NOTES ON THE PSEUDO-CLEFT SENTENCES IN ENGLISH*

Tatsushi Motohashi

1. This paper tries to characterize the pseudo-cleft sentences syntactically. The pseudo-cleft construction has been discussed variously by Noam Chomsky, Joseph Emonds, Adrian Akmajian, Ray S. Jackendoff, F.R. Higgins, P.W. Culicover, and others, to name a few at random. The exhaustive treatment of the pseudo-cleft construction is found in Akmajian's *Aspects of the Grammar of Focus in English* and Higgins' *The Pseudo-Cleft Construction in English.* Recently Culicover expressed a new idea within the framework of the freezing principle.

These scholars have taken up various points of interest about the pseudo-cleft construction. Chomsky treated the pseudo-cleft for the support of the $\bar{X}$ convention, Emonds for the structure-preserving hypothesis, Akmajian within the framework of the extended standard theory to capture the distributional similarity of the cleft and the pseudo-cleft sentences.

The formal requirement of the pseudo-cleft construction is that the matrix predicate contains the copula and a phrase constituent, and the subject consists of a clause introduced by a *wh*-item, usually *what.* The matrix predicate functions as the focal item, the constituent being emphasized.

Familiar examples such as the following sentences are typically called pseudo-cleft sentences.

(1) a. What John bought was a typewriter.
b. What John was was tall.
c. What John did was shave himself.

*This paper is a modified version of the third chapter of my master's thesis submitted to the Graduate School of Languages and Linguistics of Sophia University in 1979.

d. What Mary believed was that John had gone to the party.

e. What I'm telling you is for your good.

We will limit the discussion to the pseudo-cleft beginning with *what*. The reason is that the construction with *what* is more restricted in the sense that it cannot be used when there is a head NP. So we will ignore the pseudo-cleft beginning with *who*, *where*, *when*, and so on. Such sentences as *The only people they really like are each other* are also excluded from the pseudo-cleft construction by the definition above.

We suppose that cleft sentences are derived in a different way than pseudo-clefts. As is known, the focus position of clefts is occupied either by NP or PP. So it seems necessary to put an extra constraint if we should derive pseudo-clefts from clefts or vice versa. A new approach to clefts is proposed in Chomsky (1976).[1)]

We will presuppose, in this paper, the revised extended standard theory (REST) outlined in Chomsky (1975, 1976) and Chomsky and Lasnik (1977). According to REST, a grammar contains four systems of rules; base rules, transformational rules, rules that derive logical form (LF), and rules that produce semantic representation (SR).

The base rules are, we suppose, constrained by the X-bar theory, which was proposed by Chomsky (1970), and extended by Jackendoff (1977). The application of transformational rules are governed by the principle of the (strict) cycle. The structural description is restricted by a condition of minimal factorization. We assume that when a constituent is moved by a transformational operation, it leaves a trace behind. The relation of the moved constituent and the trace is that of anaphora.

There are conditions restricting anaphoric relation in surface structure such as the tensed-S condition and the specified subject condition. They are stated as follows:

(2) ...X...[$_{\alpha}$...Y...]...X...

No rule can involve X and Y in (2) where α is a tensed-S (the tensed-S condition) or where α contains a subject distinct from Y and not controlled by X (the specified sub-

1) pp. 94–97.

ject condition, SSC).

Core grammar contains the following rules:

(3) a. Move NP

b. Move *wh*-phrase

(4) a. Reciprocal rule: assign to *each other* the feature [+anaphoric to i] in a structure containing NP_i.

b. Bound anaphora: assign to a pronoun the feature [+anaphoric to i] in a structure containing NP, in the context [NP... Possessive...N_x].

c. Disjoint reference: assign to a pronoun the feature [-anaphoric to i] in a structure containing NP_i.

They are constrained by the conditions mentioned above.

2. Now we will try to account for the base generation of the pseudo-cleft sentences. Let us examine what structure for the pseudo-cleft should be generated by the phrase structure rules.

Akmajian (1970) permits only NP and AP after the copula in order to maintain the economy of the phrase structure rules. His phrase structure rules for the copular sentences would look like the following:

(5) a. S→NP (AUX)[2] VP

b. VP→*be* $\begin{pmatrix} \text{NP} \\ \text{AP} \end{pmatrix}$

(5) is an abbreviated form in that it does not show what statuses the copula *be* and predicate NP hold. See Chomsky (1965), p. 107, (57 iii-iv). According to (5), the phrasal categories other than NP and AP, when they occupy the position after the copula, cannot hold the predicate position unless moved by a transformational operation, that is, by Extraction Rule (6).

(6) Extraction Rule[3]

$[_S[X\text{-}A\text{-}Y]_S$ be $[_A]]\rightarrow$

$[_S[X\text{-}[+PRO, +WH]\text{-}Y]_S$ be [A]]

2) The brace here does not mean that the node is optional. Rather, as the AUX node is not explicitly treated in Akmajian (1970), it is simply inserted inserted for form's sake.

3) Akmajian (1970), p.30.

(5) also predicts that PP's cannot appear in the predicate position at all, since PP cannot be generated by (5) itself nor by Extraction Rule (6). This is because there is no *wh*-form for PP's. But PP's do appear in the focus position of the pseudo-cleft sentences, still more after the coupula *be* in the following copular sentences.

(7) a. What the particular action was is of no consequence—people have differing standards and what may seem respectable and noble to one may be nothing short of debasing to another.
Norman Lewis, *Word Power Made Easy*, Pocket Books, p.365).

b. What I said was against the tinderbox: I said nothing against justices and constables, ...(George Eliot, *Silas Marner*, Penguine Books, p. 113).

c. What I heard of her being better was through my master. (Wilkie Collins, *The Woman in White*, Penguine Books, p. 423).

(8) a. Production is at a complete standstill.

b. I am for the proposal, but he's against it.

c. Everything between them was at an end.

There is another type of *be* that precedes PP's.

(9) a. My house is near the station.

b. A plan of the town is on page 23.

c. My mother is in the kitchen.

The meaning of this type is 'locational' and may hardly be called the copula.

The phrase structure rules (5) are, then, inadequate on the ground that not only Extraction Rule (6) is hardly valid because of the points discussed in my master's thesis,[4] but also those sentences mentioned in (8) and (9)

Higgins, who proposed the null hypothesis (10), does not elaborate the phrase structure rules in Higgins (1973).

4) pp.12–23.

(10)[5] The surface structure form of a specificational pseudo-cleft sentence is essentially identical to its deep structure.

But judging from what his idea is, the following phrase structure rules will be obtained.

(11) a. S→NP (AUX) VP

b. VP→*be* { S / NP / AP / VP[6] / PP }

Higgins does not treat PP's either. But it seems necessary for PP to be generated in the predicate position.

Notice incidentally that Rule (11b) is superior in simplicity to(5b), since we can state that all the phrase nodes in the sense of Emonds (1976) can appear in the post-copular position.

Now we turn to the first question whether $\bar{S}$ or S should be generated after the copula. Consider the following sentences.

(12) a. What Columbus believed was that the earth is round.

b. What was obvious to all was that Bill knew French thoroughly.

c. What John insisted on was that no girl should be permitted at the meeting.

(13) a. What I want very much is for Bill to win.

b. What I perfer is for Bill to win.

c. What remains is for us to apply the law to the fact.

(14) a. What puzzled me most was what John ate at breakfast.

b. What surprised Mary most was how they escaped being accused of the crime.

c. What Bill wanted to find out was where Mary was hiding.

The sentences (12)-(14) obviously show that the node that should be

5) Higgins (1973), p.8.

6) If the infinitival construction such as *wash himself* in *What John did was wash himself* is analyzed as a VP. See Lasnik and Fiengo (1974). Otherwise, the infinitival complement will be derived by expanding the complement sentence.

generated after the copula is $\bar{S}$.

But if $\bar{S}$ is generated after the copula there arises a problem, namely, why the complementizer does not permit free deletion discussed in Chomsky and Lasnik (1977)[7], p. 458, footnote 65.

Their complementizer free deletion rule is formulated as follows:

(15)[8] In the domain COMP, delete ${}_{\alpha}[\varphi]$, where α is an arbitrary category and φ an arbitrary structure.

In order to filter out tensed sentences without complementizers like the following sentences (16), Chomsky and Lasnik propose the filter (17).

(16) a. *John persuaded Bill Tom would leave.
b. *John quipped he could pass without trying.
c. *He left is a surprise.

(17)[9] *${}_{\alpha}$[NP tense VP], unless $\alpha \neq$ NP and is adjacent to and in the domain of [+F], *that*, or NP.

Although there's some doubt whether the coupla has the feature [+V][10], there's a way to block sentences that have deleted complementizers. See Jackendoff (1977)[11] for those who regard the copula to have the feature [+V]. The mechanism that blocks the sentences (16) is Higgins' inviolable constraint. The focal items of the following sentences cannot be moved or deleted when they are read as specificational statements.

(18) a. What John is is proud.
b. *Is what John is proud?

(19) a. What John is is interesting and what Bill is is important.
b. *What John is is interesting and what Bill is important.

But there are some exceptions to the inviolable constraint. It cannot explain the appearance and disappearance of emotive *should* in the following sentences.

---

7) Noam Chomsky and Howard Lasnik, "Filters and control," *Linguistic Inquiry*, Vol. 8.3., 1977, pp. 425–504.

8) *Ibid.*, p.446.

9) *Ibid.*, p.486.

10) See Chomsky (1970), p. 34, for his mysterious remark that the copula serves as a kind of existential operator.

11) Ray S. Jackendoff, $\bar{X}$ *Syntax: A Study of Phrase Structure* Linguistic Inquiry Monograph Two, Cambridge, Mass.: MIT, 1977, pp. 66–67.

(20) a. What I propose is that the money should be spent on library books.

b. What is requested is that every candidate should write legibly.

c. *What is difficult is that the room should be well lighted.

(21) a. What I propose is that the money be spent on library books.

b. What is requested is that every candidate write legibly.

c. *What is difficult is that the room be well lighted.

In English the expansion of tense is obligatory, so there's no way to generate the bare copula by the phrase structure rules[12]. It seems most economical to delete emotive *should* freely when there are governing predicate.

Incidentally, if the inviolable constraint is valid, this serves as a criterion to test whether the infinitival construction after the copula should be generated as $\bar{S}$ or VP. This is because the inviolable constraint blocks the deletion of complementizers in the structure (22), when this structure appears in the predicate position of the pseudo-cleft sentences.

(22) a. $_{\bar{S}}$[for PRO to VP]

b. $_{\bar{S}}$[for X-self to VP]

As for (22b), *X-self* is not allowed to delete by the inviolable constraint. In addition to the structures (22), *wh* in the sentence *John is easy to please* should not be deleted either when the predicate appears in the pseudo-cleft sentence such as *What John is is easy to please*. But this sentence is grammatical.

The traditional analysis of the subject of relative clauses is NP $\frown$ $\bar{S}$. This is introduced by the phrase structure such as (23).

(23) NP→NP $\bar{S}$

The point we want to discuss is: what is the head of the specificational and predictional pseudo-cleft sentences?

Two competing proposals have appeared in the literature: Bresnan (1973)[13] takes the head to dominate *what*, and Gee (1974)[14] takes the head

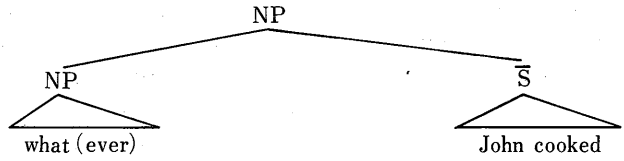
12) But see the element *Subjunctive* discussed in Culicover's doctoral dissertation (1971) and also Chomsky (1973), footnote 13, p. 87.

13) Joan Bresnan, "Headless' relatives," unpublished manuscript, 1973.

14) J.P. Gee, "Notes on free relatives," unpublished manuscript, 1974.

to be null, that is, PRO. According to Bresnan (1973) the structure of free relatives is diagramed as follows:

(24)



In support of the structure (24), she cites the evidence of pied-piping and that the *wh*-word in a 'headless" relative can be part of a larger NP.

(25) a. Whoever this discovery was attributed to was very smart.
b. *To whoever this discovery was attributed was very smart.
c. I'll attribute this discovery to whoever that discovery was attributed $\left\{\begin{matrix}\text{to}\\ *\emptyset\end{matrix}\right\}$.

(26) a. Whatever food there may be in that dusty pantry is probably infested with moth eggs.
b. Whatever food that there may be in that dusty pantry is probably infested with moth eggs.

If free relatives have the headed structure like ordinary relatives as that of (24), why free relatives do not permit extraposition from NP should be explained.

(27) a. Such friends as I once had are gone.
b. Such friends are gone as I once had.

(28) a. Whatever friends that I once had are gone.
b. *Whatever friends are gone that I once had.

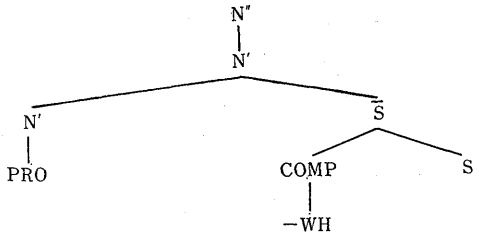
Bresnan (1973) answers this counterargument saying that extraposition from NP depends on the kind of determiner the head has.

(29) a. Such friends as I once had are gone.
b. *Such friends are gone as I once had.

(30) a. The best friend that I ever had is gone.
b. *The best friend is gone that I ever had.

Gee (1974) proposes the following structure for the headless relatives:

(31)[15]



Gee's claims are: (i) Most people reject (26b). (ii) When the *wh*-phrase has come from subject position, the *that* is always worse,(32). (iii) Pied-piping is sometimes possible for free relatives,(33).

(32) a. Whatever girls (*that) are willing to play football should be on the field by 4.

b. Whatever girls (?*that) the coach chooses to play football should be on the field by 4.

c. Whatever girls (??that) there may be on the football team should be on the field at 4.

(33) a. I regret what lengths Nixon has gone to to avoid being impeached.

b. I regret to what lengths Nixon has gone to avoid being impeached.

Fourth, Gee asks what stops pied-piping from taking place, giving something like "*Invite whoever to whom the discovery is attributed."

In addition to the points Gee (1974) adduces in favor of the structure (31), the following points seem to bear on the choice of the structure between (24) and (31): Higgins' null hypothesis (10) claims that syntactically speaking the specificational and predicational pseudo-cleft sentences have the same underlying structure. This is the same as that of free relatives. If the underlying structure of the pseudo-cleft sentences and free relatives is regarded to be (24), *what* dominated by the head of the subject functions as an element expressing "something," just as those *what*'s in the fixed expressions such as *what is more*, *what by NP*, *what with NP*. Higgins treats this *what* as a cataphoric element. Cataphoric *wh* seems at

15) Gee (1974), p.20.

first thought rather rare except in free relatives. But with the *wh* deleted by complementizer free deletion rule (15) there seems to be a case of cataphoric *wh*. Consider the following sentence:

(34) Easy to please is John.

If (34) is acceptable, it contains *wh* cataphoric to *John* since the source for *tough*-class adjectives is the following.

(35) *X* is easy (for us) $_{\bar{S}}$ [for PRO to please *Y*][16]

We suppose the ordering relevant to (34) is *wh*-deletion, stylistic inversion, interpretation of open sentences (i.e. the sentences with free variables) in this order.

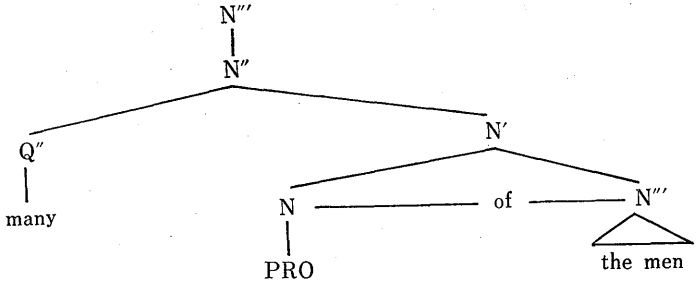
According to Bresnan's (24), *what* is generated from the base under the head NP. If so, what stops *wh* from appearing in COMP?Bresnan adopts *wh*-deletion analysis in contrast to Chomsky's *wh*-movement analysis for the structure of (24). It is not clear at this point which analysis is adquate. We presuppose Chomsky's *wh*-movement analysis for free relatives.

The difficulties that lie in (31) are that the head, PRO, is ordinarily regarded as a controlled element. But the PRO in this case does not seem to be controlled by anything. Notice that, in this case, Higgins' claim that *what* functions cataphrically does not apply, since *wh* in (31) is anaphoric to PRO. If PRO is considered to be controlled by the predicate, is it plausible for PRO to be controlled by VP, AP, or PP? The answer seems to be negative.

Jackendoff (1977) used PRO in discussing the partitive construction. He claims that such as, *many of the men*, has the structure (36).

16) Noam Chomsky, "On *wh*-movement," Ed. Culicover, Wasow, and Akmajian, *Formal Syntax*, N.Y.: Academic Press, Inc., 1977, p.103.

(36)



And he proposes the following projection rule.

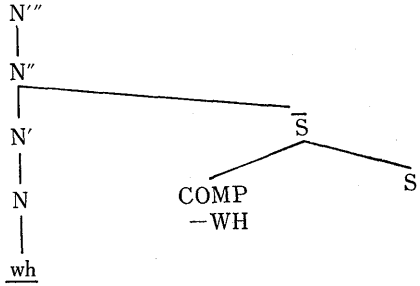
(37) Partitive Projection Rule

$$PRO_N \longrightarrow UNIT/ \left[\begin{matrix} X \\ +\text{partitive} \end{matrix} \right] —$$

In this case PRO is governed by the immediately preceding partitive.

The way out of this puzzle is as follows: Suppose that *wh* is present under the head of free relatives from the base but has no phonetic content.

(38)



This is a compromise of (24) and (31). This *wh* is the same type that is found in Chomsky (1976)[17]. Chomsky proposed that *wh* underlies what is called a subdeletion case of the comparative construction, for example, *the desk is wider than it is high.* When the bare *wh* is dominated by adjective *A*, it expresses a referent point, "some extent or degree." As to the bare *wh* dominated by noun *N*, it refers back in the same way as cataphoric *this* does.

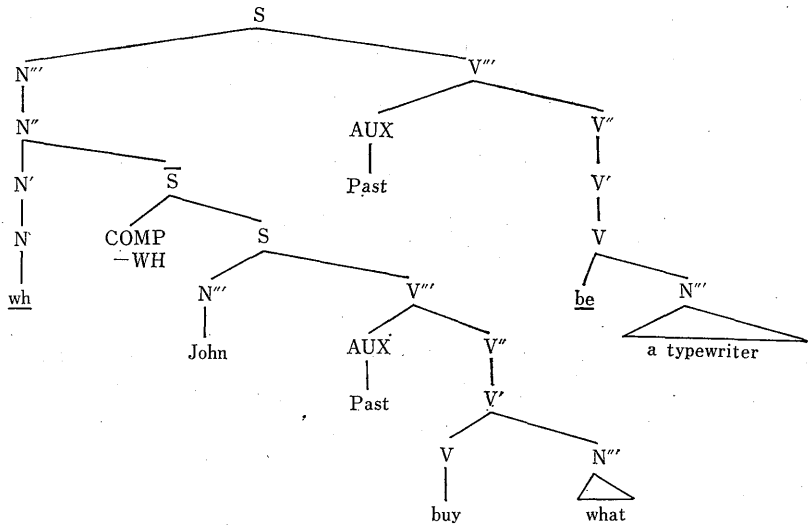
17) Chomsky (1976), p.123.

Consider the following sentence:

(39) What John bought was a typewriter.

For(39) we presuppose the following underlying structure:

(40)



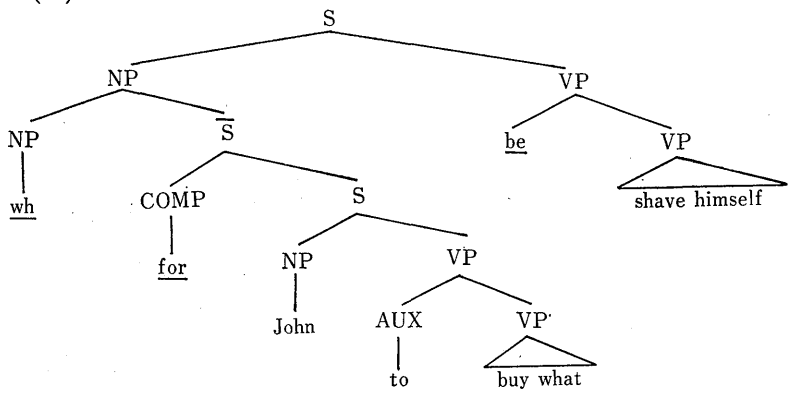
The *wh* dominated by the head of the subject ensures that extraposition from NP does not take place, since the head is nonlexical like PRO. Pied-piping is also accounted for, since *what* in the embedded sentence is moved to COMP but the head is phonetically null so that we cannot see the head. Then, if the sentence in its uninverted order begins with the prepositional phrase, it is not usually permitted, since there's no sentence in English that has a prepositional subject.

The last question that should be discussed in this paper is why free relatives are always tensed. In other words, why there are no such sentences as (41)?

(41) a. *What for John to do is shave himself.
b. *What for Mary to be is tall.
c. *What for Bill to buy is a typewriter.

The underlying structure for (41a) is (42).

(42)



The same phenomenon is found in the case of comparative subdeletion.

(43) a. *The desk is wider than for it to be high.

b. *Mary is more satisfied than for her to be happy.

c. *John is happier than for him to look healthy.

The solution of this question seems to lie in *wh* in both constructions. The *wh* triggers the tensed sentences.

REFERENCES

Akmajian, Adrian. *Aspects of the Grammar of Focus in English.* Unpublished doctoral dissertation, MIT, 1970.

Bresnan, Joan W."'Headless' relatives," unpublished manuscript, November 1973.

Chomsky, Noam. *Aspects of the Theory of Syntax.* Cambridge, Mass.: MIT Press, 1965.

———. "On *wh*-movement," in Culicover, P.W., T. Wasow, A. Akmajian. *Formal Syntax.* N.Y.: Academic Press, 1977, pp. 71–132.

Chomsky, Noam, and Howard Lasnik. "Filters and control," *Linguistic Inquiry* Vol. 8.3, 1977, pp. 425–504.

Gee, J.P. "Notes on free relatives," unpublished manuscript, 1974.

Higgins, F.R. *The Pseudo-Cleft Construction in English.* Reproduced by the Indiana University Linguistics Club, 1976.

Jackendoff, Ray S. $\bar{X}$ *Syntax: A Study of Phrase Structure.* Cambridge, Mass.: MIT Press, 1977.

Lasnik, Howard, and Robert Fiengo." "Complement object deletion," *Linguistic Inquiry* 5.4, 1974, pp. 535–571.

Motohashi, Tatsushi. *Remarks on the Pseudo-Cleft Sentences in English.* Unpublished Master's Thesis, Sophia University, 1979.