

# DESTRUCTION と文法性判断の相違について

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## ON DESTRUCTION AND THE DIFFERENCES IN GRAMMATICALITY JUDGMENT

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Many scholars (including Chomsky (1970, 1981, 1986), Zubizarreta (1985, 1987) and Grimshaw (1988)) analyze *destruction* as a deverbal noun which inherits the subcategorization frame from *destroy* and whose object must be syntactically realized when it has a process/event reading. But Roberts (1987) and Napoli (1989) accept the process/event reading when *destruction* has no syntactically realized object. Roberts presents very interesting examples containing *destruction*. In this article I will try to explain the differences between Roberts's judgments and the judgments of others who do not share his judgments.

Derived nominals such as *examination* have two types of readings: (1 a) is an example of the result reading of *examination* and (1 b) is an example of the process/event reading of *examination* (examples from Grimshaw (1988)).

- (1) a. the examination was 8 pages long
- b. the examination of the students lasted 3 hours

In (1 a) *the examination* refers to something concrete (the examination paper) and no *of*-phrase appears in this case. (1 a) also shows that semantic drift is typically associated with the result reading. On the other hand, (1 b) means that the process of examining the students took three hours and *examination* is taking an *of*-phrase. In the process/event reading derived nominals correspond fairly well to their sentential counterparts containing the corresponding verb as their main verb.

- (2) a. the teacher's examination of the students
- b. the teacher examined the students

(2 a) and (2 b) have the same thematic relations. *The teacher*, the subject of *examination* and *examined the students*, is an agent; *the students*, the object of *examination* and *examined*, is a theme.

Derived nominals have their own properties different from their sentential counterparts.

- (3) (=Chomsky (1981), 2.6 (7))

- a. the barbarians' destruction of Rome
- b. Rome's destruction (by the barbarians)
- c. the destruction of Rome (by the barbarians)
- d. \*the barbarians' destruction (the barbarians=agent)

This paradigm shows that *destruction* does not always require the syntactic realization of its agent subject, but its theme object must always be syntactically present.<sup>1)</sup> This paradigm can be explained if we assume that *destruction* inherits the subcategorization frame from the verb *destroy* and requires the obligatory presence of its object. The optional presence of the subject can be ascribed to the property of a noun phrase.<sup>2)</sup> The ungrammaticality of (3 d), therefore, is parallel to that of \**the barbarians destroyed* (transitive).

From another point of view, (3 a), (3 b) (with *by*-phrase) and (3 c) (with *by*-phrase) are derived nominal constructions corresponding to sentences in the sense that the subject and the object of *destruction* are both syntactically realized. (3 b) (without *by*-phrase) and (3 c) (without *by*-phrase) are derived nominal constructions corresponding to verb phrases in the sense that only the object of *destruction* is syntactically realized. The subject may be realized in the specifier position or as a *by*-phrase, and the object may be realized as an *of*-phrase or in the specifier position. The two types of nominal constructions seem to show that only semantic and syntactic units (VP and S) can be nominalized.<sup>3)</sup> (3 d), therefore, is an impossible nominalization because the subject and the transitive verb lacking its object cannot constitute any syntactic and semantic unit. The VP nominal construction of *destruction* requires the obligatory presence of its object because of the subcategorization frame which it inherits from *destroy*. The S nominal construction is possible only when the VP nominal construction is completed. Of course this holds in the case of a sentence containing *destroy* as its main verb, but only one difference is that the VP containing *destroy* requires the obligatory presence of its subject.

In general, there is no straightforward grammatical relation based on syntactic structure between a subject and an object. A subject is defined as [NP, S] or [NP, NP] under dominance relation and an object is defined as [NP, VP] or [NP, N']. They can only be indirectly related via a VP or an N'. In a sense, therefore, the syntactic realization of the subject of *destruction* is independent of the syntactic realization of its object. The point is, as pointed out above, that the completion of the VP nominalization is a prerequisite for the S nominalization. If *destruction* inherits the argument structure from *destroy*, we can say that the syntactic realization of its external argument requires the syntactic presence of its internal argument as in the case of a sentence containing *destroy*, and not vice versa, and the external argument itself may or may not be syntactically realized.<sup>4)</sup>

If the internal argument of *destruction* must always be syntactically realized when its external argument appears, then we can predict that (4 a) is an impossible construction because the internal argument is absent though the external argument is syntactically realized as a *by*-phrase.

- (4) a. \*the destruction by the barbarians
- b. \*the barbarians destroyed (destroyed=transitive)

Zubizarreta (1985) gives the following examples to explain the obligatoriness of the internal argument and the optionality of the external argument. In this case the optionality of the external argument means that the external argument of *destruction* is lexically present although it may be syntactically absent as indicated by the presence of the agent-oriented adjectives *voluntary* and *intentional*.

- (5) (=Zubizarreta(1985), (30))
- a. the voluntary destruction of the document
  - b. last year's intentional destruction of the crop
  - c. \*the destruction by the Romans took place last year

This construction, *the destruction by ~* is accepted as a grammatical construction by some scholars. For instance, Napoli(1989) argues against Zubizarreta's judgment giving the following examples.<sup>5)</sup>

- (6) a. destruction by earthquakes is common.  
(=Napoli(1989), (2-115 b))
- b. the savage destruction by the earthquakes in 1985 led to permanent evacuation of the area.  
(=Napoli(1989), (2-118))

Roberts(1987) also gives the following example.

- (7) the destruction by the barbarians in order to prove a point (Roberts(1986), 4.5.3 (187 a))

In (6) and (7) only the subject of *destruction* is syntactically realized and the object is absent. But these examples are acceptable to Napoli and Roberts. Though this may be an accidental difference caused by the difference in the nominalization process which affects the subcategorization frame of *destruction*, Roberts's judgments are different from those of the others who do not share his judgment in other areas. Next I will try to explain these interesting differences below.

Zubizarreta (1987) divides derived nominals into two classes. Class A nominals include nouns like *description*, *translation*, *interpretation*, *proof*, which denote, on the one hand, a process or event, and, on the other hand, denote an object (concrete or abstract) which is the result of a process. Class B nouns like *destruction*, *assassination*, *capture*, *execution* can only refer to a process or an event.

- (8) a. John's description of the landscape won a prize  
(=the result of the process of describing)
- b. the army's assassination/execution was filmed by the local TV station  
(=the process of assassinating or executing civilians)

Zubizarreta asserts that "while it is true that nominals that denote the result of a process either do not take a predicate argument structure at all (statives like *love*, *fear*, *conviction*, *humiliation*), or they take one optionally (John's painting (of Aristotle by Rembrandt)), it is

not true that all nominals that denote an event take a predicate-argument structure obligatorily." According to her, *destruction* obligatorily takes a predicate-argument structure, but nouns like *assassination* and *execution*, which are also Class B nouns, do not obligatorily take a predicate-argument structure.<sup>6)</sup>

- (9) a. \*the entire destruction took place  
b. the assassination happened yesterday

(9 a) is ungrammatical because no argument is syntactically realized although *destruction* must take a predicate-argument structure.

Zubizarreta's assertion that *destruction*, which belongs to Class B nouns, cannot denote the result of a process is dubious. Roberts (1987) gives the following examples and asserts that (10 a) clearly favors the event reading while (10 b) favors the result interpretation.

- (10) (=Roberts(1987), 4.5.2 (179))  
a. the destruction of Hiroshima took place on August 4th, 1945  
b. we walked through the destruction of Hiroshima

(10 a) and (10 b) show that the reading of *destruction* may be determined contextually because (10 a) and (10 b) contain the same *the destruction of Hiroshima*. Roberts further argues that the result reading is preferred when the agent argument of *destruction* is not present and that the result reading is incompatible with an implicit argument or a *by*-phrase.

- (11) (=Roberts(1987), 4.5.2 (180))  
a. ??we walked through the deliberate destruction of Hiroshima  
b. ??we walked through the destruction of Hiroshima by the Americans

- (12) (=Roberts(1987), 4.5.2 (182))  
a. \*we walked through Hiroshima's deliberate destruction  
b. \*we walked through Hiroshima's destruction by the Americans

These facts may be explained under the assumption that *destruction* has no predicate-argument structure when it has a result reading. Therefore, if *by the Americans* requires the agentive reading, it is incompatible with the absence of the predicate-argument structure. This absence of the predicate-argument structure also explains the oddity caused by the presence of *deliberate* because it is a subject-oriented adjective and requires an agentive subject (syntactically realized or implicit). In (10 b) *of Hiroshima* will be regarded as a kind of adjunct similar to *of physics* in *the student of physics*. If *Hiroshima* in (10 b) is interpreted as the theme argument of *destruction*, contradiction will result.

But the problem is not so simple. Grimshaw (1988) shows that demonstratives like *that* are compatible only with result nominals.

- (13) \*that destruction of the city by the enemy

In (13) the appearance of the *of*-phrase and the *by*-phrase requires a process/event reading but this reading is incompatible with *that*, which requires a result reading. Chomsky (1981, p. 147

note 102) states, concerning the paradigm (3) mentioned above, that "we consider here the derived nominal, not the mass noun *destruction* as in "all that destruction was awful" (compare "all that destruction of the city was awful")." Chomsky's mass noun is nothing more than the result reading of *destruction*. The only one difference between the two examples is the presence of the *of*-phrase in the latter. This *of*-phrase requires the process/event reading of *destruction*, but *all that* requires the result reading, and the contradiction results. In the case of Roberts the presence of an *of*-phrase does not always require the process/event reading and (10 b) is grammatical. Though this may be related to the grammaticality of (7), it is not clear why this is so. What is clear is that the effect of an *of*-phrase in Roberts's case is not the same as that in the cases of the others who do not share the grammaticality judgment with him.

Marantz (1984) gives the following examples.

(14) (=Marantz (1984), (2.67))

- a. the clay porcupine's destruction by Elmer lasted four hours
- b. Elmer's destruction of the clay porcupine lasted four hours
- c. the destruction of the clay porcupine lasted four hours
- d. Elmer's destruction lasted four hours
- e. Elmer's destruction was horrible to behold

In (14 a), (14 b) and (14 c) what is "destroyed" is expressed and *destruction* has a process/event reading. Marantz states that for most speakers, *destruction* in (14 d) and (14 e), where Elmer is taken as the "destroyer," has only the result reading. Therefore, if Elmer is interpreted as destroying something, (14 d) is somewhat anomalous. *Destruction* in (14 d) refers to some result of destruction and not to the event of destroying. Then we can hardly imagine how the result of destruction could last for four hours. (14 e) has a natural reading and in that reading *Elmer's destruction* refers to the clay shards left after the destruction of the clay porcupine by Elmer.

We have to pay attention to the difference between Roberts's explanation and Marantz's explanation. Roberts makes the assertion to the effect that the presence of the (implicit) agent argument of *destruction* requires the process/event reading in (11) and (12). And this reading is incompatible with *walked through*.<sup>7)</sup> On the other hand, Marantz states that the presence of the theme argument, *the clay porcupine*, requires the process/event reading in (14 a), (14 b) and (14 c).

Furthermore, according to Roberts (15) is grammatical.

(15) we walked through the Americans' destruction (of Hiroshima)

In this case the result reading is possible even though it seems that the agent argument and the theme argument are both syntactically realized and this construction generally requires a process/event reading. In fact *the Americans' destruction (of Hiroshima)* has the same structure as (3 b) and the process/event reading will be possible if this expression is set in another context. Roberts's explanation, which I think is correct, is that *the Americans* is not given its thematic role by *destruction* and has a "possessor" relation to *destruction*. Therefore the differ-

ence between the two readings is the reflection of the difference between the two thematic structures.<sup>8)</sup> An important point to note here is that if we compare (15) with (12 b) we have to conclude that *the Americans' destruction (of Hiroshima)* (=active nominal) must be different from *Hiroshima's destruction by the Americans* (=passive nominal) in some respect because (12 b) is ungrammatical while (15) is grammatical. We will discuss this point below.

As the above discussion shows, the result reading of *destruction* is possible and is required by the predicates like *walk through*, and in this sense Zubizarreta's(1987) assertion that *destruction* has only a process/event reading is untenable. The important point common to Roberts's judgment and Marantz's judgment is that a prenominal genitive noun phrase in the specifier position of an NP can be interpreted as bearing an agent thematic role in the result reading of *destruction* in (14 e) and (15). As (3 c) shows this construction is anomalous under the process/event reading of *destruction*, and Roberts also gives the same judgment giving (3 c) as an example. In the case of (14 e), though no *of*-phrase is present, *Elmer* is interpreted as the destroyer, the agent of destruction.<sup>9)</sup> As mentioned above, a genitive NP in the specifier position of an NP will have a "possessor" relation to the head, and is not given any thematic role by the head N. The possessor relation is quite vague and various relations are included in this notion. The agentive interpretation may be included in this notion of the possessor relation, and the agentive interpretation of the prenominal genitive NP is possible irrespective of the presence of an *of*-phrase.

Returning to (6) and (7), we have to determine the properties of *destruction* and the *by*-phrase in these cases. In (6 a) *destruction* is clearly a process/event nominal because it has no determiner and this is characteristic of process/event nominals (Grimshaw(1988)).

- (16) a. presentation of one's idea is supposed to be helpful  
 b. assignment of such a difficult problem is a bad idea  
 c. proper examination of patients takes a long time

According to Grimshaw, the presence of an *of*-phrase also requires a process/event reading. In (6 b) what caused the evacuation is not the result of destruction but the process or event of destroying. In (7) the process reading is required by a rationale clause. In these cases *destruction* has the process/event reading though no *of*-phrase appears which expresses the theme of *destruction*. For Roberts and Napoli the existence of an *of*-phrase is not always necessary for the process/event reading of *destruction*, or rather it seems to be an optional element.

What is the status of the *by*-phrase in (6) and (7). A *by*-phrase directly following the head N in an NP expresses various relations to the head. The relations found in (17) may be collectively called an authorship relation (Williams(1987), Roeper(1987)).

- (17) a. a symphony by Mozart  
 b. a book by Hodes  
 c. a dress by Dior

But this is not the relation found in (6) and (7). We cannot say that the head nouns in (17) are process/event nominals. They are result nominals rather than process/event nominals.

A *by*-phrase in an NP can express an agent of the head N. A *by*-phrase also appears in a

passive sentence. In this case the *by*-phrase expresses the semantic role of the subject of the corresponding active sentence. In a sense the *by*-phrase in a passive sentence does not express a unique semantic role, or *by* does not uniquely define the thematic role of its complement. On the other hand, the *by*-phrase in an NP can express the agent thematic role, or more precisely, *by* uniquely determines the thematic role of its complement NP.

- (18) a. John attacked Bill (John=agent)  
 b. Bill was attacked by John  
 c. Mary enjoyed the movie (Mary=experiencer)  
 d. The movie was enjoyed by Mary

In a derived nominal construction, unlike in a passive sentence, only an agent thematic role is expressed by a *by*-phrase.

- (19) a. the trees surrounded the house  
 b. \*the surrounding of the house by the trees  
 c. the soldiers surrounded the house  
 d. the surrounding of the house by the soldiers

The *by*-phrase in (6) and (7), therefore, should be considered to be bearing an agent thematic role, and the predicate-argument structure of *destruction* is invoked in these cases though no *of*-phrase appears. In other words, *the destruction by ~* has an S nominalization reading although it seems that the VP nominalization is not completed. This is the reason why Zubizarreta and the others who share the judgments with her do not accept (6) and (7) as grammatical expressions. For them the syntactic completion of VP nominalization is necessary for the realization of S nominalization because of the subcategorization frame which *destruction* inherits from *destroy*. But in the case of Napoli and Roberts, *destruction* is optionally subcategorized for its object though its theme argument may always be lexically present.<sup>10</sup> We can assume that in the case of (6) and (7), *destruction* is optionally subcategorized for its object because of the effect of the process of nominalization though it inherits the predicate-argument structure from *destroy*. It may be that the internal argument of *destruction* is suppressed (Grimshaw (1988)), or becomes an implicit argument (Roeper (1987)). We, therefore, conclude that for the people who accept (6) and (7) as grammatical expressions, *destruction* itself is a kind of VP nominalization in these cases though its object is only lexically present in some sense.

Williams (1987) discusses similar cases where the theme of a derived nominal is not overtly expressed but nevertheless counts as an active internal theme for his *by*-ergative rule.

- (20) The agent is assigned to a *by*-phrase if there is an internal theme.

He argues that in (21) the *by*-ergative rule applies as if an internal theme were syntactically present, and the syntactically unrealized theme of *selection* receives a PRO<sub>arb</sub> type of interpretation.

- (21) (=Williams (1987), (32))

selection by that committee means certain success

Williams maintains that (21) must be understood in such a way that the theme of *selection* is identified with the implicit agent of *success*. Let us consider the examples in (22) and (23).

(22) (=Williams(1987), (34))

- a. \*selection by that committee will last all night
- b. \*to be selected by that committee will last all night

(23) (=Williams(1987), (35))

- a. ?the committee's selection means certain success
- b. ?a selection by that committee means a certain success

(22 a) and (22 b) show that the theme of *selection* must be controlled, and if the nominal appears in the context where there is no controller (implicit or explicit), ungrammaticality results. (23 a) and (23 b) show that only determinerless NPs permit a PRO<sub>arb</sub> type of interpretation of the theme. According to this discussion we can assume that the nominal, like *selection*, which is derived from the corresponding transitive verb has its theme inherited from the corresponding verb as a lexical property irrespective of its syntactic realization. And this theme will receive a PRO<sub>arb</sub> type of interpretation in such a context as (21).

Returning to the case of *destruction*, (6 a) may seem to be similar to the above example of *selection* but we cannot find any control relation between the implicit theme of *destruction* and the implicit agent, if any, of *common*. In (6 b) and (7) *destruction* has the definite article *the* and this type of NP does not fall under Williams's discussion. In spite of these differences we can assume that *destruction*, like *selection*, has the internal theme irrespective of its syntactic realization and receives a PRO<sub>arb</sub> type of interpretation. To explain (6) and (7) we have to revise the requirement for nominalization discussed above. The requirement is that the object of *destruction* be syntactically realized when the subject of *destruction* appears. (The *by*-phrase in (6) and (7) can be regarded as the subject of *destruction*.) For the people who accept (6) and (7) as grammatical expressions, the syntactic realization of the internal theme is optional when *destruction* takes a *by*-phrase.<sup>11)</sup> And it seems that for these people the lexical presence of the internal theme is sufficient to guarantee that *destruction* itself is an instance of VP nominalization in these cases. If this is a correct way of reasoning, the above mentioned requirement for nominalization holds in (6) and (7).

Let us consider the following contrast.

(24) (=Roeper(1987), (86))

- a. the destruction of the city to prove a point
- b. \*the destruction to prove a point

(25) the destruction in order to prove a point was awful  
(=Roberts(1987), 4.5.3 (185)).

According to Roeper's explanation of (24), the thematic grid of a nominal is not necessarily invoked when its theme is not syntactically present. This theme requirement condition, as men-



tioned above, explains the fact that the agent of an nominal cannot appear when its object is not present (\*the enemy's(=agent) destruction). As a result, control is ruled out in (24 b) because no  $\theta$ -grid is projected and the thematic grid of *destruction* is not invoked. In this case *destruction* is an ordinary noun.

Roberts's example makes a strong contrast with Roeper's judgment. (25) shows that control is possible when the object of *destruction* is not syntactically realized. We have to explain this difference. One possible answer to this problem is to assume that the thematic grid of *destruction* is invoked in (25) even though its object is not syntactically realized. As we discussed above, Roberts accepts (7) as a grammatical expression and in this case *destruction* itself can be regarded as a kind of VP nominalization. Therefore, in (25) *destruction* can be regarded as a kind of VP nominalization. If so, we can consider that the thematic grid of *destruction* is invoked in (25) because *destruction* is a VP nominalization and the object is already realized within it in a sense. As a result, the implicit agent argument is available for control. We can conclude that Roberts's judgment about (25) can be explained under the assumption that in (6) and (7) *destruction* can be regarded as a kind of VP nominalization though no object is syntactically realized. Under this assumption the contrast between (24 b) and (25) is a natural consequence.

One more difference between Roeper's judgments and Roberts's judgments is found in the following contrast.

- (26) a. \*the city's destruction to prove a point  
 (=Roeper(1987), (46 b))  
 b. we saw the city's destruction in order to prove a point (=Roberts(1987), 4.5.2  
 (184 b))

Roeper must explain the anomaly of (26 a) because control is impossible in this case although the presence of *the city* invokes the thematic grid of *destruction*. In a sense the grammaticality of (26 b) (according to Roberts) is a natural consequence because the thematic grid is invoked and the implicit agent is available for control.

According to Roeper the D-structure of (26 a) is (27).

- (27) the PRO destruction of the city [PRO to prove a point]

The theme of *destruction*, *the city*, is preposed to the subject PRO position and covers that PRO. Consequently, the coreference connection between two PROs is broken and control is blocked at LF. Roberts proposes that (28) has the implicit argument in the specifier position (as is proposed by Roeper).

- (28) we saw the destruction of the city in order to prove a point

To explain (28) Roberts states:

Clearly, we cannot account for (184) (= (25 b)) in the same way as we did for (183) (= (28)), as the Spec position is occupied by the Theme argument. If we proposed the same as for (183) (= (28)), we would have to explain why the presence of two arguments in

Spec position did not violate the  $\theta$ -criterion. Instead we propose that there is an IMP inside  $N'$ , which, as in passives, acts as the modified argument.<sup>12)</sup>

Though he does not present the concrete structure of  $N'$  in this case, it is clear that he postulates the structure parallel to the passive sentence *the city was destroyed IMP*. As pointed out above, in a sense Roberts's judgment is very natural if we take into account the parallelism between a passive derived nominal and its corresponding passive sentence.

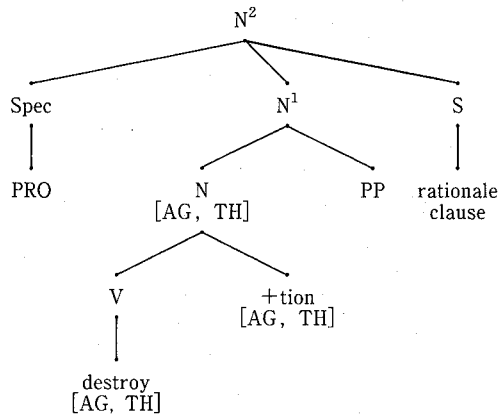
(29) the boat was sunk to collect the insurance

Roeper (1987) explains the difference in grammaticality between (30 a) and (30 b) postulating the tree structure (31).

(30) (=Roeper(1987), (78))

- a. the destruction of the building to prove a point
- b. \*?the building's destruction to prove a point

(31) (=Roeper(1987), (80))

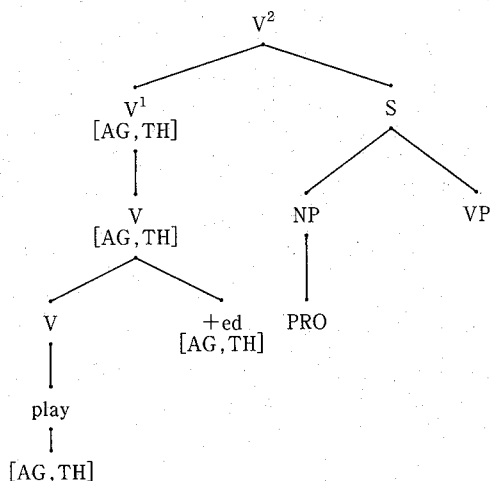


In (31) the grid [AG, TH] advances to the N node but not to the  $N^1$  node. From that N node the grid will not c-command a rationale clause attached to  $N^2$ , but it continues to c-command the PP dominated by  $N^1$ . However, as PRO is present in this case, the assignment of agent (AG) to the external argument position (PRO) raises it into a higher position (i.e., the position of PRO), from which it can c-command the rationale clause. Consequently, the grammatical NP (30 a) results. If the assignment of agent (AG) is blocked by the movement of the object NP to the external argument position (PRO), control is impossible and the ungrammatical NP (30 b) results.

(31), of course, rules out (26 b), or rather (31) is devised to rule out (26 b). But (26 b) must be explained in some way. A possible way to make (26 b) grammatical within Roeper's framework is to place the thematic grid of *destruction* in the position from which it can c-command a rationale clause even if *the city* is moved to the PRO position. Such a position is the  $N^1$  node in (31). If the grid can advance to the  $N^1$  node, then we can explain the grammaticality of (26 b) because the presence of *the city* in the specifier position becomes irrelevant to c-command relation.<sup>13)</sup> The thematic grid on  $N^1$  can always c-command a rationale clause in

the structure (31).<sup>14)</sup> This may be contrasted with the following passive structure, where the thematic grid on V<sup>1</sup> can c-command a rationale clause.

(32) (=Roper(1987), (59 a))



(33), however, seems to show that this analysis is not adequate.

(33) (=Roberts(1987), 4.5.3 (192 a))

\*the barbarians' destruction in order to prove a point (the barbarians=agent)

Roberts explains that (33) can give a reading where the purpose is interpreted as attributes of the barbarians, despite the fact that *the barbarians* must be the theme NP. He also states that "an NP in Spec position will be interpreted as Theme, if there is no *of* NP in the complement of N, and will be interpreted as Agent if there is an *of* NP." We have to note that this is the judgment which is shared by the scholars who do not accept (6) and (7) as grammatical expressions. The anomaly of (33), therefore, is ascribed to the anomaly of *the barbarians' destruction* (the barbarians=agent) and has nothing to do with control.

As was discussed at the beginning of this article, this problem is closely related to the grammaticality of (34 b) (according to Roberts's judgment). And this problem does not arise when *destruction* is always subcategorized for its object when it has a process/event reading. The point is that we cannot ascribe the anomaly of (34 a) to the absence of an *of*-phrase because (34 b) is acceptable according to Roberts's judgment.

(34) a. \*the barbarians' destruction (the barbarians=agent)

b. the destruction by the barbarians

(34 a) and (34 b) are the same in the sense that only the agent of destruction is syntactically realized. According to our analysis, in (34 b) *destruction* is a kind of VP nominalization whose object is only lexically present. If so, (34 a) must be a possible expression which has a similar meaning to *the barbarians' destruction of the city*. Why does Roberts accept (34 b) as a grammatical expression and reject (34 a)? The difference between the two expressions is that (34 a) has a prenominal possessive NP and (34 b) has an agentive *by*-phrase. We must ex-

plain (34) based on this difference.

To explain the relation between a prenominal possessive NP and the following N', Williams (1982) proposes the following rule giving the examples in (36).

(35) Det Rule

The relation between the possessive NP and the following N' can be any relation at all.

(36) a. your cat = "the cat you stepped in"

b. your destruction of Rome = "your account of the destruction of Rome"

We must note that in (36 b) *your* is not interpreted as the agent of *destruction* though *of Rome* is present. Of course, it will be possible to interpret *your* as the agent of destruction under an appropriate condition. The important point here is that prenominal possessive NPs are freely interpreted according to Det Rule.

Safir (1987) explains the sentences in (38) according to his GF (grammatical function) Relativity.

(37) GF Relativity

The external argument can be defined in syntax only when the lexical structure is linked.

(38) a. the examination was terrible

b. John's examination was terrible

He states:

Since the external argument is not defined for the nominals in (29) (= (38)), it follows that the nominal can either be without arguments altogether as in (29 a) (= (38 a)), or, if a PGNP (prenominal genitive NP) has been generated as in (29 b), then that PGNP can receive a theta-role by free thematic interpretation.

What is important here is that a possessive NP in the specifier position of an NP cannot be independently defined as the external argument (in the case of *destruction*, agent) of the head N. Furthermore, Safir (1987, note 14) states that "for a large class of deverbal nominals, the theme (patient) interpretation is not only available for the PGNP but preferred when the internal argument is not linked, as in *John's destruction*." (34 a) goes against this preference as it requires *the barbarians* to be interpreted as the agent of *destruction*.

It, therefore, follows that if we want to give (34 a) a process/event reading, we have no syntactic clue that guarantees that *the barbarians* is the external agent argument of *destruction*. This is the cause of the anomaly of (34 a) in the case of Roberts because *destruction* is only optionally subcategorized for its object. Consequently, the presence of an *of*-phrase expressing the object of *destruction* is needed to license the process/event reading. In the end, when a prenominal possessive NP appears in the specifier position of *destruction*, Roberts's case also seems to obey the standard requirement for nominalization that the internal argument of *destruction* be syntactically realized when the external argument appears.

In the case of (34 b), the *by*-phrase receives the agentive interpretation and this is characteristic of a *by*-phrase which appears in an NP. This *by*-phrase is incompatible with the result reading of *destruction* as the ungrammaticality of (11) and (12) show.<sup>15)</sup> Grimshaw (1988), arguing against Williams (1987), explains this point.

(39) John was the selection of/\*by the committee

In this case *selection* is a result nominal and refers to the individual and not to the event or process of selection. This *selection* can pluralize, which is a typical characteristic of a result noun.

(40) a. these are the selections of the committee  
b. the selections of the committee will be announced

Therefore, we can conclude that in (34 b) *by the barbarians* is uniquely interpreted as bearing an agent thematic role via the presence of *by*. This is sufficient, for Roberts, to license the process/event reading of *destruction* irrespective of the syntactic realization of its internal theme argument. What causes the difference between (34 a) and (34 b) is this difference in the possibility of the interpretation of *the barbarians*. In fact, according to Roberts's judgments, *destruction* without any preverbal possessive NP or *by*-phrase can be interpreted as a process/event nominal as the grammaticality shows. This is characteristic of Roberts's judgments about the grammaticality of the constructions containing *destruction*. But, at the same time, the above mentioned requirement for nominalization is also operative and in a sense, conflicts with this free process/event reading. In the case of (34 a), the general requirement operates more strongly because *the barbarians* is in the specifier position and cannot be uniquely interpreted as bearing the agent thematic role. Consequently, the presence of an *of*-phrase is required and (34 b) is anomalous.

## NOTES

\* I am grateful to my colleague, Jerome Novotny, who acted as a native consultant and proofreader.

- 1) The *by*-phrase in (3 b) and (3 c) can be regarded as the realization of the subject of *destruction* or the realization of the external argument of *destruction*. Cf. Safir (1987). Grimshaw (1988) regards this type of *by*-phrase as an argument-adjunct.
- 2) See Chomsky (1986, pp. 116-117) for discussion of the subjects of VP in clauses and the subjects in the corresponding nominalizations.
- 3) For discussion of the nominal construction corresponding to a V, see below. My informant accepts the following sentence.
  - (i) The (deliberate) destruction lasted for 3 hours.
- 4) To account for the external argument interpretation in (ii) Safir (1987) states the following generalization. In a sense this generalization expresses the same thing as the discussion here.
  - (i) The PGNP (prenominal genitive NP) is interpreted as the external argument of a nominal N if N links its internal argument.
    - (An argument is *linked* if it is mapped onto a structural position at D-structure.)

- (ii) a. Attila's destruction of the city
  - b. John's treatment of Bill
  - c. Our discussion of the issue
  - d. Ron's reorganization of the papers
- 5) In (6) *by the earthquakes* probably denotes an instrument rather than an agent. For discussion, see Lasnik (1988).
- 6) Grimshaw (1988), following Zubizarreta, also argues that result nominals have no predicate-argument structure and they can take only adjuncts.
- 7) In these cases the *by*-phrase bears the subject agent role. Cf. Lasnik (1988).
- 8) Roberts (1987, p. 262 note 22) states:  
So for the contrast between the result and event readings of an example like (iv), we propose the following  $\theta$ -relations:
- (iv) America's destruction  
On the event reading, *destruction* assigns a (Theme)  $\theta$ -role to *America*, and *'s* realizes the Case on this NP. On the result reading, *'s* both  $\theta$ -marks and realizes Case on *America*. *America* is construed as having some kind of "possessor" relation with the head, but the head does not, on this reading, assign it the Agent  $\theta$ -role.
- 9) Roberts (1987, p. 248) states: "In general, then, result nominals are incompatible with agentive modifiers but not with Agent NPs. This shows that result nominals are not like stative clauses, as these were described and derived in 4. 2. Result nominals are non-eventive, but allow an Agent argument."
- 10) If the syntactic presence of its object is really optional we cannot explain the ungrammaticality of (34 d). This point will be discussed below.
- 11) But, according to Roberts's judgment, (3 d) is ungrammatical. For discussion, see below.
- 12) "As a matter of notational convenience, however, we will refer to the structurally present non-overt logical subjects of passives as IMPs." (Roberts (1987), p. 69)
- 13) The thematic grid on the  $N^1$  node may explain the grammaticality of *the destruction by the barbarians*. In the structure (31) *by the barbarians* will be dominated by the  $N^1$  node. Therefore, the thematic grid can dominate the *by*-phrase in this case. This may cause the optional presence of the theme *of*-phrase of *destruction*. But I have no justification for this reasoning now.
- 14) The following are also given in Roberts (1987).
- (i) the destruction of the city in order to prove a point (4.5.3 (187 a))
  - (ii) the destruction of the city by the barbarians in order to prove a point (4.5.3 (189 a))
  - (iii) the barbarians' destruction of the city in order to prove a point (4.5.3 (190 a))
- 15) Roberts (1987, pp. 260-261 note 22) states that "(158 c) (=the destruction of the barbarians) is acceptable only as a result nominal as opposed to an event nominal," and that "(i) (=the shooting of the hunters) refers to the result of an action by the Agent, rather than the event of the action."

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