

# Chapter 3

## The Cleft Copula and Clefted Constituent

In this chapter and the following one, I examine the structure of clefts. The primary issue to be addressed is the nature of each of the four structural components of cleft sentences, as shown in (1), and how the four components are related:

(1)            cleft pronoun + copula + clefted constituent + cleft clause  
                  It                    is                    beans                    that I like

In the first section of this chapter, I present an overview of two previous approaches to the structure of clefts, which differ in the extent to which clefts are viewed as a subclass of copular sentences. The remaining sections focus more closely on the cleft copula, the clefted constituent, and the relation between them. In support of the analysis of clefts as copular sentences, I will argue that clefts, like other copular sentences, exhibit predicational as well as specificational interpretations, and that semantic constraints on permissible clefted constituents follow from their status as complements of the copula. In Chapter 4, I discuss the nature of the cleft pronoun and the cleft clause, and how all four components are related.

### 3.1 Two approaches to the structure of clefts.

One way to look at the structure of clefts is to take seriously the surface form of each component and assume that they function in clefts exactly as they do in other constructions: i.e. that the cleft pronoun, like pronouns in general, is a referring expression, that the copula plays the role it plays in other copular sentences, that the clefted constituent is a predicate complement, and that the cleft clause is a restrictive relative clause, as summarized in (2):

(2)            PRONOUN + COPULA + PREDICATE COMPLEMENT + RELATIVE CLAUSE

Another way to look at clefts is to assume that nothing is what it seems: the cleft pronoun is just a dummy pronoun; the copula is just a dummy verb, the clefted constituent is really the subject of the sentence, and the cleft clause is really the predicate, as summarized in (3):

(3)            DUMMY SUBJECT + DUMMY VERB + SUBJECT + PREDICATE

Part of what makes clefts interesting is the difficulty of deciding which way to go.

By the time Otto Jespersen coined the term 'cleft-sentence' in Volume VII of *Modern English Grammar* (1949), he had already proposed two distinct analyses of their structure. The unresolved

conflict between Jespersen's two analyses is reflected in the competition between two general approaches to the structure of clefts in contemporary generative grammar. The problem is that both senses of the word *cleave* seem applicable to cleft sentences: they are 'cleft' into two parts, but the two parts 'cleave' together<sup>1</sup> both semantically and syntactically.

### 3.1.1 THE EXTRAPOSITION APPROACH.

In Volume III of *Modern English Grammar* (1927), Jespersen argued informally in favor of one analysis of clefts, which he later labeled the 'transposition analysis' and rejected. On this analysis, cleft sentences are viewed as a subclass of copular sentences: the clefted constituent is a predicate complement and the cleft clause is a relative clause discontinuously modifying the cleft-pronoun. In *Analytic Syntax* (1937), he formalized this earlier analysis as follows<sup>2</sup>:

- (4)           **Jespersen 1927**  
                   S\* V P 2\*(S<sub>2</sub><sup>c</sup> V)                   it<sub>1</sub> is the wife [who decides]<sub>1</sub>

The transposition analysis had precedents in the traditional analysis of the cleft clause as a 'subject clause.' According to Fowler and Fowler 1919, for example, 'the *that* clause, supplemented by *it*, gives us the subject of a predication,' while 'the predication answers an imaginary question, recorded distinctly in the relative': 'What do you want?' 'It (the thing) that I want is money'/'it is money that I want.' Similarly, Curme 1931: 'It has become common to make any noun, adverb, or adverbial phrase or clause emphatic by converting it into an emphatic predicate introduced by *it is* (or *was*) and followed by the subject of the sentence in the form of a subject clause.'

Halvorsen 1978 points out the similarity between Jespersen's transposition analysis and transformational analyses of the 1970's that treat clefts as extraposed variants of pseudoclefts. The constituent structures assumed by some primary proponents are shown in (5)<sup>3</sup>: These analyses closely resemble Jespersen's transposition analysis in assuming the clefted constituent to be a predicate complement, and the cleft clause to be associated with the cleft pronoun. Clefts and pseudo-

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<sup>1</sup>Websters New Collegiate Dictionary: <sup>1</sup>cleave [ME *clevien*, fr. OE *clifian*]: to adhere firmly and closely or loyally and unwaveringly. <sup>2</sup>cleave [ME *cleven*, fr. OE *cle:ofan*]: *vt* 1: to divide by or as if by a cutting blow... *vi* 1: to split esp. along the grain...

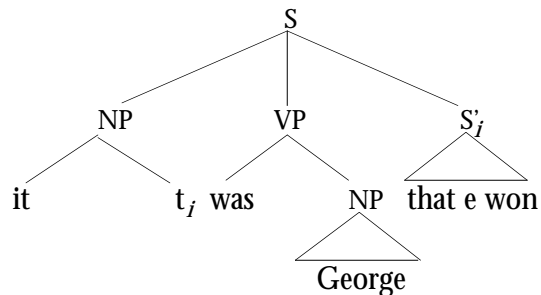
<sup>2</sup>S= Subject; V = Verb (finite); P = Predicative; 2 = Secondary; \* \* = words standing apart, but belonging together; and S<sub>2</sub> = a second subject; <sup>c</sup> = connective (serving to connect a clause with the principal part of the sentence, conjunction, relative pronoun, etc.).

<sup>3</sup>For the sake of comparison, I have used a uniform notation in the transformational analysis trees. I have used traditional category labels, and have assumed coindexed traces (t) and empty categories (e), to reveal (respectively) the movement and deletion operations of the earlier framework.

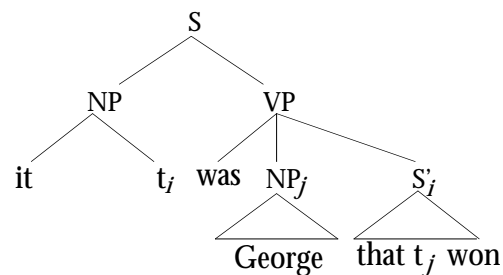
clefts are assumed to have a common basis, and cleft sentences in general are viewed as a subclass of copular constructions.<sup>4</sup>

(5)

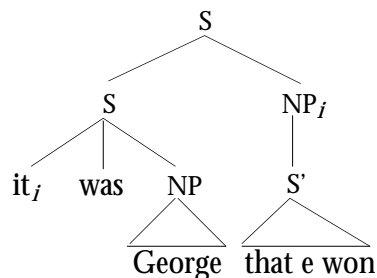
**A. Akmajian 1970;  
Bolinger 1972; Wirth 1978**



**B. Emonds 1976**



**C. Gundel 1977**



The individual proposals differ in various ways: (i) Is the clefted constituent extracted from the cleft clause and placed in predicate position by transformational rule (Akmajian, Emonds), or is it base-generated in its surface position (Bolinger, Gundel, Halvorsen, Wirth)? (ii) Does the cleft clause start out as a headless, free relative (Akmajian, Gundel, Halvorsen), or as a modifier of a pronominal head (Bolinger, Emonds, Wirth)? (iii) Is the cleft pronoun a semantically-inert expletive (Akmajian, Emonds, Halvorsen, Wirth), or does it refer (Bolinger, Gundel)? (iv) Is the rule that extraposes the cleft clause peculiar to clefts (Akmajian, Halvorsen, Wirth), or an application of a more general rule, such as extraposition-from-NP (Bolinger), sentential-subject extraposition (Emonds), or right-dislocation (Gundel)? (v) Does the cleft clause form a surface constituent with VP (Emonds), or only with S (Akmajian, Bolinger, Gundel, Wirth)?

<sup>4</sup>Akmajian 1970 actually proposed a dual-source analysis for pseudoclefts, whereby the clefted constituent is either base-generated in predicate complement position or transformationally extracted from the underlying embedded S. I won't be concerned here with the 'classical era' controversy between advocates of deletion (Bach and Peters 1968; Ross 1972), extraction (Chomsky 1970; Schachter 1973, Hankamer 1974; Pinkham and Hankamer 1975; Emonds 1976), and base-generation (Higgins 1973; Gundel 1977; Wirth 1978) analyses of clefts and pseudoclefts. A fourth classic approach to pseudoclefts was the 'indirect question analysis' of Faraci 1971 and Harries 1972. For discussion see the cited sources, and for overviews see Halvorsen 1978 and Delahunty 1982.

### 3.1.2 THE EXPLETIVE APPROACH.

Jespersen 1937 rejected his earlier transposition analysis in favor of treating cleft sentences as syntactically identical to their unclefted counterparts—except for the ‘intercalation’ of the cleft pronoun, copula, and relative complementizer, now viewed as expletive elements which are ‘extraposed’ relative to the sentence proper. He formalized this analysis as follows<sup>5</sup>:

- (6) **Jespersen 1937**  
[sv] S [3<sup>c</sup>] V [it is] the wife [who] decides

Again, there is perhaps some precedent in earlier work. For example, Poutsma 1904: ‘To engage the hearer’s or reader’s attention for what is considered most worthy of his interest, there is the artificial expedient of placing the word-group *it is* or *it was* before the most prominent word in the sentence.’ Similarly, Kruisinga 1911: ‘It is usually explained that the introductory *it is* serves to emphasize some element of the sentence. But it must be considered that the same result could often be obtained by giving front position to the word group without any *it is*’

In the generative tradition, beginning with Chomsky 1977, the extraposition analysis was suddenly abandoned in favor of an approach more similar to Jespersen’s intercalation analysis,<sup>6</sup> resulting in proposed surface structures such as those shown in (7).<sup>7</sup> These analyses have in common their treatment of the cleft pronoun and copula as expletive elements which serve to syntactically introduce the clefted constituent but play no essential role in the interpretation of the sentence. The clefted constituent is no longer viewed as the main predicator, but merely as a preposed argument of the cleft clause.

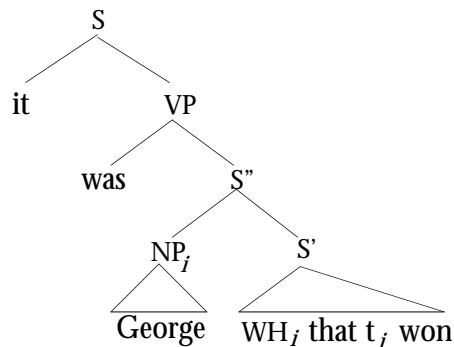
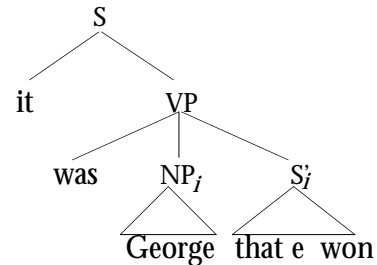
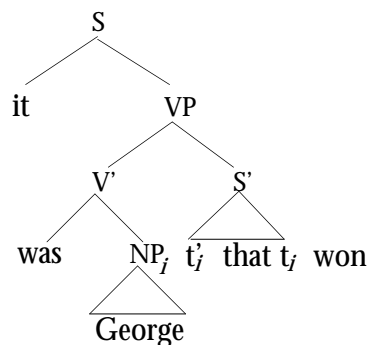
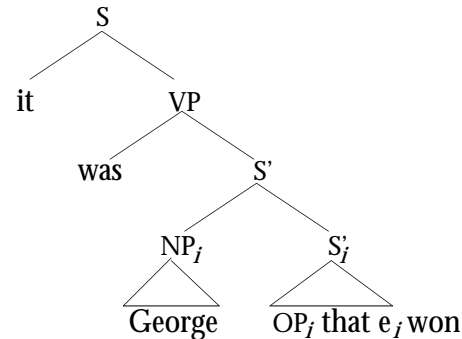
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<sup>5</sup>s= ‘Lesser’ subject; v = ‘Lesser’ verb (separated from the main verb); 3 = Tertiary; [ ] = extraposition or apposition.

<sup>6</sup>Delahunty 1982 explicitly makes this connection. Halvorsen likens extraction analyses of clefts (cf. note 4 above) to Jespersen’s intercalation analysis. Lees 1963 proposed an early transformational version of the expletive analysis in the Syntactic Structures framework: ‘An appropriate constituent is selected, to it is appended the WH-morpheme, this augmented constituent is brought out to the beginning of the sentence, and then the sentence is introduced by a main clause consisting of *it+be* plus the originally chosen nominal or adverbial constituent. Afterward, the ordinary rules for WH-morphophonemics in Relative Clauses can apply...’

<sup>7</sup>Again I have used a uniform notation for the sake of comparison. Coindexing is assumed to be assigned either under predication or by movement. See below for discussion of individual proposals.

(7)

**D. Chomsky 1977****E. Williams 1980  
Delahunty 1982****F. Rochemont 1986****G. Heggie 1988**

When he proposed his transposition analysis in 1927, Jespersen argued against assuming that the cleft relative clause takes the clefted constituent as its head, on the grounds that restrictive relative clauses are not ordinarily headed by proper names and definite pronouns. While the more recent generative analyses all assume the cleft clause to be directly predicated of the clefted constituent without mediation by the copula, none of them assume that the cleft clause is simply a relative clause restrictively modifying the clefted constituent. Various mechanisms are proposed to accomplish the predication.

Chomsky 1977 proposed that the clefted constituent is base-generated in an S'-adjoined 'topic' position, which is coindexed with the gap in the S' via the same 'predication rule' that links relative clauses to their associated heads. He assumes there to be a single structural configuration common to relative clause, cleft, topicalization and left dislocation structures, attributing any differ-

ences to surface interpretive rules peculiar to each structure.<sup>8</sup> Delahunty 1982 proposes that predication takes place solely at a compositional level of ‘Logical Form’ —the cleft clause translates as a function (lambda abstract) which takes the translation of the clefted constituent as its argument.<sup>9</sup> Williams 1980 and Heggie 1988 assume that the clefted constituent and cleft clause are coindexed at surface structure by a general predication rule, which results in their respective interpretation as subject and predicate. Williams and Delahunty analyze the clefted constituent and cleft clause as subconstituents of the VP,<sup>10</sup> while Heggie analyzes them as subconstituents of a small clause.

The focus of Chomsky’s 1977 examination of clefts was on arguing that the syntactic relationship holding between the clefted constituent and the gap in the cleft clause observes general constraints on *wh*-movement. Thus, (8b) shows that the relation obeys the ‘complex NP’ constraint, and (8c) shows that it obeys the ‘*wh*-island’ constraint (Ross 1967).

- (8) a. It is this book that I asked Bill to get his students to read.  
 b. \*It is this book that I accept the argument that John should read.  
 c. \*It is this book that I wonder who read.

This relation is captured in more recent generative analyses by means of an operator-variable relation postulated to hold between the relative pronoun (or empty operator) and the gap. The operator is assumed to have undergone movement from its D-structure position, leaving behind a coindexed trace in the position of the gap.<sup>11</sup> The clefted constituent is assumed to be locally associated with the operator through some version of the predication relation proposed by Chomsky. Rochemont

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<sup>8</sup>See Chomsky 1977: 94-97). Cf. also Pinkham and Hankamer 1975, Culicover 1977 and Rochemont 1986 for discussion of syntactic parallels between topicalized and clefted constituents, and Delahunty 1982 for discussion of differences. A traditional precedent for this view may perhaps be read into the Kruisinga passage quoted above.

<sup>9</sup>That is, ‘ $\lambda x.won'(x)$  (George)’. A very similar analysis is offered by Gazdar, Klein, Pullum and Sag (1985) in a Generalized Phrase Structure Grammar framework. See also Atlas and Levinson’s (1981) translation of ‘It was John that Mary kissed’ as  $\lambda x.x = \text{George} (\gamma y.won'(y))$ , i.e. ‘a group of individuals that won is identical to George.’ Note that for Atlas and Levinson, exhaustiveness is built into the semantic representation of clefts by means of ‘=’, so that a cleft sentence entails the corresponding simple sentence, but not vice-versa.

<sup>10</sup>But for different reasons. For Williams a predicate must mutually c-command its associated subject. Delahunty argues on the basis of concerns of structure-preservation, that they are generated under the VP by independently-motivated phrase structure rules.

<sup>11</sup>It is generally assumed that this movement is subject to the subjacency constraint, and that the trace is subject to the ECP. Note that Chomsky (1977) argued that adverbial clefts such as (i) must have a source different from that of argument clefts, since the adverbial may be construed only within the matrix sentence:

- (i) It was out of spite that I ordered the students to refuse to hand in their assignments.

This difference could be viewed as just another instance of the complement-noncomplement (subject and adjunct) asymmetry regulated by the ECP (cf. Huang 1982), a constraint which also obtains in *wh*-questions:

- (ii) Why did you order the students to refuse to hand in their assignments?

1986 proposes that the clefted constituent is moved from its D-structure position in the cleft clause through the cleft clause COMP, and into a syntactic focus position adjacent to the copula.<sup>12</sup>

In sum, the syntactic structure of clefts is currently assumed to involve both an operator-variable relation, and a predication relation. Although the analyses within which these relations have been explicitly formulated fall within the expletive approach to the structure of clefts, these relations are not incompatible with the earlier extraposition approach. The operator-variable relation characterizing the internal structure of the cleft clause can be viewed to be a consequence of its relative clause nature; and the predication relation holding between the clefted constituent and the cleft clause operator can be viewed to be a consequence of the copular structure of the sentence as a whole.

In the remainder of this chapter, I focus on an examination of the copula and the clefted constituent, returning in Chapter 4 to an examination of the cleft pronoun, the cleft clause, and the relation between them.

### 3.2 The specificational-predicational distinction.

One way in which the extraposition approach to the structure of clefts differs from the expletive approach is in assuming the copula to play exactly the same role in the interpretation of clefts as it does in the interpretation of pseudoclefts and unclefted copular constructions. Expletive analyses, on the other hand, typically assume that the copula, like the subject pronoun, plays no role in the interpretation of the cleft sentence. On Delahunty's approach, for example, semantic interpretation is complete as soon as the function denoted by the cleft clause is applied to the translation of the clefted constituent —i.e., there is nothing left for the copula and the cleft pronoun to do. Delahunty assigns them a null translation, ' $\emptyset$ ', and a null compositional role: the function-application interpretation function  $f$  in (9a) is bypassed in favor of the vacuous interpretation function  $g$  in (9b).

- (9) a.  $f(A,b) = A(b) = (b)A$                     [A, an abstract; and b, a sister of A]  
 b.  $g(E,\emptyset) = E$                                 [E, an expression of LF;  
 $\emptyset$ , a null expression]

The interpretation of the sentence 'It was Bill that kissed Mary,' proceeds as follows:

- (10) a. kissed                                         $K(x,y) = \lambda y[K(x,y)]$   
 b. Mary:    m  
 c. kissed Mary:                                     $f(\lambda y[K(x,y)], m) = \lambda y[K(x,y)](m) =$   
 $K(x,m) = \lambda x [K(x,m)]$   
 d. that     $\emptyset$

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<sup>12</sup>Rochemont offers independent motivation for this analysis from Hungarian and Aghem.

e.	that kissed Mary	$g(\lambda x[K(x,m)], \emptyset) = \lambda x[K(x,m)]$
f.	Bill:	b
g.	Bill that kissed Mary:	$f(\lambda x[K(x,m)], b) = (b) \lambda x [K(x,m)] = K(b,m)$
h.	was:	$\emptyset$
i.	was Bill that kissed Mary:	$g(K(b,m), \emptyset) = K(b,m)$
j.	it:	$\emptyset$
k.	it was Bill that kissed Mary:	$g(K(b,m), \emptyset) = K(b,m)$

Delahunty's assignment of identical interpretations to the sentences in (11) ensures that he captures the mutual entailment relationship between them.

- (11) a. It is Bill that kissed Mary.     $K(b,m)$   
 b. Bill kissed Mary.     $K(b,m)$

It is incumbent upon any analysis of cleft sentences to capture this characteristic of 'semantic connectedness.' If clefts are to be treated as having the same truth conditions as their nonclefted counterparts, it is necessary to assume that the copula makes no independent contribution to truth conditional meaning.

Though Delahunty assumes that clefts have the same truth-conditions as their unclefted counterparts, he does not assume that they are synonymous in the broadest sense. Rather, he follows Halvorsen 1978 in associating with clefts an existential and an exhaustiveness implicature which are lacking in their unclefted counterparts. The cleft pronoun, cleft copula, and relative complementizer can thus be viewed as playing the pragmatic role of signalling these implicatures.

But do we want to assume that the copula is semantically invisible to such an extent that it has only a vacuous role to play in the mapping between syntactic structure and semantic interpretation? An alternative might be to assume that even if the copula is semantically transparent it is not semantically inert —i.e. that it plays a nontrivial role in the compositional process even though its ultimate effect on truth-conditions is vacuous.

### 3.2.1 THE COPULA.

Just what is the copula? Philosophers have traditionally distinguished two copulas: the '*be* of predication' and the '*be* of identity.'<sup>13</sup> Ambiguities involving the copula rose to prominence in generative linguistics with the distinction first made in Akmajian 1970b between 'predicational' and 'specificational' pseudoclefts. Higgins 1973 extended the classification to account for all copular

<sup>13</sup>There is third traditional verb 'to be' which is not considered a copula. This '*be* of existence' is used intransitively, as in: 'I think, therefore I am,' and 'There is a fly in my soup.'



sentences, and added two more subclasses to Akmajian's pair: 'identificational' and 'identity.' Higgins' typology of copular sentences, shown in (12), includes his semantic characterizations of their arguments. Examples are shown in (13):<sup>14</sup>

(12)	<b>Type</b>	<b>Subject</b>	<b>Predicate</b>
a.	<u>Predicational</u>	Referential	Predicational
b.	<u>Specificational</u>	Superscriptional	Specificational
c.	<u>Identificational</u>	Referential	Identificational
d.	<u>Identity</u>	Referential	Referential

(13)	a.	<u>Predicational</u> That thing is heavy. That woman is Mayor of Cambridge.
	b.	<u>Specificational</u> What I don't like about John is his tie. The only girl who helps us on Friday is Mary Gray.
	c.	<u>Identificational</u> That is Joe Smith. That is the Mayor of Cambridge. The girl who helped us on Fridays is Mary Gray.
	d.	<u>Identity</u> The morning star is the evening star Cicero is Tully.

Other analysts subsume the three non-predicational classes under a more general class, ending up with a two-way classification of copular sentence types which is essentially equivalent to that implied by the dichotomy of copulas of the philosophical tradition, though the terminology varies: e.g. 'equative' versus 'nonequative' (Bolinger 1972), 'identifying' versus 'attributive' (Gundel 1977), 'identificational' versus 'characterizational' (Kuno and Wongkhomthong 1981), and 'equative' versus 'predicational' (Safir 1982). Chierchia 1984 follows the philosophical tradition in distinguishing a '*be* of predication', which links a referential expression with a predicate, and a '*be* of identity', which links two referential expressions.<sup>15</sup>

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<sup>14</sup>Higgins presents the chart in (12) on p. 264. I have modelled my summary of Higgins' typology on the summary given in Heggie (1988:4-5), taking the examples in (13) directly out of Higgins.

<sup>15</sup>Ball 1978 and Declerck 1988 distinguish all four of Higgins' subtypes. Heggie 1988 proposes a somewhat different reduction of Higgins' typology. She views specificational sentences as inverted variants of basic predicational sentences; and views 'identificational' and 'identity' sentences as basic predicational sentences in which the predicate has raised into the VP-adjunct, 'constructional focus' position of Rochemont 1986. She ends up, then, with a trichotomy of S-structure sentence types derived from a common predicational base. Unified accounts of all copular sentences are also proposed in Williams 1983 and Partee 1986, 1987. I will turn to a discussion of these proposals in §3.2.3 below.

### 3.2.2 PREDICATIONAL-SPECIFICATIONAL AMBIGUITIES.

A diverse set of copular sentences has been characterized in the literature as ambiguous between a predicational and a specificational interpretation. For purposes of developing an intuitive understanding of the distinction, it is useful to attempt a classification of this set into subtypes, according to the aspect of their meaning that the ambiguity seems to turn on:

- (14)        Coordination
- a.    What we saw in the park was a man and a woman.        (Higgins)
  - b.    What I bought is a German Shepherd and a St. Bernard    (Gundel )
  - c.    What I need is a car and a boat.                                (DeClerck)
- (15)        Temporal, Aspectual, Modal
- a.    The one who got the job was my wife.                                (Gundel)
  - b.    Her last show was a Broadway hit.                                (Gundel)
  - c.    What I bought was a tadpole.                                        (Culicover)
  - d.    What I don't eat is food for the dog.                                (Akmajian)
  - e.    What John doesn't want is to be left alone.                        (Halvorsen)
- (16)        Locational
- a.    Where John is living is in San Francisco.                        (Culicover)
  - b.    Where he lives is on the other side of the ocean.                (Partee)
  - c.    The place where I found John was in the garden.                (Akmajian)
- (17)        Subject attribution
- a.    What John was doing was making Sara laugh.                        (Partee)
  - b.    What he told us was the answer.                                        (Akmajian)
  - c.    What I heard was an explosion.                                        (Gundel)
- (18)        Speaker attribution
- a.    What he threw away was a valuable piece of equipment.        (Akmajian)
  - b.    What I drew was a piece of trash.                                        (Akmajian)
  - c.    What she's eating is garbage.    (Ball)
  - d.    What he wants his next wife to be is fascinating.                (Akmajian)

- (19)      Indirect question
- a.    What Henry whispered to Nancy is a military secret.      (Gundel)
  - b.    What the general is discussing is classified information.      (Ball)
  - c.    What John is is important.      (Higgins)

The specificational-predicational distinction is not without problems. For one thing it is not always clear that the intuitive meaning difference involved in the specificational-predicational distinction is really semantic in nature since the two ‘readings’ sometimes entail each other, as in the examples in (20):

- (20) a.    What I heard was an explosion.      (Gundel)
- b.    Where he lives is on the other side of ocean.      (Partee)

Even when the two readings are truth-conditionally distinct, the difference is generally attributable to some semantic factor independent of the copula, such as a lexical ambiguity, as in (21):

- (21)      Nixon’s peace plan is a bomb.      (Higgins)

Similarly, what the difference in truth conditions of (15c) comes down to is whether the property of ‘being a tadpole’ characterizes the animal at the interval during which John bought it (the specificational reading) or at some prior interval (the predicational reading). To the extent that there is a semantic ambiguity here, it seems to depend on the interpretation of tense rather than on the interpretation of the copula. The temporal, aspectual and modal examples can easily be disambiguated by making their indexical parameters explicit:

- (22) a.    What John bought used to be a tadpole.
- b.    What I don’t eat becomes food for the dog.
- c.    What John doesn’t want should be left alone.

The conjunction examples in (14) are perhaps similarly reduceable to an independent ambiguity involving indefinite term conjunction as opposed to common noun (property) conjunction. The latter interpretation is restricted primarily to predicate complements, though it seems vaguely present in noncopular sentences, at least when the conjunction is contrastively stressed:

- (23) a.    I bought a German Shepherd AND a St. Bernard.
- b.    John saw a man AND a woman in the park.
- c.    I need a car AND a boat.

Note also that Akmajian’s example in (18a) seems to have two ‘predicational’ readings, in addition to the specificational one. The speaker could be characterizing the piece of equipment as

valuable either at the time it was thrown away, or at some prior time. The former interpretation can be obtained from the unclefted counterpart when the adjective is stressed:

- (24) a. He threw away a VALUABLE piece of equipment.  
b. He threw away a valuable piece of EQUIPMENT.

As a further complication, the examples in (19) have an indirect question reading in addition to or instead of a predicational reading.<sup>16</sup> This is the reading obtained unambiguously in (25a):

- (25) a. What pharaoh built the pyramids is a mystery. (Halvorsen)  
b. What Henry whispered to Nancy is a military secret. (Gundel)  
c. What the general is discussing is classified information. (Ball)

Gundel's (1977) example in (25b) has both an indirect question reading and a predicational reading, but seems to lack the specificational reading, due to the absence of tense-concord between the matrix clause and the cleft clause. Ball's (1978) example in (25c) has all three readings. If the general is discussing an arms-for-hostages deal which the speaker is asserting to be classified information, we have the predicational reading; if the topic of discussion is classified information per se, we have the specificational reading; and finally, if the government has withheld the topic of the general's discussion for security reasons, we have the indirect question reading.

In spite of the problems and complications just mentioned, I will assume from here on that the specificational-predicational distinction is adequately motivated.

### 3.2.3 SYNTACTIC CORRELATES.

It is well known that the specificational-predicational distinction has certain syntactic correlates. In particular, only specificational sentences exhibit what Higgins' 1973 referred to as 'syntactic connectedness.' Post-copular reflexive and reciprocal pronouns, for example, are permitted only in specificational sentences. The sentences in (12), then, are necessarily specificational with a reflexive pronoun in the complement, but necessarily predicational with a (bound) non-reflexive pronoun:

- (26) a. What John is is important to himself/him. (Higgins, Williams)  
b. What John is is a nuisance to himself/him. (Partee)  
c. His favorite hobby is preventing himself/him from sleeping. (Higgins)  
d. John's dream is to better himself/\*him. (Halvorsen)

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<sup>16</sup>Higgins 1973 suggests that the 'indirect question' sentences can perhaps be classified with 'predicational' sentences, but he doesn't want to take a stand on whether the subject in such cases is 'referential' or not.

Secondly, post-copular negative polarity items with subject-internal negative operators are licensed only in specificational sentences:

- (27) a. What I don't have is any money.  
 b. I have \*any/some money  
 c. What John hasn't done is leave yet/\*already. (Halvorsen)  
 d. John has left \*yet/already. (Halvorsen)

Thirdly, the order of the phrases can be reversed with no change of meaning only in specificational sentences. The two pronouns in (27a) are thus obligatorily disjoint, and (27b)-(27f) do not have the predicational reading of their counterparts in (14)-(19), though the post-copular phrase can be understood predicatively as defining the subject:

- (27) a. \*Amusing them<sub>i</sub> is what they<sub>i</sub>'re doing.  
 b. Amusing each other is what they're doing.  
 c. Food for the dog is what I don't eat.  
 d. A man and a woman was what John saw in the park.  
 e. A military secret is what the Vice President is discussing.  
 f. A bomb is Nixon's peace plan.

Fourthly, only specificational sentences allow neuter reference to people. The examples in (28) accordingly lack a predicational reading:

- (28) a. What you need is a good wife, which you don't have. (Kuno)  
 b. What he wants to marry is an actress. (Higgins)

Finally, only predicational sentences allow auxiliary reduction (Kaisse 1979):

- (29) a. What he said's not significant.  
 b. What they're doing's amusing them.  
 c. \*What they're doing's amusing each other.  
 d. \*What he's asking's whether there's any beer.

The existence of such syntactic correlates, of course, lends further support to the view that the specificational-predicational distinction is linguistically significant.

### 3.2.4 CHARACTERIZING THE DISTINCTION.

While it is uncontroversial that there is some sort of asymmetry between the two phrases of specificational sentence in that one of the phrases is somehow more abstract or less referential than the

other phrase, there has been little consensus on how to characterize the more abstract phrase. I turn next to a review of the major proposals. To simplify the discussion, I will ignore the fact that specificational sentences are reversible and assume for the rest of this section that the more abstract phrase always occurs in subject position.

Higgins 1973 assumed that specificational subjects have a semantic status peculiar to specificational sentences. He labelled this status 'superscriptional,' and characterized it as analogous to the heading of a list. Others have attempted to characterize this 'superscriptional' status in terms of the independently motivated attributive/referential, *de dicto/de re*, or predicative/referential distinctions. I turn now to a discussion of each of these attempts.

#### 3.2.4.1 The attributive/referential distinction.

Gundel 1977 notes that superscriptional phrases are always used 'attributively' in Donnellan's (1966) sense. However, the specificational-predicational distinction cannot be completely reduced to the attributive-referential distinction, as is clear from the example Donnellan originally offered in illustration of his distinction. The subject of (30a) can be used either attributively or referentially, but the sentence is predicational in either case:<sup>17</sup>

- (30) a. Smith's murderer is insane.
- b. Smith's murderer is a lunatic.
- c. Smith's murderer is Jones.

When the postcopular adjective is replaced by a synonymous indefinite noun phrase, as in (30b), the resulting sentence has all three interpretations; and when it is replaced by a proper name, as in (30c), the specificational reading predominates.

- (31) a. referential + predicative                   (predicational)
- b. attributive + predicative               (predicational)
- c. attributive + referential               (specificational)

While it is clear from the summarization in (31) that the predicational/specificational distinction can't be reduced to the referential/attributional distinction, it still appears possible to characterize the distinction in these terms, without introducing new terms such as 'superscriptional.'

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<sup>17</sup>Higgins (1973: 269-270) and DeClerck (1988: 61) make similar points. Note that Gundel claimed that attributive status is necessary for superscriptional readings, but not sufficient. Higgins (1973: 268-269) raises the objection that in using a noun phrase superscriptionally a speaker typically knows the identity of the referent, but to use a noun phrase attributively is precisely NOT to know the identity of the referent. As he himself points out, however, it isn't clear from Donnellan's discussion that a noun phrase can be used attributively only if the speaker lacks acquaintance with the referent. The knowledge state of the addressee is surely relevant, and also the type of speech act being performed (e.g. whether the utterance constitutes an assertion or a question).

### 3.2.4.2 The de dicto/de re distinction.

Halvorsen 1978 suggests that the specificational-predicational distinction can be at least partially reduced to the de dicto-de re ambiguity that arises in intensional contexts (i.e. only on the de re construal of 'John wants a unicorn' is the speaker committed to the existence of unicorns). He assumes the existence of both a predicational copula and a specificational copula, distinguished on the basis of whether the subject is interpreted at the level of individuals or at the level of properties-of-sets.<sup>18</sup> After appropriate reductions have been made, two distinct readings result for a sentence like (32):

- (32)           What John wants is a trunnion.   (two readings)
- |     |              |   |                                       |
|-----|--------------|---|---------------------------------------|
| i.  | e            | e | predicational & de re specificational |
| ii. | <s,<<e,t>,t> | e | de dicto specificational              |

(32) is true on its predicational reading if John stands in the want-relation to some individual which is a trunnion, and is true on its de dicto specificational reading if John stands in the want-relation to some property of sets which is identical to the property of all sets containing a trunnion. The de re specificational reading is truth-conditionally non-distinct from the predicational reading.

A purely extensional sentence like (33) has only a single truth-conditionally distinct reading, despite the fact that it could be used to answer two distinct questions.

- (33)           What John threw away was a trunnion.   (one reading)
- |    |   |   |                                 |
|----|---|---|---------------------------------|
| i. | e | e | predicational & specificational |
|----|---|---|---------------------------------|

Halvorsen argues that the discourse difference should not be associated with the pseudocleft construction per se because the unclefted variants, under equivalent assignments of primary stress, can be used in the same situations:

- (34) a.   What is a trunnion?  
       b.   What John threw AWAY was a trunnion.  
       c.   John threw AWAY a trunnion
- (35) a.   What was it that John threw away?

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<sup>18</sup>Halvorsen's (1978:77) predicational copula is exactly the copula proposed by Montague:  $\lambda P \lambda x P\{\lambda y[x = y]\}$  (except for certain type adjustments—i.e. the replacement of <s,e> with e throughout, as per Bennett 1974. Note that Montague's copula takes a generalized quantifier as a complement — this enables an account to be given for predication sentences with nominal complements by reducing them, in effect, to their identity counterparts, but predication sentences with adjectival predicates are left unaccounted for, (cf. Dowty, Wall and Peters 1981; Chierchia 1984). Halvorsen does not alleviate this shortcoming, of course, since he adopts Montague's copula as his predicational copula without essential modification. Halvorsen's specificational copula also takes a generalized quantifier as a complement (which 'goes in for the P'), and is translated as follows:  $\lambda P \lambda Q[P=Q]$ . The two copulas differ only with regard to the intensionality of the subject term (which 'goes in for the x' in the extensional predicational case and is thus of type e, and 'goes in for the Q' in the intensional specificational case and is thus of type <s,<<e,t>,t>>).

- b. What John threw away was a TRUNNION.
- c. John threw away a TRUNNION.

When the postcopular expression is an indefinite plural NP or a plural AP, the predicational reading is truth-conditionally distinct from the de re specificational reading. Three distinct readings are possible when there is both an intensional verb in the subject clause and a plural post-copular NP:<sup>19</sup>

- (36) What John wants is a man and a woman. (3 readings)
- i. predicational:  
 $\exists x[\text{want}^e(j, \lambda PP(x)) \wedge \exists y[\text{man}^e(y) \wedge y=x] \wedge \exists y[\text{woman}^e(y) \wedge y=x]]$
  - ii. de re specificational  
 $\exists x[\text{man}^e(x) \wedge \exists Q [\text{want}^e(j, Q) \wedge [\lambda PP(x) = Q ]]] \wedge$   
 $\exists y[\text{woman}^e(y) \wedge \exists P [\text{want}^e(j, P) \wedge [\lambda PP(y) = P ]]]$
  - iii. de dicto specificational  
 $\text{want}^e(j, \lambda P[\exists x[\text{man}^e(x) \wedge P(x)] \wedge \exists y[\text{woman}^e(y) \wedge P(y)]])$

Against the claim implicit in Halvorsen's analysis that predicational sentences are necessarily de re, it should be pointed out that de dicto copular sentences can have predicational as well as specificational interpretations:

- (37) a. What I need is a car and a boat. (DeClerck)  
 b. What Jane wants is a lover and a coauthor.

Thus, Jane in (37b) might simply wish that both attributes could be embodied in a single person, without believing that such a person exists.<sup>20</sup>

Morover, while the referential/attributive distinction can be easily extended to distinguish specific from non-specific indefinites, the de dicto/de re characterization cannot.<sup>21</sup> This extension is needed to distinguish two interpretations of the predicational sentence in (38a). The subject is non-specific when the sentence is continued as in (38b), but is specific when the sentence is continued as in (38c):<sup>22</sup>

<sup>19</sup>That is, either (i) there exists something which John wants, which is both a man and a woman (i.e. a hermaphrodite); or (ii) there exists a man that John wants, and there exists a woman that John wants; or (iii) John wants a man, and John wants a woman (who may or may not exist in the actual world).

<sup>20</sup>Note the appropriate use of a neuter relative pronoun to refer to an intensional person in (37a), indicating that the generalization discussed above in relation to (28) is applicable only at the extensional level.

<sup>21</sup>I am grateful to Jeanette Gundel for pointing this out to me.

<sup>22</sup>I am assuming Fodor and Sag's (1982) definition of 'specificity' — the speaker has a particular entity in mind. The de dicto/de re distinction applies to noun phrases which occur in the scope of an intensional operator such as a propositional attitude verb (e.g. *want*, *believe*) or a modal adverb (e.g. *necessarily*), the specific-nonspecific distinction



- (38) a. One of my father's uncles is a professor.  
 b. One of my father's uncles is a professor, but I don't know which one.  
 c. One of my father's uncles is a professor. I met him yesterday.

In any case, it is clear from the summary in (39) that Halvorsen's analysis does not permit the specificational-predicational distinction to be completely reduced to the de dicto/de re distinction:

- (39) a. de re + predicative<sup>23</sup> (predicational)  
 b. de re + referential (specificational)  
 c. de dicto + referential (specificational)

### 3.2.4.3 The predicative/referential distinction.

I have attributed to both Gundel and Halvorsen the assumption that the specificational post-copular phrase is referential in specificational sentences and predicative in predicational sentences. This difference in complement interpretation was pointed out explicitly already in Akmajian 1970, using the terms 'referential' versus 'non-referential' as defined in Kuno 1970. Williams 1983 suggests that the referential/predicative distinction can also be applied to distinguish the subjects of predicational and specificational sentences.

Partee (1986, 1987) adopts a version of Williams' suggestion, and labels it the 'uniform *be* theory,' because it eliminates the need to distinguish two copulas. She assumes simply that the copula is subcategorized to take one referential and one predicative argument, with the proviso that the arguments may occur in either order. Thus she assigns to the copula the (vacuous) logical translation in (40):<sup>24</sup>

- (40)  $\lambda P\lambda x[P(x)]$

The predicational-specificational distinction can be completely reduced under this analysis, which clearly has the virtue of extreme simplicity:

- (41) a. referential + predicative (predicational)  
 b. predicative + referential (specificational)

---

applies to indefinite noun phrases, and the attributive/referential distinction applies to definite noun phrases. It seems reasonable to assume that at least the latter two distinctions can be collapsed along the lines of Barwise and Perry's 1982 distinction between 'value-loaded' (specific, referential, de re) and 'value-free' (nonspecific, attributive, de dicto) interpretations.

<sup>23</sup>Recall from footnote 18 that Halvorsen adopts Montague's 'identity' analysis of the 'predicational' copula, which is applicable to predicative NP's, but not to predicative adjectives.

<sup>24</sup>Note that Partee is temporarily ignoring intensionality in order to simplify the exposition of her approach.

Note that the analysis of relative clauses as predicative expressions is uncontroversial. In Montague semantics, relative clauses are generally translated as lambda abstracts, lambda abstraction being precisely a device for deriving predicates from sentences.<sup>25</sup>

Partee develops her analysis of the copula in the context of developing a type-shifting approach to the interpretation of noun phrases. Since a formal presentation of the type-shifting framework is beyond the scope of this dissertation, I present only an outline of the formal apparatus in Appendix 1. The most important feature of the framework for my purposes is Partee's suggestion that the traditional distinction between referential, predicative, and quantificational noun phrases can be captured formally by allowing noun phrases to be translated either as individuals (type  $e$ ), or as predicates (type  $\langle e, t \rangle$ ), or as generalized quantifiers (type  $\langle e, t \rangle, t \rangle$ ), with further constraints imposed by particular contexts and by general principles of type-shifting.

I will argue in the next section that clefts as well as pseudoclefts and simple copular sentences exhibit the predicational-specificational distinction. In §3.4 and §3.5, I will argue that Partee's analysis of the post-copular specificational constituent as referential can be exploited to explain the frequently noted constraints against clefting predicative and quantificational expressions, and will provisionally suggest a type-shifting explanation for some frequently noted apparent counterexamples to these constraints. Finally, I will argue in the first section of Chapter 4 that the morphological form of the cleft pronoun depends in part on whether the sentence receives a predicational or specificational interpretation. The existence of these consequences, if correct, of course lends support to Partee's analysis of the copula.

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<sup>25</sup>Thus, Montague's (1973) translation rule for nominals containing a relative clause:

T3: If  $\zeta \in P_{CN}$ ,  $\Phi \in P_t$ , and  $\zeta, \Phi$  translate into  $\zeta', \Phi'$  respectively, then  $F_{3,n}(\zeta \Phi)$  translates into  $\lambda x_n [\zeta' (x_n) \wedge \Phi']$

See Partee, ter Meulen, and Wall (1990: 355-358) for discussion of the use of lambda abstraction in describing the semantics of restrictive relative clauses, and Higgins (1976: 191) for an early proposal to incorporate a lambda operator into the semantics of pseudoclefts. Geach 1962 also viewed relative clauses as predicational expressions: 'in 'Jim broke the bank...' and 'The man who broke the bank...died in misery,' we have two occurrences of the same *predicable*, but only in the first sentence is it actually a *predicate* attached to the *subject* 'Jim'.' (p. 24). Note also that Williams 1980 assumes that the index on a predicate should be interpreted as a lambda operator.

### 3.3 Predicational Clefts.

It has generally been assumed that the specificational-predicational distinction is applicable to pseudoclefts, but not also to clefts.<sup>26</sup> Thus, the cleft counterparts of the ambiguous pseudoclefts in the previous section, show a characteristic lack of ambiguity. The examples in (42) have only the specificational interpretation:

- (42) a. It was a man and a woman that we saw in the park.  
 b. It was a tadpole that I bought.  
 c. It's on the other side of the ocean that he lives.  
 d. It's food for the dog that I don't eat.  
 e. It's fascinating that he wants his next wife to be.  
 f. It was a piece of trash that I drew.  
 g. \*It's important to him<sub>i</sub> that John<sub>i</sub> is.

A few researchers have nevertheless suggested that certain clefts have predicational instead of specificational interpretations. Thus, Ball (1977, 1978) suggests that a cleft can be interpreted predicationally when the clefted constituent is 'an indefinite NP of the form DET ADJ N,' as in the examples in (43):

- (43) a. Gee, it's **a nice dress** you're wearing.  
 b. It sure is **a fast car** you drive.  
 c. It's **a subtle distinction** you're making.  
 d. It was **a simple and uneventful life** that Schubert lived.  
 [NY Times 3/19/78]

DeClerck 1988 also notes that the cleft in (44a) can be paraphrased as shown in (44b):<sup>27</sup>

- (44) a. Was it an INTERESTING meeting that you went to last night?  
 b. Was the meeting that you went to last night INTERESTING?

<sup>26</sup>For example, Akmajian 1970, Hankamer 1973, Higgins 1973, Gundel 1977, Halvorsen 1978, Heggie 1988.

<sup>27</sup>An early reference is Curme (1931:11): 'where the emphatic predicate in a sentence containing a subject clause is a noun denoting a person we always employ anticipatory *it* when the desire is to identify [as in (i)], but when the desire is to describe, we may say [ii] with Shakespeare, ... or now more commonly replace *it* by a personal pronoun that can indicate gender and number [as in (iii)]:

- (i) It was my twó bróthers who did it  
 (ii) It is a góod divíne that follows his own instructions [Merchant of Venice]  
 (iii) He is a góod divíne who follows his own instructions.

If Partee's analysis of the copula is correct, and if cleft sentences are a subclass of copular sentences, it follows that clefts should have predicational as well as specificational interpretations. The existence of predicational clefts would thus provide strong support for Partee's analysis of the copula as a reversible linking verb which selects a referential argument and predicative argument in either linear order. It would also indicate that the cleft copula plays an active role in the semantic interpretation of clefts.

In the remainder of this section, I will argue that particular subclasses of clefts do indeed have predicational rather than specificational interpretations. Further evidence that the specificational-predicational distinction is operative in clefts will be presented in §4.1 of the next chapter.

### 3.3.1 PLAUSIBLE CANDIDATES.

Attested candidates for predicational status are easily discovered, both specific, as in (45), and generic, as in (46):

- (45) a. 'It's **a very dangerous situation** we've got ourselves into,' he said.  
 [Minneapolis Star and Tribune, op-ed page, 5/29/87]
- b. I've been bit once already by a German shepherd. And that was something. It was really scary. It was **an outside meter** the woman had. I read the gas meter and was walking back out and heard a woman yell. I turned around and this German shepherd was coming at me.  
 [Prince 1978, 894; Meter reader in Terkel, 366]
- c. 'I'm a victim,' said Christopher Hagman, a freshman from Tampa, Fla., who was moved from his Bradley room. 'It was just **little things** going on, and they're just blowing them out of proportion. If the university thought their lives were threatened, I think they should have moved them.'  
 [NY Times, 6/3/90, p. 43]
- d. 'But surely it was Perry that Bingley saw in the wood?' Burden had asked. 'How can it have been? Confused as Bingley was, he was sure the man he saw was walking back from Thatto Yale, not going towards it...'  
 'It was **a grey-haired man** he saw,' Burden insisted.  
 'But was it? He came to see us in the first place because his niece told him he ought to. He had seen a man walking...'  
 [Rendall, Speaker of Mandarin, p. 207]
- e. But it is **a revised Kennedy** they believe in, a pacifist Kennedy all but indistinguishable from William Jennings Bryan.  
 [Yoder, Minneapolis Star & Tribune, 10/13/87]
- f. But never in my memory has a leader called war itself "civilized."... Perhaps war was civilized in the studio lots of Hollywood, in the rules and restraints operating over screenwriters. But... Was it **civilized war** that took the lives of 58,000 Americans in Vietnam?  
 [Goodman, p. 103]

- (46) a. It is **an odd bedside manner** that can be improved by reading Heidegger.  
[The NY Times Book Review, 1/7/90]
- b. VOYAGER includes a generation component, and one of our initial issues was how to deal with its output. Clearly it would be **a poor sort of interactive system** that did not allow for ordinary anaphoric and definite reference to entities introduced in the course of the conversation.  
[Answers and Questions, Processing Messages and Queries, C.N. Ball et al. Proceedings, Speech and Natural Language Workshop, DARPA, 1989, p. 63.]
- c. It's **the middle-class parent** who can afford to be the PTA president, go on field trips, tutor in classrooms, be a fundraiser, serve on committees and do all the other things that parent volunteers do.  
[Minneapolis Star and Tribune]

Predicative clefts containing the adjectives *odd* or *rare* seem to be especially common:

- (47) a. It was certainly **an odd fate** that brought Jim Ullstone, Marcel and myself together in the same car next morning, on the short journey into Chode, to attend the inquest on the body of Hugo Ullstone.  
[Mary Fitt, Death and the Pleasant Voices, p. 154]
- b. It was **an odd and engaging problem** the boy had dropped so casually into his lap.  
[Tey, Daughter of Time]
- (48) a. It is **a rare nursing home** that has staff well-enough trained to sense and interpret the psycho-dynamics that may trigger patient despair to the point of wishing to die.  
[Minneapolis Star and Tribune]
- b. Less than a decade ago it was **a rare novel** that sold 100,000 copies in hardcover.  
[The New York Times, 5/20/90]
- c. It's **a rare day** when a five-block walk does not include a couple of heart-in-the-throat incidents. [Minneapolis Star and Tribune, op-edpage, 8/10/87]
- e. Even so, it was **a rare year** in which more than 1,000 whales were killed.  
[cited in Ball 1989, Whale Rescue Project letter 10/85]

The examples in (48) are especially interesting because *rare* is an adjective with quantificational force. The predicational cleft in (49a), which is a paraphrase of simple quantificational sentences in (49b) and (49c), can be used to get around the quantifier constraint (to be discussed in section 3.4) that makes (49d) less acceptable:

- (49) a. It's **a rare man** who walks to work.
- b. **Few men** walk to work.
- c. **A man rarely** walks to work.
- d. ?It's **few men** who walk to work.

### 3.3.2 TESTS FOR PREDICATIONAL STATUS.

The hypothesis that the cleft sentences in section 3.3.1 are predicational is supported by the observation that at least some such clefts are paraphrased more closely by simple predicational copular sentences than by the sentences obtained by inserting the clefted constituent into the 'gap' of the cleft clause. Thus, the clefts in the (a) examples of (50)-(52) are more accurately paraphrased by their (b) counterparts than by their (c) counterparts:

- (50) a. It was **an odd televised ceremony** that I watched from my living room, and a touching one, marking the difficult transition the Carrs had made from couple to family, formally introducing a child into the world.  
[Goodman, p. 194]
- b. The televised ceremony that I watched from my living room was an odd one, and a touching one.
- c. I watched an odd televised ceremony from my living room, and a touching one.
- (51) a. It is **a rare conductor of any status today** who cannot hold several posts simultaneously if he wishes.  
[Minneapolis Star and Tribune, op-ed page, 9/17/87]
- b. The conductor who cannot hold several posts simultaneously if he wishes is rare.
- c. A rare conductor of any status today cannot hold several posts simultaneously if he wishes.
- (52) a. It is **an inconsistent logic** that argues that punishment for discrimination in one program of an institution should be applied to the entire institution but cannot see that federal funds to family-planning groups that engage in abortion do indeed support these abortions, even if the funds may not have been spent on the abortions themselves.  
[Minneapolis Star and Tribune, op-ed page, 8/8/87]
- b. The logic that argues that punishment for discrimination in one program of an institution should be applied to the entire institution but cannot see... is an inconsistent one.
- c. An inconsistent logic argues that punishment for discrimination in one program of an institution should be applied to the entire institution but cannot see...

DeClerck 1988 suggests a second test for predicational status. He points out that the pseudocleft counterpart to the cleft in (53a) is unambiguously predicative.

- (53) a. It was certainly no IDIOT who wrote this.
- b. The one who wrote this was certainly no idiot.

This test can be applied most successfully when the clefted constituent consists of an unmodified noun phrase, as in (54) and (55).<sup>28</sup> The unacceptability of the inverted pseudoclefts in (54c) and (55c) is consistent with an unambiguously predicational analysis of their pseudocleft counterparts.

- (54) a. **It was no Bonel, no lord of a northern manor, she had married**, but an honest craftsman of Shrewsbury.  
[Peters, Monk's Hood]
- b. The one she married was no Bonel, no lord of a northern manor, but an honest craftsman of Shrewsbury.
- c. ??No Bonel, no lord of the northern manor, was the one she married, but an honest craftsman of Shrewsbury.
- (55) a. K: Did you know that Mark Trail about a year or so ago quit smoking a pipe because some kid wrote in o'course to the author and said 'he shouldn't be smoking a pipe, blah-blah' y'know, all that...  
M: That was on account-o'-because he supposed to be out in the woods and you shouldn't be smoking out there.  
K: Well, also it's just a role model for kids, y'know. But **it was a KID who wrote him and told him that**.  
[Frederickson tapes]
- b. Well, also it's just a role model for kids, y'know. But the one who wrote him and told him that was a kid.
- c. ??A kid was the one who wrote him and told him that.

The cleft in (56) can perhaps be viewed as subtly ambiguous, with the ambiguity retained in the pseudocleft in (56b), but lost in the inverted pseudocleft in (56c):

- (56) a. The lamp burned by the side of a wooden table or bench that looked to him like a bed provided for his own night's rest. He went over to it, lifted off the painted silk cloth which covered it and looked down upon the Marquise of Tai. **It was a sarcophagus that he had uncovered**, set in a burial chamber.  
[Ruth Rendall, Speaker of Mandarin, p. 12]
- b. The lamp burned by the side of a wooden table or bench that looked to him like a bed provided for his own night's rest. He went over to it, lifted off the painted silk cloth which covered it and looked down upon the Marquise of Tai. What he had uncovered was a sarcophagus, set in a burial chamber.
- c. A sarcophagus was what he had uncovered, set in a burial chamber.

<sup>28</sup>Ball (1977, 1978) suggests that clefts have a predicational reading 'just in case the focus is an indefinite NP of the form DET ADJ N.' Notice however, that (46c) above and (62b) below have definite articles, and that (54a)- (57a) below are good candidates for predicational status, but don't contain adjectives. Thus, the important information conveyed by the cleft in (55a), for example, is that the letter-writer has the property of being a kid, i.e. the cleft answers the question, 'what kind of person was the person that wrote to him?' instead of, 'who wrote to him?'

Similarly, the cleft in (57a) might be viewed not as specifying ‘what we have here’ as a country, but rather predicating of Canada the property of being a country. Again the difference is perhaps too subtle to be easily detectable.

- (57) a. ‘I’m not going to sit back and for a shopping list from Quebec. I’m not going to wait for Quebec to finish its process and present a list for the new federalism — because **it’s a country we have here**, and all of Canada is involved.’  
[Brian Mulroney, quoted in the Vancouver Sun, 7/30/90, p. 1]
- b. I’m not going to sit back and for a shopping list from Quebec. I’m not going to wait for Quebec to finish its process and present a list for the new federalism. What we have here is a country, and all of Canada is involved.
- c. A country is what we have here, and all of Canada is involved.

Finally, it could be argued that the cleft in (58), originally discussed in Prince 1978, is really a predicational cleft, since the clefted constituent is an indefinite noun phrase and thus a candidate for predicative status.<sup>29</sup>

- (58) We do have a train problem, goin’ from here to the assembly plant. I cross one set of tracks twice, then two other sets of tracks once each. Long freight trains, going from Chicago to Gary. I have waited as high as ten, twelve minutes. Then you’re late.  
If I see a train crossing, I keep going. **It’s a game you’re playing.** Watch the stoplight, catch this light at a certain time and you got the next light. But if there’s a train there, I take off down Cicero Avenue, watching the crossings.  
[Utility man in Terkel, 233; c.f. Prince 1978, 894]

### 3.3.3 PROVERBIAL CLEFTS AND IDIOMS.

Extensive discussion in the literature has been devoted to the analysis of proverbial clefts, such as those in (59).<sup>30</sup> I follow Ball 1977 and Declerck 1988 in analyzing these as a subclass of predicational clefts.

- (59) a. It’s a poor heart that never rejoices.  
b. It’s a long road that has no turning.  
c. It’s an ill wind that blows no good.  
d. It is a good divine that follows his own instructions.

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<sup>29</sup>Carlson 1983 concludes that this example is ‘not a cleft sentence at all, but an ordinary predicative sentence whose subject refers to the preceding sentence and whose predicate complement is a noun modified by a relative clause.’

<sup>30</sup>Jespersen, Ball (1977, 1978, 1989), Delahunty 1981, Carlson 1983, DeClerck 1988.



There is some disagreement in the literature over how to ‘best’ paraphrase a proverbial cleft. The sentences in (60a-e) have all been proposed at one time or another as paraphrases of (59a), starting with Jespersen’s (1937) suggestion in (60a):

- (60) a. The heart that never rejoices is poor  
 b. The heart that never rejoices is a poor heart  
 c. A heart that never rejoices is a poor heart  
 d. If a heart never rejoices, it is a poor heart  
 e. A/the heart is poor that never rejoices  
 f. A poor heart never rejoices.

Delahunty 1982 argues in favor of (60b) over (60a) on the grounds that there is ‘an ambiguity about (59a) which is not available in (60a), but he doesn’t say what the ambiguity amounts to. DeClerck 1988 argues in favor of (60d) against both (60b) and (60c) and Borkin 1984 suggests the paraphrase in (60e). This dispute is not important—each of the sentences in (60a-e) has a reading identical to that of (59a). Even (60f) can be used as a paraphrase when given proper intonation (i.e. with a falling accent on ‘poor’ and a falling-rising accent on ‘rejoices’). What’s crucial is that proverbial clefts are universal statements.

The dialogue in (61) shows the proverbial cleft of (59a) in actual (albeit fictional) use:

- (61) The other smiled a little grimly.  
 ‘I’ll tell you about it with pleasure if it won’t bore you. It just happens to be a case in point, that’s all.’  
 ‘On *my* side of the argument,’ said the man called Peter, with triumph. ‘Do carry on. Have something to drink. **It’s a poor heart that never rejoices.** And begin right at the beginning, if you will, please...’  
 [Dorothy L. Sayers, *Unnatural Death*, p. 5]

A final peculiarity of predicational clefts is that they seem to be able to split up idioms:

- (62) a. ‘It’s sort of **an arbitrary line** that you’re drawing.’  
 [Prince 1978, 895; D.C., 1/77]  
 b. ‘It’s obvious that I’m a woman and enjoy being a woman. I’m not overly provocative, either. It’s **the thin, good-nigger line** that I have to toe.’  
 [Prince 1978, 895, Writer/producer in Terkel, 105]

### 3.4 The quantifier constraint.

I argued in the previous section that clefts, like pseudoclefts and simple copular sentences, can be predicationally as well as specificationally interpreted. This conclusion strongly supports analyses that explicitly treat cleft sentences as a subclass of copular sentences. I will argue next that the frequently noted but elusive prohibitions against specificationally clefting quantificational and predicative expressions follows directly from any analysis incorporating the more general constraint that the clefted constituent is semantically referential. I will advocate Partee's particular analysis on the grounds that her overall type-shifting framework provides the basis for a principled explanation of apparent exceptions to the constraints. The principal challenge will be to explain why pseudoclefts seem to lack the constraints in question. The discussion in this section will focus on the quantifier constraint; discussion of the predicate constraint will resume in §3.5.

Observe first that a wide variety of noun phrases are acceptable as specificational clefted constituents: pronouns and proper names as in (63a), definite descriptions as in (63b), specific indefinites as in (63c), generics as in (63d), or cardinal partitives as in (63e):

- (63) a. It was **she/Jane** who found the body.  
b. It was **this/that/the woman** who found the body.  
c. It was **a (certain)/this (one) woman in my class** who found the body.  
d. It is never **the victim** who finds the body.  
e. It was **one/two of the students in my class** who found the body.

It has often been assumed, however, that quantified noun phrases cannot be clefted. Lees 1963: 380, for example, offers the negative judgments in (64), Gundel (1974:135,139) offers those in (65), and Delahunty (1981:80) offers those in (66):

- (64) a. \*It was **no man** who helped.  
b. \*It was **every man** who helped.  
c. \*It was **neither man** who helped.  
(65) a. \*It was **something** that John saw.  
b. \*It was **no one** who hit Bill.  
c. \*It was **few people** who voted for George.  
d. \*It was **many blackbirds** that were in the pie.  
e. \*It's **any cheese** that I don't want.

- (66) a. ?It is **most women** that I like.  
 b. ?It is **some women** that I like.  
 c. ?It is **any fish** that you can keep  
 d. ?It was **each part** that John examined carefully.

### 3.4.1 A TYPE-SHIFTING SOLUTION.

If we adopt Partee's assumptions, first, that the post-copular argument of a specificational sentence must be referential (i.e. of semantic type  $e$ ) and second, that the semantic type of quantificational noun phrases is  $\langle\langle e, t \rangle, t \rangle$ , the prohibition against clefted quantified expressions in specificational clefts follows directly. One advantage to adopting Partee's particular approach is that it would seem to permit a principled treatment of purported counterexamples to the quantifier constraint: A quantificational expression is acceptable just in case it can be construed as referential through the operation of type-shifting principles (c.f. §3.2.4 and Appendix 1 for discussion).

Thus, although a bare quantifier clefted constituent seems just as unacceptable in (67a) as in (66a) and (66b), the partitive quantifier in (67b) is perfectly acceptable:

- (67) a. ?Do you think it was **someone** who killed him?  
 b. 'Do you think it was **someone in this house** who killed him?' I pressed her. 'Or was it an accident — some tramp or poacher?'  
 [Mary Fitt, *Death and the Pleasant Voices*, p. 96]

When the quantifier ranges over a limited background set expressed explicitly in the partitive complement, the quantified expression as a whole is acceptably clefted. Quantified expressions also seem acceptable when the background set is activated only contextually, as in (68b):<sup>31</sup>

- (68) a. ?It was **few arrows** that hit the target.  
 [Rochemont 1986]

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<sup>31</sup>Partee 1987 (n. 21) notes that 'Sometimes 'most men' seems to have an  $e$ -type reading paraphrasable as 'a group containing most men'; this seems even easier to get with 'most of the men.' This observation would seem to qualify her observation (p. 132) that 'there remain NPs for which none of our operations provide  $e$ -type readings; these, not surprisingly, are the ones traditionally thought of as most clearly 'quantificational': *no man, no men, at most one man, few men, not every man, most men*.'

I would suggest that whenever the background set of a 'quantificational' NP (or its individual members?) is sufficiently activated in the context, it can be construed referentially (distributively?). In support of the analysis of at least some partitive expressions as referential, notice that such expressions can support subsequent reference with a (plural) personal pronoun:

- (i) Q: Which of the students complained?  
 A: MOST of the students complained. They thought the test was too hard.

- b. We shot off our entire stock of arrows and had a wonderful time, though it was **few arrows** that hit the target.

However, (68b) is probably a predicational cleft, paraphrasable as the quantificational sentence in (69a), or the predicational sentence in (69b), but not as the pseudocleft in (69c) or (69d). Rather, (68b) is comparable to the clefts in (70), which were analyzed as predicational clefts in section 3.3 above.

- (69) a. **Few** arrows hit the target.  
 b. The arrows that hit the target were **few**.  
 c. \*What hit the target was **few arrows**.  
 d. \***Few arrows** was/were what hit the target.
- (70) a. Less than a decade ago it was **a rare novel** that sold 100,000 copies in hardcover.  
 [The New York Times, 5/20/90]  
 b. It was certainly **no idiot** who wrote this.  
 [DeClerck 1988]

Quantified expressions also seem acceptable in negative clefts like the ones in (71):<sup>32</sup>

- (71) a. It's not **every man** who makes his own meals.  
 [Carlson 1985]  
 b. It is not **every artist** who is allowed to go into the most important museum of modern art in the world, select the art in it that defines his modern artistic heritage and his esthetic beliefs, install it in one of the museum's galleries, and set one of his own paintings in the center so that it seems to conduct all the other works, or hover over them like a bird, or stand over them with raised hands like a priest.  
 [The New York Times, 6/24/90, p. H33]  
 (c) It's **not just one person** that's hurt. It's usually four or five.  
 [Terkel, p. 51, cf. Prince (1978: 896)]

### 3.4.2 PSEUDOCLEFTS.

It is generally assumed that a cleft sentence and its corresponding pseudocleft share a large number of characteristics. For example, according to Akmajian (1970a), clefts and their pseudoclefts counterparts are 'synonymous, share the same presuppositions, answer the same questions, and in general...can be used interchangeably.' Although Akmajian's last assumption has generally been aban-

<sup>32</sup> Cf. also Higginbotham's (1987) judgments below:

- (i) Was it an/\*every Irish poem John recited.  
 (ii) Was it every IRISH poem that John recited?  
 (iii) It is everything that I respect that John is.  
 (iv) What you drank was lots of/\*little water.

done, his first three assumptions are still generally accepted. Thus, each of the pseudocleft sentences in (72) is associated with the cleft paraphrase shown in (73):

- (72) a. What John bought was a car.  
 b. Where I saw John was in Boston.  
 c. When John left was at three o'clock.  
 d. Why John did that was to irritate me.  
 e. How John did that was by standing on a ladder.
- (73) a. It was a car that John bought  
 b. It was in Boston that I saw John  
 c. It was at three o'clock that John left.  
 d. It was to irritate me that John did that.  
 e. It was by standing on a ladder that John did that.

The extraposition approach to the structure of clefts discussed in section 3.1. above is predicated, of course, on just this similarity.

While there are indeed similarities between clefts and pseudoclefts, such as the requirement that only one element can be clefted (which is what makes clefts and pseudoclefts useful as tests of 'constituency'), there are also differences between them, many of which involve constraints on permissible clefted constituents. Examples (74)-(76) show, for example, that verb phrases and predicate nominals and adjectives are more resistant to clefting than to pseudoclefting, a matter to which I shall return in §3.5.

- (74) a. What John did was move to Seattle.  
 b. ??It was move to Seattle that John did.
- (75) a. What John is is the football coach.  
 b. ??It's the football coach that John is.
- (76) a. What John is is happy.  
 b. ??It's happy that John is.

Gundel (1977: 554) observes that negative polarity items are more acceptable in the pseudocleft in (77a) than its cleft counterpart in (77b):<sup>33</sup>

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<sup>33</sup>Gundel 1974 (p. 139, note 3) credits Stanley Peters for this observation. Halvorsen 1978 notes it also with respect to the following contrast:

- (i) What John couldn't find was any problems to put on his midterm exam.  
 (ii) \*It was any problems to put on his midterm exam that John couldn't find.

- (77) a. What we don't need is any eggs  
b. \*It's any eggs that we don't need.

Halvorsen 1978 observes additionally that 'floating quantifiers' are more acceptable in pseudoclefts than in clefts, as illustrated in (78). (Note, however, that this latter restriction could be subsumed under the prohibition against clefting verb phrases.)

- (78) a. What the boys did was all take a bath.  
b. \*It was all take a bath that the boys did.

In fact, quantificational expressions in general might seem more acceptable as pseudoclefted constituents than as clefted constituents. Thus, the cleft sentence in (79b) is perhaps more dubious than its pseudocleft counterpart in (79a), which was deemed acceptable in Wilson 1975:

- (79) a. What your generalization proves is precisely nothing. [Wilson 1975]  
b. ?It's precisely nothing that your generalization proves.

However, since the inverted pseudoclefts in (80) seem neither better nor worse than their cleft counterparts in (77)-(79), I suggest that the difference in the relative order of clefted constituent and cleft clause is responsible for the divergence, rather than some inherent difference between clefts and (inverted or non-inverted) pseudoclefts:

- (80) a. Precisely nothing is what your generalization proves.  
b. Any eggs is what we don't need.  
c. Any problems to put on his midterm exam was what John couldn't find.

It may be the case that the discrepancy arises from the applicability of the activation constraint on sentence-final topics (cf. § 2.6) to clefts and inverted pseudoclefts but not to pseudoclefts. It is only because pseudoclefts supply their own context, in effect, by the time the quantifier is processed, that they seem more acceptable in isolation.<sup>34</sup>

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<sup>34</sup>It has sometimes been suggested that the quantifier constraint can be explained as resulting from failure of the existential or exhaustiveness presuppositions/implicatures associated with clefts to be met. I believe that Partee's type-shifting approach subsumes these explanations by building the relevant conditions into the type-specific translations of the various forms of NP. (See Appendix I for details.) Note also that even if failure of an existential presupposition can successfully account for the oddity of (76b), what about its acceptable pseudocleft counterpart in (76a)?

### 3.5 The predicate constraint.

Like the quantificational expressions just discussed, it has often been claimed that predicate nominals and predicate adjectives are resistant to clefting:<sup>35</sup>

- (81) a. \*It is **the president** who John is. [Lees 1963: 380]  
 b. \*It was **nice** that she seemed. [Bolinger 1972b: 28;]  
 c. \*It's **the football coach** that John is. [Emonds 1976: 140]  
 d. \*It's **very unhappy** that Bill is. [Emonds 1976:133;140]  
 e. \*It's **dark** that he likes his study. [Emonds 1976:133]  
 f. \*It's **easy to please** that John is. [Gundel 1977:554]

In an early attempt to provide a syntactic explanation for this predicate constraint, Emonds (1976:140-141), suggested that this constraint supports Akmajian's derivation of the cleft clause from a deep structure relative clause internal to the subject NP, 'for it is known that predicate nominative NPs cannot generally be relativized, except when the relative clause modifies a predicate nominative.' Emonds is referring here to the constraint shown in (82a), which was formulated in Kuno 1970 and Chiba 1974 to account for the contrast between (82b) and (presumably) (82c):<sup>36</sup>

- (82) a. An NP to be relativized and the antecedent NP must be identically specified for referentiality.  
 b. \*The football coach that John is lost the game.  
 c. John is not the coach that he used to be.

Emonds' proposal is thus that (81c) is unacceptable because the referentiality of the antecedent NP is incompatible with the nonreferentiality of the relativized NP, as sketched in (83b), assuming his deletion analysis of relativization:

- (83) a. \*It is the football coach that John is.  
 b. [ it [that John is ~~the football coach~~] is the football coach.  
 [+ref] [-ref]

I suggest that a semantic explanation can be constructed in the spirit of Emonds' syntactic explanation, but based on the more general Referentiality Condition (RC) formulated in (84), from which the predicate constraint directly follows:

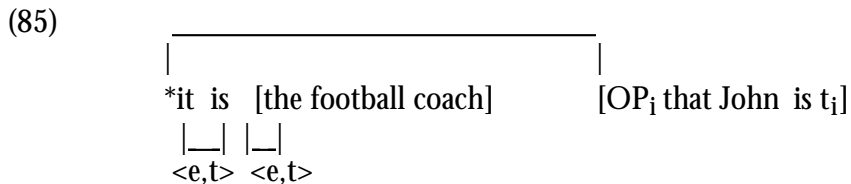
- (84) RC: Only referential expressions may be specificationally clefted.

<sup>35</sup>See DeClerck 1988 for extensive references.

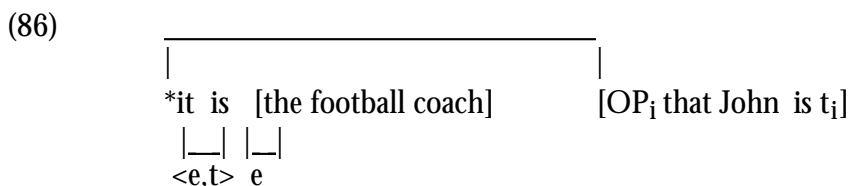
<sup>36</sup>See Delahunty 1982 for more discussion.

### 3.5.1 A SEMANTIC SOLUTION.

As discussed in §3.4.1, the Referentiality Condition follows directly from Partee's analysis of the copula. Since the clefted constituent must denote an entity of type  $e$  to serve as the referential argument of the specificational copula, predicative expressions should in general be inadmissible. The configuration in (85) thus correctly fails to be admitted:<sup>37</sup>



Given the type-shifting framework, however, we would expect clefting to be exceptionally possible if a type-shifting operation is available which can map a predicative expressions onto a referential one, resulting in the admissible configuration shown in (86):



In support of the type-shifting analysis, note that it has sometimes been observed that exceptions to the predicate constraint seem to be licensed in particular contexts. In fact, Akmajian 1970 declined to take a stance on the issue of the cleftability of predicate adjectives due to his conflicting judgments on the examples in (87):

- (87) a. \*It is **tall** that John is.  
 b. It's **idiotic** that John always manages to be.

Some researchers have suggested that the predicate constraint is pragmatic in nature. Thus, Bolinger 1972a suggests that unacceptable predicate clefts fail to satisfy the existential condition associated generally with clefts.<sup>38</sup> If a cleft-clause internal argument is expressed with a full noun

<sup>37</sup>It is immaterial here whether the predicative argument of the specificational cleft is assumed to be the cleft pronoun in conjunction with the cleft clause (as I will argue in Chapter 4), or the cleft clause alone. What's important is that the post-copular argument of a specificational cleft is necessarily referential.

<sup>38</sup>It is generally accepted that cleft sentences such as the one in (i) can only be used in contexts which support the 'existential' implication expressed in (ii), and the 'uniqueness' or 'exhaustiveness' implication expressed in (iii):

- (i) It is the woman who decides.
- (ii) Someone decides.
- (iii) Nobody other than the woman decides



phrase as in (88a) instead of a pronoun as in (88b), ‘it is unlikely to relate to a situation that is presupposed’:

- (88) a. ?It was **black** that he drank his coffee.  
 b. It was **black** that he drank it.

Bolinger suggests also that clefted predicates tend to be more acceptable in questions, like (89a), and negative sentences, like (89b), than in assertions because denials and questions are ‘apt to be based on prior affirmations’. DeClerck 1988 similarly notes the acceptability of degree questions like (89c):

- (89) a. Is it **black** that you take it, or with cream and sugar?  
 b. It was never **truly ambitious** that I expected him to be.  
 c. How **pretty** is it that she looks?

Delahunty 1981 notes a similar contrast between the sentences in (90).

- (90) a. ?It is **clever** that John is.  
 b. It isn’t just **clever** that Fred is, he’s also politically very savvy.

Delahunty suggests that clefted predicates are unacceptable only in contexts which fail to support the uniqueness implicature associated with clefts. If the implicature is ‘cancelled’ as in (90b) or (91), or is ‘reduced or eliminated’ as in (92), clefted predicates are perfectly acceptable.

- (91) a. It is not **unhappy** that Bill is, just obsessive.  
 b. It isn’t **very unhappy** that Bill is, just slightly so.  
 (92) a. It is **raw** that Fred usually eats his meat.  
 b. It is **nude** that Sandy most likes to swim.  
 c. It is **a good cook** that I most want to become.  
 d. It is **happy** that Bill most wants to be.

It appears possible to formalize these pragmatic explanations in the type-shifting framework by exploiting the IOTA type-shifting operation (see Appendix 1), which maps expressions of type  $\langle e, t \rangle$  to expressions of type  $e$ . We would predict, then, that clefting of basic predicative expressions should be permissible in contexts which support an IOTA construal, i.e. when existence and uniqueness conditions are met.

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I will not here take a stand on the issue of whether these implications should be viewed as semantic or pragmatic presuppositions, conventional implicatures, generalized conversational implicatures, or entailments (c.f. Wilson 1975, Karttunen and Peters 1979, Halvorsen 1978, Delahunty 1981, Atlas and Levinson 1981, Horn 1981, and §5.1.1 below for discussion). What’s crucial here is that the implication can be suspended or cancelled in particular contexts.

A second type-shifting operation mapping expressions of type <e,t> onto expressions of type e is Chierchia's NOM operation (i.e. 'nominalization'). Partee 1986 illustrates the use of this latter operation in the interpretation of pseudoclefted predicate adjectives:<sup>39</sup>

- (93) a. What John is is unusual  
 b.  $\lambda y[\text{PRED}(y)(j)]$  (NOM(unusual'))

Since precisely the same type-shifting operations are in principle applicable to clefted constituents as to pseudoclefted constituents, I conclude, then, that clefted predicates should not be treated as ungrammatical or anomalous, but rather simply as context-dependent.

The dialogue (94) exhibits an attested example of a specificational, predicate-adjective cleft:

- (94) 'What's wrong with Jammy?'  
 '...He's practicing to be a dictator. You begin with the expression.'  
 'No, you don't... You begin with the hair.'  
 'And an arm movement. Arms are very important. Look at Napoleon. Never been more than a corporal if he hadn't thought up that arm-on-chest business. Pregnant, you know.'  
**'If it's pregnant Jammy is, he'd better have the idea in the office, not here. I don't think the child's going to be a pleasant sight.'**  
 [Josephine Tey, *A Shilling for Candles*: 168]

### 3.5.2 A SYNTACTIC SOLUTION.

A recent syntactic account of the predicate constraint in a Government and Binding framework is offered in Heggie 1988. To account for the restrictions illustrated in (95), Heggie introduces the 'Null Operator Generalization,' (NOG) shown in (96), which effectively restricts clefting to expressions which constitute 'minimally satisfied theta grids,' from which 'all obligatory theta roles have been appropriately projected.'

- (95) a. \*It is **green** that her eyes are.  
 b. \*It's **a good shot** that I find him.  
 c. \*It's **silly** that she beat him.

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<sup>39</sup>Note that example (93a) is ambiguous between the specificational reading in (93b) and the following predicational reading: unusual'(IOTA(x)(PRED(x)(j))). For discussion of these formulations of both interpretations, see Partee (1986:362).

- d. \*It was **stealing my money** that she caught him.
  - e. \*It's **blown up that ship** that the French should not have.
  - f. \*It's **finally** that he came into a fortune.
- (96) NOG:  
A null operator must constitute a minimally satisfied theta-grid.

Heggie's basic claim is that items which have an external theta role to assign cannot be clefted (e.g. VP, AdvP, AP, and predicate NP):

A clefted element which has a theta role to assign will correspond in the clause predicated of it to a null operator which must fulfill its function as a theta role assigner. Since, however, null operators can never assign theta roles, it follows that their distribution will be restricted to the class of elements which are not theta-role assigners, i.e. those elements in which all theta-roles have been appropriately discharged.  
[p. 245]

Since null operators do not assign theta roles, Heggie predicts that the theta-criterion will be violated if the subject of a null predicate, e.g. *her eyes* in (97a), fails to obtain a theta-role from some other source:

- (97) a. DS: it is [ [green] [that [her eyes] are OP ] ]  
b. LF: it is [ [green]<sub>1</sub> [OP<sub>1</sub> that [her eyes] are t<sub>1</sub>] ]

Heggie's Null Operator Generalization and the Referentiality Condition stated in (84) above appear to be co-extensive since both constraints restrict clefted constituents to saturated expressions. A closer look reveals, however, that the Null Operator Generalization is in some cases redundant, in other cases overly restrictive, and in still other cases not restrictive enough. Problems arise for a syntactic account like Heggie's when the previously-discussed exceptions to the predicate constraint are considered.

Like Bolinger and Delahunty, Heggie (p. 206) recognizes that predicates may be felicitously clefted in 'contrastive' or 'emphatic' contexts, as in (98b) as compared to (98a):<sup>40</sup>

- (98) a. i What color are her eyes?  
ii \*It's **green** that her eyes are.  
b. i Are her eyes green?  
ii Yes, it's **SUPER green** that her eyes are.  
iii No, it's **BLUE** that her eyes are, not GREEN.

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<sup>40</sup>I have added the contextual questions to illustrate what I believe to be Heggie's point.

To account for these exceptions, she introduces a distinction between ‘syntactic’ and ‘metalinguistic’ clefts, claiming that while the former need to obey syntactic constraints on case and theta-assignment, the latter constitute a ‘pure focus’ phenomenon which need only satisfy the ‘R-binding’ relation which associates nonrestrictive relative clauses with their heads at LF’:

An adjective cannot be clefted on a simple informational reading, but can be if it is being contrasted or emphasized in some way, i.e., if the material is already given in the discourse.... In other words, it is not clear in these examples whether we can still claim there to be a variable in the embedded clause as the value in question is known at the time of the utterance, i.e. the presupposition is complete. If this is the case, then what of the so-called ‘clefted’ constituent? This material is in fact part of an S-structure instantiation of an LF focus schema.

Recall that the structure assumed for clefts involves a CP adjoined structure which allows for theta-role and Case assignment to the element adjoined to CP. However, in instances where no Case or theta-role assignment is possible because the variable position is not an argument position, then the assumed structure takes on the characteristics of a pure focus phenomena. I will call this kind of cleft a ‘metalinguistic’ cleft, following the terminology of Horn (1985). These clefts do not obey sentential constraints, but instead display the properties of metalinguistic contexts.

Apparently, then, unlike what happens in the unclefted sentence in (99a), the subject of the cleft clause in (100a), i.e. *Jammy* (cf. (94)) will not receive a theta-role from the predicate, *pregnant*, at its LF representation in (100b), but only at its LF’ representation in (100c):

- (99) a. Jammy is pregnant.  
 b. LF: [Jammy<sub>1</sub> is [t<sub>1</sub> pregnant<sub>1</sub>]]
- (100) a. It’s pregnant that Jammy is.<sup>41</sup>  
 b. LF: [it is [pregnant<sub>1</sub> [OP<sub>1</sub> that Jammy is t<sub>1</sub> ] ]  
 c. LF’: [it is [pregnant<sub>1</sub> [OP<sub>1</sub> that Jammy<sub>1</sub> is t<sub>1</sub> ] ]

The primary problem with this account is that it renders the Null-Operator Generalization redundant, since any cleft exhibiting primary prosodic prominence on the clefted constituent is ‘metalinguistic’ in the sense that the material in the cleft clause is required to be already activated in the discourse context. If the R-binding mechanism is available for clefted predicates, why not permit

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<sup>41</sup>Note the necessity for Heggie of analyzing exceptions to the predicate constraint as ‘metalinguistic’ clefts. In (i) and (ii) she must assume that *Bill* already has a theta-role, and thus need not be assigned one by the null operator:

- (i) a. How tall is it that Bill is?  
 b. e e is [[how tall] [that e e is [Bill [OP]]]]
- (ii) a. How much of an idiot is it that John considers Bill?  
 b. e e is [[how much of an idiot] [that John e considers [Bill [OP]]]]

it to apply in all such cases, and eliminate the Null Operator Generalization entirely? How the mechanism is supposed to work is also not spelled out: which material is it which is ‘given in the discourse’ and ‘already known’ in a metalinguistic cleft? It surely can’t be the ‘value to the variable’ like Heggie suggests—if the addressee already knew what the value was, it wouldn’t be necessary to utter the cleft at all. The clefted constituent may perfectly well be ‘given’ in the referential sense (i.e. activated) but ‘new’ in the relational sense (i.e. comment)—c.f. §2.2 above.

### 3.5.3 SECONDARY PREDICATES.

An interesting prediction of Heggie’s analysis concerns the cleftability of secondary predicates. It follows from her account that a predicate with a theta-role to assign as in (101) and (102) cannot itself be clefted,<sup>42</sup> but a predicate phrase containing a PRO subject as in (103) can be clefted since it thereby constitutes a ‘minimally satisfied theta-grid.’ A predicate which itself receives a theta-role from the verb (and thus does not assign one), as in (104), can also be clefted:

- (101) a. \*It’s **flat** that they hammered the nail.  
 b. \*It was **clean** that John picked the bone.  
           [cf. Chomsky 1988]  
 c. \*It was **tough** that Bill cooked the meat  
 d. DS: it is [ [flat] [that they [hammered [the nail] [OP]] ] ]  
 e. SS: it is [ [flat]<sub>1</sub> [OP<sub>1</sub> that they [hammered [the nail] t<sub>1</sub>] ] ]
- (102) a. \*It is **a fool** that John considers Mary.  
 b. \*It’s **mellow** that Bill thinks Susan.  
 c. \*It’s **off this ship** that the captain expects that jerk.  
 d. DS: it is [ [a fool] [that John [considers [ [Mary] OP]] ] ]<sup>43</sup>  
 e. LF: it is [ [a fool]<sub>1</sub> [OP<sub>1</sub> that John [considers [ [Mary] t<sub>1</sub>] ] ] ]
- (103) a. It is **raw** that Bill usually likes his meat.  
 b. It’s **drunk** that John sounds intelligent.  
 c. It’s **naked** that John appears slim.

<sup>42</sup>Heggie assumes that in (101), the VP-internal NP receives a theta role from the resultative predicate ‘in conjunction with the matrix verb.’ while in (102), the VP-internal NP receives a theta role from the small clause predicate alone.

<sup>43</sup>Note that the examples in (102) seem better when the copula is added, as in (i) and (ii) below:

- (i) It’s a fool that John considers Mary to be.  
 (ii) It’s mellow that Bill thinks Susan is.  
 (iii) It’s off this ship that the captain expects that jerk to be.

- d. DS: it is [ [PRO raw] [that Bill [ likes [his meat] [OP] ]]]
  - e. LF: it is [ [PRO<sub>2</sub> raw]<sub>1</sub> [OP<sub>1</sub> that Bill [likes [his meat]<sub>2</sub>] t<sub>1</sub> ]]]
- (104)
- a. It's **blue** that they painted the house.
  - b. It was **pea green** that he painted his boat.  
[Pinkham and Hankamer 1975]
  - c. It's **dark green** that we've painted the kitchen.  
[Quirk and Greenbaum 1973]
  - d. DS: it is [ [blue] [that they [painted [the house] [OP] ]]]
  - e. SS: it is [ [blue]<sub>1</sub> [OP<sub>1</sub> that they [painted [the house] t<sub>1</sub>]]]

I would predict, on the other hand, that acceptability should covary with the accessibility of the individual correlate of the property (i.e. the output of NOM or IOTA) in the discourse context.<sup>44</sup>

### 3.5.4 PSEUDOCLEFTS.

Heggie predicts that clefted predicates should always be acceptable in pseudoclefts like (105), since, unlike null operators, overt wh-operators do assign theta roles.

- (105) a. What Bill is is **tall**.
- b. DS: [Bill is what] is tall<sup>45</sup>
- c. LF: [what<sub>1</sub> Bill<sub>1</sub> is t<sub>1</sub>] is tall<sub>1</sub>

This prediction appears to be correct. Predicates do indeed seem more acceptable in specificational pseudoclefts than in clefts, e.g. (18d), (26a,b), (34b) above and (106a) below:

- (106) a. What he is is stupid. [Gundel 1977]
- b. \*It's stupid that he is. [Gundel 1977]
- c. Stupid is what John is.

To maintain the general analysis of copular sentences which I have been advocating, it is necessary to assume that the apparent difference in acceptability of clefted and pseudoclefted predicates results from pragmatic constraints on type-shifting. It must be easier, for some reason, to construe pseudoclefted than clefted predicates as referential. Further exploration of what this reason might be, however, I will have to leave to future research.

<sup>44</sup>See Bouldin 1990 for a potentially-relevant, Categorical Grammar approach to what I am calling secondary predicates.

<sup>45</sup>For the sake of exposition, I am greatly oversimplifying Heggie's detailed analysis:

- (i) DS: [IP e [I' e [VP is [CP [AP tall] [CP[IP e [I' e [VP is [AP[NP Bill] [APwhat]]]]]]]]]]]]]]]
- (ii) SS: [CP[CP4What<sub>1</sub>[IP Bill<sub>1</sub>[I' is<sub>2</sub>[VPT<sub>2</sub> [AP t<sub>1</sub> t<sub>1</sub>]] [C' is<sub>3</sub> [IP tall<sub>1</sub> [I' t<sub>3</sub> [VP t<sub>3</sub> [t<sub>1</sub> t<sub>1</sub>]]]]]]]]]]]]]

To summarize, Heggie comes essentially to the same conclusions as I do with regard to the predicate constraint —i.e. that predicative expressions cannot in general be clefted. She has to introduce a mysterious distinction between ‘metalinguistic’ and ‘syntactic’ clefts to account for contextually licensed exceptions, however, while I rely on the independently motivated mechanism of type-shifting. The analysis suggested here also accounts for the quantificational constraint and for the existence of predicational clefts, neither of which follow from Heggie’s analysis.<sup>46</sup>

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<sup>46</sup>Heggie does note (p. 218) that ‘clefts share with non-restrictive relative clauses as opposed to restrictive relative clauses ...the inability to fully support quantifiers in head position’:

- (i) \*It’s nobody that could come to the party.
- (ii) \*Nobody, who could come to the party...
- (iii) Nobody who was invited could come to the party.