly due to an incompatibility between the unstressed some from which any is derived and the conditions necessary for fronting by such rules as Topicalization and Clefting:

(v) *Some grease, we'd better put on the bearings.

*Some more sentences like this, we should include among our examples just to give the impression that we actually have something to say about this construction.

(vi) *It's some grease that we'd better put on the bearings.

*It's some more sentences like this that we need to include among our examples...

6. Lest the reader notice that

(i) The place he pulled the derringer from, was from his vest pocket.

is a much more nearly conceivable sentence than (37), and entertain the notion that (37) could be derived from (i), or even from

(ii) The place he pulled the derringer from was, he pulled the derringer from his vest pocket.

we simply point out that there is no possibility of such a move in the case of examples like (23), (28), and (29). To take such reduplicated constructions as
underlying Cleft constructions (as has been proposed, e.g. by Bach and Peters (1968), for WH-Clefts and by Clifton (1969), for both WH-Clefts and It-Clefts), in view of the semantically nonsensical underlying structures that result, should require not only mechanical feasibility but strong motivation.

The constructions exemplified in (i)-(ii) are interesting, but we suggest that they represent a kind of syntactic stuttering, and should be considered more properly a part of the study of hesitation and repetition phenomena than of syntax.

7. Counterexamples of essentially this kind are cited in Akmajian's paper itself. He proposes no way to save his proposal in the face of them.

8. Since the conception of the "meaning-preserving" hypothesis, it has been virtually universally assumed that Cleft sentences must have an underlying structure distinct from that of the corresponding unclerf sentence, on the assumption that the two sentences differ somehow in "meaning", and must therefore have different underlying representations. Thus virtually all proposed analyses involve an underlying structure for Cleft sentences in which the superstructure (the upper clause containing the copula be) is already present. For some reason this approach has not been discarded by interpretivists, possibly because of the commonly accepted notion that transformations should not "build structure". Of course this is exactly what we are proposing that these rules do, and we intend our argument as a challenge to any analysis which posits the superstructure of a Cleft sentence as part of its underlying representation. Under any such analysis, it will no longer follow that the upstairs clause cannot take negation.

9. We are grateful to Susumu Kuno for pointing this out to us.

10. These facts, we discovered while preparing the final draft of our paper, are also noted in Higgins (1973).

11. If the extraction is from a subject NP, the violation is considerably worse (as Kuno (1973) notes):

(i) *Who did a picture of suddenly appear on his door?

(ii) *What was a review of being discussed?

This is why we have chosen clause-nonfinal nonsubject NP in (93)-(94) for comparison with (87), (89), (91).

12. It is amusing to contemplate the following contrast, which we can now explain:

(i) *It was himself that what he was doing was washing.

(ii) It was himself that what he was doing was amusing.

Example (i) is exactly parallel to (iii), which is parallel to (96) in the text:

(iii) *It was Charley that what he was doing was washing.

Sentences (i), (iii), and (96) are ungrammatical because they derive from unambiguous WH-Clefts, and the focus of a WH-Cleft is an island:

(iv) What he was doing was washing himself.

(v) What he was doing was washing Charley.

This constraint, of course, also blocks the derivation of (ii) from (vi), which is exactly parallel to (iv):

(vi) What he was doing was amusing himself.

and accounts for the fact that (ii) does not have the reading associated with the WH-Cleft (vi), but rather the WH-relative reading corresponding to (vii):

(vii) What he was doing was amusing him.

(ii) is derived, in fact, from this source (the emphatic reflexive substituted for the nonreflexive pronoun in focus position of the It Cleft by the mysterious process discussed in section 1.1) and not at all from the superficially more likely-looking source (vi). The difference between (i) and (ii) is thus explained as a direct reflection of the fact that amuse can take a WH-relative subject of the form what he was doing, while wash cannot:

(viii) What he was doing was amusing him.

(ix) *What he was doing was washing him.

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