論　文

On Secondary Predicates of English

Hiroshi AKIMOTO

0. Aim

The aim of this paper is to show that the syntactic structure of Secondary Predications such as (1) is what should be called "a variant of Small Clause".

(1) a. *John* left the room *angry.* (circumstantial predicate)

b. John ate *the meat raw.* (depictive predicate)

c. John hammered *the metal flat.* (resultative predicate)

1. Small Clause

1.1. Small Clauses well-known in general are IPs.

In general, subordinate clauses shown in (2) are said to be Small Clauses.[1]

(2) a. They consider [Mary happy].

b. The chief inspector wants [Maigret in his office].

However, we must admit that they are IPs because we can give reasonable answers to questions why sentential adverbs can appear within them and why their Cases of subjects are objective when we regard them as IPs. Thus, Small Clauses well-known in general are IPs.

1.2. Silent BE and Recoverability

It is easily expected from the context that verbs of Small Clauses are silent *be*s when we regard Small Clauses generally well-known as IPs. However, this expectation is not easily supported. As (3) shows, IPs with *be*s as their verbs are not always grammatical when their verbs *be* are made silent and they become Small Clauses. (BE means a silent be.)

(3) a. John considers [the prisoner BE innocent].

b. My boss expected [me BE in his office at 10 o'clock]

c. *I thought [Shakespeare BE *the author of The Tempest*]

c'. *I think [the excuse BE that John had left].

However, this dose not mean that Small Clauses well-known in general are any other categories except IPs. This is because whether *be*s can be made silent or not has much connection with Case-assignment[2] and Recoverability[3] as (4) and (5) indicate respectively .

(4) a. *I consider [there a man in the room].
(c.f. I consider there to be a man in the room.)
b. I believe [it unlikely that John will come].

(5) a. *I think [the truth BE that she is not fit for the job].
b. *I believe [Love BE].
c. I expect [that sailor BE off my ship by midnight].

So, Small Clauses well-known in general are IPs with silent *be*s to the end.

1.3. External θ-role Assignment and True Small Clause

Then what is a real Small Clause? Are there not any small clauses in syntax?

In the principles-and-parameters theory, X' theory requires that all syntactic structures are endocentric and parallel. So it has been expected that APs and PPs constitute propositions within their projections as well as VPs and DPs. However, as is obvious from the fact that Small Clauses well-known in general are IPs, they do not constitute propositions within their projections. But they and indefinite DPs[4] do so with DPs out of their projections based on the θ-role assignment restriction. And these exocentoric structures consisting of two heads are very real Small Clauses.

2. VP as Pre-IP at D-structure

Then, what syntactic structures do Secondary Predications, variants of Small Clauses, have?

In this chapter, we see on the basis of the Extended VP-internal subject hypothesis that a new adjunct position, which is indispensable when we clarify the structure of Secondary Predications, exists within VP.

2.1. Extended VP-internal Subject Hypothesis

Adjuncts such as adverbs basically have few morphological properties which should be checked with functional categories and mainly consist of semantic features.[5] So, we extend the idea of the VP-internal Subject Hypothesis and consider a VP as a pre-IP structure which consists of lexical categories only and no transformations applies to yet. In fact, when we think

so, we can give a natural explanation to the fact that VP-affecting operations can apply to sentential adverbs such as one in (6).

(6) Mary put her wedding ring on the sofa yesterday, and Susan *did so* (=put her wedding ring on the sofa *yesterday*), too.

2.2. New Possible Position for Sentential Adjuncts in VP

Then, where do Sentential adjuncts concretely occur within VP on the basis of Extended VP-internal Subject Hypothesis?

According to the X' theory, we have to admit that only three positions seen in (7) are for adjuncts within VP and only *adjunct 3* of those three is for Sentential adjuncts.

(7) $[_{VP}$ SPEC $[_{V'}$ adjunct 1 $[_{V'}$ V complement] adjunct 2] adjunct 3]

However, this is problematic because when we admit that only *adjunct 3* in (7) is the position for Sentential adjuncts we can not explain the fact pointed out by Takami (1988,1992) that there are two types in temporal or locative prepositional phrases which are equivalent to sentential adverbial equivalents: one allows prepositional strandings and the other not. So, in this paper, based on the Huang's (1982) *Condition on Extraction Domain*[6], we admit the existence of the adjunct position not properly governed such as one in (8) in which sentential adverbial equivalents occur.

(8) $[_{VP}\,[_{VP}$ · · · · ·] adjunct]

And then, judging from the fact that Huang's (1982) *Adjunct Condition*[7] has a considerable generality, we regard that sentential adjuncts occur rather at this new adjunct position in (8) than at the position pointed out by the X' theory.

2.3. Against Rizzi (1990)

However, at this point, a problem arises as to the above new adjunct position. It is that the adjunct position in (8) has been already pointed out by Rizzi(1990) and comes to be one which allows prepositional stranding if we follow his proposal. In reality, does the above new position not exist in the meaning of our proposal? The answer is no. As is apparent from the fact that his proposal is founded on his own phrase structures and definition of Empty Category Principle and requires that a node VP always consists of two segments, his explanation is unnatural. In addition, we can not explain the fact pointed out by Kuno and Takami (1993) that depictive predicates are wh-extractable under certain circumstances as long as we follow Rizzi's (1990)

proposal. Moreover, we can conquer both problems of the argument-adjunct asymmetry and of the *that*-trace phenomenon, which are said to be subjugated by Rizzi's (1990) proposal, with Chomsky's (1986b) Empty Category Principle if we adopt both Extended VP-internal Subject Hypothesis and Indirect Government[8] and use the Lasnik and Saito's (1992) idea of the antecedent government. So, in this paper, we reject Rizzi's (1990) proposal on account of the above reasons and regard that the above new adjunct position is the position not properly governed.

3. Derivations

Taking full cognizance of the existence of the above new adjunct position, in what follows we see concretely at every type how sentences with secondary predicates are derived.

3.1. Sentence with Circumstantial Predicate

(9) a. *John* ate the meat *nude*.

b. John ate the meat.

(10) a. *[*How angry*]$_i$ did *John* leave the room t_i?

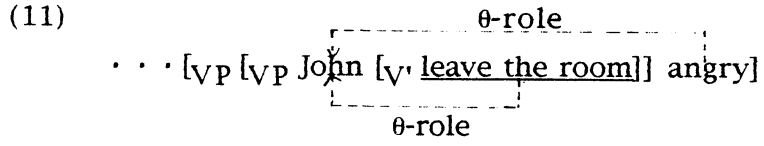
b. *[*How raw*]$_i$ did John eat *the meat* t_i?

b'. [*How fresh*]$_i$ can you buy *fish* t_i at Legal Seafood?

c. [*How flat*]$_i$ did John hammer *the metal* t_i?

Since circumstantial predicates appear at adjunct positions as (9) shows and they are unextractable as wh-phrases as (10a) shows , the position for them is one newly pointed out in Section 2.2.. So, for example, (1a) has a D-structure like (11).[9]

(11)



And in this case it is important that *John*, the subject of both secondary and primary predicates, does not violate θ-criterion because of (12) though it receives two θ-roles.

(12) Relativized θ-criterion

In the case that syntactic positions of θ-role assigners are different respectively, a θ-role assignee does not violate of θ-criterion even if it receives more than one θ-role from assigners because those θ-roles

become relative.

3.2. Sentence with Depictive Predicate

In the case of depictive predicates, they differ from circumstantial ones in that they are wh-extractable under certain circumstances as (10b-b') show. This implies that they are adjoined to another place to which circumstantial ones are not affiliated by the requirement of mutual c-command restriction between θ-role assigners and θ-role assignees. So, for example, (1b) has a D-structure like (13) and *the meat* in it, which is the object of the matrix verb *eat* and the subject of depictive predicate *raw*, does not violate the θ-criterion owing to (12).

(13) $\cdots [_{VP}$ John $[_{V'} [_{V'}$ eat the meat] raw]]

θ-role θ-role

3.3. Sentence with Resultative Predicate

Restrictively, there are two types in resultative predicates like below.

(14) a. John painted the wall green. (transitive resultative)

b. The joggers run their Nikes threadbare. (intransitive resultative)

3.3.1. Transitive Resultative

Transitive resultatives differ from the above two Secondary Predicates in that they are always wh-extractable. In addition, they occur at syntactically lower position than those of the above two Secondary Predicates as (15) shows.

(15) a. John hammered the metal flat hot angry.

b. *John hammered the metal hot flat angry.

c. *John hammered the metal angry flat hot.

d. *John hammered the metal angry hot flat.

e. *John hammered the metal hot angry flat.

These mean that the syntactic position of transitive resultatives is one of complements of matrix verbs and then from the fact that θ-roles assigned to them are *goal*, we can easily deduce that (14a), for example, has a D-structure like (16) as Larson (1988) claims.

(16) $\cdots [_{VP}$ John $[_{V'}$ painted$_i$ $[_{VP}$ the wall t_i green]]]

In short, different from the above two secondary predicates, transitive resultatives are a requirement of matrix verbs. This is the reason why (15a) is grammatical.

3.3.2. Intransitive Resultatives

Intransitive resultative constructions consist of the θ-grid of intransitive verbs having the same form as those of their verbs and the θ-role which requires *event* brought by the result of the action of their matrix verbs. So, their structures are rather akin to those of causative constructions than those of transitive resultative ones and therefore (14b), for instance, has a D-structure like (17).[10]

(17) ・・[$_{VP}$ The joggers run [$_{IP}$ their Nikes$_i$ [$_{VP}$ t_i BECOME threadbare]]]
Case
[+ Causative]

4. Indirect Government

Next, we see why a difference on wh-extraction exists between circumstantial and depictive predicates though they both appear on adjunct positions in VP, and give an answer to the question 'why only depictive predicates in customary sentences are wh-extractable.'

At first, we have to recognize that an intermediate projection V' has the ability to check not only a θ-role of DP in VP SPEC but also whether adjuncts which are in sisterhood with V' are adequate or not. This fact is obvious from the fact that positions where sentential adjuncts occur are clearly distinguished from those of verbal adjuncts. With this in mind, we give answers to the above two questions.

Based on the Extended VP-internal Subject Hypothesis, only depictive predicates are in sisterhood with V's. So, it is obvious that circumstantial predicates are never wh-extracted because they are neither properly nor indirectly governed within VP. On the other hand, it is possible for depictive predicates to be wh-extracted since they are sisters of V's. However, at this point, we have to pay attention to the fact that they are not requirements of matrix verbs but constituents licensed to exist within deriving syntactic structures by their own requirements of external θ-role assignment. This is the reason why only depictive predicates used in sentences of customary expressions are wh-extractable. In a word, depictive predicates can be licensed as adjuncts of primary predications and wh-extracted when they are in customary expressions.

5. Mutual C-command Restriction

5.1. Mutual C-command Restriction is the Restriction for External

θ-role Assignment.

From the above discussions, it is clear that Secondary Predication is also composed on the basis on (external) θ-role assignment.[11] Additionally, it is obvious from (18) that not only APs but also indefinite DPs and PPs can serve as Secondary Predicates.

(18) a. *He* came home *a hero/ *a heroine/ *heroes.*

b. *John* came home *in a foul mood.*

These compel us to conclude that Secondary predication is a variant of Small Clause. However, at this point, we find that an important thing still exists. That is that we can reduce William's (1980) mutual c-command restriction between predicates and their subjects at some level to that between assigners and assignees for θ-role assignment at D-structure because assigners and assignees of θ-roles always mutually c-command each other and the examples (19-20), which are supposed to be incompatible with our proposal in this section at first glance, do not become counterexamples when we consider the topicalization of adjuncts[12] and parallelism between circumstantial and depictive predicates as Secondary Predicates.

(19) a. *John* has left the room *angry.* b. John ate *the meat raw.*

a'. *Angry, John* has left the room. b'. **Raw,* John ate *the meat.*

(20) *John ate *the meat rare* and Bill did so (= ate *the meat*) *cooked.*

Therefore, we deny the existence of William's (1980) mutual c-command restriction between predicates and their subjects at some level.

5.2. Circumstantial Predicate does not belong to IP.

Contrary to our claim in the above section, Nakajima (1989, 1991) claims that circumstantial predicates belong to IP and that mutual c-command restriction between predicates and their subjects should be required at S-structure and give (21-22) as evidences of his proposal.

(21) a. [Many people t_i]$_j$ t_j came in angry [who were wearing funny hats]$_i$.

b. *John$_i$ t_i left [the party t_j] angry [which Mary had prepared since last weekend]$_j$

(22) a. *There are many members present drunk.

b. Many members are present drunk.

However, against his proposal, we can predict (21a) and (22b) as grammatical and (21b) and (22a) as ungrammatical without following his proposal: (21) by

Pesetsky's (1982) *Path Containment Condition*[13] and (22) by (Relativized) θ-criterion. So, William's (1980) mutual c-command restriction between predicates and their subjects does not exist and circumstantial predicates do not belong to IP.[14]

5.3. Counterexamples

From the discussion so far, we predict that all sentences with Secondary Predicates satisfying the requirement for θ-role assignment are grammatical. However, there are some examples against our this prediction. Those are (a)s of (23-5). They are ungrammatical though they satisfy the requirement for θ-role assignment at D-structure. Why are they ungrammatical?

(23) a. *John walked into the meeting drunk, but so did Bill sober.
b. John walked into the meeting drunk, but Bill did so sober.

(24) a. ??John drove home drunk, and Bill will, angry.
b. John left the city on Wednesday, and Bill will, on Friday.

(25) a. ??John discussed the topic drunk, and Bill, sober.
b. John discussed the topic yesterday, and Bill, this morning.

In these cases, it is obvious from the fact that (b)s of (23-5) in which sentential adverbial equivalents appear instead of Secondary Predicates are grammatical that our analysis is not wrong. Then, what are the reasons why (a)s in (23-5) are ungrammatical? Those are the violation of Pesetsky's (1982) Path Containment Condition, Acceptability and Recoverability. In the case of (23a), the violation of Pesetsky's (1982) Path Containment condition occurs[15] and this fact is supported by the fact that (26) in which one of two existing paths of A'-dependent relation includes the other is grammatical.

(26) ? . . . . leave the room Bill did happy.

In the cases of (24a) and (25a), their unacceptability is due to Acceptability and Recoverability and this is supported by both facts that the acceptability of (24a) become considerably high when the stress is put on the auxiliary verb*will* and Small Clauses are frequently used in our ordinary dialogue by themselves as subgrammatical like below.

(27) What? *me angry?*

So, as a result, (a)s in (23-5) does not become counterexamples against our analysis in this paper.

6. Concluding Remarks

As is evident from the above, the structure of Secondary Predications is not particular one constructed by adverbial APs but what should be called "a variant of Small Clause" and constructed on the basis of the property of APs, PPs and indefinite DPs that they construct propositions with DPs out of their projections. And then at the present stage in which that fact becomes clear, we can say from the fact that Secondary Predication constitute a governing category that Governing Category is not absolute as is defined in Chomsky (1981) but relative and duplicatable as described above.

NOTES

* I would like to thank Mitsunobu Yoshida for invaluable comments and helpful discussion. Remaining inadequacies are my own.

1. Small Clauses are classified into two groups symbolized by (2a-b).

2. See Belleti (1988).

3. There are two cases unrecoverable as IPs on Small Clauses: one is when Small Clauses can be substituted by *one* when we interpret their pronounced parts as DPs as a whole and the other is when they are interpreted as DPs consisting of their subjects only when their verbs are made silent.

4. See Stowell (1978) and Safir (1985).

5. See Chomsky (1995).

6. A phrase A can be extractable from a domain B only when B is properly governed (i.e., lexical government).

7. It is impossible to extract elements from adjuncts.

8. See Chapter 4 in this paper.

9. We follow Reinhart's (1976, 1983) definition of c-command. See Reinhart (1976, 1983)

10. BECOME means silent *become* . In this case this *become* is made silent because it is recoverable.

11. This is also supported by (i) which shows that more than one Secondary Predicates can not take a same DP in Primary Predications as their subjects.

(i) a. **John* drove a car *happy, drunk.*
b. *Bill ate *the meat raw marinated frozen.*
c. *Mary bought *the bureau painted broken.*

12. See Lasnik and Saito (1992).

13. When two paths of A'-dependent relation overlap, one has to include the other.

14. This is also supported from the fact that VP-affecting operations can be applied to circumstantial predicates like below.

(ii) a. Mary said that John would leave the party drunk, and leave the

party drunk he did.

b. Leave the room happy though he might, nobody thought he was satisfied with the meeting.

[15] Of three existing paths of A'-dependent relation, the path between *John* and Secondary Predicate *sober* does not include that between *did* and its trace and vice versa though they overlap.

REFERENCES

Belleti, A. (1988), "The Case of unaccusatives," *Linguistic Inquiry* 19, 1-34.

Carrier, J. and J. Randall (1992), "The argument structure and syntactic structure of resultatives," *Linguistic Inquiry* 23, 173-234.

Chomsky, N. (1981), *Lectures on government and binding.* Dordrecht: Foris.

_____ (1986a), *Knowledge of language: Its nature, origin, and use.* New York: Praeger.

_____ (1986b), *Barriers.* Cambridge, Massachusetts: MIT Press.

_____ (1995), *The minimalist program.* Cambridge, Massachusetts: MIT Press.

Hasegaw, H. (1991), "Secondary predicates, VP-internal subjects, and mutual c-command," *English Linguistics* 8, 1-15.

Hornstein, N., Lightfoot, D. (1987), "Predication and PRO," *Language* 63, 23-52.

Hoshi, H. (1992), "Circumstantial predicates, PRO, and D-structure adjunction," *English Linguistics* 9, 1-20.

Huang, C.-T.J. (1982), *Logical relations in Chinese and the theory of grammar.* Unpublished Ph. D. Dissertation, Cambridge: Massachusetts Institute of Technology.

Kuno, S., Takami, K. (1993), *Grammar and discourse principles: Functional syntax and GB theory.* Chicago: The University of Chicago Press.

Larson, R. (1988), "On the double object construction," *Linguistic Inquiry* 19, 335-91.

Lasnik, H.and M. Saito (1984), "On the nature of proper government," *Linguistic Inquiry* 15, 235-89.

_____ and M. Saito (1992), *Move a: Conditions on its application and output.* Cambridge, Massachusetts: MIT Press.

Nakajima, H. (1989), "Shujutsu-kankei no sho-mondai (1)-(2)" [Some problems on predication 1-2], *The Rising Generation,* Vol. 135, No. 8-9.

_____ (1991), "Secondary predication," *The Linguistic Review* 7, 275-309.

Pesetsky, D. (1982), *Paths and Categories.* Ph. D. Dissertation, Cambridge: Massachusetts Institute of Technology.

Reinhart, T. (1976), *The syntactic domain of anaphora.* Unpublished Ph. D. Dissertation, Cambridge: Massachusetts Institute of Technology.

_____ (1983), *Anaphora and semantic interpretation.* London: Croom Helm.

Rizzi, L. (1990), *Relativized minimality.* Cambridge, Massachusetts: MIT Press.

Roverts, I. (1988), "Predicative APs," *Linguistic Inquiry* 19, 703-10.

Safir, K. (1985), *Syntactics chains.* Cambridge: Cambridge University Press.

Stowell, T. (1978), "What was there before there was there," *Papers from Regional Meeting, Chicago Linguistic Society* 14, 458-71.

Takami, K. (1988), "Preposition stranding: Arguments against syntactic analyses and an alternative functional explanation," *Lingua* 76, 299-355.

_____ (1992), *Preposition stranding: From syntactic to functional analyses.* Berlin: Mouton de Gruyter.

Williams, E. (1980), "Predication," *Linguistic Inquiry* 11, 203-38.