A Note on English Nominal Passives* Yoshio Endo

0. Introduction

English is said to have nominal passive constructions (i.e. the nominal version of passive constructions) shown in (1) and (2), which correspond to active nominal constructions in (3) and (4), respectively.

- (1) the city's destruction by the enemy
- (2) the president's assassination by the spy
- (3) the enemy's destruction of the city
- (4) the spy's assassination of the president

There is a well-known asymmetry to the effect that some nominals cannot have passive counterparts as in (5) and (6), although verbal predicates can as illustrated in (7) and (8).

- (5) the boy's discussion of the topic
- (6) *the topic's discussion by the boys (nominal)
- (7) The boys discussed the topic.
- (8) The topic was discussed by the boys. (verbal)

A number of syntactic and semantic explanations have been given to account for the ungrammaticality of such nominal passive constructions as (6) (e.g. Anderson (1979), Amritavalli 1980), Chomsky (1970, 1981), Iwasawa (1983), Kayne (1981), etc).

The main concern of the present paper is to provide a syntactic explanation to the asymmetry of nominal passive constructions after a brief summary of the previous analyses.

1. Previous Analyses

Nominals such as admiration, reliance, etc., cannot have

corresponding nominal passives.

- (9) *the president's admiration by John
- (10) *the girl's reliance by the boy

In order to give an explanation to the ungrammaticality of (9) and (10), Anderson (1979) pays special attention to the prepositions selected by their active counterparts.

- (11) John's admiration for the president
- (12) the boy's reliance on the girl

In general nominals resist preposition stranding, which can roughly be stated as a constraint: "the nominal and its noun phrase complement must be contiguous with no intervening preposition" (Anderson (1979, 41)).

(13) *[Npi man's] dependence on ti.

Noting this constraint, Anderson stipulates that the ungrammatical nominal passives have underlying prepositions before NP-movement is applied.

- (14) e admiration for the president
- (15) the president admiration for

Then the ungrammaticality of (9) follows as a consequence of the violition of the constraint above, which seems a reasonable argument in this case. He, however, extends this analysis to the cases involving such nominals as <u>destruction</u>, assassination.

- (16) the city's destruction by the enemy

 Anderson claims that (16) is derived with no preposition

 existing in the underlying structure, the preposition of being

 transformationally inserted in the derivation.
 - (17) e destruction ϕ the city \uparrow of

- (18), which contains no preposition, is exempt from this constraint, the grammatical nominal being successfully generated.
 - (18) the city destruction ø t

At first sight, the analysis might seem a reasonable one. Yet we face a serious difficulty in examining such predicates as <u>discussion</u>, <u>knowledge</u> and <u>belief</u>. These predicates all select the invariable preposition <u>of</u> as in (17), but resist the corresponding passive forms.

- (19) John's knowledge of the theorem
- (20) *the theorem's knowledge by/to John
- (21) the boy's discussion of the topic
- (22) *the topic's discussion by the boys
- (23) John's belief of the theory
- (24) *the theory's belief by John

In this paper, we will make the claims that there is evidence for a hierarchical difference between the preposition of-complement in (3), on the one hand, and the ones in (19), (21) and (23), on the other hand, and that the difference triggers the asymmetry in the passivizability of the nominals in question.

2. Syntax of Nominals

In this section, an attempt is to be made to see that the nominals <u>discussion</u>² and <u>destruction</u> noted above have distinct syntactic structures as shown by some syntactic tests.

First, in applying the rule of PP-fronting, the PP being an N°-level sister in the X'-hierarchy cannot be extracted.

- (25) To which problem did you discover the solution?
- (26) *About whom did you destroy the book? (Nishijima 1984)

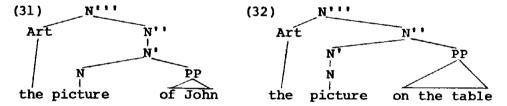
Application of this test to the nominals in question shows the following paradigm.

- (27) Of which city did you see the destruction?
- (28) *Of which topic did you hear the discussion?

This paradigm shows that the PP of <u>destruction</u> belongs to the N°-complement and that of <u>discussion</u> belongs to the N'-complement position.

Second, it is generally held that wh-movement out of the sister of N°-complement is permitted while extraction out of the N'-level sister is not (see Fukuchi(1979) and Sano(1981)).

- (29) Who did you see the picture of?
- (30) *Which table did you see the picture on?



Application of this rule to the nominals in question provides the following paradigm.

- (33) Which city did you see the destruction of?
- (34) *Which topic did you hear the discussion of?

The extraction test shows that the <u>of</u> of <u>destruction</u> belongs to the N°-complement, while that of <u>discussion</u> belongs to the N'-complement.

Third, adverbs cannot interpolate between elements which are tightly connected. $^{\scriptsize 3}$

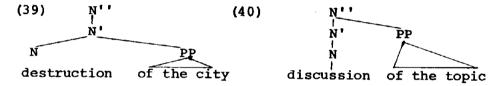
- (35) *John looks carefully after his son.
- (36) John camps often beside the lake.

Application of this test attests the following paradigm.

- (37) *I heard about the enemy's destruction the other day of the city.
- (38) I heard about the boy's discussion the other day of the topic.

If we assume the the different degree of cohesion of elements is reflected in the distinct position of them in the X'-hierarchy, then another distinction between the two nominals in question is suggested here again.

To schematize, the two nominals in consideration have the following distinct structures.



It is generally held that the extraction of elements out of nodes higher than the N'-level is prohibited (see Fukuchi (1979) and Sano (1981)). We can, then, assume that the ungrammaticality of the nominal passive of <u>discussion</u> and the grammaticality of that of <u>destruction</u> can be deduced as a natural consequence of the general constraint on extraction (41).

(41) The Constraint of Extraction⁴
extraction of elements out of nodes higher than
N'-level is prohibited.

3. Consequences

In the preceding section it was shown that the ungrammaticality of the nominal passive containing <u>discussion</u> is a natural consequence of the general prohibition of extraction of elements out of nodes higher than the N'-level.

With this natural explanation of nominal passives, we can explain various peculiar phenomena of the nominal passives as a natural consequence of our hypotheses. The first phenomenon is related to a well-known fact that active nominals which select prepositions other than of cannot have passive counterparts (e.g. Anderson(1979)).

- (42) John's admiration for the president
- (43) the boy's reliance on the girl
- (44) *the president's admiration by John
- (45) *the girl's reliance by the boy

Application of the rule of PP-preposing to (42) and (43) provides us with the next paradigm.

- (46) *For which person did you see the admiration?
- (47) *On which boy did you see the dependence?

This result of the test shows, as seen above, that the PP-complements of <u>admiration</u> and <u>reliance</u> belong to the N'-complement, i.e. higher than the N'-level.

Next, the rule of wh-movement provides the same paradigm.

- (48) *Who did you hear the admiration for?
- (49) *Who did you see the reliance on?

The extraction test again reveals that the PP-complements of <u>admiration</u> and <u>reliance</u> belong to the N''-level, i.e. higher than the N'-level.

Thirdly, application of adverb interpolation again provides the following paradigm.

- (50) I heard about John's admiration the other day for the president.
- (51) I heard about John's reliance the other day on the girl.

The test again provides us with confirmation that the PP-complement of <u>reliance</u> and <u>admiration</u> belongs to the N"-level.

Our theory correctly predicts that application of the passive rule to the nominals in consideration generates

ungrammatical nominal forms (44) and (45) because of the violation of the general constraint on extraction (41).

Another well-known fact concerning the nominal construction is the following pair.

- (52) the king of England
- (53) the king from France

As Jackendoff (1977) correctly points out, the one-substitution test⁵ shows the structural difference between the PP-complements in (52) and (53).

- (54) *the king of England and the one of Italy
- (55) the king from France and the one from Canada

The <u>of</u>-phrase complement in (52) belongs to the N'-level, and the <u>from</u>-phrase in (53) to the N''-level. Our claim is, furthermore, supported by the test of extraction and adverbinterpolation.

- (56) Which country do you like the king of?
- (57) *Which country do you like the king from?
- (58) *I heard about the king the other day of England.
- (59) I heard about the king the other day from France.

Our theory predicts that (52) allows NP-preposing, while (53) does not for the reasons that we are familiar with. This is born out in the next contrast.

- (60) England's king (=the king of England)
- (61) *France's king (=the king from France)

The third peculiar fact concerning the nominal construction is that the next pair has a distinct truth condition.

- (62) Sunday's lecture
- (63) the lecture on Sunday

As pointed out by Anderson (1979), in (62) the lecture is not necessarily carried out on Sunday, while in (63) it is.

This fact is confirmed by the test of semantic anomality.

- (64) Sunday's lecture was given on Tuesday.
- (65) *The lecture on Sunday was given on Tuesday.

Notice that in (62) the PP-complement on Sunday is located at the N''-level, which can be confirmed by the tests we exploited above.

- (66) *Which day will you give a lecture on? (extraction)
- (67) the lecture on Sunday and the one on Tuesday (one-substitution)

Our theory predicts that (63) resists NP-preposing due to the extraction constraint (41), which is, in fact, born out:

The fourth peculiarity of nominal construction is that the dative NP and objective NP cannot be involved in passive if the predicate is nominal but can when the predicate is verbal.

- (69) Mary was given a book.
- (70) The book was given to Mary.
- (71) *the book's gift to Mary
- (72) *the Mary's gift of a book

Notice here again that syntactic tests show that both the dative NP and Objective NP in nominal constructions belong to the N''-level.

- (73) *Who did you see the gift to?
- (74) *What did you give the gift of? (extraction)
- (75) the gift to Mary and the one to Nancy
- (76) the gift of the book and the one of the record (one-substitution)

Our hypothesis correctly predicts that it is impossible for the NP-movement rule to apply to both dative NP's and objective NP's to derive the corresponding forms (71) and (72).

These peculiar empirical data of nominal passives can be deduced as a natural consequence of the independently motivated constraint on extraction.

4. Conclusion

In previous semantic analyses (e.g. Amritavalli (1979)) it was a mystery why nominals which denote mental activity or select prepositions other than \underline{of} do not allow passivization.

- (77) *the theorem's knowledge by/to John (mental activity)
- (78) John's admiration for the president
- (79) *the president's admiration by John

As we saw in the present paper, this mystery is nothing but a natural consequence of the independently motivated constraint on extraction.

Furthermore, our study revealed that the apparently non-distinct PP-complement in (80) and (81) have distinct underlying structures, ⁶ and showed that the difference triggers the asymmetric passivizability illustrated in (82) and (83).

- (80) the destruction of the city
- (81) the discussion of the city
- (82) the city's destruction
- (83) *the city's discussion

NOTES

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1We, of course, do not deny that some kinds of semantic

factors are also involved in the passivizability of nominals. The semantic or pragmatic notion [+affect] in the sense of Fiengo(1974), for instance, might cause the subtle contrast of the next pair

- (1) *John's recognition by Mary
- (2) ?Cuba's recognition by the U.S.
- The reason why we consistently use the nominal <u>discussion</u> in the following syntactic tests, excluding <u>knowledge</u> and <u>belief</u>, is merely a matter of convenience. The three nominals show approximately non-distinct behavior in the application of the syntactic tests used above, with subtle idiosyncratic variations being present, which I believe is of no great importance in the present discussion.

T.Oka (personal communication) suggested to me that the choice of nominals used is crucial in developing the argument in the present paper, which was of great help for me to choose the nominal discussion in the present paper.

- ³ The kind of adverbs influences the grammaticality judgement of adverb interpolation.
 - (1) John was spoken severely to.
 - (2)??John was spoken angrily to.
 - (3) the destruction by the enemy/?yesterday/??the other day of the city
- ⁴ (41) is just a rough statement to describe the syntactic behavior in the extraction process. In order for the statement to have an explanatory value, it would be necessary to deduce this statement from such a general principle as the ECP, with the necessary readjustment device of reanalysis or co-superscription assumed, as T.Oka (personal communication) suggests. In this paper, however, I will not go into the theoretical implications of this statement. The rough statement (41) will suffice for the present purpose of our discussion.
 - ⁵ We cannot use the test of one-substitution for such

nominals as <u>destruction</u>, which denote physical activity.

⁶ H.Tada (personal communication) pointed out to me, referring to Stowell's(1981) analysis, that the nominal whose complement is outside the N'-level might constitute the natural class of 'dethematized' deverbal nominals denoting mental activity, which I think deserves further investigation.

REFERENCES

- Amritavalli, R. (1980). "Expressing Cross-Categorial Selectional Correspondences, "Linguistic Analysis 6:3. 305-43.
- Anderson, M. (1979). Noun Phrase Structure. Ph.D. dissertation, University of Connecticut.
- Chomsky, N. (1970). "Remarks on Nominalization" Jakobs, R.A. and Rosenbaum P.S. (eds.) Readings in English Transformational Grammar. 184-221. Ginn and Co.
- -----(1981) Lectures on Government and Binding. Dordrecht: Foris.
- Fiengo, R. (1974). Semantic Conditions on Surface Structure.
 Ph.D. dissertation, MIT.
- Fukuchi, H. (1979). "Constraining extraction transformations in X'-theory," Studies in English Linguistics 7. 1-29. Tokyo: Asahi Press.
- Iwasawa, K. (1983). "A Constraint on Passive Nominals in English," Tsukuba English Studies 2. 23-38.
- Jackendoff, R. (1977). X-bar Syntax. Cambridge, Mass.: MIT Press.
- Kayne,R. (1981). "ECP Extensions," Linguistic Inquiry 12:1.
 93-133.
- McCawley, J. (1982). "The nonexistence of syntactic categories"

 McCawley, J. (ed.) Thirty Million Theories of Grammar.

 176-203.London: Croom Helm.
- Nishijima, C. (1984). "Preposition stranding in English,"
 127-137. Descriptive and Applied Linguistics 17. ICU.
- Sano, M. (1981). "A Constraint on Extraction Operation,"
 173-186. Descriptive and Applied Linguistics 15.ICU.

Stowell, T. (1981). Origins of Phrase Structure. Ph.D. dissertation, MIT.

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