

# A STUDY ON *-ING* CONSTRUCTIONS

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In the present article I propose a unified analysis of all constructions containing the *-ing* clause. For that purpose, I propose a set of grammatical categories PRP\*, PRPP, and PRP. By assuming such a set of separate grammatical categories, we are able to account for the various grammatical peculiarities of the *-ing* clause, which are different from those of other sentential complement constructions. We can explain the similarity and difference between PRO-ING, POSS-ING and ACC-ING constructions with a nominal function and also the similarity and difference of nominal *-ing* constructions with other adjectival and adverbial *-ing* constructions. Furthermore, our analysis gets rid of the Affix Hopping, which is to be included in the morphological component if the affix *-ing* should be treated by the rule.

## 1. Introduction

The morpheme *-ing* denoting progressive aspect is found in places governed by, and adjacent to, an auxiliary, heading a small clause complement to a perception verb, and as restrictive post-modifiers of nouns, as exemplified in the following :

- (1) I am running.
- (2) I saw him running.
- (3) The man running down the road

In these patterns the verbs ended in *-ing* retain their verbal characteristic in the sense that they all carry progressive aspect, which is assumed to be one of typical features of a verb. Since Chomsky (1957)'s transformational analysis making use of Affix Hopping rule, the progressive aspect expressed through the attachment of the affix *-ing* has been typically correlated with the preceding auxiliary *be* in such examples as (1). In so doing the affix *-ing* is assumed to be an element of the main verb. Patterns like (2) and (3) are treated as containing the same kind of *-ing* in that it expresses progressive aspect.

Syntactic functions of *-ing* constructions are not limited to expressing the progressive aspect of the main verb. They also function as nominals and adverbials:

- (4) *-ing* constructions as nominals

- a. *Andrew's being deaf* meant he wasn't mentally quite normal.
- b. You don't want to avoid *catching the money fever*.
- c. Being a red head is *being me*.
- d. He had been all for *Brenda writing to Gary*.

(5) *-ing* constructions as adverbials

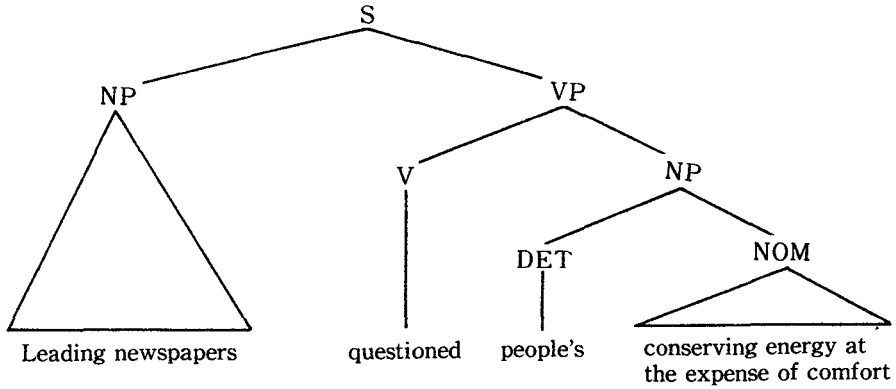
- a. Maybe he already knew, *being the sort of man who knew and knew*.
- b. Face to face they had stood, *each declaring himself silently after his own way*.

The nominal *-ing* construction can be used as subject, direct object, subject complement, and prepositional complement. The subject of the nominal *-ing* construction can be realized in three different ways. First, the subject is not phonetically realized as in (4b) and (4c). Second, the subject is in the possessive form of the NP as in (4a). Third, the subject assumes the accusative or common form of the NP. In (4d) we can substitute the accusative form of the third person pronoun *her* for the subject of the *-ing* construction, i.e. *Brenda*. We will refer to the three *-ing* constructions with three different realizations of subjects as PRO-ING, POSS-ING, and ACC-ING constructions respectively. The three different types of construction are all available for the nominal function. In contrast, the adverbial function cannot be performed by the POSS-ING construction while the adjectival function can be performed only by the PRO-ING construction, as we can see by comparing (5) with (3). This is a natural consequence of the fact that the possessive form of an NP can occur only in the position of a Determiner, which is restricted to occurring under the NP.

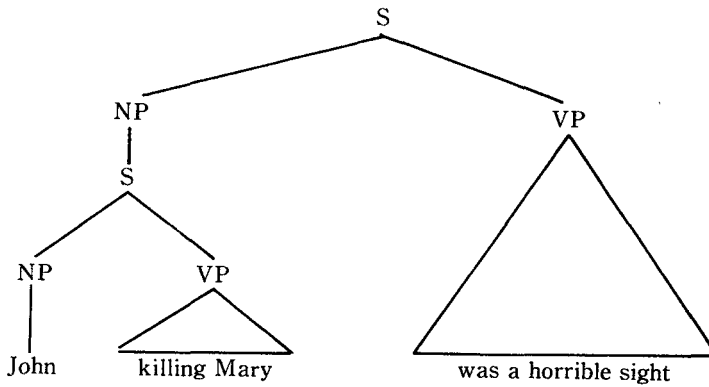
Based on these various functional differences, Reuland (1983), Fabb (1984), Quirk et al. (1985), Wasow and Roeper (1972) as well as traditional grammarians like Poutsma (1929) and Jespersen (1909-1949) distinguish the morphemes *-ing* with the participial function from the one with the gerundive function. Such a distinction, however, is not so clear-cut, leading Quirk et al. to suggest a complex gradience of the *-ing* forms from the pure count noun—e.g. *some painting of Brown's*—to the purely participial form in a finite verb phrase like (1).

So far as we try to attribute the occurrence of the *-ing* form with the auxiliary *be* to its verbal characteristics denoting progressive aspect, we cannot find any similarity between the gerundive, i.e. pure nominal *-ing* constructions, and the participial *-ing* constructions. However, it cannot be denied that the affix *-ing* in the gerundive is the same as that in the participle and it is arbitrary to posit independent categories for each of them. For example, the same *-ing* form is dominated under NOM in the gerundive construction and under VP in the participial construction, which is suggested by Horn (1975) as follows :

(6)

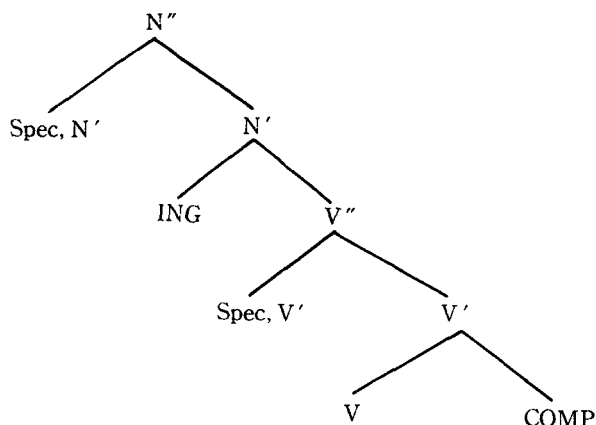


(7)



Structural representations like (6) for the gerundive construction are problematic in that we should characterize the affix *-ing* as a syntactic category functioning as the head of NOM, as we can see more clearly in the following representation typified in terms of X-bar theory.

(8)



(8) shows clearly that *ING* functions as an affix changing the category *V* into *N*. The affix changing categories is classified as a derivational affix, which is to be contained in the morphological component. This is a clear violation of Lapointe (1980)'s Generalized Lexicalist Hypothesis, according to which "No syntactic rule can refer to a morphological feature or category."

As a way to escape from this dilemma, I propose a separate set of grammatical categories for the *-ing* form regardless of its particular functions. I propose a new category PRP (Present Participle), which designates the present participle form of the verb whether it occurs in gerundive constructions or other participial constructions. In the same way as other grammatical categories are projected under the X-bar theory, the PRP is also assumed to be projected further into PRPP (Present Participle Phrase), and into PRP\* (Present Participle small clause). In this way, we will be able to account for the syntactic peculiarities shared by all types of constructions containing the *-ing* form of the verb regardless of their particular functions in the sentence.

Now we will show how the proposed set of grammatical categories can give a satisfactory account for the various constructions including the *-ing* form.

## 2. Nominal *-ing* Constructions

### 2.1. POSS-ING Constructions

With our proposed set of grammatical categories, we can explain all the characteristics of POSS-ING constructions. First, the genitive case of the subject in the POSS-ING complement can be explained without adding

artificial conditions on the general genitive Case assignment rule, which may be postulated as follows:

- (9) NP is Genitive in [<sub>NP</sub> \_\_\_ X']

If we assume the structure of the POSS-ING construction to be of the following form, we can explain the genitive Case assigned to the subject NP.

- (10) I like [<sub>NP</sub>[<sub>PRP</sub>\*his [<sub>PRPP</sub>[<sub>PRP</sub>reading books]]]]

In this case, we need only to stipulate that the node PRP\* is absorbed into its higher node NP so that it conforms to the general principle of Case theory that the NP assigned a genitive Case should be immediately dominated by an NP. The exact nature of genitive Case assignment has not yet been convincingly characterized, except that the genitive Case is assigned to an NP involved in another NP. Thus it is sufficient to postulate a higher NP node to explain the genitive subject of the POSS-ING construction.

The notion of "node absorption" postulated here for genitive Case assignment may be regarded as a counterpart to the Pruning Convention or S'-Deletion postulated to explain the objective Case of the subject NP in the infinitival complement, as in the following examples:

- (11) a. I expect [<sub>S'</sub>[<sub>S</sub>him [to leave]]]  
 b. I believe [<sub>S'</sub>[<sub>S</sub>him [to be incompetent]]]

Chomsky (1981) assumes that English has a marked rule of S'-Deletion for complements of *believe*-category verbs, which permits the verb to govern the subject of the embedded complement, thus excluding PRP and permitting a phonetically-realized NP in the examples of (11). While S'-Deletion allows the embedded NP to be governed and Case-marked by the matrix verb, the "node absorption" protects the embedded NP from the government of the matrix verb and at the same time allows the embedded NP to become a candidate for genitive Case assignment. Thus "node absorption" behaves in opposition to S'-Deletion with respect to government and Case assignment. Furthermore, the postulation of "node absorption" as a complementary operation to S'-Deletion fills the accidental gap created by the postulation of S'-Deletion, thereby enriching the grammatical theory in question.

Other nominal characteristics automatically follow from our proposed structural configuration of the POSS-ING construction. Typical examples frequently mentioned as showing the nominal characteristics of gerundive constructions such as those in (12) below can be explained by postulating the same structural configuration for the POSS-ING construction as proposed here.

- (12) a. There is no enjoying this world without thee.  
 b. This telling tales out of school has got to stop.

This limited class of gerunds can be explained by the assumption of the additional NP node dominating the participial small clause. The attachment of *no* or *this* is possible, not as a subject element of the gerundive construction, but as a Determiner attached to the entire gerundive clause dominated by the NP. Thus we may analyze the gerundive constructions of (12) in the following way:

- (13) a. There is [<sub>NF</sub>[<sub>Det</sub>no] [<sub>PRP\*</sub>PRO [<sub>PRPP</sub>[<sub>PRP</sub>enjoying] this world without thee]]]  
 b. [<sub>NF</sub>[<sub>Det</sub>this] [<sub>PRP\*</sub>PRP [<sub>PRPP</sub>[<sub>PRP</sub>telling] tales out of school]]] has got to stop.

As a matter of fact, the position of the Determiner within the NP dominating the PRP\* small clause is not legitimate because there is no NOM category required for the occurrence of a Determiner. The only factor that allows the Determiner to occur in (13) is the dominating NP node, which also allows the subject of the POSS-ING construction to be realized in the genitive Case. This explains why such examples as (12) are, as a general rule, not observed.

POSS-ING constructions are distinguished from ACC-ING constructions in that *Wh* extraction is impossible from the POSS-ING constructions but possible from the ACC-ING constructions. Consider the following pair of examples.

- (14) a. \*Who did you defend [Bill's hitting t]  
 b. What did you favor [Bill studying t]

The ungrammaticality of (14a) results from the existence of the NP node dominating the POSS-ING construction, which acts as a governing category within which must be bound the trace remaining after *Wh* extraction has moved *who* to the COMP position of the matrix sentence. ACC-ING constructions lack the intervening NP node, thus allowing *Wh* extraction to occur crossing the PRP\* boundary.

As we have seen above, the proposed analysis of the POSS-ING construction may be regarded as identical to other approaches that treat it as a kind of full NP. However, our analysis is fundamentally different from them in that we do not assign to the construction a structure radically different from the ACC-ING construction or other *-ing* constructions, which we will consider in the sections that follow. Linguists such as Horn and Schachter try to analyze the POSS-ING construction as a full NP consisting of the genitive subject as Determiner or specifier of N'—N' being the VP with *-ing* as its specifier—and N'. Our analysis stipulates an additional intervening node, i.e., PRP\*, dominated by an NP. In this way, we can evade the problem facing the analysis of the Horn-Schachter type; namely, we need not stipulate a contradictory PS rule of the following form suggested by Schachter (1976):

$$(15) \text{ NOM} \longrightarrow \left\{ \begin{array}{l} \text{NOM S} \\ \text{(ADJ) N...} \\ \text{VP} \end{array} \right\}$$

The third line of the output of (15) shows a change of category from NOM into VP, which cannot be permitted within the system of X-bar theory. Even if we make use of the feature system, there is no way to relate the NOM to VP since the NOM may be specified as [+N, -V] and the VP as [-N, +V].

Thus our analysis makes possible a neat solution to the problem of other approaches that assign a direct NP structure to the POSS-ING construction. One of the most serious problems of the approaches that treat the POSS-ING construction as a full NP is that the structural configuration does not meet the strong axiom of X-bar theory that each maximal projection of X should be headed by X. This problem, which may be characterized also as violating the Generalized Lexicalist Hypothesis, cannot be avoided so far as we try to assign the category NP directly to the POSS-ING construction and treat the morpheme *-ing* as a separate syntactic element constituting N' in combination with VP. It is highly improbable that an affix, which virtually changes the categorial status of a word, should take up a categorial position of the same hierarchical status as that of N'. In this sense, our proposed analysis of the POSS-ING construction and other *-ing* constructions, which uses the new set of grammatical categories PRP\*, PRPP, and PRP, seems to be more convincing and to better conform to the general framework of Chomsky's theory of government and binding (1981).

## 2.2. ACC-ING and PRO-ING constructions

Our proposed analysis of the *-ing* construction makes use of the new set of grammatical categories PRP\*, PRPP, and PRP. It can thus explain all the properties of the ACC-ING construction, which is distinguished from the POSS-ING construction by the nonoccurrence of the additional NP node dominating the PRP\*.

The ACC-ING construction by definition differs from the POSS-ING construction in that its subject NP is realized in the objective (accusative) Case. Reuland (1983) tries to explain this fact by making use of a new, yet unjustified, system of Case transmission. By Case transmission the objective Case that *-ing*, postulated as the head of S, has received from the matrix verb is transmitted to the subject NP of the ACC-ING complement. Our proposed analysis offers a simple and natural explanation about the objective Case for the subject NP of the ACC-ING construction. We can show the difference between the two approaches as follows:

- (16) Reuland's analysis  
 the architects favored [<sub>S</sub>[<sub>S</sub>them[<sub>INFL</sub>-*ing*] [<sub>VP</sub>be placed upon the

- investigations committee]]]]  
 (17) the proposed analysis,  
 the architects favored<sub>i</sub> [PRP\* them [PRPP[PRPbeing] placed...]]

Reuland's analysis requires a special stipulation of Case transmission to account for the objective Case of *them*. However, it is not quite clear how *-ing* can receive any Case from the matrix verb when it does not satisfy any one of the conditions on the assignment of the objective Case: (1) the Case assignee should be an NP, (2) the Case assigner should be adjacent to the Case assignee, and (3) the Case assigner should govern the Case assignee. In contrast, the process of Case assignment under our proposed analysis is quite straightforward. The Case assignee *them* is under the government of the matrix verb in addition to being adjacent to it so that it is the NP *them* itself which is directly assigned the objective Case from the matrix verb *favor* in (17).

If the subject NP of the ACC-ING complement is replaced by PRO, our analysis represents the construction as identical to the POSS-ING construction and accordingly explains the ungoverned PRO without any other special stipulation concerning its structure. The major advantage of this approach over Horn's and Reuland's, which treat the POSS-ING construction as having an internal sentential structure, is that it can explain the nominal property of the POSS-ING construction. The following example shows the nominal property of the POSS-ING construction.

- (18) I don't know if it was [NP the altitude], or [not having a good liquor for a long time], but, boy, I got tore up on that plane. (ES : 13)<sup>1</sup>

The coordinating conjunction *or*, like *and* and *but*, links two or more units of the same status in the grammatical hierarchy. Note that (18) shows that the POSS-ING construction is coordinated with an NP, thus indicating that the two are of the same grammatical category.

Again the difference of grammaticality in (19) is due to the nominalness of the PRO-ING construction and the non-nominalness of the ACC-ING construction. This cannot be accounted for by representing the two constructions identically as containing an S' and S.

- (19) a. Did John's killing Mary surprise you?  
 b. Did PRO killing Mary surprise you?  
 c. \*Did John killing Mary surprise you?

Under our analysis, the grammaticality of (19a) and (19b) is accounted for without any difficulty because both are analyzed as containing an NP subject, which is manifested by a PRP\* small clause. (19c) is ungrammatical because

<sup>1</sup> ES is an abbreviation for *The Executioner's Song* (1979) by Norman Mailer, the source material of the quoted example.



the inverted subject is not an NP but just a PRP\* small clause, thus violating something like the Island Internal Sentential NP Constraint<sup>2</sup>, which blocks the occurrence of an S within the sentence having non-null elements on both sides. Each of the sentences in (19) may be represented as follows after the “node absorption” deleting PRP\* immediately dominated by NP.<sup>3</sup>

- (20) a. Did [<sub>NP</sub>John’s [<sub>PRPP</sub>[<sub>PRP</sub>killings] Mary]] surprise you?  
 b. Did [<sub>NP</sub>PRO [<sub>PRPP</sub>[<sub>PRP</sub>killings] Mary]] surprise you?  
 c. Did [<sub>NP</sub>[<sub>PRP</sub>\*John [<sub>PRPP</sub>[<sub>PRP</sub>killings] Mary]]] surprise you?

The fact that *Wh* extraction is possible from the ACC-ING construction, which is not the case with the POSS-ING construction, can be accounted for by assuming that the ACC-ING construction is a PRP\* small clause like the following:

- (21) Who did you defend [<sub>PRP</sub>\*Bill [<sub>PRPP</sub>hitting t]]

Given the structural configuration (21), *Wh* extraction causes no problem because there is no intervening NP or S boundary that blocks *Wh* extraction. Thus there is no violation of the subjacency condition. Recall that *Wh* extraction is impossible with the POSS-ING construction because of the intervening NP boundary.

One apparent problem with our analysis of the ACC-ING construction arises from examples involving Passivization, such as (22) below:

- (22) a. \*The boys were hated [t eating the fish]  
 b. \*John is understood [t departing tomorrow]

If we try to explain the ungrammaticality of (22) in terms of binding theory, we should assign to these examples a structural configuration different from that of (21). We have already shown that “node absorption” is optional and there can be two different structural configurations depending on the application of node absorption.

- (23) a. ...[<sub>NP</sub>[<sub>PRP</sub>\* ... [<sub>PRPP</sub>... [<sub>PRP</sub>... ] ...]]] ...  
 b. ...[<sub>NP</sub>... [<sub>PRPP</sub>... [<sub>PRP</sub>... ] ...]] ...

When node absorption does not apply, the structural configuration remains as it is in D-structure—(23a). The node PRP\* prevents the genitive Case

<sup>2</sup> The Island Internal Sentential NP Constraint is proposed by Ross (1974).

<sup>3</sup> Here we should refine the notion “node absorption” suggested above. “Node absorption” is to be treated as an optional operation that deletes the PRP\* node when it is immediately dominated by NP. Thus when it applies, it reinforces the nominal characteristic of the *-ing* construction, triggering the Genitive Case Assignment for the subject NP.

assignment applying on the subject of PRP\* and the additional NP node functions as a blocking boundary for the movement of the subject of PRP\*. Thus if we posit an additional NP node dominating the PRP\* for the complement of verbs like *hate* and *understand*, we can explain the ungrammaticality of such examples as (22).

### 3. Gerundive Relatives

The *-ing* construction can function as a relative clause modifying the noun phrase. The correspondence between *-ing* clauses and relative clauses is limited to those relative clauses in which the relative pronoun is subject. Since (24) can be interpreted, according to context, as any one of (25), we can conclude that gerundive relatives lack INFL and consequently cannot be categorized as S.

(24) The person writing reports is my colleague.

(25) The person who  $\left. \begin{array}{l} \text{will write} \\ \text{will be writing} \\ \text{writes} \\ \text{is writing} \\ \text{wrote} \\ \text{was writing} \end{array} \right\}$  reports is my colleague.

The fact that a gerundive relative corresponds to a variety of relative clauses also rules out any analysis incorporating whiz deletion, which deletes *Wh + X be*. Whiz deletion or any analysis postulating an underlying S for gerundive relatives cannot account for the following examples:

(26) a. The first man knowing all the answers will get the prize.

b. \*The first man who is knowing all the answers...

(27) a. \*The person probably playing the music you heard used to be my roommate.

b. The person who was probably playing the music you heard used to be my roommate.

(26) shows that stative verbs such as *know*, *resemble*, and *own*, which cannot take progressive in the finite verb phrase, can appear in gerundive relative. (27) shows that a sentential adverb cannot appear within gerundive relatives while it can in ordinary relative clauses.<sup>4</sup>

These peculiarities show that the gerundive relative is not composed of a

<sup>4</sup> In Williams (1975) you can find more examples showing that gerundive relatives are not S.

head NP modified by a sentential relative clause. Note that the gerundive relative contains the *-ing* construction, which has essentially the same internal structure as the nominal *-ing* constructions we have considered in the preceding sections. Thus it is plausible to represent the two constructions in one and the same way.

However, representing (24) as (28) with a PRP\* small clause poses at least two problems. Firstly, we cannot express the relationship between the head NP and its postmodifier.<sup>5</sup> Secondly, the difference between (24) and (29) below should, in some way, be structurally represented.

(28) [<sub>NP</sub>[<sub>PRP\*</sub>the person [<sub>PRPP</sub>writing reports]]] is my colleague.

(29) The person writing reports (= The fact that the person writes reports) is surprising.

The PRP\* part of (28) may be appropriate for the representation of a subject ACC-ING construction in examples like (29).

Since PP can also modify the preceding NP as in (30) below, which may be represented simply as an NP modified by a PP as in (31), it seems most appropriate to postulate a parallel structure for a gerundive relative like (32).

- (30) a. the car [outside the station]  
 b. this book [on grammar]  
 c. a man [from the electricity company]  
 d. the meaning [of this sentence]

(31) [<sub>NP</sub>[<sub>Det</sub>DET] [<sub>N</sub>'N] [<sub>PP</sub>P NP]]]

(32) [<sub>NP</sub>[<sub>Det</sub>the] [<sub>N</sub>'person] [<sub>PRPP</sub>writing reports]]]

There is room for disagreement regarding the exact internal structure of the NP construction in general, which becomes extremely complicated if we rigorously apply the basic conception of X-bar theory. However, with a structure like (32) for the gerundive relative, we need not devise a separate movement transformation.

#### 4. Adverbial *-ing* Constructions

The *-ing* participle with or without subject is used as a kind of subordinate clause functioning as an adverbial, as shown in the following examples:

<sup>5</sup> The representation using the small clause implies that the construction is a proposition having its subject and predicate. Thus if we represent the gerundive relative as a PRP\* small clause, it cannot characterize the relationship between the head noun and the post-modifying *-ing* construction.

- (33) a. Such a captive maiden, [having plenty of time to think], soon realizes that her tower, its height and architecture, are like her ego only incidental. (CL : 11)<sup>6</sup>  
 b. She grinned, [her sense of humor leaping to her eyes]. (OL : 15)<sup>7</sup>

Of these two cases, the one with a subject has been traditionally referred to as nominative absolute; Jespersen (1940) attributes its origin to an imitation of the Latin construction in the early period. Although the two constructions are used as adverbials, they manifest such radically different syntactic properties that their representations should in some way reflect these differences.

Firstly, when the subject of an *-ing* clause is expressed, it is often introduced by a preposition :

- (34) a. Johnny was just standing there [with his big good face going, um, um, um]. (ES : 12)  
 b. George Loomis looked dead, lying on the floor [with the steel brace on his boot sticking out below the bottom edge of the cover]. (NM : 34)<sup>8</sup>

On the other hand, *-ing* clauses without a subject may be introduced by a subordinator such as *although, as if, as though, even if, if, once, though, unless, until, when(ever), whether . . . or, while, and whilst* :

- (35) a. He'd lift a sugar dispenser and hold it tight in his hand [*as if* thinking of throwing it]. (NM : 5)  
 b. [*Once* having left the premises], you must buy another ticket to return.  
 c. [*Though* understanding no Spanish], she was able to communicate with the other students.

If the subject of the *-ing* clause is present, the construction becomes ungrammatical :

- (36) a. \*John kept walking slowly, while the rain drenching the road.  
 b. John kept walking slowly, while drenching the road with insecticides.

Considering all these facts, we may analyze adverbial *-ing* clauses differently depending on whether or not we have a subject. This analysis receives additional support from a similar division between POSS-ING/PRO-ING and ACC-ING constructions, all of which have a nominal function. However, there is an important discrepancy between these nominal *-ing* constructions and

<sup>6</sup> CL is an abbreviation for *The Crying of Lot 49* (1966) by Thomas Pynchon.

<sup>7</sup> OL is an abbreviation for *Once in a Lifetime* (1982) by Danielle Steel.

<sup>8</sup> NM is an abbreviation for *Nickel Mountain* (1963) by John Gardner.

adverbial *-ing* constructions with regard to government. That is, while the nominal *-ing* construction is under the government of the matrix verb with the subject receiving Case from the verb, the adverbial *-ing* construction is free from the government of the matrix sentence. Thus in the nominal *-ing* construction, the PRO subject of the POSS-ING construction has to be barred from the government of the matrix verb through the postulation of an additional NP boundary. This is not necessary in the adverbial POSS-ING construction, as shown in the following structural analysis.

(37) [<sub>PRO</sub>\*PRO [<sub>PRPP</sub>leaving the room], he tripped over the mat.

Other small clause adjuncts seem to behave like the adverbial POSS-ING construction in that they allow PRO to appear in subject position :

- (38) a. She had gone out to buy groceries, and had returned, [PRO exhausted and breathless after the long hike up the stairs to their dismal, dingy West Side apartment].  
 b. [PRO loath to reply for fear of offending her parents], she strode out of the room.

Such parallel constructions with a PRO subject lend support to the postulation of a small clause as a legitimate category of grammar.

The occurrence of a subordinator, as in (35), does not alter the structural configuration of the construction, since it is not a governor but just an indicator of the adverbial function of the ensuing elements, which are restricted to finite sentences or small clauses. In this respect, subordinators should be distinguished from prepositions which govern and assign Case to the NP that follows them. Thus *-ed* clauses and other verbless clauses as well as POSS-ING constructions, which are to be analyzed as having PRO subjects, can occur after subordinators. Consider the following examples :

- (39) a. [*Though* PRO now frail], they were quite capable of looking after themselves.  
 b. [*When* PRO taken according to the directions], the drug has no side effects.  
 c. He was pale, and he was wringing his hands [*as if* PRO in anguish].  
 (NM : 180)

These examples contrast with the following examples containing *after*, *before*, and *since*, which are followed by *-ing* clauses but not by *-ed* clauses or verbless small clauses :

- (40) a. He took a shower  $\left\{ \begin{array}{l} \textit{before} \\ \textit{after} \end{array} \right\}$  returning home.  
 b. *Since* moving here, I have felt more relaxed.

*After*, *before*, and *since* also allow a genitive subject in *-ing* clauses. From these facts Quirk et al. conclude that *after*, *before*, and *since* are better classed with prepositions such as *on* and *through*, both of which permit the same type of subject in *-ing* clauses, rather than with subordinators. If we follow the conclusion, such examples as (40) would have to be represented in the same manner as nominal PRO-ING and POSS-ING constructions as follows:

- (41) He took a shower [<sub>PP</sub>before [<sub>NF</sub>[<sub>PRP</sub>\*PRO [<sub>PRPP</sub>returning home]]]].

Reuland is mistaken in characterizing the PRO-ING construction as an extension of his NP-ING analysis on the basis of the assumption that *before* and *after* are temporal conjunctions and not prepositions. Assuming that the conjunction cannot be a Case assigner, Reuland tries to justify the occurrence of PRO as the subject of the *-ing* clause. However, once *before* and *after* turn out to be prepositions that assign a Case to their object, Reuland's argument loses all its force.

Now let us consider the adverbial *-ing* construction with an overt subject, which is not introduced by a subordinator. This construction is called an absolute clause because it is not explicitly bound to the matrix clause syntactically. As shown in (42) below, absolute clauses are not all *-ing* clauses; *-ed* clauses and other verbless adverbial clauses, not introduced by a subordinator, can also appear with an overt subject.

- (42) a. [Lunch finished], the guests retired to the lounge.  
 b. George went on ranting, [his voice low and brimming with disgust].  
 (NM : 187)  
 c. [Christmas then only days away], the family was pent up with excitement.

At first glance, this construction appears to be of a different class from the PRO-ING construction we have just considered. Reuland assumes that a construction is participial if it is a modifier and that the PRO-ING construction is participial because it is an adverbial modifier of the matrix verb. Thus he distinguishes the adverbial PRO-ING construction from the absolute *-ing* clause. However, whether participial or not, the two constructions are functionally identical and accordingly it is more sensible to analyze the two constructions on a parallel basis.

There seem to be two important clues to the internal structure of the absolute *-ing* clause. First, as Quirk et al. points out, apart from a few stereotyped phrases such as *weather/time permitting* and *God willing*, absolute clauses are formal and infrequent. Second, the construction is frequently preceded by a preposition such as *with* or *without*, the use of which is a predominant practice in spoken English. These two related facts seem to explain why the same adverbial clause with an overt subject appears some-

times preceded by a preposition and sometimes without it.

We may rightly assume that absolute clauses should be a surface phenomenon and they may have the preceding preposition in all structures except for surface structure. A trivial operation deleting the preposition in the PF-component may delete the preposition *with*, but not *without* or other prepositions,<sup>9</sup> the meaning of which is readily inferable from the context. We may infer from the context the meaning of the absolute clause, which may be classified as a supplementive clause not introduced by a subordinator. Thus we may represent the S-structure of the absolute *-ing* clause before *with*-deletion as follows :

(43) [<sub>PP</sub>with [<sub>PRP</sub>\*Mary [<sub>PRPP</sub>being away]]], John felt miserable.

As the small clause boundary PRP\* does not block the government of the subject *Mary* by the preposition *with*, *Mary*, governed by *with*, receives an oblique Case from it. If we put an additional NP boundary between the preposition *with* and PRP\*, it blocks the government of the subject NP from the preposition and cannot be accepted except in the case that the subject NP assumes the genitive Case.

If the preposition is deleted in the PF-component, the output construction is realized as a nominative absolute, in which the subject NP is assigned a nominative Case, as shown in the following example :

(44) Roddy tried to avoid Elaine, *he* being a confirmed bachelor.

In order to account for the occurrence of the nominative pronoun in examples like (44), it seems to be appropriate to use the division into 'subject territory' and 'object territory,' which is suggested by Quirk et al. (1985 : 337-8). Subject territory is defined as the preverbal subject position and object territory as all noun-phrase positions apart from that immediately preceding the verb. This division seems useful in accounting for the general pattern of pronoun usage in informal style.

In informal English, the objective pronoun is the unmarked case form, used in the absence of positive reasons for using the subjective form. Thus the use of *me*, *him*, *them*, etc. in subject complement position in conversational contexts can be explained on the basis of the division into subject territory and object territory. Relevant examples are shown below :

(45) A : *Who* is there? B : It's *me*.

(46) He is more intelligent than *her*.

<sup>9</sup> Park Nam-Sheik (personal communication) points out that the unmarked *with* can be deleted, while the marked *without* carrying its special meaning cannot. As a general rule, the unmarked member of a pair such as *with-without/in-out* tends to be more subject to deletion than its marked counterpart.

(47) It was *her* that came.

The nominative, i.e. subjective, pronoun *he* in (44) can be accounted for if we extend the theory of 'subject territory' and 'object territory' to small clauses. In (44), after the deletion of the underlying preposition *with*, the subject NP of the absolute clause precedes the PRP *being*, which is derived from the verb *be* and thus retains some characteristics of a verb, namely, assign the subjective Case to the subject NP. Admittedly, such a process of Case assignment is not to be regarded as a regular process and it is confined to the informal style of English. Recall that GB theory assumes that the nominative Case is assigned by an INFL.

## 5. Conclusion

We have shown that with the new set of grammatical categories, PRP\*, PRPP, and PRP, we can provide a simple and consistent analysis of *-ing* constructions regardless of their particular functions in the sentence. The existence of an additional NP node dominating the PRP\* accounts for the ungovernedness of PRO subject of the PRO-ING construction and the genitive subject NP of the POSS-ING construction. At the same time, by positing the same PRP\* for the ACC-ING construction we can account for the accusative Case of the subject NP and the functional similarity with the other *-ing* constructions.

Furthermore, the postulation of PRP categories gets rid of Affix Hopping for restricted occurrences of the auxiliary *be* in combination with *V-ing*. Hopefully, we may postulate a PSP, i.e. Past Participle as a perfective counterpart of PRP. Considering the relative irregularity of passive constructions, the postulation of a separate category PSP seems quite plausible.

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