

Against a Syntactic Approach to the Phenomenon of Implicit Arguments in Passives

Miho NISHIO

(Department of English, Division of Humanities, School of Humanities and Economics)

Abstract: It is well-known that the implicit argument of a passivized verb is syntactically active in that it can enter into grammatical relations such as control, binding, and predication. Ouhalla (1991) argues that the implicit argument is an empty category PRO in the specifier position of VP. In this paper I will show that his analysis suffers from a number of problem and more generally, a purely syntactic analysis is untenable. An empty category, whether it is PRO or not, cannot be generated in the Spec VP position. The implicit argument has semantic properties which are different from those of arbitrary PRO. The passive morpheme *-en* alters the predicate-argument structure and the Case-features of the verb it attaches to, and therefore, must be a lexical affix.

Key words: passives, implicit arguments

0. Introduction

It has been shown in a number of studies that unrealized subject arguments of passivized verbs are syntactically active in the sense that they enter into some grammatical relations. They can license an agent-oriented adverb (see (1)), control the PRO subject of a rationale clause (see (2 a)), an adverbial clause (see (2 b)), and a predicative adjective (see (2 c)), and bind an anaphor (see (3)).

(1) The book was sold voluntarily.

(Roberts 1987, 70)

(2) a. The boat was sunk to collect the insurance.

b. The game was played wearing no shoes.

c. The game was played drunken/nude/sober/ungry. (Roeper 1987, 268)

(3) Such privileges should be kept to oneself.

(Baker, Johnson, and Roberts 1989, 228)

Roeper (1987, 269) distinguishes approaches to representing implicit argument into the following four kinds.

(i) The lexical approach: implicit arguments are associated with properties of the verb.

(ii) The morphological approach: implicit arguments are associated with affixes.

- (iii) The syntactic approach: implicit arguments are associated with argument positions.
- (iv) The inferential approach: implicit arguments are inferences on overall meaning.

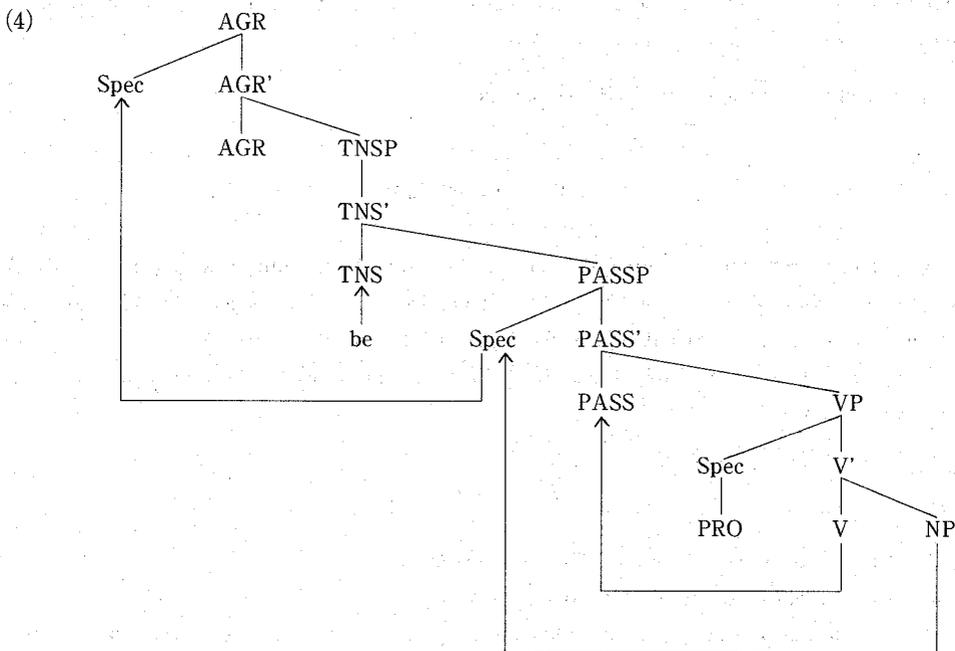
Recently, Ouhalla (1991) proposed a purely syntactic approach in his analysis of passive constructions. He argues that implicit arguments in passives are structurally represented as an empty category (PRO) occupying an A-position (the Spec of VP position).

In this paper, I will show that such a syntactic approach suffers from some serious shortcomings and we must maintain a morphological approach.

1. Ouhalla's (1991) Analysis

The analysis of passive constructions proposed in Ouhalla (1991) is based on the idea that inflectional elements which generally appear attached to the verb, tense, agreement, aspect, and passive morphemes, are syntactic categories on their own right and project their own X-bar structure.

- (4) outlines the basic structure and derivation of passive sentences proposed by Ouhalla.



(the passive morpheme has different categorial status in different languages. In some languages it is ASP, while in others it is AGR-O (object agreement element). Thus PASS is used as a cover term)

The fundamental assumption underlying this analysis is that the passive morpheme is an independent category which heads its own maximal projection. There are two types of pas-

sives, morphological passives which consist of a single verbal complex, and periphrastic passives which consist of an auxiliary and a participle. The participle is formed by V-movement to PASS in both types of passives. In periphrastic passives the participle remains in PASS and the auxiliary *be* is inserted under TNS and inflected. In morphological passives the V + PASS complex moves further up to TNS and AGR. The object of the verb moves through the Spec of PASS position to the Spec of AGRP position where it receives nominative Case under government by AGR. On the assumption that the argument domain of a head corresponds to its X-bar domain, the thematic subject is base-generated in the Spec of VP position as an empty category PRO in both long passives, passives which include *by*-phrase, and short passives, those without *by*-phrase. The thematic subject PRO remains in the Spec of VP position throughout the derivation. In long passives, the *by*-phrase shares the external θ -role of the verb with the thematic subject PRO.

2. Problems of Ouhalla's Analysis

A number of problems arise from the assumption that implicit arguments in passive sentences are PRO.

The first problem concerns the government of the Spec of VP position. The following are basic assumptions of the theory of government adopted by Ouhalla (pp. 33-34).

- [A] A category governs another category if both these categories m-command each other.
- [B] The governor must be a head category.
- [C] Substantive elements theta-govern their complements, while functional categories only govern their complements.
- [D] Barrier (informal definition): A barrier is any maximal projection which is not theta-governed.
- [E] As a result of V-movement to I, VP becomes theta-governed, thereby ceasing to be a barrier.
- [F] A head governs the head and the specifier of its complement phrase.
- [G] Government of specifiers by heads of the same projection can only operate through coindexation.
- [H] Coindexation between a head and its specifiers applies only if there is an agreement relation between them in terms of certain grammatical features.

It does not follow from these assumptions that the Spec of VP position in (4) is ungoverned. As a result of V-movement to PASS, PASS becomes a theta-governor. Consequently, VP ceases to be a barrier since it is theta-governed. Then, at least after V-movement to PASS, PASS governs into the Spec of VP position. To prevent PASS from governing into the Spec of VP, Ouhalla (p. 213, note 20) makes an additional assumption in [I].

- [I] Functional categories can only govern via coindexation.

The assumption [I] seems to be untenable. If the VP were a barrier, the trace of V-movement to PASS and the trace of NP-movement left in the object position would violate the ECP

[J] (p. 205, note 15 and p. 206 note 16). Moreover, on the assumption that lexical subjects of sentences originate in the Spec of VP position and subsequently move to the Spec of AGRP position in order to receive Case, the trace left by NP-movement of subjects would also violate the ECP.

[J] (i) The Empty Category Principle (ECP)

Non-pronominal categories must be properly governed.

- (ii) A properly governs B if A antecedent-governs B.
- (iii) X antecedent-governs Y only if there is no Z such that
 - a. Z is a typical potential antecedent-governor for Y, and
 - b. Z m-commands Y and does not m-command X.
- (iv) X antecedent-governs Y if
 - a. X and Y are coindexed
 - b. X m-commands Y
 - c. no barrier intervenes
 - d. Relativised Minimality is respected.

Thus the assumption [I] should be rejected. If the Spec of VP position is a governed position, PRO cannot be base-generated in that position since PRO must be ungoverned.

The second problem has to do with the semantic properties of implicit arguments in short passives. Ouhalla argues that implicit arguments in short passives receive an arbitrary interpretation for the same reason that the PRO in (5) receives an arbitrary interpretation.

- (5) a. It is difficult [PRO to predict the future].
- b. [PRO to involve oneself with a political group] is risky in some countries.

(Ouhalla 1991, 103)

Implicit arguments in short passives do not have the same semantic properties as those of arbitrary PRO. It has been shown by Di Sciullo (1989, note 9) that the interpretation of implicit arguments in short passives may be arbitrary or indefinite depending on overt material. The interpretation of the implicit argument is indefinite in (6), and either arbitrary or indefinite in (7).¹

- (6) John was killed.
 - =John was killed by someone.
 - ≠John was killed by people in general.
- (7) John was hated.
 - =John was hated by someone.
 - =John was hated by people in general.

Binding properties of the implicit argument in passives also differ from those of arbitrary PRO. It has been noticed in Baker, Johnson, and Roberts (1989, 229) that PRO can bind a first person plural anaphor, while implicit arguments in short passives cannot. This is illustrated in (8).

- (8) a. PRO to shave ourselves is fun.
 b. *Love letters were written to ourselves.

The third problem concerns the control properties of implicit arguments. Control by implicit arguments (9) differs from standard argument control (10) in a number of ways, contrary to what would be expected if the implicit controller were PRO in an A-position, namely, in the Spec of VP position.

- (9) a. The ship was sunk [PRO to collect insurance].
 b. The bureaucrat was bribed [PRO to avoid the draft].

(Ouhalla 1991, 91)

- (10) a. John promised Mary to return home by 5:00 p.m.
 b. John persuaded Mary to return home by 5:00 p.m.

(Larson 1991, 103)

The following three points have been noticed in Jaeggli (1986). First, implicit arguments cannot control the PRO subject of complement clauses.

- (11) *Bill was promised to go to Disneyland.
 cf. John was promised that he would be a winner
 [to make him feel a little bit better].

(Jaeggli 1986, 615)

Second, control by implicit arguments is not possible at a distance. Thus, sentence (12) is structurally ambiguous. If the rationale clause is outside the complement of *told*, its subject will be controlled by the implicit argument. If the rationale clause is inside the complement of *told*, its subject will be controlled by *John*. One more level of embedding eliminates ambiguity. In (13), the controller of the PRO subject of rationale clause must be the subject of *clean*, it cannot be the implicit argument of *told*.

- (12) John was told [PRO to clean the house] [in order PRO to impress the guests].

- (13) John was told that [PRO to clean the house [in order to impress the guests]] is foolish.

(Jaeggli 1986, 616)

Third, implicit arguments cannot control into passive infinitivals.

- (14) a. *The gifts were brought [PRO to be admired by the Indians].
 b. *The report was carefully prepared [PRO to be congratulated by the board of directors].
 c. *The structure of DNA was investigated [PRO to be awarded the Nobel Prize].

Compare:

- (15) a. John wants [PRO to be loved by everyone].
 b. Bill tried [PRO to be introduced to Mary].

c. John persuaded Bill [PRO to be arrested by the KGB].
(Jaeggli 1986, 617)

Jaeggli argues that control by implicit arguments does not involve control from an A-position and that it should be considered as a D-structure phenomenon, while argument control is a S-structure phenomenon.

3. Other Considerations

In the previous section we have seen that the empty category PRO cannot appear in the Spec of VP position since the position is governed at least after V-movement to PASS. The other possibility that the empty category is pro can be dismissed easily. According to Rizzi (1986), pro is formally licensed through Case-assignment.

(16) pro is Case-marked by X^0y .
(Rizzi 1986, 524)

Since the Spec of VP is not a Case-marked position, pro cannot be licensed. As there is no other empty category which can be base-generated, we must conclude that the implicit argument is not an empty category in the Spec of VP position.

It has been argued in Stroik (1992) that implicit arguments in middle constructions are PRO and they are located in VP adjoined position by Larson's (1988) Principle of Argument Demotion (17).

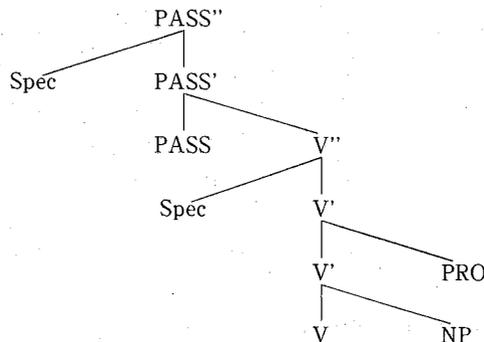
(17) Principle of Argument Demotion

If A is a theta-role assigned by X^k , then A may be assigned (up to optionality) to an adjunct of X^k .

(Larson 1988, 352)

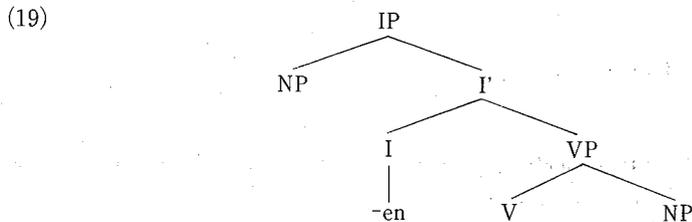
The external theta-role in middles is assumed to be assigned by the VP. Then the Principle of Argument demotion would allow the external theta-role to be assigned to a VP adjunct. However, on the assumption that subjects of sentences are base-generated in the Spec position of VP and assigned the external theta-role by V' , the Principle of Argument Demotion would demote this theta-role to a V' adjunct.

(18)



In this structure (18), PRO is governed by V. Thus, we cannot resort to the Principle of Argument Demotion to maintain the claim that the implicit argument is PRO.

The analysis proposed by Baker, Johnson, and Roberts (1989) claims that the implicit argument is the passive morpheme *-en*. They argue that the passive morpheme is base-generated under I and serves as an argument of the verb.



As Ouhalla argues, the status of the passive morpheme as a head conflicts with the status as an argument. And also, on the assumption that the argument domain of a head corresponds to its X-bar domain, namely, its maximal projection, the passive morpheme *-en* would be base-generated inside VP if it were an argument of the verb. If the passive morpheme were a head category base-generated outside the VP, it would be expected to be a functional category which does not participate in thematic relation.

Ouhalla claims that his analysis provides a natural account for the fact that the passive morpheme generally appears closer to the verb than the other inflectional elements.

- (20) a. ad-y-ttw-attē uxwwan dudsha.
 will-3ps-PASS-catch thief tomorrow
 'The thief will be arrested tomorrow.'
 b. Bu yetimhane-de cabuk buyu-n-ur.
 the orphanage-in fast grow-PASS-PRES(TNS)

(Ouhalla (1991, p. 93))

According to Ouhalla's analysis, the fixed position of the passive morpheme is a consequence of the interaction between the c-selectional property of the passive morpheme (21) and the Head Movement Constraint (22).

- (21) PASS c-selects VP.

(Ouhalla 1991, 94)

- (22) The Head Movement Constraint (HMC) A head category can only move to the head position immediately preceding it.

(Ouhalla 1991, 43)

We can explain the fact as well by assuming that the passive morpheme is a lexical affix which is attached to the verb in the lexicon before syntactic affixes such as agreement and tense attaches to the verb by means of head movement.

Moreover, the assumption that the passive morpheme is attached to the verb in the syntax give

rise to a serious problem. The projection principle (23) prohibit syntactic affixes from changing the lexical properties of the stem they attach to.

(23) Lexical structure must be represented categorially at every syntactic level.
(Chomsky 1986, 84)

Then how could we account for the ungrammaticality of the sentences in (24)?

(24) a. *John was killed Bill.
b. *Mary was kicked John.
(Ouhalla 1991, 98)

If the post-verbal noun phrases are thematic subjects in the Spec of VP position, the Case Requirement will account for their ungrammaticality.² However, sentences such as (24 a, b) could be derived in the same way as active sentences are derived. That is, the thematic subjects, deprived of Case in their base-position, move to the structural subject position and receive nominative Case, while the thematic object remain in its base-position. The ungrammaticality of (24) could not be attributed to the violation of the Case Requirement on the part of thematic objects. The Case-feature, being a part of lexical properties of verbs, would not be altered by a syntactic process. Then the thematic objects would receive accusative Case just in the same way as they do in active sentences. If the base-position of the objects were Case-marked, their movement would result in a violation of the Chain Condition (25).

(25) If $C = (\alpha_1, \dots, \alpha_n)$ is a maximal CHAIN, then α_n occupies its unique θ -position and α_1 its unique Case-marked position.
(Chomsky 1986, 137)

Thus, affixation of the passive morpheme must absorb the accusative Case. Since the Case features are part of lexical properties of verbs, the passive morpheme must be attached to the verb in the lexicon.

Ouhalla explains the fact that thematic subjects never appear as structural subjects in passive constructions by requiring agreement between fronted objects and participles. As the contrast of grammaticality between (26) and (27) shows, agreement between fronted objects and participles is obligatory in French.

(26) a. Trois tables ont été repeintes (par Jean).
three tables have been repainted by Jean
'Three tables have been repainted (by Jean).'
b. Trois chaires ont été détruites (par Jean).
three chairs have been destroyed by Jean
'Three chairs have been destroyed (by Jean).'
(Ouhalla 1991, 99)

(27) a. *Trois tables ont été repaint.
b. *Trois chaires ont été détruit.
(Ouhalla 1991, 100)

The rule stated in (28) ensures the obligatoriness of participial agreement in passive sentences.

(28) Coindex PASS with the direct object of the verb.

(Ouhalla 1991, 100)

PASS is equivalent to object AGR in French. By the rule (28) the direct object of the verb is forced to move through the Spec position of PASSP. If the thematic subject moves through that position to get to the Spec of AGRP position, a mismatch of indices would result.

This explanation does not seem to be viable. It presupposes that the Spec of object AGRP position is base-generated and that the movement of thematic subjects is not allowed to skip it. If so, agreement between fronted objects and participles would always prevent the movement of subjects to the Spec of AGRP position. However, we can find both participial agreement and movement of subjects to the Spec of AGRP position in *wh*-movement and clitic movement constructions as in (29).

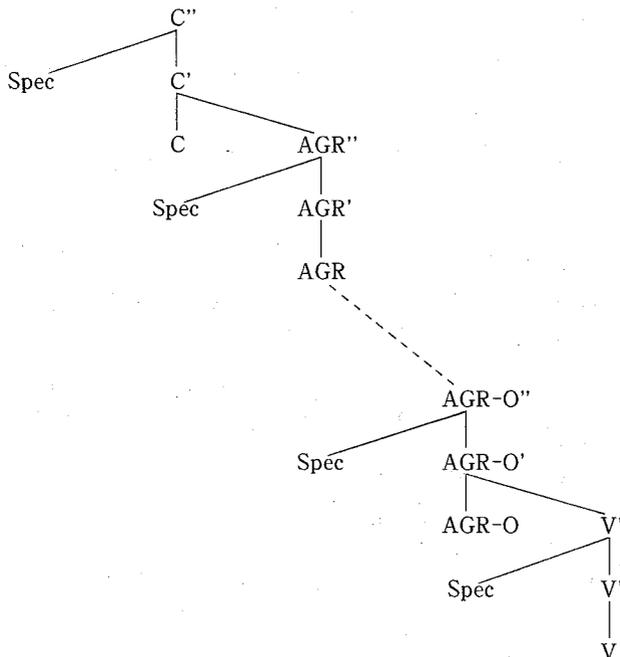
- (29) a. Combien de tables Paul a repeintes?
 how many of tables Paul has repainted
 'How many tables has Paul repainted?'
 b. Combien de chaises Jean a detruites?
 how many of chairs Jean has destroyed
 'How many chairs has Jean destroyed?'

(Ouhalla 1991, 99)

- c. Paul les repeintes.

(Chomsky 1991, 435)

(30)



Frampton (1991, 14) suggests, following Chomsky, that "specifier positions are not obligatorily generated at D-structure, unless required by independent principles, and that Move- α can generate specifier positions derivationally." This would allow the subjects in (29) to move to the Spec of AGRP position before the movement of the objects generates the Spec of object AGRP position. But if so, why shouldn't thematic subjects of passive sentences move to the Spec AGRP before the movement of thematic objects create the Spec of PASSP position?³

4. Summary

To summarize, implicit arguments in passives are not PRO since their interpretation and binding properties are different from those of arbitrary PRO. The Spec position of VP is not a suitable position for base-generating an empty category (PRO or pro) since this position is governed but not Case-marked. The properties of control by implicit arguments are different from those of standard argument control. This fact also suggests that implicit arguments in passives are not empty categories in an A-position. The passive morpheme *-en* cannot serve as an argument. If it were a syntactic category, it would be a functional head rather than an argument. The passive morpheme must eliminate the Case-feature of the verb or the movement of thematic object to the structural subject position would violate the Chain Condition. The syntactic approach does not provide account for the fundamental property of passive constructions that thematic subjects never surface as structural subjects. The agreement requirement cannot prevent the movement of thematic subjects to the structural subject position. Thus the passive morpheme *-en* must alter the predicate-argument structure of the verb so that the external theta-role will not be projected to a syntactic position. If the passive morpheme alters lexical properties such as Case-feature and predicate-argument structure, it must be attached to verbs in the lexicon.

Notes

1. This fact indicates that passivization does not involve the lexical rule (i).
(i) Assign *arb* to the external theta-role.
(Fagan 1988, 198)
2. The movement of thematic objects across thematic subjects would be a violation of Relativized Minimality. Frampton (1991, 14) argues that "theta-position would never induce locality effects because they are never possible landing sites of movement."
3. Chomsky (1991, 436) suggests that verb-object agreement is associated with accusative Case assignment. If the Spec of object AGR is a Case-marked position, thematic objects need not move to the Spec of AGRP in order to receive Case.

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