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Akira Hiroe

0. Introduction

The goal of this paper is to derive the distributional properties of complementizer deletion from interaction between governing predicates and the modality of their complements, focusing in particular on *that*-deletion in English. We will not only deal with complementizer deletion in verbal complements but also demonstrate that modality is concerned with *that*-deletion in relative clauses. We will also show that the properties of the complements in verbs of manner of speaking are derivable from their semantic peculiarities and the way of embedding their complements.

This topic has been sporadically discussed in the literature, and some proposals have been made and challenged by traditional as well as generative grammarians. The former focuses on the descriptive generalization (e.g. Jespersen (1927), Palmer (1939), Hornby (1975), Chiba (1991)) and the latter on the account based on the general principle, i.e., ECP. (e. g. Stowell (1981), Saito (1984), Lamontagne and Travis (1987), among others.) In the latter, however, it does not suffice to explain a wide range of data concerning *that*-deletion, nor does it shed any light on a typological perspective.

So far, *that*-deletion that occurs in complements and the one that occurs in relative clauses have been dealt with separately. But it is no accident

that the same word-*that*-occurs in the two cases, I believe. How can we show the relationship between *that*-deletion in verbal complements and that in relative clauses while simultaneously accounting for the differences? In this paper we will approach the question viz a semantic approach.

1. Distributional Circumstance in *That*-deletion

In this section we will review the proposals that have been made in the literature and point out some problems. The phenomena with respect to *that*-deletion have been so far paid attention to by many linguists, but surprisingly enough, they have little attempted to systematically tackle the problem by appealing to interaction between governing predicates and their complements, to the exclusion of Inada and Imanishi (1997). In other words, our intuition that complement selection is determined by the governing predicate has escaped attention in the linguistic literature.

In section 1.1, we will present some basic facts and the problems concerning *that*-deletion. In section 1.2, we will give an overview of the ECP explanation. In section 1.3, Nakamura's (1997) analysis within the framework of the minimalist program will be taken up. In section 2, we will propose a new analysis. In the subsquent sections, based on the proposal, we will show that the new analysis gives a principled account to the seemingly complex facts.

1.1. Facts and Problems

First, consider an English example. As is shown in parentheses, *that* is optional in (1).

(1) The jouralist knew (that) the senator took a bribe.

But the optionality does not hold for *that*-deletion in subject position.

(2) *(That) the senator took a bribe was well-known to the dwellers.

When *that*-deletion occurs in verbal complements, it does not always show the optionality in sentences such as (3) [1]:

(3) a. John insisted *(that) Mary should wash the dishes.
b. Jack required/demanded *(that) the money should go fifty-fifty.

More interestingly, Stowell (1981) observes that in the cases where verbs of manner of speaking occur, *that*-deletion cannot simply be permitted. This can be seen in:

(4) a. Bill muttered *(that) Denny was playing too much poker.
b. Bill sighed *(that) he was sick of not getting fed.
c. Francine whispered *(that) we should turn down the stereo.

(Stowell (1981:398))

When an element intervenes between main verbs and *that*, then, *that*-deletion cannot be allowed, as illustrated in (5):

(5) a. The boss pleaded/argued with Tom *(that) he shouldn't fire her.
b. I protested to the police officer *(that) I was innocent.
c. Jim proved quite easily *(that) Jack was on hash.

As Jespersen (1927:38) points out, it is still indeterminate what induces *that*-deletions. He claims that *that*-deletions may vary according to individuals, pragmatic circumstances, and rhythms. As we proceed, one might think so. However, we will argue that there is a factor that induces the differences.

1.2. ECP account

Stowell (1981) proposed Empty Category Principle (henceforth, ECP) explanation for the partial data of *that*-deletion. Consider the contrast in (6) and (7):

(6) a. Ben knew (that) the teacher was lying.
b. Louise announced (that) she was angry at me.
(7) a. *It surprises me *(that) you have heard about Roger.
b. *It came as a belief *(that) my mother was safe.
(Stowell (1981:396-97))

In (6) the empty complementizers are properly governed by the head, i. e., the verb, while in (7) they are not. The ECP, then, predicts that the following examples should be perfectly acceptable:

(8) a. Bill muttered *(that) Denny was playing too much poker.
b. Francine whispered *(that) we should turn down the stereo.
(Stowell (1981:398))

In fact, however, they are not. With respect to the possibility of an empty complementizer, Stowell uses the notion "dominance," introduced in Erteschik (1973). Verbs of manner of speaking differ crucially from other verbs in the discourse function that thier clausal complements serve. In particular, what constitutes the main assertion of the whole sentence is the verb itself, over which cases she defines it as dominant. Following Erteschik, then, Stowell claims that the complementizers in (8) cannot be deleted because the complements are not dominant. However, the notion 'dominance' is not so clear. For one thing, it is vague to what extent the notion can be applied to the other examples, as illustrated in (9):

(9) a. I ask *(that) John be given the leave to go.
b. The Selection Committee may insist *(that) he resign.

Moreover, the ECP, together with the notion 'dominance,' is unable to account for the following type of empty complementizers [2]:

(10) *(That) the senator took a bribe the journalist knew.

1.3. Nakamura's Analysis

With the advent of the Minimalist program, there is eventually no place

for ECP. Nakamura (1997) instead proposes an alternative account to the data in qusetion. Consider the contrast (COMP indicates empty complementizers):

(11) a. The journalist knew [CP [C that/COMP] [IP the senator took a bribe.]]

b. [CP [C that/*COMP] [IP the senator took a bribe]]$_i$ the journalist knew $_{t_i}$.

Assuming the copy theory of movement, he takes (11b) to have the structure (12), where a moved CP leaves its copy in the original position.

(12) [CP [C that/*COMP] [IP...]] $_i$ the journalist knew [CP [C that/COMP] [IP...]] $_i$

He argues that (11b) is ruled out by a principle of economy. That is, the COMP already exists in the base position, thus a redunduncy resulting. Still problematic is, however, why (13) is also excluded.

(13) [IP...] $_i$ The journalist knew [CP [C that/COMP] [IP...]]$_i$

In order to exclude (13), he argues, following Frampton (1991), Law (1991), and Takahashi (1994), that for INFL to be checked off in the complementizer position, the INFL undergoes head movement to the complementizer position in the embedded clause when the complementizer is empty. Therefore, (13) cannot satisfy the requirement of I-to-C movement since the INFL in the moved IP fails to be checked, thus the derivation crashing. But Nakamura's analysis would be much worse than Stowell's since his analysis is more restricted to a small range of data concerning *that*-deletions. Consider (5) (for expository purposes, (5) repeated as (14)):

(14) a. The boss pleaded/argued with Tom *(that) he shouldn't fire her.

b. I protested to the police officer *(that) I was innocent.

c. Jim proved quite easily *(that) Jack was on hash.

His analysis predicts that the *that*-less options in (14) should be all acceptable since they satisfy the requirement of I-to-C movement, but in

fact, they are not. Therefore, Stowell's analysis is preferred over Nakamura's in that the former can explain wider facts concerning *that*-deletions than the latter.

2.0. A New Analysis

An empty complementizer, *that*, typically occurs in the following environment:

(15) a. V COMP NP ...

b. NP COMP NP ...

In (15a) it is the so-called subordinator intorducing an embedded (surbordinate) clause and in (15b) a relative. We will first discuss the cases of (15a). It has implicitly been assumed so far, at least within the generative grammar, that the manifestation of complementizers is identified as clause-typing. (See Chomsky and Lasnik (1977), Cheng (1991), Inada and Imanishi (1997)) Extending this assumption, we assume that clause type constitutes a part of modality in a clause, and that regardless of the distinction between root and embedded clauses, every clause needs to be marked with modality. How each clause is marked varies depending on each grammatical device of natural languages. As for English complementizer system, its function in embedded clauses is carried out by *that* under the syntactic circumstance in (15a), but it does not manifest as lexical complementizer in root clauses. In English, how can modality in a clause be encoded, then?

Before we continue, let us now turn to other languages. Crosslinguistically, mood marking is coded by syntactic devices such as word order, by morphological changes on the verb, or by phonological devices such as intonation, vowel or consonant length. (See Bhatt and Yoon (1991), Fraizyngier (1995), Palmer (1986), Ransom (1986)) Consider Korean and Japanese examples (underlined mine):

(16) a. John-i wa-ss-ta
John-NOM come-PAST-DECL
'John came'

b. Bill-un [John-i wa-ss-ta-ko] sayngkakhanta
Bill-TOP John-NOM come-PAST-DECL-SUB thinks
'Bill thinks that John came'

(Bhatt and Yoon (1991:42))

c. John-ga ki-ta
John-NOM come-PAST-DECL

d. Bill-wa [John-ga ki-ta-to] omotta
Bill-TOP John-NOM come-PAST-DECL-SUB thought
'Bill thought that John came'

In (16) we can observe that Korean and Japanese possess a system of verbal affixes encoding modality. The fact that the mood markers appear in clause-final position seems to show that they take scope over the entire clause. More interestingly, Polish has a morpheme to be classified as complementizer:

(17) a. O-by byl w Warszawie w lipcu
COMP-COMP be-3M-3G-PERF PREF Warsaw-DAT PREP July
'I wish he were in Warsaw in July'

b. 'Powiedziat ze̊-by-m Spalit papier-y
SAY-PERF-PAST-3SG COMP-COMP-1SG burn-PERF paper-PL
'He said that I should burn the papers'

(Frajzyngier (1995:480-489))

In (17) it is observed that the complementizers show two distinct categories of information; subordinator and modality. In (17a) the sequence *o-by* expresses the deontic modality implying a wish. In (17b), on the other hand, the sequence *ze̊-by* expresses a mood of obligation. It is obvious, again, that the combination of the Polish complementizers with the morphemes as modal marker has wide scope over the entire clause.

In English, there is no morphological device in *that* that simultaneously encodes the two categories of information, as in Polish. English instead has a grammatical device of encoding modality in clause-internal position. From a typological perspective, therefore, English *that* simultaneously encodes mood and subordinate marker when there is no other mood marking in clause-internal position, and just a subordinate marker when there is a mood in it.

Given the discussion above, adopting Bhatt and Yoon (1991) and Fraizyngier (1995), we would like, as a first approximation, to suggest that the category 'complementizer' conflates the two categories of information; mood and subordinate marker. In addition, we would also like to hypothesize that the syntactic device of encoding modalitiy in a clause is crucially responsible for the possibility of empty complementizers, or complementizer deletion.

This hypothesis predicts that when there is a mood in an embedded clause, *that*-deletion cannot occur, whereas when there is not, it can. In fact, the prediction is borne out by ((3) and (9) repeated as (18)):

(18) a. John insisted *(that) Mary should wash the dishes.
b. Jack required/demanded *(that) the money should go fifty-fifty.
c. I ask *(that) John be given the leave to go.
d. The Selection Committee may insist *(that) he resign.

How can the optionality of *that*-deletion in (19) be accounted for, then? ((1) as repeated as (19))

(19) The jouralist knew (that) the senator took a bribe.

In (19) the embedded clause is unmarked with modality. In fact, as we shall see later, the longitudinal data from CHILDES show that children delete *that* in the cases without modality. In other words, as with root clauses, it does not have to be typed as declarative.

Correlating with the modality in an embedded clause is the following

((5b-c) repeated as (20)):

(20) a. I protested to the police officer *(that) I was innocent.

b. Jim proved quite easily *(that) Jack was on hash.

A quick look at these embedded clauses seems to show that there is no modality. We predict, then, that *that*-deletion should be allowed, but the facts show that it is not, contrary to our prediction.

At least in English, the mood or force of an embedded clause is determined by C. (See Chomsky (1995:240)) The fact that the C cannot be deleted shows that it encodes a mood or force. There is a test that highlightens where the mood or force is; tag questions show an inquiry about the truth of an assumption.

(21) a. I protested to the police officer that I was innocent, didn't I?

b. Jim proved quite easily that Jack was on hash, didn't he?

The two answers to (21a) can be possible:

(22) a. Yes, you did. (means you protested to the police officer that ...)

b. Yes, you were. (means you were innocent)

In answering (21a), we make available the option of answering like (22b). In fact, there are some variations among speakers, but roughly most of the speakers of English I have asked find the option above perfectly acceptable. Thus, for informants, the embedded clauses can be felt to be the main assertion. Pragmatics is responsible for the judgement. Therefore, it would be plausible to say that a certain illocationary force can lie in them. Then, it follows that the embedded clauses in (20) have much the same effect that encodes some mood. We can ascribe the unoccurrence of *that*-deletion to the presence of some mood.

Among the problems we began with are the ones that do not give an adequate explanation, which some lingusits have made an attempt to account for in terms of an elaborate theory of syntax:

(23) a. *(That) the senator took a bribe the journalist knew.

b. *(That) John won the first prize in the raffle was known to his collegues.

Obviously, our analysis does not work fine for (23) because it does not seem that the *that*-clauses involve a main assertion, but presupposed proposition. As we have seen above, English *that* conflates the two categories of information; mood and subordinator. The intuition that we would like to capture here is that without *that*, we connot parse the structure. Therefore, we assume that the *thats* serve as a mere subordinator.

Inada and Imanishi (1997:14) provided us with the intensive work of the way a clause in English is combined, as simply exemplified below:

(24) A. Direct quote structure: ... V ..., " ... "

B. Embedded structure: ... V ... [clause-typing marker [3] ...]

In addition to the structure of (24), English direct quote structures occur in subject position [4]:

(25) "Be not too much a parent" was Emerson's excellent advice.

With this in mind, let us take a close look at the contrast between the absence and presence of the *that*s in (23). In (23a) the verb *know* is not a speech act verb. As Inada and Imanishi make clear, non-speech act verbs usually do not take direct quote clauses since their inherent lexical semantics shows semantic incompatibility with the notion of reporting or quoting. Thus, in the absence of the *that* in (23a), we cannot distinguish it from direct quote, leading to a violation on its semantic restriction. In (23b), on the other hand, without the *that*, we cannot distinguish it from:

(26) *"John won the first prize in the raffle" was known to his collegues.

Thus, the structure of (23b) triggers a violation of economy principle since a redundancy should be disallowed.

The analysis holds for the data (7), repeated as (27):

(27) a. *It surprises me *(that) you have heard about Roger.

b. *It came as a belief *(that) my mother was safe.

The above sentences are the examples of an extraposition construction.[5] Therefore, they are eventually equivalent with:

(28) a. *(That) you have heard about Roger surprises me.

b. *(That) my mother was safe came as a belief.

Thus, the above examples can be excluded in the same way as (23b).

2.1. Appositive Clause

For the sake of generality, we also have to target at the *that* in appositive clause (Jespersen (1927:35-38), 'comment-clause'), as illustrated in (29):

(29) a. John made the claim (that) the rain was causing the accidents.

b. Susan made the assumption (that) Mary would reject her offer.

c. John made a guess (that) the river was somewhere to the east.

(30) a. John ridiculed the claim *(that) the rain was causing the accidents.

b. Susan questioned the assumption *(that) Mary would reject her offer.

c. John relied on a guess *(that) the river was somewhere to the east.

(Emonds (1976:149))

Bolinger (1972:19-20) also provided us with the same facts:

(31) a. They came to the conclusion (that) they had to act.

b. They made a rule (that) we had to be in by six.

(32) a. They stressed the conclusion *(that) they had to act.

b. They enforced the rule *(that) we had to be in by six.

In (29-32), we see hat the verb phrases, such as *make a claim,* or *make an assumption,* are some sort of idiomatic expressions. As Jespersen (1927) and Ross (1967, 1986) point out, the *claim* or *assumption* is felt to be the head, although the *make* is in itself the head. This is rather a simple case of what Kajita (1977) termed head-nonhead conflict. Therefore, a syntactico-semantic discrepancy begins to emerge. In order to eliminate the conflict, then, the verb phrases (29) and (31), which should not allow the *that*-deletions to occur, come to permit them. In fact, it is supported by the fact that (30) and (32), which are replaced by the other verbs, cannot be allowed. (Okada (1985))

2.2 Verbs of Manner of Speaking

In this section we will discuss some properties that verbs of manner of speaking show. Within the framework of the generative grammar, to the best of my knowledge, there has been little systematic or thorough investigation of verbs of manner of speaking, such as these in (33) below:

(33) babble, chatter, cry, growl, grumble, howl, lisp, murmur, rutter roar, rumble, scream, shout, thunder, whimper, whisper, yell, ...
(Levin (1993:98))

The rough LCS (Lexical Conceptual Structure) of *whisper*, for example, is (34):

(34) $\begin{bmatrix} \text{SAY PROPOSITION} & [\quad\quad] \\ \text{MANNER} & [\text{WHISPERING}] \end{bmatrix}$

In general, verbs of manner of speaking take direct quote clauses.

(35) a. John whispered, "It will be strictly confidential."
b. John whispered, "What will Mary buy?"
c. John whispered, "Will Mary join us?"
d. John whispered, "What an expensive brand-new dress Mary bought!"

And they can also take embedded clauses.

(36) a. John whispered that it would be strictly confidential.
b. John whispered what Mary would buy.
c. John whispered what an expensive brand-new dress Mary bought.
d. *?John whispered if Mary would join us.
e. ?John whispered whether Mary would join us.

According to the Lancaster-Oslo/Bergen Corpus of Written English and the Brown corpus of Written American English, it is obvious that the embedded clauses are more marked than those of the direct quote. In addition, the embedded clauses in verbs of manner of speaking cannot undergo syntactic movement operations:

(37) a. *That it would be strictly confidential was whispered by John.
b. *That showing Jack around the FBI was a waste of time was muttered by Bill.

(38) a. *That it would be strictly confidential, which John whispered.
b. *That showing Jack around the FBI was a waste of time, I think that Bill muttered.

With this in mind, we conjecture that verbs of manner of speaking take nonsubcategorized objects. Therefore, it is plausible to say that the embedded clauses in (36) are not the arguments selected by the governing predicates. It follows, then, that the embedded clauses have the same status that absolute sentences do. They are clausal adjuncts, so to speak. (Stowell (1981))

Turning back to (36a) in question, then a problem arises why verbs of manner of speaking require *that* to occur in their complements. One might expect that the SAY in its LCS takes *that*, but the idea poses a problem; If it is selected by the SAY, then why is *that*-deletion not

allowed?

In speculating the problem, it would be crucial to take into consideration the acquisition of verbs of manner of speaking. Pinker (1989) claims that based on the data of the locative alternation that the verb like *send* shows, it holds for verbs of transfer of a message like *telegraph, fax, email, bitnett,* and *aparnet,* and that what has made it possible is a process of acquisition called Color-Blind Conservatism; children react to thematic cores of argument structure, but a manner peculiar to each verb is invisible to them. When it comes to verbs of manner of speaking, however, we will show that this is not so.

Let us carefully examine the data of children's utterances presented in (39-41):

(39) a. Adam (3;0): What you think # this look like?
b. Adam (3;0): Do you know I broke?
c. Adam (3;0): Daddy said I can throw it.

(40) a. Adam (3;5): I told you I know how to put the train together.
b. Adam (3;5): My mommy, she [?] said it's a nice rifle.

(41) a. Adam (4;0): I guess it's a bus.

Some of the data given above cannot be distinguished from direct quotes, but obviously, they show that the embedded clauses do not require *that* to occur in their head positions since the governing predicates in the main clauses do not function as predicate with a main assertion, but indicate the clause type of the following clause. That is, the embedded clauses are a declarative sentence. Thus, they do not force a morphological marker encoding modality to occur, neither do they in absolute declarative sentences. But how can we account for the unacceptability of *that*-deletion the following data, then?

(42) Adam (4;0): # are they pretending that they egg?

In order to explain this, what has come to mind is that there is a difference in their lexical inherent properties of the governing predicates

in (39-41) and (42). The verb *pretend* belongs to the class of verbs of getures/signs involving body parts. Interestingly enough, verbs of gestures/signs involving body parts and verbs of manner of speaking have one crucial characteristic in common. Take *nod* and *whisper*, for example (italics mine):

(43) a. John nodded agreement.
=John expressed his agreement *by nodding*.
b. Mary whispered no.
=Mary expressed no *by whispering*.

In (43) both verbs can be paraphrased "express something by V-ing." (Levin (1993:98)) What is of particular importance is that in verbs of gestures/signs involving body parts and verbs of manner of speaking, MANNER is semantically profiled. In acquiring verbs of manner of speaking, therefore, it would be plausible to say that MANNER is visible to children. As it happens, however, it is not so clear what constitutes the cue that informs the acquisition device that the grammar of English is, unlike verbs of transfer of a message, sensitive to the MANNER in the acquisition of verbs of manner of speaking. The upshot is that children's sensitivity to the MANNER that verbs are inherently specified for does depend on verb classes. In verbs of manner of speaking children profile the MANNER, thus triggering the obscurity of the *that*-clauses. This suggests that the failure to take subcategorized objects, i.e., *that*-clauses is closely tied with the profiling.

We are now in a position to explain why verbs of manner of speaking cannot allow *that*-deletion to occur. The *that*-clauses are marked with respect to modality since they serve as a main assertion. (Stowell (1981: 404)) We assume that such a modality must be checked off in its checking domain. As we have seen above, English has no morphological device of reflecting modality on *that*. It instead manifests as clause-internal option, e.g., modal auxiliaries. When we do not make available the clause-

internal options, a checking mechanism begins to emerge, as stated in (44):

(44) Modality Checking Condition (MCC):
Unless clause-internal options encoding modality are available, a modal element must raise to C^0 to be checked off by a modal operator in Spec of CP through Spec-Head relationship.[6]

The representation of (44) will be (45) (XP indicates modal elements):

(45) [CP MODAL-OP [C XP] ...]

Using the MCC, we can account for the obligatoriness of *that* at issue in a straightforward way. We have seen above that when verbs of manner of speaking have no clause-internal options encoding modality, the *that* instead takes over the grammatical device of expressing it. Therefore, the modal operator in the Spec of the CP checks the mood carried out by the *that*, satisfying the MCC.

The remaining question is whether the MCC is independently motivated since otherwise, our proposed analysis would be an *ad hoc* stipulation. For the sake of the adequacy of our analysis, let us draw on the French examples:

(46) a. Peut-être qu'il a fait cela.
"Perhaps that he has done that"
b. Peut-être a-t-il fait cela.
"Perhaps has he done that"
c. *Peut-être qu'a-t-il fait cela.
"Perhaps that has he done that"

(Rizzi and Roberts (1996:102))

In (46a-b) we can observe that the *peut-être* expressing epistemic modality can co-occur with the *que* or inversion, but not simultaneously with them in (46c). Given the MCC, in (46a), the *peut-être* checks the *que*. In (46b), on the other hand, the I, i.e., *a* (avoir) raised to the C^0 position by virtue of the MCC. It functions as an auxiliary for perfective aspect, showing a speaker's attitude toward a restrictive time period from a past up to the

present. In a sense, it is supposed to be a mood. The fact strongly shows that subject-aux inversion contributes crucially to modality checking as well as to interrogatives. Finally, in (46c), the above discussion leads to the solution that *que*-marking is in marked complementary distribution to inversion-marking since both markings involve modality. Thus, we can exclude (46c). There is, moreover, a piece of evidence that supports our analysis. Consider the examples below:

(47) a. Ano shibai-no omoshiro-katta koto.
That play-NOM exciting-was MOOD
'How exciting that play was!'

b. Natsuyasumi-wa mainichi hayanehayaoki-suru koto.
The summer break-TOP every day keep early hours MOOD
'Keep early hours every day during the summer break'

In Japanese, *koto* occurs in clause-final position, implying the force of exclamation or obligation, among others. The partial representation of (47) is (48):

(48) [CP ... [C° koto] [MODAL-Op]]

Again, given the MCC, we can give (47) a straightforward account; the *koto* in the C^0 position can be checked off by the operator in the Spec of the CP through Spec-Head relationship.

Further, one might doubt whether a modal operator is tenable. But we will argue that there is some reason to assume the presence of a modal operator. Consider the examples of the Mad Magazine Sentence (MMS) in English and German:

(49) a. What! her call me up?! Never.

b. What! Him get a job?!

c. What! Him be a doctor?! No way.

(50) a. Ich und mir Sorgen machen?
'Me worry?'

b. Der und einen Smoking anziehen?

'Him wear a tuxedo?'

In (49) and (50) we can observe that the MMS carries out some mood implying an exclamation or surprise, although there is no marker encoding modality. As Akmajian (1984) and Lambrecht (1990) point out, moreover, it cannot co-occur with tense modalities or sentence adverbs since, as we have made clear above, they can also encode modality. It supports our analysis that admits the presence of a modal operator taking scope over the entire clause.

3. Relative Clause

It has implicitly been assumed so far that relative-deletions are possible under some restrictive circumstances. In sentences like:

(51) a. He was the man (whom) I met yesterday.

b. I lost the new camera (which) my uncle bought for me.

One might claim that in (51) *whom* and *which* are deleted. Then, the heads and gaps must satisfy the identity condition. Assuming that *wh*-relatives move to the clause-initial position from the gap position, it would be plausible to say that, by transitivity, they carry out some meaning to be interpreted on LF interface. It follows, therefore, that they cannot be deleted. What is deleted, then?

In order to answer the question, we assume that the partial structural representation of CP restrictive relative clauses is:

(52) $[_{NP}\ [_{NP}\ \text{HEAD}]\ [_{CP}\ \text{Op}\ [c^0\ ]\ [_{IP}\ \ldots\ ]]]$

The relation of the CP with the NP it restricts is a Theme-Rheme (TR) relation.[7] The TR relation is a reflex of the domain of a speaker's speech. For the sake of brevity, we will refer to the domain of speech as the domain *de dicto*. In (52), there is no reason to assume a modal operator in the Spec of the CP since the modality in CP restrictive relative clauses is not separable from the main clauses. This can be seen in:

(53) a. He read the classfied files which I left on my desk.

b. Did he read the classfied files which I left on my desk?

Suppose that the modality in the main clause is different from that in the relative clause. If it is correct, then it follows that the relative clause takes an independent mood. But, in fact, it is not the case. As a piece of evidence, when (53a) becomes an interrogative like (53b), the interrogative scope falls within the entire sentence, not soley within the relative clause. Furthermore, inversion cannot simply occur under any circumstance in restrictive relative clauses, either [8]:

(54) a. Mitchell was the suspect whom the FBI identified as a double agent.

b. *Mitchell was the suspect whom did the FBI identify as a double agent.

The non-occurrence of inversion in relative clauses is due to the fact that there is no property in the C^0 that triggers it. (Inada (1995)) With regard to this respect, for example, we can find the interesting fact that inversion in indirect questions can occur in Black English, in sentences like:

(55) a. *Tell me/I want to know [where he went] .

b. Tell me/I want to know [where did he go] .

(56) a. Bill told me/I know [where he went] .

b. *Bill told me/I know [where did he go] .

Inversion is possible with indirect questions since, as the predicates in (55) show, they involve a 'request for information,' an illocationary force. Modality constitutes a part of such illocationary forces. Thus, we conclude that a C^0 in relative clauses indicates no mood. On speculation, the only possible candidate for the elliptical element is *that*, a mere subordinator (clause marker). Given this, it takes no interpretation on LF interface since it does not carry out any semantic content, resulting in non-violation against Full Interpretation.

Using CHILDES machine-readable database (MacWhinney(1995)), let

us present some facts that support our analysis.

(57) a. Adam (3;0): dis is yours that turn around.
b. Adam (4;0): Mommy # dis is saw dat you cut.
c. Adam (4;5): Mommy # dere are lots of kinds of toys you could buy.
d. Adam (5;0): dat's de funniest bird you ever saw.

One child named Adam studied by Brown (1973) does not delete *that* at the age of three or four since it has a semantic content at a relatively early stage. At first children acquire a pronominal *that*, as can be illustrated by the following example:

(58) Adam (2;3): Who (th)at?

By analogy of the pronoun, it seems that they view the *that* as having some meaning. The reasoning can naturally account for the fact that they do not delete *that* at an early stage. Afterwards, they acquire *that*-deletions. As we already made clear, a C^0 in restrictive relative clauses has no property that induces an illocationary force. Thus, as in declaratives, they do not require *that*-marking in the C^0 positions as far as this stage goes, since the requirement of *that* is strongly related with modality in a clause.[9]

4. Conclusions

In this paper we have argued that the obligatoriness of *that* is sensitive to clause-internal options encoding modality. In many cases, governing predicates select the mood of the embedded clauses. However, in English, in the cases where they lack the selectional properties, it is shown that pragmatics can be a crucial factor that determines modality in a clause. The fact that there is much variation in acceptability with respect to *that*-deletions shows that semantic circumstances encoding modality are not fully ensured, to the exclusion of the cases where governing predicates

strictly invoke their selectional properties. Thus, extra linguistic factors, such as the frequency of the use of governing predicates, play a role in determining their semantic circumstances.

NOTES

1. With respect to the acceptability of the *that*-deletions, Chiba (1987:168) points out that there is a much difference between individuals, or dialects.

(1) a. She demanded *(that) he think of a clever sentence.
(Wilkins (1977:123))

b. Mary demands (that) Fred leave immediately.
(Culicover *et al.* (1977:60, fn. 52))

2. Within the framework of the principles and parameters approach, the obligatoriness of *that* was accounted for in a principled way; since the clausal complements in verbs of manner of speaking are adjoined to V', they cannot be L-marked by the verb, in non-violation of the ECP.

3. I consider 'clause-typing marker' in Inada and Imanishi (1997) to conflate two categories of information; mood and subordinator.

4. We are tentatively assuming that the direct quote is in the subject position. In fact, however, it might be possible to say that (25) is a form of stylistic inversions since the following sentence can be perfectly acceptable:

(i) Emerson's excellent advice was "Be not too much a parest."

There are, moreover, some pieces of evidence that show that the direct quote is not a subject.

(ii) a. *"Be not too much a parent" was Emerson's excellent advice, isn't it?

b. Was "Be not too much a parent" Emerson's excellent advice?

c. *"Be not too much a parent" was too terrible to the mother.

5. It is controversial how an extraposition construction is generated. But

I assume that it is derivationally generated by some extended rule. See Inada (1989:104-105) for detail.

6. If clause-internal options encoding modality are available, the movement of a modal element to C^0 position is either overt or covert.

7. I call the relation 'Theme-Rheme relation', but it eventually makes little difference if we call it 'Topic-Comment clause' (Kuno:1973), or Culicover and Wilkins's (1986) 'Predicate-Subject relation.'

8. Nonrestrictive relative clauses, unlike restrictive ones, can take an independent mood since they are different speech acts from the main clauses. Thus, even when the main clause is an interrogative or imperative, they can occur.

(i) Has John, who was here a minute ago,left?

(McCawley (1981:116))

(ii) a. Are we landing in Washington, which is on the Potomac?

b. Go to Cincinnati, which in on the Ohio River.

(Jackendoff (1977:198))

Moreover, they can select imperatives.

(iii) a. Please accept my check for $3.69, which find enclosed.

b. Examples abound in Ross (1967), which see.

(Martin (1972:5))

9. As for the acquisition of propositional *that*, we will not go into this further.

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