平成8年度COE形成基礎研究費研究成果報告(1)(課題番号 08CE1001) 「先端的言語理論の構築とその多角的な実証(1-A)

- ヒトの言語を組み立て演算する能力を語彙の意味概念から探る -」 (抜刷)

Grant-in-Aid for COE Research Report (1) (No. 08CE1001)
Researching and Verifying an Advanced Theory of Human Language:
Explanation of the human faculty for constructing and computing
sentences on the basis of lexical conceptual features
March, 1997

A Copula-based Analysis of Japanese Clefts: Wa-Cleft and Ga-Cleft

Nobuko Hasegawa

研究代表者 井上和子(神田外語大学・言語科学研究科・教授) 平成9年3月

Research Leader: Kazuko Inoue

Graduate School of Language Sciences Kanda University of International Studies

March, 1997

A Copula-based Analysis of Japanese Clefts: Wa-Cleft and Ga-Cleft*

Nobuko Hasegawa Kanda University of International Studies

The cleft construction is characterized by the structure [... no $\{wa/ga\}$ X da] '(it) is X that ...'. Sentences (1b) and (1c) are clefted versions of (1a).

- (1) a. Hanko-ga sono neko-o katteiru

 -Nom the cat-Acc keep
 'Hanako owns the cat.'
 - b. Hanko-ga katteiru no wa sono neko da. -Nom keep NM Top the cat copula 'It is the cat that Hanako owns.'
 - c. Hanko-ga katteiru no **ga** sono neko da.

 -Nom keep NM Nom the cat copula

The two clefts (1b) and (1c) look quite similar and the difference seems to do with the choice of particles that attach to the cleft clause [...no]. If this is the only difference, it may be reducible to a general difference that is observed between a non-topicalized sentence such as (2a) and a topicalized one like (2b).

- (2) a. Taro-ga soccer-no sensyu da.

 -Nom -Gen player Copula 'Taro is a soccer player.'
 - b. Taro-wa soccer-no sensyu da.-Top 'As for Taro, he is a soccer player.'

However, the cleft with wa (wa-cleft) and the one with ga (ga-cleft) exhibit quite systematic differences. In the following, I will first describe syntac-

tic differences between these two types of clefts. Then, an analysis for them will be proposed. The proposal crucially makes use of the analysis of the copular construction, which is presented in Hasegawa (1996). The paper is organized as follows: In Section 1, syntactic differences between the wa-cleft and the ga-cleft will be explicated. In Section 2, the behavior of the wa-cleft is compared with Scrambled sentences and it will be argued, along with Hoji (1987), that there are two derivations for the wa-cleft; either via movement or without movement. In Section 3, the ga-cleft will be analyzed. I will show that the ga-cleft is essentially the same as an ordinary copular sentence but the subject is not a simple NP but a free relative headed by the nominalizer no. In Sections 4 and 5, the wa-cleft will be analyzed, where it will be shown that the wa-cleft is derived via two syntactic leftward movements; raising of a constituent in a CP to the expletive subject position of the copula, and topicalization of the remnant CP.

1. The Wa-Cleft and the Ga-Cleft

Mikami (1953/1972) claims that the X of the wa-cleft of the form [... no wa X da] always possesses a case particle, though the particle does not necessarily show up. (1) And Kumamoto (1989a) notes that the X of the ga-cleft [... no ga X da] cannot be followed by a case particle. This contrast is shown in (3) and (4).

- (3) a. ?Taro-ga katta no wa sono hon-o da.

 -Nom bought NM Top the book-Acc copula
 'It was the book that Taro bought.'
 - b. *Taro-ga katta no ga sono hon-o da.
 -Nom bought NM Nom the book-Acc copula
- (4) a. Hanako-ga kita no wa kuruma-de da. -Nom came NM Top car-by copula 'It was by car that Hanako came.'
 - b. *Hanako-ga kita no ga kuruma-de da.
 -Nom came NM Nom car-by copul

Another difference between the wa-cleft and the ga-cleft has to do with whether more than one item can be clefted. As Nakajima (1994) shows, Japanese clefts (in the case of the wa-cleft) allows multiple focus, which is exhibited in (5a).

- (5) a. Sono neko-o hirotta no wa Hanako-ga kooen-de da.

 the cat-Acc found NM Top -Nom park-in copula
 'It was Hanako in the park that found the cat.'
 - b. *Sono neko-o hirotta no ga Hanako-ga kooen-de da.

 the cat-Acc found NM Nom -Nom park-in copula

As compared to (5a), the ga-cleft version (5b) is ungrammatical. Though this contrast may be subsumed under the condition relevant to the contrast (3) and (4); namely, no case particle follows a clefted item in the ga-cleft, the contrast might as well be relevant to the derivation of the cleft with multiple focus.

The third difference is concerned with whether an NP with a floating quantifier can be clefted. As (6) shows, it is allowed in the wa-cleft but not in the ga-cleft. As in the case of (5), this contrast may be due to the presence of the particle o.

- (6) a. Hanako-ga katta no wa CD-o 3-mai da.

 -Nom bought NM Top CD-Acc 3-Cl copula
 'It was three CDs that Hanako bought.'
 - b. *Hanako-ga katta no ga CD-o 3-mai da.

 -Nom bought NM Nom CD-Acc 3-C1 copula

A different kind of contrast is seen in (7). In the wa-cleft, the anaphor zibun in the focus position can refer to Taro, the subject of the cleft clause, as if it were placed back (or reconstructed) to the object position of the cleft clause. That is, reconstruction (or connectivity) effects are observed in the wa-cleft (cf. Higgins (1979). Differeing from the wa-cleft, the ga-cleft does not exhibit such reconstruction effects and Taro cannot be the antecedent of zibun in (7b).

- (7) a. Toro-ga aisiteiru no wa zibun no hahaoya da.

 -Nom love NM Top self 's mother copula
 'It is self's mother that Taro loves.'
 - b. *Toro-ga aisiteiru no ga zibun no hahaoya da.

The above differences between the wa-cleft and the ga-cleft are summarized in (8).

(8) Differences between the Wa-Cleft and the Ga-Cleft

		[A] Wa-Cleft	[B] Ga-Clef
a.	with Particle	allowed	no
	b. NP-pt QP	allowed	no
	c. Multiple Focus	allowed	no
d.	Reconstruction Effect	ts observed	no

The differences in (8) strongly suggest that the clefted phrase (the item before the copula) of the wa-cleft moves from the cleft clause, while that of the ga-cleft does not. The facts (8[A]-a,b,c) can be explained if the clefted phrase of the wa-cleft has actually been inside the cleft clause and case particles are provided before movement. Similarly, the fact (8[A]-d) follows, if we assume that an anaphor can be bound if its trace is bound. The facts of the ga-cleft (8[B]), naturally follow, if no movement is involved in the derivation of the ga-cleft. The cleft clause [... no ga] and the clefted item [X] in [... no ga X da] are separate constituents from the beginning of the derivation. Then, it is natural that a case particle that is assigned in the cleft clause cannot have a chance to attach to the X. And without any binding relation at any point of derivation, an anaphor in X cannot be bound by an item in the cleft clause. In Sections 3 and 4, I will pursue this line of analysis. Before doing so, let us confirm that the derivation of the wa-cleft in fact involves movement by comparing it with Scrambling, which has been assumed to be a movement operation. (Cf. Saito (1985), Hoji (1985))

2. The Wa-Cleft and Scrambling

As is clear from (9), scrambled phrases exhibit the characteristics of the focus phrase of the wa-cleft (i.e., (8)-[A]).

- (9) a. Sono neko-oi [Hanko-ga ti katteiru] the cat-Acc -Nom keep 'Hanako owns the cat.'
 - b. Sono neko-oi kooen-dej [Hanako-ga ti tj hirotta]
 The cat-Acc park-in Nom picked-up
 'Hanako found the cat in the park.'
 - c. CD-oi 3-maij [Hanako-ga ti tj katta] CD-Acc 3-Cl -Nom bought 'Hanako bought three CDs.'

d. [Zibun no hahaoya-o]i [Taro-ga t_i aisiteiru] self 's mother-Acc -Nom love 'Taro loves self's mother.'

In (9a), the scrambled phrase sono neko-o'the cat-Acc' is fronted from the object position and it is case-marked with o. (9b) shows that more than one phrase can be scrambled and (9c) is the example where not only the object NP but the associating floating quantifier are fronted. And (9d) shows that the anaphor zibun in the scrambled phrase can refer to the subject Taro, though Taro does not c-command zibun; a typical instance of reconstruction effects. Thus, if both Scrambling and the wa-cleft involve movement and the characteristics (8)-[A] are due to movement, the behavior observed in these Scrambled sentences is expected. However, a more careful examination is to be in order to determine if the wa-cleft in fact involves movement.

Saito (1985) argues that Scrambling is a syntactic movement operation, showing that Scrambling observes Subjacency. (10a) and (10b) are due to Saito.

(10) a. John-ga [Russell-ni atta koto-ga aru nihonzin]-o oozei sitteiru.

-Nom -Dat have-met Japanese -Acc many know
'John knows many Japanese who have met Russell.'

b.*Russell-ni $_i$ John-ga [t_i atta koto-ga aru nihonzin]-o oozei sitteiru.

The item, Russell-ni 'Russell-Dat' inside the relative clause cannot be scrambled out. If the wa-cleft really involves syntactic movement, it must observe Subjacency as well. However, facts are not that simple. Hoji (1987), presenting (11), notes that the wa-cleft exhibits ambivalent behavior with respect to Subjacency.

(11) a. John-ga [e_i atta koto-ga aru nihonzin]-o oozei sitteiru no **wa**-Nom have-met Japanese -Acc many know NM Top
Russelli da.

'It was Russell that John knows many Japanese who have met.'

b.*John-ga [ei atta koto-ga aru nihonzin]-o oozei sitteiru no wa
-Nom have-met Japanese -Acc many know NM Top
Russell-<u>ni</u>i da.
-Dat copula

If a clefted phrase is a simple NP without a particle, an item inside a relative clause can be clefted as shown in (11a); however, if it is attached by a particle (or a postposition), as in (11c), such an extraction operation is

blocked, which is presumably due to Subjacency. This means that, as Hoji (1987) argues, the wa-cleft must be divided into two types: the one with a particle, which observes Subjacency, and the one without it, which does not obey Subjacency.

Hoji (1987) does not discuss the ga-cleft, however, the following facts on the ga-cleft are quite suggestive to the wa-cleft. That is, the ga-cleft does not observe Subjacency, as shown in (12).

(12) John-ga [ei atta koto-ga aru nihonzin]-o oozei sitteiru no <u>ga</u>
-Nom have-met Japanese -Acc many know NM Top
Russelli da.

'Who John knows many Japanese that met is Russell.'

If we assume that (11a) is derived from (12) via Topicalization, just as (2b) results from (2a), the violation of Subjacency observed in the wa-cleft (1a) is attributed to the characteristics of the ga-cleft. I.e., the ga-cleft does not involve movement and Subjacency is not observed; naturally, the wa-cleft that derives from the ga-cleft does not observe Subjacency, either. This means that the wa-cleft that observes Subjacency is derived via movement and the one that does not obey Subjacency results from its ga-cleft counterpart. Since the ga-cleft does not allow the presence of a particle on the clefted NP, the wa-cleft that disregards Subjacency is always without a particle. $\langle 3 \rangle$

Another test for syntactic movement is concerned with resumptive pronouns. Saito (1985) shows that Scrambling does not leave a resumptive pronoun.

(13)

*Russell-nii [John-ga [kare-nii atta koto-ga aru nihonzin]-o oozei sitteiru]
-Dat -Nom he-Dat have-met Japanese -Acc many know
'It is Russell that John knows many Japanese who have met him.'

Hoji (1987) notes that the presence of a resumptive pronoun is allowed if a clefted item is not case-marked but it is forbidden with a case particle.

- (14) a. *John-ga [kare-ni; atta koto-ga aru nihonzin]-o oozei sitteiru no wa Russell-ni; da.
 - b. John-ga [kare-ni $_{i}$ atta koto-ga aru nihonzin]-o oozei sitteiru no wa Russell $_{i}$ da. 'It was Russell that John knows many Japanese who met him.'

As in the case of Subjacency, the ga-cleft behaves similarly with the wa-cleft without a particle. I.e., (15) is allowed along with (14b).

(15) *John-ga [kare-nii atta koto-ga aru nihonzin]-o oozei sitteiru no ga Russelli da.

The above discussion is summarized in (16).

(16)	Scrambling	Wa-Cleft	Wa-Cleft	Ga-Cleft
		(w/ pt)	(w/o pt)	
a. Subjacency Effects	observed	observed	no	no
b. Resumptive pronoun	no	no	allowed	allowed
c Reconstruction Effects	observed	observed	observed	no

The wa-cleft with a particle behaves exactly like Scrambling and it seems safe to assume that it involves syntactic movement as Hoji argues. With respect to Subjacency (16a) and Resumptive Pronoun (16b), the wa-cleft without a particle behaves the same as the ga-cleft. This suggests that the wa-version be derived from the ga-cleft via Topicalization. However, this does not explain why they behave differently with respect to Reconstruction Effects (16c) discussed in Section 1. If the wa-cleft without a particle is derived from the ga-cleft, which does not involve movement, it is expected not to exhibit reconstruction effects, either. This does not hold, however.

Given this ambivalent behavior of the wa-cleft without a particle, we have to say that the wa-cleft without a particle has two different derivations, one with movement (just like the wa-cleft with a particle) and the other without movement. This is exactly what Hoji (1987) argues for. If this is correct, there must be wa-clefts without a particle that do not show reconstruction effects.

Hoji (1987) deduces the following predications from the generalizations on the wa-cleft.

- (17) a. If a certain instance of the wa-cleft violates Subjacency, which indicates that no movement is involved, it should not exhibit reconstruction effects.
 - b. If a certain instance of the wa-cleft allows a resumptive pronoun, which indicates that no movement is involved, it should not exhibit reconstruction effects.

These predications are in fact borne out. I will reproduce Hoji's argument here.

Let us examine the prediction (17a) first. Observe (18).

(18) a. Hanako-ga [[zibun-no ronbun-o mudande insatu-sita] syuppansya]-o
-Nom self -'s paper-Acc w/o permission printed publisher -Acc
uttaeta.

sued

'Hanako sued the publisher that printed self's paper without her permission.

b.*Hanako-ga [[e_i mudande insatu-sita] syuppansya]-o uttaeta no wa [zibun-no ronbun] $_i$ da.

'It was self's paper that Hanako sued the publisher that printed without her permission.'

c. Hanako-ga [[ei mudande insatu-sita] syuppansya]-o uttaeta no wa/ga sono ronbuni da.

'It was that paper that Hanako sued the publisher that printed without her permission.'

In (18a), the anaphor *zibun* 'self' is inside a relative clause and it refers to the main clause subject *Hanako*. (18b) results if the object NP with *zibun* is clefted. However, (18b) is ungrammatical and this must be due either to Subjacency (if it involves movement) or to the lack of a proper antecedent of *zibun* (if no movement is involved). Note that if no reconstruction is at stake, the clefting of the object inside the relative clause is allowed, as shown in (18c). Hence, the correctness of (17a).

The following examples in (19) testify to the second prediction (17b).

(19) a. Hanako-ga [syuppansya-ga zibun-no ronbun-o mudande insatu-sita] to
-Nom publisher-Nom self -'s paper-Acc w/o permission printed Comp

omotta thought

'Hanako thought that the publisher printed self's paper without her permission.'

b.*Hanako-ga [syuppansya-ga sorei-o mudande insatu-sita] to omotta it-Acc

no wa [zibun-no ronbun]i da.

self -'s paper copula

'It was self's paper that Hanako thought that the publisher printed it without permission.'

c. Hanako-ga [syuppansya-ga sorei-o mudande insatu-sita] to omotta
no wa/ga sono ronbuni da.
the paper

'It was the paper that Hanako thought that the publisher printed it without permission.'

(19a) has a complement clause with zibun inside. If the object that contains zibun is clefted leaving a resumptive pronoun behind, the sentence becomes ungrammatical, as (19b) shows. The presence of the resumptive pronoun indicates that movement is not involved in this structure. Without movement, zibun cannot be connected to Hanako and no reconstruction is possible. If zibun is not involved as in (19c), however, resumptive pronouns are allowed.

The ungrammatical status of (18b) and (19b) show that there are some waclefts without a particle that behave exactly like the wa-cleft with a particle. Then, it follows that there are two derivations for the wa-cleft; either via movement or without movement. (4) For the account of this state of affairs, Hoji (1987), who does not take the ga-cleft into consideration, proposes (20),

(20) a. For the cleft without movement

[s . . . (pro) . . .] no wa FOCUS da
 Case particles cannot be attached to the "focused" NP.
 "Aboutness" licenses the structure.

b. For the cleft with movement

[s proi [s . . . ti . . .] no wa FOCUSi da
 Movement (i.e., scrambling, i.e., syntactic adjunction)
 Case particles can be attached to the "focused" NP.
 Chain [FOCUSi, proi, ti]

In the following sections, I will reinterpret Hoji's proposal (20) in terms of the Copula construction. That is, I will argue that the cleft without movement results from the ga-cleft via Topicalization, and that the cleft with movement is derived by the syntactic movement of a clefted constituent (not an empty pronominal referring to FOCUS) with the optional deletion of a particle in front of the copula.

3. The Ga-Cleft as an Ordinary Copular sentence

In Hasegawa (1996), adopting Heggie's (1988) analysis on the Copula construction, I propose that the copular sentences in (21) are derived from the D-structure (22a).

- (21) a. Hanako-ga suugaku-no sensei da.

 -Nom math-Gen teacher copula
 'Hanako is a math teacher.'
 - Hanako-wa suugaku-no sensei da.
 -Top math-Gen teacher copula
 'Hanako is a math teacher.'
- (22) a. [IP[sc NPa NPb] Copula]
 b. for (21a) [IP NPai-ga [sc ti NPb] Copula]
 c. for (21b) [TOP NPa-wai [IP ti [sc ti NPb] Copula]]

That is, the copula is a one place predicate that takes a small clause as its only argument. The subject NP, NPa, raises to the spec of IP to receive Case, which derives (21a). To (22b), Topicalization applies, giving rise to (21b).

As for the cleft without movement, I would like to propose that the same processes be involved. The only difference from the nominal case in (21) is that NPa is not an ordinary NP but a free relative headed by the nominalizer no. I will assume that the structure of a free relative is something like (23) and that the D-structure of the cleft sentences (1b) and (1c), repeated here as (24a) and (24b), respectively, is (25).

- (23) [NP [CP [IP Hanako-ga ei katteiru] no] proi]
 -Nom keep NM
- (24) a. Hanko-ga katteiru no ga sono neko da.

 -Nom keep NM Nom the cat copula
 'What Hanako owns is the cat.'
 - b. Hanko-ga katteiru no wa sono neko da.
 -Nom keep NM Top the cat copula
 'It is the cat that Hanako owns.'
- (25) [IP [SC NPa CP [IP Hanako-ga ei katteiru] no] proi]

 [NPb sono neko]] da]

Just as the case of ordinary copular sentences discussed in (21) and (22), Nominative Case assignment applies to the free relative in (25), deriving the ga-cleft version (24a), and the further application of Topicalization of the free relative derives the wa-cleft version (24b). (6)

Given this analysis, the ga-cleft facts (or the characteristics of the cleft without movement) summarized in (8) and (16) automatically follow. That is, the focus of the cleft of this type is a predicative NP. Naturally, it

cannot be followed by a particle nor can it involve more than one item, ruling out the possibility of multiple focus or an NP with a floating quantifier. The gap (or the empty category) in the free relative and the predicate NP are not related by movement. This explains why reconstruction effects are not observed in the ga-cleft. $^{(7)}$

The following examples with dake 'only' further support this copula analysis of the ga-cleft (or the cleft without movement).

- (26) a. *Hanako-ga suugaku-no sensei dake da. (cf. (21a))

 -Nom math-Gen teacher only Copula
 - b. *Hanko-ga katteiru no ga sono neko dake da. (cf. (24a))
 -Nom keep NM Nom the cat only copula

Kumamoto (1989a), noting the ungrammaticality of the ga-cleft with dake on the clefted NP (i.e., (26b)), mentions that in the ga-cleft, what is presupposed is the cleft clause (not the clefted NP) and that the cleft clause identifies the clefted NP. According to her, the ungrammaticality of ga-clefts with dake is due to the semantic condition that what is identified cannot be quantified by dake. This condition may hold also for the copula case (26a). However, I would like to simply state that the predicative NP cannot be quantified by dake for whatever semantic reason may be. Such a simple condition is possible only if we analyze (26a) and (26b) on a par.

It is not the case that dake cannot be attached to the clefted NP or to the NP preceding the copula in general. Dake is allowed in the wa-cleft, as shown in (27).

(27) Hanko-ga katteiru no wa sono neko dake da. (cf. (24b))
-Nom keep NM Top the cat only copula

The grammatical status of (27) may be taken as evidence against the analysis proposed here. That is, if the wa-cleft is derived from its ga-cleft counterpart, as argued in (24a), why wouldn't (27) become ungrammatical since its source (26) is ungrammatical? Recall that the derivation of the wa-cleft that does not involve a Subjacency violation or resumptive pronouns is not singularly determined. It may be derived from its ga-cleft version or it involves movement. Since (26) is ungrammatical, (27) must be derived not from (26) but by movement. And in fact, the wa-cleft with movement freely allows dake on the clefted NP, as (28) indicates.

(28) Toro-ga aisiteiru no wa zibun no hahaoya dake da. (7a) -Nom love NM Top self-'s mother only copula 'It is only self's mother that Taro loves.' Sentence (28) exhibits a reconstruction effect and it cannot be derived from a ga-cleft. Thus, the grammaticality of (27) and the ungrammaticality of (26b) indicate that the wa-cleft (24b) in fact has dual sources (cf. FN 6).

If the condition on the occurrence of dake is on the predicate NP, as argued above, and the cleft with movement escapes this condition, we expect that the wa-cleft that cannot be derived by movement does not allow dake. This prediction is borne out. The relevant example is (19c), which is repeated here as (29a).

(29) a. Hanako-ga [syuppansya-ga sorei-o mudande insatu-sita] to omotta

-Nom publisher-Nom it-Acc w/o permission printed Comp thought
no wa/ga sono ronbuni da.
Nom Top/Nom the paper copula
'It was that paper that Hanako thought that the publisher printed it
without permission.

b.*Hanako-ga [syuppansya-ga sorei-o mudande insatu-sita] to omotta no wa/ga sono ronbun-dakei da.

the paper-only

'It was only that paper that Hanako thought that the publisher printed it without permission.'

Sentence (29a) involves the resumptive pronoun *sore* 'it', which indicates that it is not a cleft with movement. This example becomes ungrammatical if dake attaches to the focus NP, as shown in (29b). (8)

There is a problem to solve in this ga-cleft analysis, however. Hoji (1987), who presents (20b) for the wa-cleft without movement, mentions that the cleft clause (i.e., [...no wa] part) cannot be a free relative, since it does not obey the semantic condition placed on Japanese free relatives. Observe the following sentences.

- (30) a. Taro-ga katteiru no-ga itiban kawaii

 -Nom keep NM-Nom most cute
 'The one that Taro owns is the cutest.'
 - b. *Kyoo go-kooen nasaru no ga moosugu irasshaimasu. Today lecture(hon) do(hon) MN Nom soon come(hon) 'The one who will give a lecture today will soon come.'

As the contrast in (30) indicates, a free relative is allowed if it refers to a non-human (or a human who does not deserve respect). But if it refers to a human as in (30b), the acceptability degrades. Due to this condition on free relatives, sentence (30b), where the use of honorific forms indicates that the

speaker pays respect to the person that the free relative refers to, becomes ungrammatical. Thus, if the cleft without movement involves a free relative, we expect that the ga-cleft should not be able to cleft a human NP. However, this prediction turns out to be wrong. Observe (31).

(31) Kyoo go-kooen nasaru no ga Yamada-sensei da.

Today lecture(hon) do(hon) MN Nom -teacher copula

'The one who will give a lecture today is Professor Yamada.

As in (30b), the speaker's respect for the referent of the free relative is expressed by the use of honorifics. However, (31) is perfectly grammatical. The obvious difference between (30b) and (31) is that the referent of the free relative in (30b) is not identified within the sentence, while in (31), the referent is syntactically present; namely, the predicate NP. In the copular construction, the two NPs in the small clause complement of the copula must agree in terms of relevant features (e.g., number, gender, etc.). I would like to assume that this agreement saves (31). I propose the following condition on the interpretation of the head pro of a free relative.

(32) Condition on the Interpretation of the Free Relative Head pro

The default interpretation on the head pro of a free relative is

[-respectable]; however, this feature is overridden if the agreement feature assigned onto pro is [+respectable].

4. The Cleft with Movement

Now let us consider how the cleft that exhibits the characteristics of Scrambling is derived. What Hoji (1987) proposes is (20b), which is repeated here as (33) here.

(33) For the cleft with movement

[s proi [s . . . ti . . .] no wa FOCUSi da
Movement (i.e., scrambling, i.e., syntactic adjunction)
Case particles can be attached to the "focused" NP.
Chain [FOCUSi, proi, ti] (Hoji (1987))

According to Hoji, the characteristics of movement (e.g., Subjacency effects, no resumptive pronoun, reconstruction effects) are due to the movement of a null pronoun and the formation of the Chain. The problem with this structure is that the gap (t) and the FOCUS are only indirectly related and there is no obvious explanation for why case particles can be attached to the focus NP in (33), while no particles are allowed in the cleft without movement (i.e.,

(20a)). A severer problem is the existence of sentences with multiple focus, such as (5a). How can (33) allow to have more than one focused item at the Focus position?

The fact concerning dake discussed in the previous section seems also problematic to (33). As argued, dake is not allowed at the predicate NP position. Given (33), it is not clear why dake cannot be attached to the NP before the copula of ordinary copular clauses and ga-clefts (or clefts without movement) (e.g., (26), (29b)), whereas it can be attached to the NP at the same position in the wa-cleft (or the cleft with movement) (e.g., (27), (28), (i) in FN 8). As I mentioned, if a phrase to be clefted resides in the cleft clause at D-structure and it actually moves to the focus position at S-structure, the presence of case particles as well as dake naturally follows. I will present such an analysis below.

The presence of the copula da indicates that the cleft in general involves the copular construction (22a), repeated here as (34).

(34) [IP [SC NPa NPb] Copula]

What is also suggestive is the presence of sentences such as (35) which involve the nominalizer no and the copula da.

(35) Hanko-ga sono neko-o katteiru *no da.*-Nom the cat-Acc keep NM copula
'It is that Hanako owns the cat.'

A possible (and probably the only) structure that (35) can have in terms of the copular structure (34) would be (37), where the subject of a small clause complement is expletive and the 'predicate' is a CP. (9)

(37) [IP e [sc e [CP Hanko-ga sono neko-o katteiru no]] da]

Let us suppose that a constituent inside a CP can move up to the empty expletive position of the copula. If this takes place, (38) results. 10

(38) [IP Sono neko-oi [sc (ti) [cP Hanko-ga ti katteiru no]] da]

Then, what needs to be done to derive the cleft (24b), repeated here as (39), is to topicalize the remnant CP, [Hanako-ga t katteiru no].

(39) Hanko-ga katteiru no wa sono neko-(o) da. (=(1b), (24b))

-Nom keep NM Top the cat-Acc copula

'It is the cat that Hanako owns.'

That is, the S-structure of (39) would be (40).

(40) [TopP [CP Hanko-ga t_i katteiru no]j-wa

[IP sono neko-oi [sc (t_i) t_j] da]]

Though it is not quite clear what motivates the movement of the clefted NP to the spec of IP, the topicalization of the 'predicate' phrase generally takes place in the Copular construction, as I argued in Hasegawa (1995) (see also Heggie (1989)).¹¹

Recall the copular sentence (21a), reproduced as (41a) here. To (41a), Topicalization can apply not only to *Hanako*, which derives the sentence (21b) that was discussed in Section 3, but also to the predicate NP, *suugaku no sensei* 'math teacher', which gives rise to (41b). (41c) is the S-structure of (41b).¹²

- (41) a. Hanako-ga suugaku-no sensei da.

 -Nom math-Gen teacher Copula
 'Hanako is a math teacher.'
 - b. Suugaku-no sensei wa Hanako da.

c. [TopP [NP Suugaku-no sensei]j-wa [TP Hanako-(ga)i [sc ti tj] da]]
$$\uparrow \qquad \qquad \uparrow \qquad \qquad |$$

The derivation here explains the grammaticality of (42a) and (42b) with dake. They should be compared with the ungrammatical (26a), repeated as (43).

- (42) a. Hanako-dake-ga suugaku-no sensei da.
 -only-Nom math-Gen teacher copula
 'Hanako is a math teacher.'
 - b. Suugaku-no sensei wa Hanako dake da.
- (43) *Hanako-ga suugaku-no sensei dake da.

As discussed, dake cannot attach to the predicate NP; hence, (43) is ruled ungrammatical. Dake can attach to the subject NP and (42a) is allowed. Given the derivation (41c), Hanako-dake in (42b) is not a predicate NP but a subject NP that is left in the CP. Hence, (42b) observes the condition on dake and is allowed along with (42a).

5. The Cleft with Multiple Focus

In Sections 1 and 2, the cleft construction with multiple focus is taken as evidence for the involvement of movement in its derivation. The sentence taken up then is (5a), repeated here as (44).

(44) Sono neko-o hirotta no wa Hanako-ga kooen-de da.
the cat-Acc found NM Top -Nom park-in copula
'It was Hanako in the park that found the cat.'

The D-structure of (44) must be like (45a). And if the multiple focus cleft involves similar operations as multiple scrambling, both the subject Hanako-ga and the locative kooen-de 'park-at' should be able to move out of the 'predicate' CP, which is illustrated in (45b). Topicalization then moves the remnant CP, as shown in (45c).

(45) a. [IP [sc e [cP Hanko-ga kooen-de sono neko-o hirotta no]] da]
b. [IP Hanako-gai kooen-dej [cP ti tj sono neko-o hirotta no]] da

c. $[\underline{c_P} \ \underline{t_i} \ \underline{t_i} \ \underline{sono} \ \underline{neko-o} \ \underline{hirotta} \ \underline{no}]_k$ -wa $[\underline{r_P} \ \underline{Hanako-ga_i} \ \underline{kooen-de_j} \ \underline{t_k}] \ \underline{da}$

Though this derivation seems to work, this would also derive the ungrammatical (46b) and (46c) from (46a).

(46)a. Mary-ga Nancy-ni [John-ga ringo-o 3-tu katta to] itta.

-Nom -Dat -Nom apple-Acc 3-Cl bought Comp said

'Mary said to Nancy that John bought three apples.

b. *Nancy-nii John-gaj ringo-ok 3-tum [Mary-ga ti [tj tk tm katta

c. *[Mary-ga t_i [t_j t_k t_m katta to] itta] no wa

Nancy-nii John-gaj ringo-ok 3-tum da.

(Koizumi 1995)

As stated in Koizumi (1995), it is not possible to cleft a matrix item along with embedded constituents. If the process of fronting applies separately to each item, as the derivation in (45) suggests, (46c) cannot be ruled out. 13

What seems to have gone wrong in (45) and (46) is that more than one item is fronted separately to the Spec of IP. Let us assume, as the copular structure (37) indicates, that the item fronted to the Spec of IP must be limited only to one constituent. But then, we need to come up with a way to bring two

or more items to the focus position in the multiple focus cleft. I would like to draw on Koizumi's (1995) analysis to solve this problem.

Koizumi (1995) argues that verbs in Japanese move out of VP in overt syntax. According to his analysis, sentence (47a) undergoes Verb Raising in a way indicated in (47b). (Cf. also Nakajima (1994))

- (47) a. Hanako-ga Taro-ni CD-o 3-mai okutta.

 -Nom -Dat -Acc 3-Cl sent
 'Hanako sent three CDs to Taro.'
 - b. [Subject [v_P IO DO t_{V}] V-Tense

He argues that cleft sentences in (48) provide evidence for Verb Raising.

- (48) a. Hanako-ga okutta no wa <u>Taro-ni CD-o 3-mai</u> da.

 -Nom sent NM Top -Dat -Acc 3-Cl copula
 'It was three CDs to Taro that Hanako sent.'
 - b. Okutta no wa <u>Hanako-ga Taro-ni CD-o 3-mai</u> da.
 'It was Hanako three CDs to Taro that sent.'

Given the structure (47b) after Verb Raising, the indirect object and the direct object (with the floating quantifier) form a single constituent, namely VP. Thus, we can maintain that only single constituents can be focused, though it may appear that two items are focused. As Koizumi mentions, the example (48b) suggests that the verb move even higher than Infl (i.e., to Comp). Since the subject NP (marked by ga) is assumed to be at the Spec of Infl, the only constituent that involves the subject and the two objects is IP. To the extent that the verb is excluded from this constituent, remaining in the cleft clause, the only item that can host the verb outside the IP is the Comp, no. Koizumi seems to assume that a clefted item directly moves to the sentence final position to form a cleft sentence, which we do not adopt. His analysis, however, is easily incorporated into our analysis. Sentence (48a) is derived in the way explicated in (49) and the derivation of (48b) is shown in (50).

- (49) a. Verb Raising (at least to Infl) [IP e [SC e [CP [IP Hanako-ga [VP Taro-ni CD-o 3-mai $t_{\rm v}$] okutta $_{\rm v}$] no]] da]
 - b. Raising of the VP to the IP-Spec of the Copula [IP [VP Taro-ni CD-o 3-mai $t_{\rm V}$]; [sc ($t_{\rm i}$) [cP Hanako-ga $t_{\rm i}$ okuttav] no]] da]

- (50) a. Verb Raising (to Comp)

 [IP e [SC e [CP [IP Hanako-ga [VP Taro-ni CD-o 3-mai t_v] t_v]

 okuttav no]] da]

 - c. Topicalization of the remnant CP [τορΡ [cp ti okuttav no]j-wa [re lip Hanako-ga Taro-ni CD-o 3-mai tv]i [sc (ti) tj] da]]

Sentence (44) of multiple focus, however, requires a little more careful consideration. The clefted items are the subject and the locative, and the object and the verb constitute the cleft clause. That is, there does not seem to be a constituent that contains only the subject and the locative, excluding the object. I would like to assume that the object is first scrambled out from the IP (perhaps adjoined to CP) and the remnant IP moves out just as in (50b) and finally, the CP that contains the object and the verb attaching to the nominalizer no is topicalized. This derivation is illustrated in (51).

- (51) a. Verb Raising (to Comp) [IP e [sc e [CP [IP Hanako-ga [VP kooen-de neko-o t_v] t_v]

 hirottav no]] da]
 - b. Scrambling of the Object $[\mbox{Ip e [sc e [cp $\underline{neko-o}_k$ [cp [ip Hanako-ga [vp kooen-de t_k t_v]]] $$ hirotta_v$ no]] da]$

6. Summary and Consequences

In this paper, drawing on the insights of previous analyses (in particular, Heggie (1988), Hoji (1987), Koizumi (1995), Kumamoto (1989a/b), and Nakajima (1994)), I have examined various facts of cleft sentences and proposed an analysis in which the copular structure underlies clefts.

In the previous analyses, clefted NPs are either base-generated as such (e.g., Hoji (1987)) or moved rightward from the cleft clause. It was shown that cleft sentences can be more or less automatically accounted for if we assume the copula structure and operations involved in deriving ordinary copular sentences (cf. Hasegawa (1996)). If the proposed analysis is right, only leftward movements are involved and no operations specific to clefts are needed.

The proposed analysis is not of course flawless. For example, it cannot explain why a CP cannot be focused. That is, there is no fundamental explanation for the ungrammaticality of (52b).

(52) a. Taro-ga [cr Hanako-ga neko-o katteiru to] itta.

-Nom -Nom cat-Acc keep Comp said
'Taro said that Hanako owns a cat.'

b.*Taro-ga itta no wa [cr Hanako-ga neko-o katteiru to] da.

-Nom said NM Top -Nom cat-Acc keep Comp copula
'It is that Hanako owns a cat that Taro said.'

As argued in Section 5, not only NPs and PPs but also VPs and IPs can be raised to the Spec of IP, which becomes a focused NP after the topicalization of the remnant CP. Then, why can't CPs be raised as well?

Also not discussed is the issue of the Proper Binding Condition, which rules out unbound traces. In the proposed analysis, the remnant CP that is topicalized always contains a trace of the item that is raised to the Spec of IP (i.e., a trace of the focused item). If the analysis presented here is on the right track, PBC must be altered; perhaps in a way that has been suggested in Kitahara (1994), Koizumi (1995), and others.

NOTES

* This is a revised version of my presentation at the first COE Workshop at the British Hills in Shirakawa. I would like to thank the participants of the workshop for valuable comments. Portions of the materials presented in this

paper were discussed in my graduate seminar and I have much benefited from the discussion there.

- Not all the particles can attach to the X of the cleft construction. (3a) with the particle o is less acceptable than (4a), which has the postposition de. If the particle ga attaches to the focus X, the acceptability is even more degraded, as (i) below shows.
 - (i) ?*Sono neko-o katteiru no wa Hanako-ga da. 'It is Hanako that owns the cat.'
- The following example (i), the ga-cleft version of the ungrammatical (11b) is ungrammatical. This does not necessarily mean that the ga-cleft has two types as the wa-cleft; the one with a particle, which does not observe Subjacency, and the one without, which observes Subjacency. The ungrammaticality of (i) can be independent from Subjacency; the ga-cleft cannot involve a particle or a postposition, as discussed in Section 1.
 - (i) *John-ga [ei atta koto-ga aru nihonzin]-o oozei sitteiru no ga
 -Nom have-met Japanese -Acc many know NM Nom
 Russell-nii da.
 -Dat Copula
- 3 Hence, if a cleft sentence has a form impossible for a ga-cleft, it must obey Subjacency. This prediction is borne out by the following examples.
 - (i) a. Mary-ga [[John-ga Becky-ni ringo-o 3-tu ageta] zikan]-o
 -Nom -Nom -Dat apple-Acc 3-Cl gave time-Acc
 siritagatteiru.
 want-to-know
 'Mary wants to know the time when John gave three apples to Becky.'

transfer of the state of the st

b.*Becky-ni ringo-o 3-tu [Mary-ga [[John-ga -- ageta] zikan]-o siritagatteiru.

c.*Mary-ga [[John-ga -- ageta] zikan]-o siritagatteiru no wa Becky-ni ringo-o 3-tu da. (Koizumi 1995)

Both the direct object (with its associating floating quantifier) and the indirect object move out of the adverbial island. The Scrambled version (ib) must be ruled out by Subjacency. The same holds for the cleft version (ic). Note that (ic) has two (or three) items at cleft position and this is an ex-

ample of the multiple focus cleft and cannot be derived from its ga-cleft counterpart. Thus, (ic) is predicted ungrammatical either as a wa-cleft (due to Subjacency) or as a ga-cleft that cannot allow multiple focus (or the presence of particles).

- ⁴ This means that the term 'wa-cleft' is misleading. It involves both the wa-cleft with movement and the one without movement, covering heterogeneous classes. In the following I will call these two types, the cleft with movement and the cleft without movement. The former covers the wa-cleft (with or without a particle) and the latter the ga-cleft and the wa-cleft without a particle that does not involve movement.
- ⁵ Though a more careful examination is called for, I assume that the nominalizer *no* to be a kind of complementizer. I will leave open the exact status of the empty categories *e* and *pro* and how they are connected in free relatives. See Kitagawa and Ross (1982), Mihara (1994), and Tonosaki (1995) for relevant discussion.
- 6 Note here that (24b) is a wa-cleft without a particle that involves neither Subjacency violation nor resumptive pronoun. As discussed above, the wa-cleft of this type can be derived in two ways, either via movement or without movement. The derivation discussed here applies only when (24b) is taken as a cleft without movement. (24b) has another derivation that involves movement, which be discussed in Section 4.
- ⁷ This analysis, however, does not provide a principled explanation for the following two questions; why Subjacency is not observed and why resumptive pronouns are allowed in the ga-cleft. If the analysis presented here is on the right track, these questions must be solved in terms of how free relatives are generated in general. That is, provided that the structure (23) is a correct analysis for free relatives, the issue is how the empty category (e) and an empty head (pro) are related if no movement is involved. To pursue this issue is beyond the scope of this paper, however.
- $^{8}\,$ If a resumptive pronoun does not appear, the sentence (29b) becomes grammatical with wa.
 - (i) Hanako-ga [syuppansya-ga e mudande insatu-sita] to omotta no wa
 -Nom publisher-Nom w/o permission printed Comp thought NM Top
 sono ronbun dake da.
 the paper only copula

'It was only that paper that Hanako thought that the publisher printed without permission.

The grammaticality of (i) is on a par with the grammaticality of (27) and (28). The cleft with movement allows dake on the focus NP. This fact with dake can be easily accounted for if the phrase dake resides in the cleft clause at D-structure and moves out to the focus position at S-structure. Such an analysis will be presented in Section 4.

- 9 A similar structure can be motivated for English sentences of the type (i). That is, (ii) may be the underlying structure for (i) and the expletive it is inserted at the matrix subject position to meet the Extended Projection Principle.
 - (i) It is that Hanako keeps the cat.
 - (ii) e is [sc e [crthat Hanako keeps the cat]]
- 10 I would like to assume that this movement is up to the expletive subject of the copula by way of the expletive subject of the small clause. See also FN 11.
- The movement of a clefted item to the Spec of IP may be due to the assignment of the 'exhaustive listing (EL)' (or focus) reading on it. The Spec of IP normally receives Nominative ga, as in ordinary copular sentences like (21a), and the ga-marked subject of a copular sentence receives this particular reading. And a clefted item also receives a similar focus reading. Thus, it is quite probable that the movement to the IP-Spec position gives rise to the EL reading and the cleft always involves such a movement.
- 12 As I discussed in Hasegawa (1996), the ungrammaticality of (i) indicates that (41b) cannot be derived through the topicalization of the subject NP from (i), where *Hanako* is a predicate NP and *suugaku no sensei* 'math teacher' is the subject, through the topicalization of the subject NP.
- (i) *Suugaku-no sensei-ga Hanako da. math -Gen teacher-Nom copula

That is, an indefinite NP cannot be the subject of the small clause of the copular construction (cf. Heggie (1989)). The same restriction applies to the ECM constriction of the following type.

- (ii) a. Taro-wa [Hanako-o eigo-no sensei (da)] to omotta.

 -Top -Acc English-Gen teacher copula Comp thought
 'Taro thought Hanako to be an English teacher.'
 - b. *Taro-wa [eigo-no sensei-o Hanako (da)] to omotta.

 -Top English-Gen teacher copula Comp thought

'Taro thought an English teacher to be Hanako.'

- 13 The ungrammaticality of (46b) suggests that Scrambling cannot apply separately to embedded constituents and matrix constituents, stacking them all together to the matrix clause.
- 14 It has been assumed that Scrambling adjoins an item to IP and VP, but not to CP (cf. Saito (1985), Hoji (1985). The scopal difference observed in (i), however, seems to suggest that the adjunction is allowed to an embedded CP.
 - (i) a. Taro-ga [dare-ga dono neko-mo katteiru ka] sirabeteiru. -Nom who-Nom which cat keep Q investigate 'Taro investigates who owns every cat.'
 - b. Taro-ga [dono neko-moi dare-ga t_i katteiru ka] sirabeteiru.

 -Nom which cat who-Nom keep Q investigate
 'Taro investigates every cat who owns.'

What is at issue is the scopal relation of the question word dare 'who' and the quantifier dono neko-mo 'every cat'. In the non-scrambled (ia), the question word takes scope over the quantifier, meaning that what Taro investigates is the identity of one person who owns every cat. The scrambled (ib), on the other hand, has the opposite scopal relation; Taro investigates the identity of the owner of each cat. The reading of (ib) is possible only if the quantifier adjoins to higher than the question marker ka in Comp; probably to CP-adjoined position.

REFERENCES

- Hasegawa, N. (1996) "On the Word Order of Copular Sentences," 『言語科学研究』 神田外語大学大学院紀要, No. 2, 1-18.
- Heggie, L. (1988) The Syntax of Copular Sentences. USC dissertation.
- Heggie, L. (1991) "The Range of Null Operators," Natural Language and Linguistic Theory 11, 45-84.
- Higgins, R. (1979) The Pseudo-Cleft Construction in English, Garland Publishing, New York.
- Hoji, H. (1985) Logical Form Constraints and Configurational Structures in Japanese, Univ. of Washington dissertation.
- Hoji, H. (1987) "Japanese Clefts and Reconstruction/Chain Binding Effects," paper presented at WCCFL 6.

- Kitagawa, C. and C. Ross (1982) "Prenominal Modification in Chinese and Japanese," Linguistic Analysis 9, 19-53.
- Kitahara, H. (199) "Restricting Ambiguous Rule-Application: A Unified Analysis of Movement," MIT Working Papers in Linguistics 24 (Formal Approaches to Japanese Linguistics 1) 179-209.
- Koizumi, M. (1995) Phrase Structure in Minimalist Syntax. MIT dissertation.
- 熊本千明 (Kumamoto, C.) (1989a) 「日・英語の分裂文について (English and Japanese Cleft Sentences)」 佐賀大学英文学研究 第17号、pp. 11-34.
- 熊本千明 (Kumamoto, C.) (1989b) 「指定と同定 「・・・のが・・・だ」の解釈をめぐって-」『英語学の視点』大江三郎先生追悼論文集編集委員会編、九州大学出版会・pp. 307-318.
- 三上章 (Mikami, A.) (1953, 1972) 『現代語法序説』くろしお出版.
- 三原健一 (Mihara, K.) (1994) 『日本語の統語構造 生成文法理論とその応用 』 松柏社・
- 中島平三 (Nakajima, H.) (1994) 「分裂文の語用的、統語的条件 多重焦点文を中心にして-」英語学会第12回大会での発表。
- Saito, M. (1985) Some Asymmetries in Japanese and Their Theoretical Implications. MIT dissertation.
- 外崎淑子 (Tonosaki. S.) (1995) 『「主要部内在型関係節」と類似構文の分析』神田 外語大学言語科学研究科修士論文.