

On the Types of English *-Ing* Form Complements*

Chung, Chan & Kim, Jong-Bok & Park, Byung-Soo

1. Introduction

A gerundive complement is a gerund phrase used in verb complementation constructions. The underlined part in a sentence like (1) is a typical example:

- (1) I hate Pats/Pat smoking cigars.

Depending on the case of the NP preceding the verbal gerund, it has been called a POSS-*ing* (*Pats smoking cigars*) or an ACC-*ing* gerund (*Pat smoking cigars*). The verbal gerunds are quite an old issue in English syntax, and there has long been a considerable amount of discussion of them in generative grammar. But Malouf (2000a), a pioneering constraint-Based lexicalist approach to verbal and nominal gerunds, has reminded us that there are still many interesting questions to be explored in this area.

Gerunds constitute a very broad issue in English syntax, but we will focus on gerundive complements in this paper. In section 2, we discuss

* This paper was initiated from Park (2001) and Chung et al. (2001). We would like to thank Charles Fillmore, Carlota Smith, Akira Ishikawa, and other participants of the 15th PACLIC at the Language Information Sciences Research Centre, City University of Hong Kong for their comments and suggestions. We also thank two anonymous reviewers for critical and helpful comments. This work was supported by Korea Research Foundation Grant (KRF2000-042-A00003).

categorial status of the verbal gerund and some formal mechanisms to treat them, highlighting the theoretical significance of Chung et al's (2001) study of mixed categories. One of its advantages over Malouf (2000a) is that it provides analyses of verbal gerunds without postulating a separate category *gerund*. In section 3, we discuss various types of gerundive complements and other *-ing* form complements. Section 4 concludes the paper.

2. New Interpretation of the Mixed Category

2.1 Mixed Properties

One of the main puzzles in English verbal gerundive phrases (VGPs) is that they display a mix of nominal and verbal properties. With regard to nominal properties, they can occur in syntactic positions that generally only admit NPs. For example, they can appear as the complement of a preposition as in (2)a, as a clause-internal subject as in (2)b/c, and as the focus of a cleft as in (2)d (Pullum 1991, Malouf 2000a,b, *inter alia*):

- (2) a. They didn't approve of [my leaving without a word].
 b. Tom believes that [John's taking a leave of absence] bothers Mary.
 c. Why does [John's taking a leave of absence] bother Mary?
 d. It's [John's taking a leave of absence] that bothers Mary.

However, the internal syntax of VGPs exhibits verbal properties, too: they can take accusative NP complements (like the verbs they are derived from), can be modified by adverbial modifiers, and can be negated with the sentential negator *not* (cf. Pullum 1991, Malouf 2000a, *inter alia*):

- (3) a. Tom's calling (*of) the roll started each day.
 b. Tom disapproved of my quietly/*quiet leaving before anyone noticed.
 c. Tom's not having bathed for a week disturbed the other diners.

An ideal analysis would be of course to capture these mixed verbal/nominal properties with no ad hoc mechanisms. Pullum (1991) proposes three main 'theoretical desiderata' that any analysis of English verbal gerunds should satisfy: strong lexicalism, endocentricity, and null licensing.

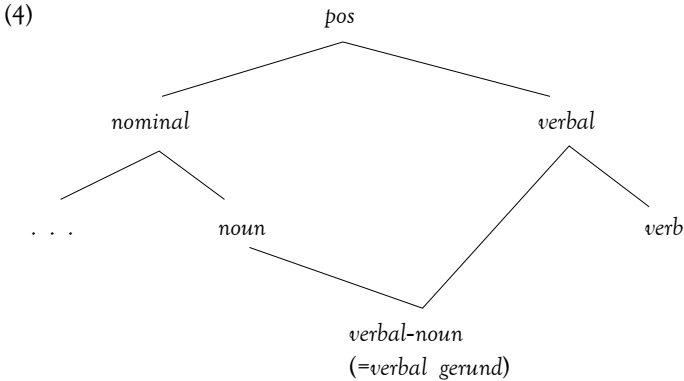
- Strong lexicalism: Syntactic operations do not have access to the internal structure of words.
- Endocentricity: Every constituent has (at least) one distinguished head daughter identified as its head.
- Null licensing: No phonologically zero constituent should be posited that is neither semantically contentful nor syntactically bound.

Though these desiderata could be viewed as theory-dependent, we take the position that a preferred analysis is one that meets these three principles (cf. Malouf 2000a, Kaiser 1998).

In accounting for the properties of VGPs in English, we adopt the framework of HPSG, which factors syntactic properties into separate categorial, selectional, and constructional information. Within the system, the lexical head involves categorial information, and is projected into a phrase. This in turn means that categorial information will determine the external distribution of a phrase. Selectional information, encoded on the valence features of a lexical head, tells us what kind of other phrases the lexical head can appear with. Constructional information, encoded as constraints on particular constructions, determines the combination of syntactic constituents (see Malouf 2000a, Sag and

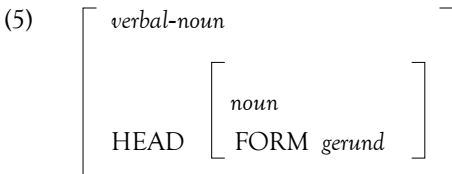
Ginzberg 2001).

The starting point of our analysis is to posit the following part of speech hierarchy for English:



The hierarchy works as follows: in the hierarchy each phrase inherits constraints from its supertypes, unless a default value is in conflict with a relevant non-default specification.¹

One thing to note in the hierarchy is that the traditional head value is relevant to *noun* and *verb* only. Since *verbal-noun* (= *verbal gerund*) is a subtype of *noun* and *verbal*, but not *verb*, its head value is inherited from the supertype *noun*. The type *verbal-noun* also has its own type-specific constraint on the FORM value. Thus, *verbal-noun* has the following constraints within the multiple inheritance hierarchy:



¹ As pointed out by a reviewer, Malouf (2000b) posits a similar hierarchy to the one in (4), different from Malouf (2000a). Malouf (2000b), a short version of Malouf 2000a, still implicitly takes *relational* as a supertype of *gerund* and *verb*.

Since *verbal-noun* is now a subtype of *noun* with the HEAD value of *noun*, a phrase projected by a gerund will be an NP, occurring anywhere an NP is selected for. Thus, VGP will have the external distribution of NPs.

Our analysis differs from Malouf (2000a), which takes *gerund* as an independent syntactic category and as subtypes of *noun* and *relational*, not *verb*. The category *relational*, including *gerund*, *verb* and *adjective*, apparently has no direct reflex in syntax at all. Our analysis avoids positing such an additional category that has a questionable syntactic status. Henceforth, just for presentational convenience, we will use the more widely used term, Verbal Gerund (VG) to represent the mixed entity *verbal-noun* (or *nominal-verb* that will be discussed in section 2.2).

Capturing the external properties of VG phrases (VGP), we now need to account for the internal properties:

- (6) a. Verbal gerunds are modified by adverbs and not by adjectives.
 b. A verbal gerund takes the same complements as the verb from which it is derived.

The present system requires no additional specification in the grammar for the properties in (6)a. The only thing we need to specify is that adverbs can modify elements of *verbal*. The examples in (7) explain this:

- (7) a. The careful/*carefully restoration of the building took 10 years.
 b. Tom's carefully/*careful restoring the building took 10 years.

The English verbal form is in general divided into finite and nonfinite forms. The latter include base, *-ing* and *-en* forms. In terms of the verbal form, we observe that any verb with an *-ing* form, including the passive auxiliary *be* and the perfective auxiliary *have*, will also have a verbal gerund form. Following this observation, we thus assume that any participle form of verb can be realized as the counterpart gerund form

(either through lexeme realization or a lexical rule):

- (8) $\left[\begin{array}{l} \textit{participle-verb} \\ \text{HEAD} [\text{FORM } \textit{prp}] \\ \\ \text{SUBJ} \langle [1] \rangle \\ \text{COMPS} [b] \end{array} \right]$ $\left[\begin{array}{l} \textit{verbal-noun} \\ \text{HEAD} \left[\begin{array}{l} \textit{noun} \\ \text{FORM } \textit{gerund} \end{array} \right] \\ \\ \text{SUBJ} \langle ([1]) \rangle \\ \text{COMPS} [b] \end{array} \right]$

This rule produces as an output a lexical entry with the FORM value *gerund*. One difference from the input is that the subject is optional. Thus the system we set forth here naturally captures why the gerund inherits the complements of the verb it is derived from while making the subject optional. The other verbal properties of gerunds also follow naturally: since they are types of *verbal*, they cannot be pluralized or cooccur with particles; and they can be preceded by the sentential negator *not*. A reviewer raised a question of dealing with examples like *the loud calling *(of) the roll started each day*. As pointed out by Chomsky (1970), we assume that derived nominals are lexically generated. As in the example *the enemys destruction of the city*, we claim that nouns like *calling and destruction* select a PP[*of*] complement and a specifier.

- (9) a. *John's singing-s the aria
 b. John's *no/not recording the aria

2.2 Types of Verbal Gerunds

In English, there exist three subtypes of Verbal Gerund Phrases (VGPs) depending on the type of the subject: Genitive, Accusative, and *PRO*, respectively.

- (10) a. I am proud of [Pat's winning the game].

- b. I dislike [Pat painting her].
- c. Pat is well known for [PRO painting flowers].

Of these three, GEN-VGPs and ACC-VGPs exhibit several observable differences that we need to account for. As noted by Abney (1987) and Malouf (2000a), GEN-VGPs behave more like NPs while ACC-VGPs more like Ss. One difference can be seen from coordination constructions where these two types cannot be conjoined easily.

- (11) a. *[Pat's coming] and [Chris leaving] bothers/bother me.
- b. *[Pat coming] and [Chris's leaving] bothers/bother me.

Extraction also seems to display a difference between the two types. As in (12), it seems to be possible to extract a complement from an ACC-VGP but not from a GEN-VGP (see Horn 1975, Malouf 2000a):

- (12) a. Which city do you remember [him describing ____]?
- b. *Which city do you remember [his describing ____]?

One more difference concerns pied piping as noted in Abney (1987) and Malouf (2000a):

- (13) a. I wonder [whose failing the exam] surprised the instructor.
- b. *I wonder [who(m) failing the exam] surprised the instructor.

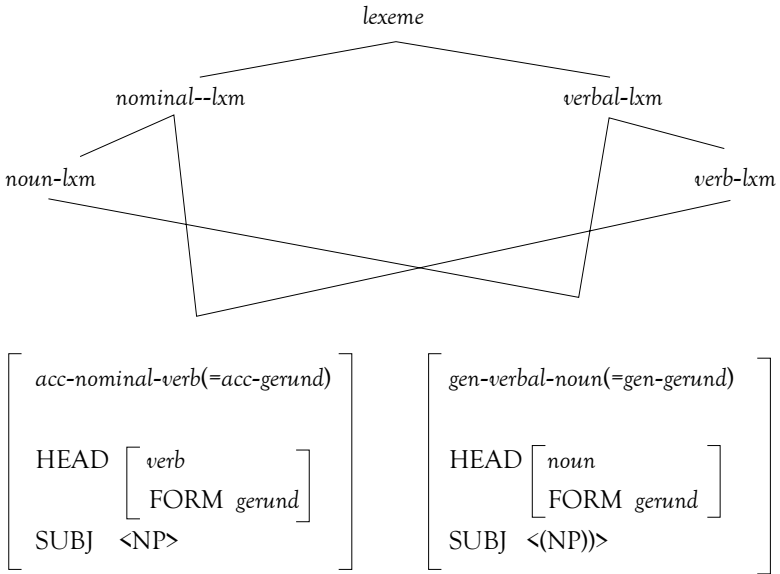
The same contrast can be found between NPs and Ss:

- (14) a. This is the reporter [whose success] surprised John.
- b. *This is the reporter for whom to win the Pulitzer Prize surprised Sandy.

These contrasts, extensively discussed in Malouf (2000a), show that

GEN-VGPs have something in common with NPs while ACC-VGPs are closer to Ss. To capture these contrasts, we posit the following lexeme hierarchy²:

(15)



What we can observe here is that *acc-nominal-verb* (=acc-gerund) and *gen-verbal-noun* (=gen-gerund) are identical with respect to the FORM value. But they are different in that the former is a subtype of *nominal-lxm* and *verb-lxm* whereas the latter is a subtype of *noun-lxm* and *verbal-lxm*. In this classification, the two types are eventually assigned different HEAD and case values: *acc-gerund* is *verb-lxm* with an accusative subject NP whereas *gen-gerund-lxm* is *noun-lxm* with a genitive subject NP. Here, following GPSG's case assignment convention, we assume that accusative case is assigned to the subject of a non-finite verb--one of whose instance is *acc-nominal-verb*, and that genitive case is assigned to the subject of a noun--one of whose instance is *gen-verbal-noun-lxm*.

² See Sag and Wasow (1999) for the reasons of introducing *lexeme* hierarchy, in addition to the traditional hierarchy for *pos*.

Just by allowing enriched classifications for gerunds within the multiple hierarchy system, we could predict the differences between the two types of English VGPs with no additional mechanism. Since the head value of *gen-gerund* is *noun*, the VGPs projected from this gerundive type will behave like NPs whereas the head value of *acc-gerund* is *verb*, those projected from this head will be Ss.³

So far we have discussed the properties of the verbal gerund itself and its analysis. In section 3, we will turn our attention to the distributions of the gerunds and other *-ing* forms as complements.

3. Types of *-Ing* Form Complements

3.1 Type I: Gerundive Complements

The following examples illustrate the typical occurrences of gerundive complements:

- (16) a. I disliked (him/his) smoking.
 b. Everyone hated (him/his) smoking heavily.
 c. I dont mind (him/his) smoking.
 d. We remember (Sandy/Sandys) describing the project.
 e. Mary discussed (Pat/Pats) coming to visit.

The verbs in (16) permit both ACC-VGPs and GEN-VGPs as their complements. It can be shown by (17) that both VGPs occur at a traditional NP object position.

- (17) a. His/Him smoking heavily was hated by everyone.

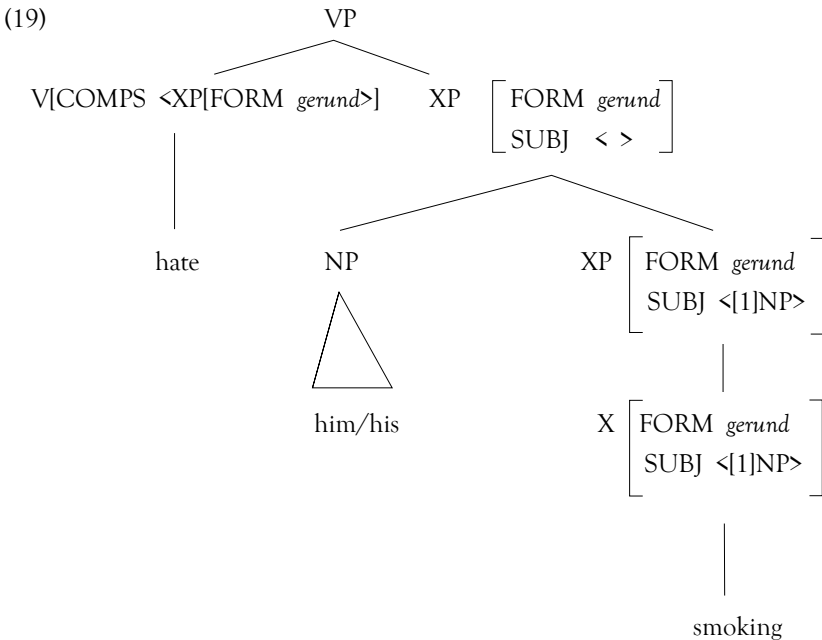
³ As a reviewer questioned, this system appears to introduce more categories than traditional approaches. One caveat is that the hierarchy here is for lexeme, not for part of speech. See Sag and Wasow (1999) for the arguments of introducing these two similar, but different hierarchies.

b. What I disliked was his/him smoking.

The fact that a verbal gerund is passivized as in (17)a shows that verbs like *hate*, *dislike*, and *discuss* in (16) all belong to the class *transitive-verb*. In the pseudo-cleft constructions, the clefted element is generally an NP. Note that both the ACC- and GEN-VGPs are both subtypes of *nominal* as shown in (15). The examples in (17) are naturally accounted for in our analysis by the assumption that not only a genuine NP but also nominals in general such as *that*-clauses and *to*-infinitives can be passivized and clefted:

- (18) a. That the earth is round was not believed by everyone.
 b. What I like is to play tennis on Sundays.

The structure of the VP in (16)a can be represented as in (19):



In our analysis, the verbs like *hate* take as its complement something that has *gerund* as its form value: XP[FORM *gerund*]. As shown in hierarchy (15), *acc/gen-gerund* is a subtype of *nominal-lxm* in the hierarchy, implying that a rule applicable to *nominal-lxm* is also true of its subtype *gerund*. Also X[FORM *gerund*] represents two entities in our analysis: *accusative verbal-gerund* and *genitive verbal-gerund*. Thus, the gerundive complement can have a genitive or an accusative subject, depending on which one is instantiated.

One might wonder whether the accusative NP is a raised direct object as in sentences like *We expected him to be a heavy smoker* or not. However, the following contrast between (20) and (21) shows that it is not:

- (20) a. *He was hated smoking.
 b. *Mary was discussed coming to visit.
- (21) He was expected to be a heavy smoker.

3.2 Type II: Selecting an Expletive Subject

Another instances of this type of verbal gerund complements are the constructions which allow only an *-ing* form complement, but no other NP complement (Quirk et al 1985 with some modification):

- (22) a. It's/There's no use (you/your) telling him anything.
 b. There's no point (you/your) telling him anything.
 c. It's scarcely worth(while) (you/your) going home.
 d. It's pointless (you/your) buying so much food.

Here the VG complements are extraposed and play the role of understood subject. They cannot be replaced with an ordinary NP as

shown in (23) (Hudson 2001):

- (23) a. *It's no use a big fuss.
 b. *There's no point anything else.
 c. *It's scarcely worthwhile a lot of work.
 d. *It's pointless purchase of so much food.

This may be strange when we consider the fact that genuine VGPs externally have NP distributions. However, the lack of NP substitution here does not necessarily mean that the complement is not a VGP, but that there are some particular constructional constraints here: an ordinary NP cannot take the extraposed position in this type of constructions, where an expletive subject occurs together with certain specific nouns or adjectives. In our analysis, the occurrences of the VGPs in (22) are accounted for by the lexical constraints of the particular verb *BE* in (24). It states that the verb takes an expletive NP subject, *it* or *there*, and two XP complements, one of which is a VGP. In (24), the non-gerund XP complement needs to be confined to a certain NPs or ADJPs such as *no use*, *no point*, *useless*, *pointless*, *worth(while)*, *absurd*, etc. Alternatively, the constraints in (24) may be taken to be the constraints of the particular nouns and adjectives. We leave this construction specific constraint for further studies.

- (24)
$$\left[\begin{array}{l} \text{SUBJ } \langle \text{NP}[\text{FORM } it \text{ } there] \rangle \\ \text{COMPS } \langle \text{XP}, \text{XP}[\text{FORM } gerund] \rangle \end{array} \right]$$

3.3 Type III: PRO-VGP

Let us consider another type of *-ing* form complements, where neither ACC-VGPs nor GEN-VGPs are allowed to occur:

- (25) a. We enjoyed (*him/*us/?*our) laughing heartily.
 b. He denied (*him/*us/?*his) having said that.

Due to this difference, the *-ing* form complements in (25) may be assumed not to be VGPs. However, the following passive constructions show that the *-ing* forms are direct objects and thus VGPs:

- (26) a. Laughing heartily was enjoyed by us.
 b. Having said that was denied by him.

If so, verbs like *deny* or *enjoy* must have a lexical constraint in (27) that guarantees a subjectless gerund complement:

- (27)
$$\left[\text{COMPS} \left\langle \text{XP} \left[\begin{array}{l} \text{FORM } \textit{gerund} \\ \text{SUBJ } \langle \text{NP}[\text{PRO}] \rangle \end{array} \right] \right\rangle \right]$$

By this constraint, verbs like *deny* or *enjoy* exclude both a ACC-VGP and GEN-VGP from the possibility of becoming their complements. And the subjectless verbal gerund occurs if the SUBJ value is PRO. We call such a verbal gerund a PRO-gerund. According to Malouf (2000a), the PRO-VGP syntactically behaves like the ACC-VGP.

The identity of PRO of PRO-VGP is determined by an essentially semantic Control Theory in (28), an informal version adapted from Pollard and Sag (1994) by Malouf (2000a):

- (28) Control Theory

If the CONTENT of an unsaturated phrases is an argument of a control relation, then the subject of that phrase is coindexed with the INFLUENCE, COMMITTOR, or EXPERIENCER value, according as the control relation is of sort *influence*, *commitment*, or *orientation*, respectively

Since *enjoy* or *deny* in (25) is an *orientation* verb, the unexpressed subject of its complement is coindexed with the EXPERIENCER role. Since the EXPERIENCER role is played by the matrix subject, the unexpressed subject of the gerund (*laughing* in (25)a, for example) is understood as identical with the matrix subject (that is, *We*).

Another instances of PRO-VGP complements are in (29):

- (29) a. I prevented him from (*him/*me/*our) ruining his health.
 b. I cautioned him against (*him/*me/*our) ruining his health.

In case the matrix verb is an *influence* verb like *prevent* or *caution* as in (29), the unexpressed subject of the gerundive complement is coindexed with the INFLUENCED role. Therefore, the unexpressed subject is coreferential with the direct object of the matrix verb (*him* in (29)).

3.4 Type IV: VGP with Passive Meaning

Finally, we turn to somewhat curious *-ing* complements such as those shown in (30)⁴

- (30) a. This door wants (*his/*him) painting/*to paint.
 b. This chapter needs (*my/*me) rewriting/*to rewrite.
 c. This problem deserves (*our/*us) solving/*to solve.

It seems that the *-ing* complements in (30) are different from the previous examples that we have examined so far. They are similar to those in (25) and (29) in that they are subjectless. What is peculiar

⁴ Park (2001) states that the examples (30) do not allow a genuine NP complement. However, the example in (i) shows that a genuine NP can be a complement of this type of verbs:

(i) The house wants a new coat of paint.

about the *-ing* complements in (30) is that they have passive meaning. The passive meaning is uncovered when the *-ing* forms are replaced by the *to*-infinitives, as shown in (31):

- (31) a. This door wants to be painted.
 b. This chapter needs to be rewritten.
 c. This problem deserves to be solved.

This passive meaning accounts for why direct objects cannot occur in this type of *-ing* form complements:

- (32) a. *This door wants painting it.
 b. *This chapter needs rewriting it.

The *-ing* form complements in (30) cannot be present-participial VPs because the negative adverb *not* cannot modify them, while the adnominal negator *no* can, as shown in (33).

- (33) a. *It will need not accounting for.
 b. It will need no accounting for.

Based on the (33)b, we propose that the *-ing* forms in (30) are derived nominal gerunds, like *singing* in *the singing of the aria*. Another piece of evidence of the nominal gerund arises from the following examples, where a determiner *any* or an adjective *careful* can occur with the *-ing* form⁵.

- (34) a. This chapter doesn't need any rewriting.
 b. This chapter needs careful rewriting.

⁵ As a reviewer points out, a question may arise where the passive meaning comes from. It seems to us that the passive meaning is a consequence of the semantic-pragmatic interactions of the particular meanings of the matrix verb and the complement. It is not clear exactly how the interactions work, but it is clear that the passive meaning has nothing to do with syntactic passivization itself.

3.5 Participle Complements

Now let us consider sentences in (35) which are similar to (25) and (30) in disallowing POSS-VGPs and ACC-VGPs.

- (35) a. They continued/started (*their/*our/*them) smoking heavily.
 b. They tried (*their/*our/*them) speaking it clearly.

However, the examples in (35) differ from those in (25) in that the former do not allow passivization of the *-ing* form complements as shown in (36), suggesting that the complements are not nominals and thus not gerunds.

- (36) a. *Smoking heavily was continued.
 b. *Smoking heavily was tried.

The occurrence of an adverb modifier and direct object complement shown in (35) also leads us to believe that they are not like derived nominal gerunds in (30). The only remaining possibility is that they are VP whose FORM is present participle.

The lack of gerund properties of the *-ing* form complements in (35) appears to be puzzling, considering that a gerund phrase can generally occur wherever NP occurs. Consider the following:

- (37) a. They continued the story.
 b. They tried this corner.

As simple NPs occur as complements of this type of verbs, we expect that the complement in (35) should be a gerund phrase. The puzzle will be dissolved when we notice that *continue* or *try* in (35) is different in meaning from those in (37). *Try* in (37) means something similar to *test* while that in (35) means something similar to *attempt*, and *continue* in

(37) means something like resume or revive but *continue* in (35) has an auxiliary-like meaning. That is, they are different lexemes, and the differences are directly reflected in the syntactic subcategories: the ones in (37) are transitive verbs, while the ones in (35) are not. Accordingly, while we have ungrammatical passive sentences in (36), we do have passive sentences (38) originated from (37).

- (38) a. The story was continued.
b. This corner was tried.

We agree with Sag and Wasow (1999: 188), who suggest that the *-ing* form in a sentence like (39) is a present-participial VP, rather than a verbal gerund.

- (39) Ashley began singing Christmas carols in October.

It has been long recognized that verbs like *begin* are ambiguous: one belongs to the *strict transitive* type taking a pure NP complement while the other is what we might call an oblique verb as it takes an infinitival or participle VP complement obligatorily. *Begin* in (39) belongs to the latter category, as opposed to *begin* in sentences like *She began a new club*. This semantic and syntactic difference explains why Bs response is inappropriate as an answer to As question in the dialog (40), and why Cs utterance is not a felicitous reply to As question in (41):

- (40) A: What did Ashley begin in October?
B: #She began singing Christmas carols.
C: She began a new club.

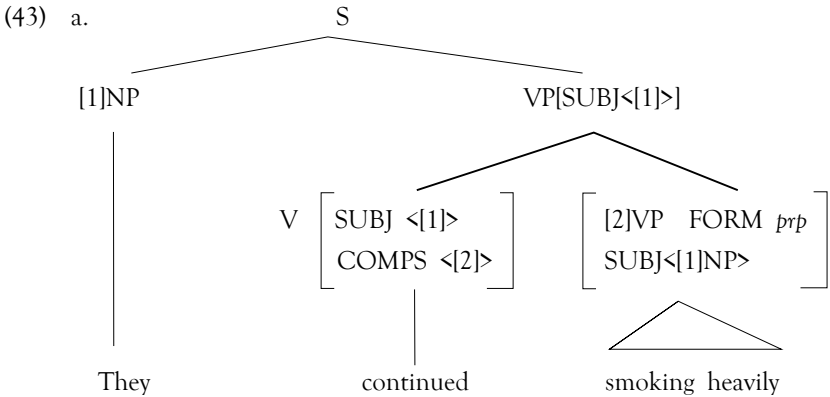
- (41) A: What did Ashley begin doing in October?
B: She began singing Christmas carols.
C: #She began a new club.

The contrasts in the following pseudo-cleft sentences also follow from

the distinction between the transitive *begin* and the oblique *begin*.

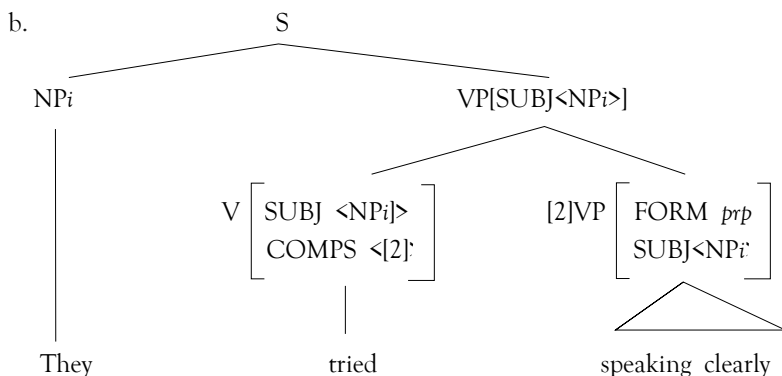
- (42) a. What she began in October was a new club.
- b. What she began doing in October was singing Christmas carols.
- c. ?*What she began in October was singing Christmas carols
- d. *What she began doing in October was a new club.

As a conclusion, thus, we argue that the verbs like *continue*, *start* and *begin* in (35)a and (39) are Raising Verbs requiring a present-participial VP complement whose SUBJ value is nonempty,⁶ and that the verbs like *try* in (35)b are Equi Verbs. The following structures (43)a and (43)b for (35)a and (35)b respectively illustrate the points in question. Note that in each structure, the verbal complement is not a gerund phrase but a VP[*present-participle*].



⁶ Another piece of evidence of the raising properties of the verbs such as *continue* and *begin* comes from the following examples where expletive *it* is raised from the embedded VP:

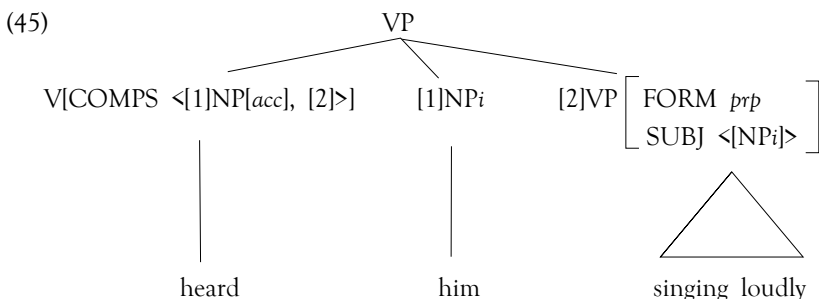
- (i) a. It continued raining.
- b. It began raining.



Now consider perception verbs like *see* or *hear*, which do not seem to allow GEN-VGPs:

- (44) a. We saw him/*his smoking.
 b. We heard him/*his singing loudly.
 c. I caught him/*his stealing money.

If the *-ing* forms are gerunds, the non-occurrence of the genitive subject is a problem. It is unclear how one could make verbs choose an ACC-VGP exclusively. A simple way of accounting for ungrammatical *-ing* forms in (44) is to assume that the *-ing* form complement of a perception verb is not a verbal gerund, but a participial VP. Thus, we argue that the structure of the VP of (44)b, for example, is as follows:



The unexpressed subject must be coindexed with the accusative direct object, just as in other object-Equi verbs. Because the SUBJ value of the complement VP is nonempty, the SUBJ value cannot be discharged within the VP, so ungrammatical sentences like (46) are prevented from occurring.

(46) *We heard him his singing loudly.

Note that the analysis in (45) predicts the contrast in passivization shown in (47):

- (47) a. He was heard singing loudly.
 b. *Singing loudly was heard him
 c. *His/Him singing loudly was heard.

This prediction is precisely what we expect: the direct object can be passivized, but the participial VP cannot be passivized because it is not a nominal. And there is no way of passivizing *him singing loudly* as a whole, because it does not even form a constituent.

4. Concluding Remarks

We have examined gerundive complements and other *-ing* form complements from the perspective of Chung et al (2001) and presented their analyses (see Kim 2000 also). We have been able to examine gerundive complements more closely, which did not receive careful attention in the constraint-based framework and offer precise analyses for the three subtypes of VGPs. We also have distinguished participle VP and nominal gerund complements from the VGP complements.

We find it interesting to explore a new view of lexical categories that can treat mixed two-face categories. It gives us a fresh way of looking at the fuzzy idea like mixed categories, and shows us how we can approach

the informal idea of something in between nouns and verbs. We think that it can make a contribution to an understanding of things in real life in a formal theory. It even leads us to hope that formal and functional linguistics will be able to interact with each other in a real sense.

We do not claim that these exhaust all constructions involving verbal gerunds, but as a result of the discussion so far, the kinds of gerundive complements seem to be clearly identified and their structures are characterized in a more consistent way. Some of the issues on the PRO subject of a verbal gerund and on construction specific constraints will demand further closer examination.

<Dongseo University & KyungHee university>

Works Cited

- Abney, Steven P. 1987. *The English Noun Phrase in Its Sentential Aspect*. Doctoral Dissertation. MIT.
- Chomsky, Noam. 1970. Remarks on Nominalization. In R.A. Jacobs and P.S. Rosenbaum (eds.), *Readings in English Transformational Grammar*. Waltham, Mass.: Ginn-Blaisdell.
- Chung, Chan, Jong-Bok Kim, Byung-Soo Park, Peter Sells. 2001. Mixed Categories and Multiple Inheritance Hierarchies in English and Korean Gerundive Phrases. *Language Research* 37-4. Language Research Institute. Seoul National University. 763-797.
- Horn, George. 1975. On the Nonsentential Nature of the Poss-Ing Construction. *Linguistic Analysis* 1, 333-387.
- Hudson, Richard. 2000. Gerunds and Multiple Default Inheritance. *UCL Working Papers in Linguistics* 12. 303-335.
- Kaiser, Lizanne. 1998. *The Morphosyntax of Clausal Nominalizations*. Doctoral Dissertation. Yale University.
- Kim, Jong-Bok. 2000. Mixed Categories and Multiple Inheritance

- Hierarchy in English and Korean Verbal Gerundive Phrases. To appear in *the Proceedings of the Western Conference on Linguistics 2000*.
- Malouf, Robert. 2000a. *Mixed Categories in the Hierarchical Lexicon*. CSLI Publications, Stanford University.
- Malouf, Robert. 2000b. Mixed Categories in HPSG. In Robert Borseley (ed.), *The Nature and Function of Syntactic Categories, Syntax and Semantics*, 133-166. New York: Academic Press.
- Park, Byung-Soo. 2001. Gerundive Complements in English: A Constraint-Based Analysis. *Language, Information and Computation: Proceedings of the 14th Pacific Asia Conference on Language, Information and Computation*. City University of Hong Kong.
- Pollard, Carl and Ivan A. Sag. 1994. *Head-Driven Phrase Structure Grammar*. University of Chicago Press.
- Pullum, Geoffrey. 1991. English Nominal Gerund Phrases as Noun Phrases with Verb-Phrase Heads. *Linguistics* 29: 763-799.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London: Longman.
- Sag, Ivan and Jonathan Ginzberg. 2001. *Interrogative Investigations*. CSLI Publications: Stanford.
- Sag, Ivan A. and Thomas Wasow. 1999. *Syntactic Theory: A Formal Introduction*. CSLI Publications, Stanford University.

<한글 요약>

영어 V-ing 동사 보충어의 유형에 관한 연구

정 찬, 김종복, 박병수

영어 명사화 구문은 형태 정보와 통사 정보의 상호 작용뿐만 아니라 이들 정보 간의 관계가 서로 상치(mismatch) 혹은 불일치한다는 점에서 기술

적 설명력을 지닌 문법 구축에 있어 여러 가지 난제들을 던져주고 있다. 지금까지 이 현상에 관한 연구는 주로 기능 범주와 이동이라는 도구를 가정하는 변형 문법의 관점에서 다루어져왔다. 그러나 이러한 분석은 어휘주의 가설(lexical integrity), 내심성(endocentricity), 공범주 설정 자체 (null licensing) 원칙 등을 위반한다는 점에서 심각한 문제점을 던져주고 있다. 최근 Malouf(2000a)는 이러한 문제점을 극복하기 위한 제약기반이론을 제시하고 있다. 하지만 이 분석도 여러 문제점을 던져 점을 안고 있다. 본 논문은 다중위계상속(multiple inheritance hierarchy) 개념 내에서 이러한 기존의 문제점을 해결할 수 있는 새로운 대안을 제시하려는 노력의 일환이다.

Key words: 영어 동명사, 공범주, 내심성, 어휘주의, 다중위계상속, 제약기반이론, 불일치