

SYNCHRONIC AND DIACHRONIC
APPROACHES TO LANGUAGE

A FESTSCHRIFT FOR TOSHIO NAKAO
ON THE OCCASION OF HIS SIXTIETH BIRTHDAY

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PREFACE

Every day the student movement was gaining momentum. Dividing themselves into ideology-ridden factions over the issues of campus reformation and the industry-university complex, students were engaged in more and more vehement discussions about the responsibilities imposed by the institutions and communities in which they, as individuals, found themselves. Just as serious and sincere were those teachers who took it upon themselves to tackle the demanding questions forced upon *them*. In the latter half of the 1960s, everyone was as fervent as everyone else.

Up until this time Tokyo University of Education had been a peaceful campus, where, under our senior Professors Hirose and Ota and the junior Professors Ukaji, Nakao, and Kajita, a perfect intellectual atmosphere encouraged and supported hard work. It was a "students' paradise." Suddenly we found ourselves plunged into the powerful vortex of the age: we began to spend our days staging demonstrations, giving student conventions, and shouting, "Down with the Tsukuba plans! Down with the government's educational policies!" We soon went out on strike. It was a long one. Eventually the authorities transformed our strike into a "lockout," which only made matters worse. Exhausted, we began to wonder when or if we could ever stop it, which we finally managed to do after fifteen months. It was decided that we would resume and finish in two and a half years courses which would in ordinary circumstances take four. During this time, Toshio Nakao was a sincere, caring, loving "teacher" respected by us all. Despite his full schedule, he had each one of us come to see him in his office. Sometimes it was a practical matter: "I understand your father hasn't been well. Do you think you can work your way through college?" At others more personal advice: "Looks like you got jilted. Can't be helped, I'm afraid. Time's the best doctor when it comes to lost love." He paid special attention to those who were from far-off prefectures. "Are you eating enough at your lodging? You look like you're losing weight," he would say, and those of us who were invited to his modest apartment near the campus always found that his wife could give delicious substance to these kind words. The way he manoeuvred through his business in order to keep contact with us provided a role model to which we later aspired when we ourselves became teachers.

And, of course, he was generous with his ideas. Once he began talking on

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HEAD-INTERNAL RELATIVE CLAUSES AS ADJUNCT PURE COMPLEX NPs

KEIKO MURASUGI

1. INTRODUCTION. One of the most striking differences between Japanese and English is that only the former has the so-called 'head-internal relative clauses'. An example of a head-internal relative clause is shown in 1.

- (1) watasi-wa [[ringo-ga tukue-no ue-ni oitearu] no]-o
I -TOP apple-NOM desk -GEN on- is-put -ACC
tabeta
ate
'I ate the apple that is put on the desk.'

It has been pointed out that head-internal relative clauses exist, for example, in Navajo (Platero 1974) and in two Quechua languages, Imbabura and Anchash (Cole 1987). Examples from the latter two languages are shown below.

- (2) a. Head-internal Relative Clause in Quechua (Cole 1987)
[nuna bestya-ta ranti-shqa-n] alli
man horse-ACC buy-PERFECT-3 good
bestya-m ka-rqo-n
horse-VALIDATOR be-PAST-3
'The horse that the man bought was a good horse.'
- b. Head-internal Relative Clause in Lakota (Cole 1987)
[[Mary owiza wa kage] ki] he ophewathu
quilt a make the DEM I-buy
'I bought the quilt that Mary made.'

Cole 1987 discusses head-internal relative clauses from a typological perspective, and explains a typological fact on the basis of two well-motivated parameters, the pro-drop parameter and the head parameter. According to Cole 1987, the languages that have head-internal relative clauses are pro-drop and head-final.

One of the main concerns of this paper is to investigate whether Cole's hypothesis is compatible with the facts in Japanese, a pro-drop, head-final

language. But the paper is also concerned more generally with the syntactic and semantic properties of head-internal relatives in Japanese. Building on the works by Kuroda 1992 and Ito 1986, I will propose that Japanese head-internal relatives are not relatives, but are adjunct pure complex NPs.

2. THE CATEGORIAL STATUS OF THE *no* IN HEAD-INTERNAL RELATIVE CLAUSES. Different hypotheses have been proposed for the categorial status of *no* in head-internal relatives. Kuroda 1992 proposes that it is a complementizer, while Kitagawa and Ross 1982 analyzes it as a genitive Case marker.¹

As discussed in detail in Murasugi 1991, there are three types of *no* in Japanese: (i) the genitive Case marker, (ii) a complementizer, and (iii) a nominal (pronoun *no* or nominalizer *no*). Further, it is argued there that prenominal sentential modifiers in Japanese are uniformly of the category IP, not CP. If this is correct, then the *no* in head-internal relatives cannot be a complementizer. Given the X'-theory, there cannot be a complementizer without CP. This leaves us with two possibilities: the *no* in question must be the genitive Case marker or a nominal.

Here, in the Toyama dialect, the genitive Case marker is *no*, as in the Tokyo dialect, but what corresponds to the nominal (and complementizer) *no* in the Tokyo dialect is *ga*.² That is, the nominal *no* is realized as *ga* in this dialect, as illustrated below.

- (3) Tokyo dialect
- | | |
|---------------|---------------------------|
| a. akai no | b. hasitte-iru no |
| red one | running-is one |
| 'the red one' | 'the one that is running' |
- (4) Toyama dialect
- | | |
|---------------|---------------------------|
| a. akai ga | b. hasitte-iru ga |
| red one | running-is one |
| 'the red one' | 'the one that is running' |

Since the genitive Case marker and the 'nominal *no*' are phonetically distinguished in the Toyama dialect, it should provide us with direct evidence on the categorial status of *no* in head-internal relatives. And as shown below, this *no* is realized as *ga* in the Toyama dialect.

- (5) a. Tokyo dialect
- keikan -wa [[doroboo -ga detekita] no]-o tukamaeta
 policeman-TOP the robber-NOM came out -ACC arrested
 'The policeman arrested the thief who came out of the room.'
- b. Toyama dialect
- keikan -wa [[doroboo -ga detekita] ga]-o tukamaeta
 policeman-TOP the robber-NOM came out -ACC arrested
 'The policeman arrested the thief who came out of the room.'

If *no* in 5a is the genitive Case marker, it should be realized as *no* also in the Toyama dialect. Hence, the example in 5b clearly shows that the *no* in question is not the genitive Case marker. We conclude, then, that it is of the category N.

As noted above, there are two kinds of *no* of the category N, the pronoun *no* and the nominalizer *no*. They are illustrated below.

- (6) pronoun *no*
- John-ga [akai no]-o tabeta
 -NOM red one-ACC ate
 'John ate the red one.'
- (7) nominalizer *no*
- [tabesugiru no]-wa yokunai
 eating too much -TOP is-not-good
 'It is not good to eat too much.'

Then, a question arises which kind of nominal *no* in head-internal relatives is. The answer to this question is in fact found in Ito 1986.

As Kuroda 1992 points out, the pronoun *no* has a derogatory connotation, and is not compatible with the honorific marking of the main verb.

- (8) a. wakai sensei -ga oozei orareru
 young teachers-NOM many there-are (HON)
 'There are a lot of young teachers.'
- b. #wakai no -ga oozei orareru
 young ones-NOM many there-are (HON)
 'There are a lot of young teachers.'

The pronoun *no* in 8b has a derogatory connotation, and is not compatible with the honorific marking of the matrix verb. On the other hand, the

nominalizer *no* does not have any such connotation. Thus, 9b is a perfectly natural sentence.

- (9) a. otosi-no sensei -ga otobe-ni-narisugiru koto -wa
 old -Gen teacher-NOM eating-too-much (HON) the fact-TOP
 yokunai
 is-not-good
 'It is not good for the old teachers to eat too much.'
- b. otosi-no sensei -ga otobe-ni-narisugiru no -wa
 old -Gen teacher-NOM eating-too-much (HON) -TOP
 yokunai
 is-not-good
 'It is not good for the old teachers to eat too much.'

Ito 1986 points out that the *no* in head-internal relatives, like the *no* in 9b, does not have any derogatory connotation. Her example is shown below.

- (10) [sensei -ga kenkyuusitu-kara dete irassyatta no]-ni guuzen
 teacher-NOM office -from out came (HON) -DAT accidentally
 oaisuru-koto-ga dekita
 meet (HON) able (past)
 'I happened to be able to meet the teacher who was coming out of his office.'

Hence, we conclude that the *no* in head-internal relatives is the nominalizer *no*, and not the pronoun *no*.³

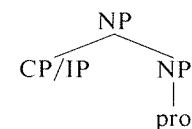
This conclusion implies that Japanese head-internal relatives are pure complex NPs. If *no* is the nominalizer, then it must be in the head position of those relatives. Further, a nominalizer can take a pure sentential modifier, but not a relative clause. As will be discussed in detail in the following section, Cole 1987 proposes an analysis of head-internal relatives from a typological perspective. However, the analysis crucially assumes that those relatives are headed by an element anaphoric to the head-internal 'semantic head', and hence, is incompatible with our nominalizer *no* analysis. In the following section, I will present direct evidence that Cole's analysis, despite its attractive features, cannot be maintained for Japanese.

3. ON COLE'S 1987 'PRO'-HEAD ANALYSIS. Cole 1987 discusses head-internal relative clauses from a typological perspective, and proposes an extremely

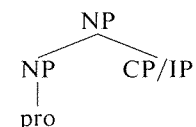
interesting hypothesis. He first notes that those languages that have head-internal relatives allow *pro* and also are head-final. Given this fact, he first proposes that the head position of a head-internal relative clause is occupied by *pro*.⁴ This explains why only pro-drop languages have such relative clauses. Then, as we will discuss in detail below, he appeals to Condition (C) of the Binding theory to explain why only head-final (relative clause-initial) languages have head-internal relatives.⁵

If the head position is occupied by *pro*, the structure of head-internal relatives will be as in 11.

- (11) a. head-final

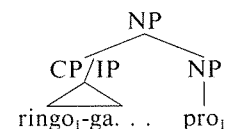


- b. head-initial



Cole proposes that the head *pro* is coindexed at S-structure with the lexical NP to be interpreted as the head of the relative clause. According to this hypothesis, the structure of 1, for example, will be as in 12.

- (12)



Then, he points out that the structure in 11b, with the proposed coindexation, is ruled out by Condition (C) of Binding theory. This is rather straightforward, since the head pronoun binds the coindexed R-expression in the relative clause. And this explains why head-initial languages do not have head-internal relatives.

However, one problem remains: It must be explained why the structure in 11a is allowed with the proposed coindexation. As Cole notes, this structure is also ruled out by Condition (C), if the condition is formulated only in terms

of command along the lines of Reinhart 1976. Thus, he proposes that (at least in those languages with the head-internal relatives) Condition (C) is formulated as in 13 in terms of precedence and command.

- (13) An anaphor cannot both precede and command its antecedent.

This condition rules out 11b with the proposed coindexation, since the pro both precedes and commands the coindexed R-expression in the relative clause. And importantly, it allows 11a since the pro does not precede the coindexed R-expression.

Cole's hypothesis is clearly very attractive. He explains a typological fact on the basis of two well-motivated parameters, the pro-drop parameter and the head-parameter. But as it is, it is incompatible with the conclusion obtained in the preceding section. We argued that the *no* in Japanese head-internal relatives is of the category N. This implies that the head position of the Japanese head-internal relatives is occupied by *no*, and not by pro. Further, as far as Japanese is concerned, there is rather direct evidence against his hypothesis.

As Cole notes, it has been controversial whether precedence plays any role in the Binding theory, and in particular, in the formulation of Condition (C). Discussing this problem, Saito (1985: 45) presents the following examples as evidence against 'precedence':

- (14) a. [[*kare*_i-no *hahaoya-ga* *genkidatta koro*]-no *John*_i
 he -GEN mother -NOM was-fine time -GEN
 '*Lit.* *John*_i of the time when his_i mother was well = *John*_i as he_i
 was when his_i mother was well'
- b. *[[*John*_i-no *hahaoya-ga* *genkidatta koro*]-no *kare*_i
 -GEN mother -NOM was-fine time -GEN he
 '*Lit.* *John*_i of the time when his_i mother was well = *John*_i as he_i
 was when his_i mother was well'

If Condition (C) is formulated as in 13, 14b is incorrectly allowed since the pronoun *kare* does not precede *John*.⁶ Independently of the controversy on the role of precedence in the Binding theory, 14b clearly indicates that a pronoun in the nominal head position cannot be coindexed with an R-expression in a modifying phrase. Thus, Cole's hypothesis, despite its attractive features, cannot be maintained for the analysis of head-internal relatives in Japanese.

4. THE INTERPRETATION OF HEAD-INTERNAL RELATIVE CLAUSES. It was argued in Section 2 that the *no* of head-internal relative clauses is the nominalizer. This implies that those 'relative clauses' have the structure of pure complex NP, and are headed by a 'semantically null element'. The structure is illustrated in 15.

- (15) [_{NP} [_{IP} ...] [_N *no*]]

Further, it was argued in Section 3 that the 'syntactic head' of the relative clause is not coindexed with the internal 'semantic head'. Whatever the 'syntactic head' is, such coindexation results in violation of Condition (C) of the Binding theory. Then, a question naturally arises regarding the interpretation of head-internal relatives. What is their interpretation, and how is the interpretation assigned? In this section, I will speculate on these questions.

It has been widely assumed that head-internal relatives are in fact relatives, and that the 'internal head' occupies the 'external head' position at the level of interpretation. Thus, 16a and 16b seem to be assigned the same interpretation.

- (16) a. *Mary-wa* [[*ringo-ga* *teeburu-ni oitearu*] *no*]-o *tabeta*
 -TOP apple-NOM table -on is-put -ACC ate
 'Mary ate the apple that is put on the table'
- b. *Mary-wa* [[*teeburu-ni oitearu*] *ringo*]-o *tabeta*
 -TOP table -on is-put apple -ACC ate
 'Mary ate the apple that is put on the table'

If this assumption is correct, we are naturally led to Ito's 1986 hypothesis that the 'internal head' raises to the 'external head' position at LF, or even at a later level. Another possibility, however, is that head-internal relatives are not relatives at all, but rather, are adverbials. And there are indeed some facts supporting this hypothesis.

First, as Kuroda 1992 and Ito 1986 point out, head-internal relatives, as opposed to regular relatives, are subject to the Relevancy Condition, stated in 17.

- (17) The Relevancy Condition (Kuroda 1992)
 For a pivot-independent [=head-internal] relative clause to be acceptable, it is necessary that it be interpreted pragmatically in such a way as to be directly relevant to the pragmatic context of its matrix clause.

The following examples illustrate this condition :

- (18) a. *Mary-wa [[John-ga kinoo ringo-o hirotta] no]-o tabeta
 -TOP -NOM yesterday apple-ACC picked up -ACC ate
 'Mary ate the apple that John picked up yesterday.'
 b. Mary-wa [[John-ga kinoo hirotta] ringo]-o tabeta
 -TOP -NOM yesterday picked up apple -ACC ate
 'Mary ate the apple that John picked up yesterday.'

Roughly put, the events described by the head-internal relative and the matrix clause must be 'simultaneous', and also be 'causally related'. Thus, 18a, as opposed to 16a, is quite strange. On the other hand, 18b is perfect since regular relatives are not subject to the Relevancy Condition.

This peculiar property of head-internal relatives suggests that those relatives are quite similar in nature to the NPs headed by *tokoro*, as illustrated in 19.

- (19) a. keikan -wa [[doroboo-ga ginkoo-kara detekita] tokoro]-o
 policeman-TOP robber -NOM bank -from came out scene -ACC
 tukamaeta
 arrested
 'The policeman arrested the robber coming out from the bank.'
 b. keikan -wa [[doroboo-ga ginkoo-kara detekita] no]-o
 policeman-TOP robber -NOM bank -from came out -ACC
 tukamaeta
 arrested
 'The policeman arrested the robber coming out from the bank.'

The '*tokoro* phrases', as discussed in detail in Harada 1973 and Kuroda 1978, specify the scene of the event described by the matrix clause: Kuroda names them 'circumstance adverbials'. Given the Relevancy Condition, it seems clear that head-internal relatives, too, are in certain adverbial relation with the matrix clause.

Then how would one account for the fact that *ringo* is the semantic object of the matrix verb in 16a? After all, what Mary ate is the apple that was on the table. But note here that the same problem arises with examples like 19a. The policeman arrested the thief, not the scene.⁷ And for 19a, Harada 1973 proposes that *doroboo* 'robber' does appear as the matrix object, but is deleted under identity with the embedded subject (his 'counter equi' NP deletion

rule).⁸ Adopting his main idea, I assume here that the matrix object position is occupied by *pro*, as in 20.

- (20) keikan -wa [[doroboo_i-ga ginkoo-kara detekita] tokoro]-o *pro*_i
 policeman-TOP robber -NOM bank -from came out scene -ACC
 tukamaeta
 arrested
 'The policeman arrested the robber coming out from the bank.'

Then, if head-internal relatives are adverbials like '*tokoro* phrases', the same analysis can be applied to 16a. According to this hypothesis, the structure of 16a will be as in 21.

- (21) Mary-wa [[ringo_i-ga teeburu-ni oitearu] no]-o *pro*_i tabeta
 -TOP apple -NOM table -on is-put -ACC ate
 'Mary ate the apple that is put on the table.'

There is another striking similarity between '*tokoro* phrases' and head-internal relatives. Harada 1973 notes that when the matrix object is overt in examples like 19a, the sentence is degraded. This is shown in 22.

- (22) ??keikan -wa [[doroboo-ga ginkoo-kara detekita] tokoro]-o
 policeman-TOP robber -NOM bank -from came out scene -ACC
 soitu -o tukamaeta
 the guy-ACC arrested
 'The policeman arrested the robber coming out from the bank.'

He, then, attributes the marginality to the following constraint :

- (23) The Double-*o* Constraint
 A derivation is marked as ill-formed if it terminates in a surface structure which contains two occurrences of NPs marked with *o* both of which are immediately dominated by the same VP-node.

As Harada shows, this constraint has weak effect when one of the accusative NPs is an adverbial, but has a much stronger effect when the two accusative NPs are both arguments. The following contrast illustrates the difference.

- (24) a. John-ga sono miti -o aruku
 -NOM that road-ACC walk
 'John walks on the road.'
- b. ??Mary-ga John-o sono miti -o arukaseta
 -NOM -ACC that road-ACC make-walk
 'Mary made John walk on the road.'
- (25) a. John-ga sono hon -o yomu
 -NOM that book-ACC read
 'John reads the book.'
- b. *Mary-ga John-o sono hon -o yomaseta
 -NOM -ACC that book-ACC make-read
 'Mary made John read the book.'

The accusative NP in 24a is an adverbial. Thus, the sentence becomes marginal when it is embedded in a causative structure as in 24b, where the causee is marked with accusative Case. On the other hand, since the accusative NP in 25a is an argument, the sentence becomes totally ungrammatical when it is embedded in a causative structure as in 25b.⁹ Since the '*tokoro* phrase' in 22 is an adverbial, the sentence is only marginal.

Let us now return to the examples of head-internal relative. Observe 26.

- (26) Mary-wa [[syasin -ga teeburu-ni oitearu] no]-o mita
 -TOP picture-NOM table -on is-put -ACC saw
 'Mary saw a picture that is put on the table.'

Our hypothesis is that this example has the structure shown in 27.

- (27) Mary-wa [[syasin_i-ga teeburu-ni oitearu] no]-o pro_i mita
 -TOP picture-NOM table -on is-put -ACC saw
 'Mary saw a picture that is put on the table.'

Here, interestingly enough, the sentence becomes marginal, but only marginal, when the matrix object is expressed overtly, as shown in 28.

- (28) ??Mary-wa [[syasin_i-ga teeburu-ni oitearu] no]-o sore_i-o mita
 -TOP picture-NOM table -on is-put -ACC it -ACC saw
 'Mary saw a picture that is put on the table.'

This is exactly what we expect if the head-internal relative is an adverbial. If,

on the other hand, the relative is an argument, we falsely predict 28 to be completely ungrammatical. In fact, if the head-internal relative is the matrix object, as is widely assumed, 28 should be as bad as the completely ungrammatical 29.

- (29) *Mary-wa [[teeburu-ni oitearu] syasin_i]-o sore_i-o mita
 -TOP table -on is-put picture -ACC it -ACC saw
 'Mary saw the picture that is put on the table.'

Hence, the marginality of 28 provides additional evidence for the adverbial status of head-internal relatives.

5. CONCLUSIONS. In this paper, I first argued that the *no* in Japanese head-internal relatives is N, and further, that it is the nominalizer. This led to the hypothesis that head-internal relatives are pure complex NPs. Then, I presented evidence against Cole's hypothesis that there is *pro* in the head position coindexed with the R-expression to be interpreted as the head. This argument, if correct, precludes any representation of head-internal relatives in which the syntactic head is coindexed with the internal 'semantic head'. Based on these conclusions, I suggested in Section 4 that Japanese head-internal relatives are not relatives, but rather adjunct pure complex NPs. The suggested analysis, like Cole's, attributes the existence of Japanese head-internal relatives to the possibility of *pro*. But the *pro* appears in the matrix object position, and not in the head position of head-internal relatives.

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NOTES

1. See also Ito 1986 and Ishii 1988 for relevant discussion.
2. See Murasugi 1991 for detailed discussion.
3. Kuroda 1992 and Ito 1986 point out that the so-called *ga/no*-conversion does not apply in head-internal relative clauses. The following example is from Ito 1986:

- (i) Taroo-wa [[Hanako-ga /*no ringo-o katteoitā] no]-o tabetesimatta
 -TOP -NOM/-GEN apple-ACC bought -ACC ate up
 'Taro ate up the apples that Hanako had bought.'

We do not have an account for this fact at the moment, and leave this problem open. Note that this fact is problematic for any analysis which assumes a nominal head (*no* or an empty head) for the head-internal relatives, and thus, it is not clear at this point that it supports any specific analysis of *no*. See the works cited above and also Ishii 1988 for further properties of head-internal relatives in Japanese.

4. 'An anaphoric element', in Cole's terms.
5. Cole's discussion is based mainly on data from two Quechua languages, Imbabura and Ancash. But he is of course making a general proposal.
6. See also Hoji 1990 for relevant discussion.
7. Note that this problem does not arise with examples such as (i).

- (i) keikan -wa [[doroboo-ga ginkoo-kara detekuru] tokoro]-o
 policeman-TOP robber -NOM bank -from came out scene -ACC
 moku gekisita
 saw
 'The policeman saw the robber coming out from the bank.'

It is possible to witness a scene, and thus, the *tokoro* phrase in (i) can be the object of the matrix verb.

8. See also Kuroda 1978 for much relevant discussion.
9. See also Kuroda 1978, and Saito 1982, 1985 for discussion on the Double-*o* constraint.

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