

Light Verbs, Unaccusativity, and Relational Grammar*

Sun-Hee Kim
(Seoul Women's University)

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The purpose of this paper is to provide a relational grammar account of light verb constructions and unaccusativity in Korean. Given the assumption that grammatical relations are primitives of linguistic theory (Perlmutter, 1980), it is argued that the properties of Korean light verb constructions are best accounted for in terms of a clause union analysis. The theta-assigning property of verbal nouns is attributed to the fact that verbal nouns head an initial P-arc. The appearance of an accusative marker on verbal nouns is explained by the assumption that verbal nouns bear a 2 relation in the final stratum. Additionally, it is claimed that such an analysis allows us to offer an identical treatment to the distribution of case marking in unaccusative light verb constructions. That is, unaccusative verbal nouns are accusative marked simply because they bear a 2 relation in the final stratum.

Key words: light verb, unaccusativity, relational grammar, clause union

1. Introduction

The term *light verb* refers to the verbs such as English *give*, *make*, and *take* in constructions in which “the action is spelt out in the nominal that follows” (Cattell, 1984, p. 2):

(1) John *gave* a kiss to his mom.

(2) John *made* a move.

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(3) John *took* a rest last night.

The defining characteristic of the constructions is that a great deal of the semantic content is carried not by the verbs, but by the predicate nominals. In other words, the verbs are semantically very 'light' in the sense of Jespersen (1954). The predicate nominals which are combined with those verbs are usually referred to as verbal nouns following the term coined by Martin (1975; 1992).

The contribution of a verbal noun to theta-marking can be easily seen in Japanese:¹⁾

(4) John-wa Mary-ni HANASHI (-o) shita
 John-Top Mary-to talk-Acc suru-Past
 'John talked to Mary.'

(5) John-wa Tookyoo-kara SHUPPATSU (-o) shita
 John-Top Tokyo-from departure-Acc suru-Past
 'John departed from Tokyo.'

(6) John-wa murabito-ni [ookami-ga kuru]-to KEIKOKU (-o) shita
 John-Top villager-to [wolf-Nom come]-Comp warn-Acc suru-Past
 'John gave a warning to the villagers that the wolf was coming.'

In the examples above, the verb *suru* 'do' has no influence on the number and type of arguments. Instead, the verbal noun is responsible for the assignment of theta-roles.

Korean also has a productive construction in which verbal nouns combine with the light verb *ha* 'do' to form complex predicates and they have the same property as the English and Japanese light verbs;²⁾ i.e. the

1) These examples are originally from Grimshaw and Mester (1988, p. 207). The following abbreviations are used in morpheme-by-morpheme translations throughout this paper:

Nom	--	nominative case	Acc	--	accusative case
Top	--	topic	Gen	--	genitive
Comp	--	complementizer	Pres	--	present tense
Pass	--	passive	Prog	--	progressive
Q	--	question	Adj Cl	--	adjectival clause

2) In fact, there are two types of complex predicates making use of *ha* (*suru* in Japanese). In one construction, *ha* is semantically light. But in the other construction *ha* is the main verb of a clause and determines the argument structure: i.e. *ha* is heavy. The light

predicate carries the inflection and seemingly assigns case, but it is the theta-assigning verbal noun which determines the argument structure and selectional restrictions for the clause.³⁾

- (7) John-i Mary-eykey *CHWUNGKO* (-lul) ha-yss-ta
 John-Nom Mary-to advice-Acc do-Past-Decl
 ‘John gave advice to Mary.’

- (8) kicha-ka yek-ey *TOCHAK* (-ul) ha-yss-ta
 train-Nom station-at arrival-Acc do-Past-Decl
 ‘The train arrived at the station.’

The theta-assigning property of verbal nouns is not so surprising since the vast majority of verbal nouns both in Korean and Japanese are Sino-words borrowed from Chinese. Given the observation that “when a word is borrowed from another language, stems are borrowed but not inflections” (Kang, 1997, p. 274), the light verb construction seems to be a kind of morphological device for Koreanizing (or Japanizing) foreign words. Recent loan words from English have also been Koreanized in the same way. In the sentences below, it is the verbal nouns such as *turaiipu* ‘drive’, *nokhu* ‘knock’ that are responsible for the theta-role assignment of the clause. The verb *ha* simply carries the inflection and assigns case.

- (9) John-i kongwon-eyse *TURAIPU* (-lul) ha-yss-ta
 John-Nom park-in drive-Acc do-Past-Decl
 ‘John took a drive in the park.’

- (10) John-i *NOKHU* (-lul) ha-yss-ta
 John-Nom knock-Acc do-Past-Decl
 ‘John knocked (at the door).’

Korean light verb constructions manifest a peculiar property with

/heavy distinction of *ha* is straightforward. Heavy *ha* seems to assign structural accusative case and exhibits independent theta-assigning properties including an external theta role, whereas light *ha* lacks the ability to do so. Interested readers may refer to Ahn (1990) for Korean data and Grimshaw and Mester (1988) for Japanese examples. Our discussion in this paper will be limited to light *ha* only.

3) Korean sentences are transcribed by using Yale Romanization.

respect to the case marking of verbal nouns. Both in Japanese and Korean, verbal nouns can either be accusative marked or be used without any case marker. Observe the alternation between *kongpu ha* and *kongpu lul ha* in (11) and its Japanese counterpart in (12).

- | | | | |
|------|-----------------|----------------------|--------------|
| (11) | John-i | <i>KONGPU</i> (-lul) | ha-yss-ta |
| | John-Nom | study-Acc | do-Past-Decl |
| | 'John studied.' | | |

- | | | | |
|------|-----------------|---------------------|-----------|
| (12) | John-ga | <i>BENKYOO</i> (-o) | sita |
| | John-Nom | study-Acc | suru-Past |
| | 'John studied.' | | |

Certain interesting aspects of the light verb constructions appear when the verbal noun itself requires an NP object. Korean allows accusative marking both on the verbal noun and its object NP, whereas Japanese does not permit two NPs to be accusative marked at the same time,⁴ as exemplified in (13) and (14), respectively.⁵

- | | | | | |
|------|-------------------------|-------------|----------------------|--------------|
| (13) | John-i | yenge-lul | <i>KONGPU</i> (-lul) | ha-yss-ta |
| | John-Nom | English-Acc | study-Acc | do-Past-Decl |
| | 'John studied English.' | | | |

- | | | | | |
|------|-------------------------|-------------|----------------------|-----------|
| (14) | John-ga | eigo-o | <i>BENKYOO</i> (*-o) | sita |
| | John-Nom | English-Acc | study-Acc | suru-Past |
| | 'John studied English.' | | | |

There are two major approaches to account for the properties of light verb constructions in Korean linguistics (Chae, 2002). Some scholars argue that verbal nouns are responsible for theta marking, and light verbs for case marking (Yoon, 1991; Grimshaw & Mester, 1988). This approach,

4) The behavior of *suru* with respect to the prohibition of double accusative marking has been extensively discussed in Japanese linguistics in Iida (1987), Grimshaw and Mester (1988), and Sells (1989), and many other works. Unfortunately, however, they cannot be extended to the properties of Korean light verb constructions.

5) Not only Japanese but also Telugu, a Dravidian language, prohibits the accusative morphology on the light verb construction itself when there exists an accusative-marked object of the light verb complex. See Pelletier (1990) for the relevant discussion.

however, is problematic in regard to Burzio's generalization (Burzio, 1986), which claims that only those verbs that can assign an external theta-role to the subject can assign accusative case to the object. On the other hand, there are some people who claim that it is verbal nouns that are responsible for both theta marking and case marking (Chae, 1996; Han & Rambow, 2000). This proposal, however, cannot be extended to the cases of unaccusative verbal nouns which select an initial direct object instead of an initial subject.

My goal here is to explore light verb constructions⁶⁾ further, and provide an analysis within the framework of Relational Grammar, which takes grammatical relations as primitives of linguistic theory. This paper argues that the properties of Korean light verb constructions fall out from a clause union analysis,⁷⁾ in which both verbal nouns and the light verb are predicates at some level of structure (Davies & Rosen, 1988; Davies, 1989; Dubinsky, 1989). It will also be argued that such an analysis allows us to offer an identical treatment to the distribution of case marking in unaccusative constructions.⁸⁾

2. Toward a Solution

2.1. Introduction to Relational Grammar

There are two radical proposals to solve the problem of incorporating the idea of grammatical relations such as 'subject of', 'direct object of', and 'indirect object of' into grammatical theories (Vennemann, 1980, p. 239). The first proposal treats grammatical relations as derived concepts of a general syntactic theory. For instance, Chomsky's attempt to define grammatical relations in terms of the phrase structure configurations

6) The constructions cited in (7)-(13) are unambiguously light verb constructions according to the definition used in the present study, and they manifest the same behavior with respect to the occurrence of accusative case markers. However, they are not identical in terms of all the properties of the verbal nouns. How they are different and what makes the differences go beyond the focus of this study. Further research is required.

7) A clause union analysis was originally proposed in Dubinsky (1989) for Japanese data and suggested by Davies (1989) for the Dravidian languages on another type of complex predicate in Telugu.

8) According to the Unaccusative Hypothesis, the superficial subject of some intransitive clauses is a direct object in a more abstract subjectless structure. And such intransitive clauses are referred to as 'unaccusative constructions'.

belongs to this category.⁹⁾ This configurational approach, however, has been criticized essentially on three grounds by Perlmutter (1980, p. 197) (cf. Vennemann, 1980, p. 245). First, the subject relation cannot be adequately defined for languages without a VP- constituent and languages in which subjects are marked with a postposition like Korean. Second, the direct object relation cannot be derived in languages where direct objects do not differ from indirect objects or obliques with respect to prepositional or postpositional marking. Third, the relations such as the indirect object relation and the chomeur relation¹⁰⁾ have not been defined in terms of the phrase structure at all. Moreover, any approaches, stated in terms of constituents or the linear order, need to formulate different rules for languages with different word orders even for the phenomenon which could be characterized as the same.

As an alternative, the second proposal known as Relational Grammar was proposed in Perlmutter and Postal (1974). The basic claim of this approach is that grammatical relations, which are crucial to the formulation of certain linguistic universals, must be taken as primitives of a general grammatical theory. Being primitive concepts, therefore, grammatical relations need not be explicitly defined as in configurational analyses. Rather, "they are characterized implicitly by the axioms in which they occur" (Vennemann, 1980, p. 240). In principle, the decision on which concepts should be introduced into a theory as primitives and which as derived concepts could be a matter of convenience. But no matter which proposal we stand for, the theory should be able to characterize the class of grammatical constructions found in natural languages and construct adequate and insightful grammars of individual languages (Perlmutter, 1980, p. 196). In this regard, the relational approach to characterize syntactic structure directly in terms of grammatical relations has an immediate consequence: Different languages are seen to have the same grammatical constructions, despite language- particular differences of various kinds.

Within the framework of Relational Grammar, it is only NPs that bear

9) There have been various attempts to define grammatical relations in terms of some presumably more basic notions such as dominance, linear order, case, dependency, and categorial features (Gibson, 1990).

10) The chomeur relation can be borne by a nominal only when the nominal which previously bore a certain grammatical relation is displaced by another which assumes the same grammatical relation (Gibson & Raposo, 1986, p. 318).

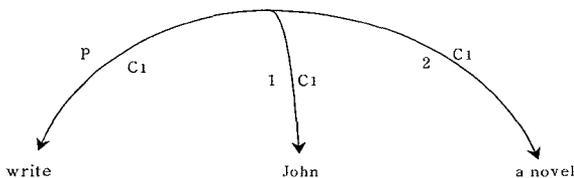
grammatical relations to clauses. The organization of language includes a number of successive levels, called strata, and NPs can bear distinct grammatical relations to the same clause at different levels. Relations such as 'subject of', 'direct object of', 'indirect object of' and chomeur are referred to as 1, 2, 3 and Cho, respectively, and predicates are represented as P. A complete account of clause structure in these terms will have to specify (i) the class of possible linguistic elements, (ii) the class of primitive grammatical relations, (iii) the class of possible linguistic levels, and (iv) constraints on the possible combinations of these elements in relational networks (RNs) (Perlmutter, 1980).

It is now possible to represent the basic elements of clause structure in these terms. Consider the following set of sentences.

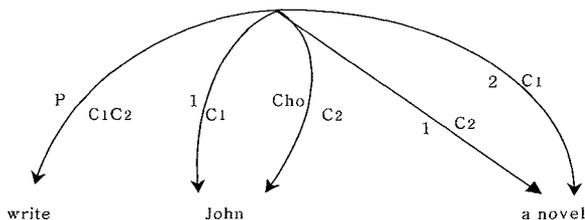
- (15) a. John wrote a novel.
- b. A novel was written by John.

Ignoring such things as tense, linear order, prepositions and auxiliary verbs, the structure of the above sentences can be represented by (16a) and (16b), the RNs assigned to an active clause and its passive counterpart.

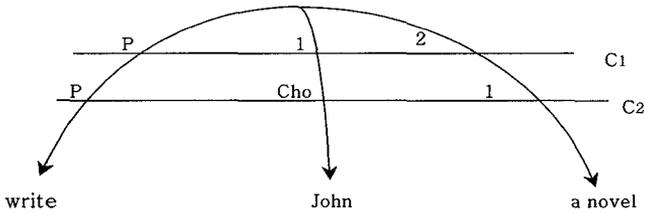
(16) a.



b.



C.



The arcs of (16a) belong to one stratum, as the c1 coordinates indicate. The corresponding passive (16b), on the other hand, contains the same arcs plus others belonging to a second stratum, c2. The notion of linguistic level is expressed more readably in the stratal diagram as in (16c). In (16c) the fact that *John* bears the 1-relation at the first level and the chomeur relation at the second level is indicated by the fact that *John* heads a 1-arc in the first stratum and a Cho-arc in the second stratum. Similarly, the fact that *a novel* bears the 2-relation at the first level and the I-relation at the second level is represented by the fact that *a novel* heads a 2-arc in the first stratum and a 1-arc in the second stratum. The fact that *write* bears the Predicate relation at both the first and second levels is expressed by the fact that *write* heads a P-arc in both the first and second strata. That one nominal could be characterized as distinct relations at different levels is a typical illustration of the claim that there exists a level of initial grammatical relations which are distinct from final grammatical relations.¹¹⁾

As argued in Perlmutter and Postal (1974), therefore, the representation of clause structure in terms of RNs makes it possible to capture what is the same in various constructions in a variety of different languages, when the sameness can be brought out in terms of grammatical relations (Perlmutter, 1980, p. 201).

2.2. The Clause Union Analysis

At this point, it might be necessary to reconsider the basic properties of

11) One might ask whether initial grammatical relations stand in some regular relationship to thematic categories such as agent, patient, or cognizer. According to Rosen (1984) and many others, the answer is 'No'. In Relational Grammar, syntactic representations must contain an initial level represented in terms of grammatical relations, and the information registered in that level cannot be recoverable from any thematic or semantic level.

verbal nouns in Korean light verb constructions discussed in section 1; First, verbal nouns can determine the argument structure and assign theta roles. Second, verbal nouns can be accusative marked. Even when there exists an accusative-marked object of the verbal noun, accusative morphology is still possible on the verbal noun itself.

Within the framework of Relational Grammar, we may assume that a verbal noun is an initial predicate, which assigns thematic roles and determines the initial grammatical relations. As a result, the verbal noun heads an initial P-arc. Since this complement (i.e. verbal noun) cannot carry inflection, however, it cannot be the final predicate: i.e. it does not head a final P-arc. Thus it is required to form a Union with the light verb in order to escape ungrammaticality.¹²⁾ Following Davies and Rosen (1988) and Dubinsky (1989, 1990a,b), I propose this Union as a monoclausal, multi-predicate structure, in which both the verbal noun and the light verb are predicates at some level of structure, although the construction comprises a single clause.¹³⁾ This analysis of Union is distinguished from the well known causative union construction which “contains 2 clauses, a main clause whose predicate is the causative verb and a subordinate clause” (Gibson & Raposo, 1986, p. 296). Causative union, being a multiclausal construction, allows the causative predicate to introduce its own subject. On the other hand, in light verb constructions

12) An anonymous reviewer pointed out that this claim is problematic since there exist aspectual nominal constructions which do not have light verbs, but the verbal nouns in them still have their own complements with verbal and external cases. Consider the following sentence:

i) [John-i yenge-lul KONGPU-cwung-ey] cam-i tul-ess-ta
 [John-Nom English-Acc study-process-at] sleep-Nom fall-Past-Decl
 ‘John fell asleep while he was studying English.’

In i) it seems that the verbal noun *kongpu* ‘study’ is responsible for the theta-marking and case-marking even though it is not combined with a light verb. This phenomenon, however, does not cause any serious problem to our present analysis. In this paper it is claimed that verbal nouns can assign thematic roles because they are predicates at some level of structure. It will also be argued that case is assigned to nominals not by a light verb, but according to the grammatical relations the nominals bear. Furthermore, grammatical relations are determined by a verbal noun, which is an initial predicate. Therefore, both theta-marking and case-marking have nothing to do with the existence of a light verb. Light verbs are required simply because verbal nouns cannot make final predicates. Then all we need in order to account for the aspectual nominal constructions is a simple mechanism which makes it possible to allow verbal nouns to combine with aspectual nominals in those constructions. Future study must address this problem.

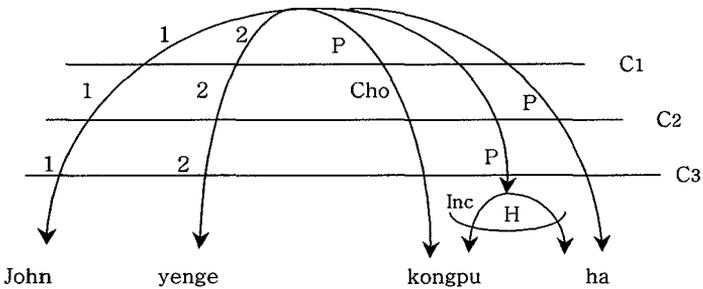
13) For a more detailed explanation of the development of union theory within Relational Grammar and the issues involved, see Dubinsky (1985b) and Gibson and Raposo (1986).

the verb, being thematically empty, does not have the capacity to introduce any extra arguments of its own. Rather, the light verb inherits all the arguments initialized by the verbal noun. In a Union stratum, the verbal noun (i.e. the inner P) is chomeurized since no clause is allowed to have two distinct P-arcs in the same stratum due to the Stratal Uniqueness Law (extended)¹⁴ proposed in Davies and Rosen (1988). The P-Cho further incorporates with the union P.

The RN representing the sentence in (17) is provided in (18).

- (17) John-i yenge-lul KONGPU ha-yss-ta
 John-Nom English-Acc study do-Past-Decl
 'John studied English.'

(18)



The clause in (17) contains two predicates, the verbal noun *kongpu* and the light verb *ha*. The verbal noun initializes all the arguments in the clause and is chomeurized by the entrance of the P-arc headed by *ha* in the second stratum. In the third stratum, the verbal noun (i.e. P-Cho) and the light verb incorporate, creating a single dependent heading a P-arc.

One might argue that (17) does not include any process like incorporation, but is the result of case-marker ellipsis, which is illustrated in (19) and (20).

14) The Stratal Uniqueness Law (extended) claims that 2 distinct foundational relations (i.e. P, 1, 2, 3) may not bear the same grammatical relation to a clause in the same stratum. The Chomeur relation can be acquired by a foundational relation where the retention of its grammatical relation would violate the Stratal Uniqueness Law (Davies and Rosen, 1988, pp. 55-56; Dubinsky, 1985b; Postal, 1986).

- (19) a. John-i **swukcey-lul** acikto ha-ko-iss-ni
 John-Nom homework-Acc still now do-Prog-is-Q
 'Is John still doing his homework?'
 b. John-i **swukcey** acikto ha-ko-iss-ni
 John-Nom homework still now do-Prog-is-Q
 'Is John still doing his homework?'
- (20) a. John-i **kukes-ul** cengmallo ha-yss-ni
 John-Nom it-Acc really do-Past-Q
 'Did John really do it?'
 b. John-i **kukes** cengmallo ha-yss-ni
 John-Nom it really do-Past-Q
 'Did John really do it?'

The (a) sentences are instances of a normal heavy construction with an accusative marked object, where verbs exhibit independent theta-assigning properties. As the (b) sentences show, however, in informal and fast speech, the case marker can drop as long as it does not cause any misunderstanding. In these cases, adverbial elements such as *acikto* 'still now' and *cengmallo* 'really' can freely intervene between the direct object and the verb. If it is also the process of case-marker ellipsis that causes the verbal noun in (17) not to bear accusative morphology, we might expect adverbials to intervene between the verbal noun and the following light verb. Contrary to the expectation, however, the verbal noun and *ha* are not separable by adverbials:

- (21) a. John-i cwulkot yenge-lul *KONGPU* ha-yss-ta
 John-Nom continually English-Acc study do-Past-Decl
 'John continually studied English.'
 b. John-i yenge-lul cwulkot *KONGPU* ha-yss-ta
 John-Nom English-Acc continually study do-Past-Decl
 'John continually studied English.'
 c. *John-i yenge-lul *KONGPU* cwulkot ha-yss-ta
 John-Nom English-Acc study continually do-Past-Decl
 'John continually studied English.'

The ungrammaticality of the (c) sentence indicates that the verbal noun and *ha* comprise a single unit which cannot be separated by adverbials.

That is, the verbal noun is somewhat incorporated with *ha*.

Based on Japanese data, Grimshaw and Mester (1988) claim that incorporation is a process of morphological compounding, applied to the case of complex predicate formation where the verbal noun yields all its theta-assigning capacities to the light verb. According to them, what is being incorporated is the verbal noun that is lexically listed with the derived argument structure of the light verb. In other words, incorporation is considered a lexical operation.

If light verb constructions of this kind are formed in the lexicon, then they are expected to be completely opaque to all syntactic phenomena. Let us consider the interaction of the negative morpheme *an* 'not' with the constructions in question. One of the typical negative formations in Korean is placing *an* 'not' immediately before the verbs to be negated, as exemplified in (22).

- (22) a. John-i kangaci-eykey pap-ul cwu-ess-ta
 John-Nom puppy-to meal-Acc give-Past-Decl
 'John fed a puppy.'
- b. John-i kangaci-eykey pap-ul an cwu-ess-ta
 John-Nom puppy-to meal-Acc not give-Past-Decl
 'John didn't feed a puppy.'

If incorporation is a lexical operation, then *an* should not occur between the verbal noun and *ha*. Instead, it should be placed before the verbal noun, provided that the verbal noun and *ha* after the incorporation cannot be analyzable in the syntax. The facts, however, do not support this prediction.

- (23) a. John-i yenge-lul KONGPU ha-yss-ta
 John-Nom English-Acc study do-Past-Decl
 'John studied English.'
- b. *John-i yenge-lul an KONGPU ha-yss-ta
 John-Nom English-Acc not study do-Past-Decl
 'John didn't study English.'
- c. John-i yenge-lul KONGPU an ha-yss-ta
 John-Nom English-Acc study not do-Past-Decl
 'John didn't study English.'

(23c) shows that *an* can intervene between the verbal noun and *ha*. Moreover, as indicated in (23b), sentences are better accepted when the verbal noun and the light verb are separated by *an*, indicating that the incorporation cannot be considered a lexical operation.

In sum, the non-occurrence of accusative morphology on the verbal noun in (17), repeated here in (24), has two characteristics. First, it is an instance of incorporation rather than the result of case-marker ellipsis. Second, the incorporation should not be lexical, given that the incorporated elements are transparent to some (but not necessarily all) syntactic operations.

- (24) John-i yenge-lul KONGPU ha-yss-ta
 John-Nom English-Acc study do-Past-Decl
 'John studied English.'

Thus, the finding that in sentences like (24) the verbal noun and the light verb incorporate in syntactic level is in accordance with our present analysis: i.e. the verbal noun incorporates with the light verb, creating a single dependent heading a P-arc.

The immediate consequence of the relational analysis presented here is that the theta-assigning property of verbal nouns is predicted: Verbal nouns assign theta roles because they are initial predicates (i.e. they head an initial P-arc).

Now observe how the second property of light verb constructions (i.e. verbal nouns can be accusative-marked) is accounted for within the framework of Relational Grammar. If an element which heads an initial P-arc bears accusative morphology, what grammatical relations it may bear in the final stratum of the clause? Unless counterevidence is provided, it is reasonable to claim that it heads a final 2-arc. However, if P revalues across the union boundary in order to get the 2 relation in the final stratum, it would violate the Union Law which prohibits revaluation of any elements other than 1s across a P-sector¹⁵ boundary (Davies & Rosen, 1988). On the other hand, if P demotes to 2, giving up its P-hood, it would violate the Basic Clause P-arc Continuity Law, which specifies that every non-empty stratum of a basic clause constituent root contains

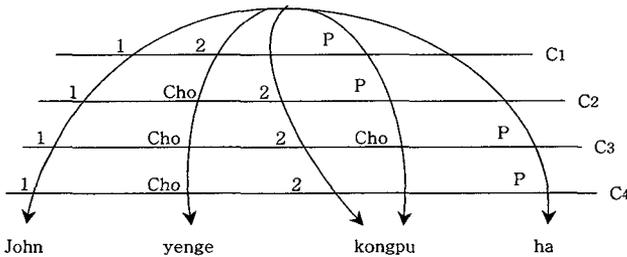
15) The P-sector of an element is the stratum where the element bears a P-relation, thus heading a P-arc (Davies, 1989, p. 3).

a P-arc (Johnson & Postal, 1980; Dubinsky, 1989). As an alternative, following the idea of Rosen (1981, 1987) and Dubinsky (1989, 1990a, b), I propose that the structure of the verbal nouns in this construction is that of a Retroherent Demotion, involving an element that is multi-attached.¹⁶⁾

The RN of the sentence in (25) is presented in (26).

- (25) John-i yenge-lul KONGPU-lul ha-yss-ta
 John-Nom English-Acc study-Acc do-Past-Decl
 ‘John studied English.’

(26)



In the above RN, the initial P (i.e. the verbal noun) acquires the 2 relation in the c2 stratum while keeping its P relation, thus putting the initial direct object *yenge* ‘English’ en chomage. In the next stratum, the inner P is chomeurized by the introduction of the light verb *ha* due to the Stratal Uniqueness Law, while all other arcs simply fall through by inheritance. Given that multi-attachments are resolved in the final stratum by the cancellation of the lower ranked relation and that the 2 relation outranks the Chomeur relation, in the final stratum, the 2-Cho multi-attachment is resolved in favor of the 2 relation. The verbal noun, heading a 2 arc in the final stratum, then receives accusative case.

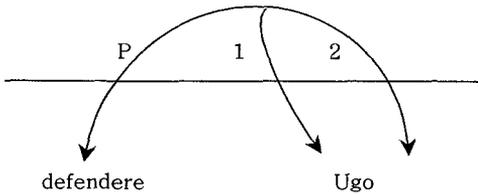
This analysis contains a point which requires some justification. That is, the claim that P undergoes retroherent demotion to 2 might sound stipulative and theory-internal, unless it is independently motivated. Actually, the notion of retroherent demotion and multi-attachment is not

16) According to the notion of Retroherent Demotion, a nominal bearing a certain relation can demote to another, while keeping its initial relation. For independent motivation for retroherent demotion and multi-attachment, see Rosen (1981, 1987), Postal (1985), Dubinsky (1989, 1990a,b), and Pelletier (1990).

new here. Rosen (1987) proposed the notion of P-2 multi-attachment when dealing with the internal structure of nominals in Tzotzil and for apparent violations of the Relational Succession Law¹⁷⁾ in that language. It is also widely accepted that reflexive clauses such as the Italian sentence in (27) are represented by an RN in which the subject *Ugo* is multi-attached both to a 1 and a 2 (Perlmutter, 1978b).

(27) a. *Ugo si è difeso.*
 'Ugo defended himself.'

(28)



Language internal evidence for this notion comes from the consideration of the following sentence, where the sentential direct object of a verbal noun is incorporated with the verbal noun, creating a single dependent:¹⁸⁾

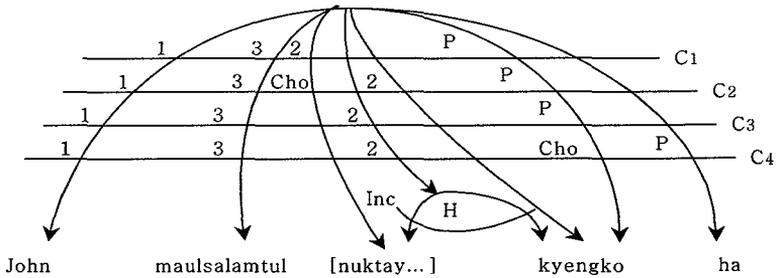
(29) *John-i* *maulsalamtul-eykey* [*nuktay-ka onta*]-*nun*
 John-Nom villagers-to [wolf-Nom come]-Adj Cl
KYENGKO-lul *ha-yss-ta*
 warning-Acc do-Past-Decl
 'John gave a warning to the villagers that a wolf would come.'

(29) can be represented by the following RN:

17) The Relational Succession Law requires the grammatical relation borne by the ascendees to be the same as the host of the ascension (Perlmutter & Postal, 1983).

18) This kind of data first attracted my attention in Grimshaw and Mester (1988), where they cited a set of Japanese light verb constructions with a sentential direct object. See also Dubinsky (1989) for discussion on the evidence of P-2 retroherent demotion and multi-attachment in Japanese.

(30)

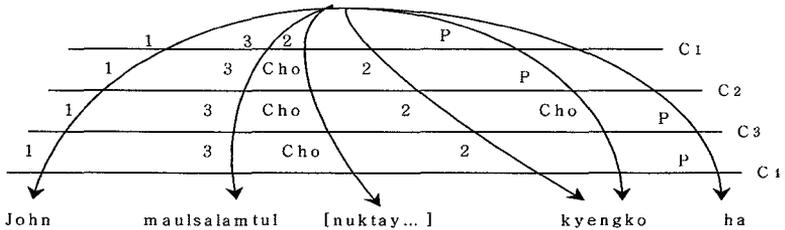


The clause in (30) contains two predicates, the verbal noun *kyengko* 'warning' and the light verb *ha*. The verbal noun initializes all the arguments in the clause and gets incorporated with its own direct object, which is a sentential complement in this sentence. Given that incorporation is licensed only between predicates and the dependents which they overrun (Dubinsky, 1985a), the incorporation between the sentential object (i.e. the initial 2) and the verbal noun in (30) can be the evidence that the verbal noun, heading an initial P-arc, has the 2 relation in some stratum. Provided that P-2 demotion is prohibited due to the Basic Clause P-arc Continuity Law, the verbal noun must undergo retroherent demotion to 2, keeping its P relation. Now the verbal noun can incorporate with the initial 2 (i.e. the sentential direct object), as expected.

Note that (31) is identical with the sentence in (29) and (30), except that incorporation, which plays a crucial role in the latter, does not take place in the former.

- (31) John-i maulsamtul-eykey [nuktay-ka onta]-ko
 John-Nom villagers-to [wolf-Nom come]-Comp
 KYENGKO-lul ha-yss-ta
 warning-Acc do-Past-Decl
 'John gave a warning to the villagers that a wolf would come.'

(32)



In the above sentence, the verbal noun undergoes retroherent demotion to 2 in the second stratum, putting the initial 2 en chomage. Then it gets chomeurized by the introduction of the light verb *ha* in the third stratum. The multi-attachment of the verbal noun is resolved in favor of the higher ranked 2 relation in the final stratum. As a result, the verbal noun bears accusative morphology.

At this point, one might argue that the assignment of accusative case by a thematically empty light verb violates Burzio's Generalization (Burzio, 1986, p. 178; Chomsky, 1986), which says that only those verbs that can assign an external theta-role to the subject can assign accusative case to the object. This objection, however, is not valid for the present analysis. In Relational Grammar, case is assigned according to the last grammatical relation borne by the nominal (Gerdt, 1986). Basically in Korean, 1s are nominative, 2s or 2-Chomeurs are accusative, 3s are dative and Possessors are genitive. The verbal noun is marked with accusative case, not necessarily because the light verb *ha* is a case assigner, but because the verbal noun bears the 2 relation in the final stratum. In the case of (32), for example, in the final stratum where *ha* inherits all the arguments initialized by the verbal noun, *John* bears a 1 relation, *yenge* 'English' bears a 2-Cho, the verbal noun *kongpu* 'study' a 2. Therefore, nominative is assigned to *John* and accusative to both *yenge* and *kongpu*; i.e. to both 2 and 2-Cho. There is nothing stipulative about this analysis of case marking.

3. Supporting Evidence

The crucial assumption of the clause union analysis presented so far is that the verbal noun is an initial P and that it bears a 2 relation in the

final stratum. There are several phenomena in Korean which support these claims, thus further corroborating the union analysis of light verb constructions.

The first evidence comes from the fact that unlike other nominals, verbal nouns can be modified by adverbs:

- (33) a. *John-i Mary-eykey kwuyhakey senmul-ul cwu-ess-ta
 John-Nom Mary-to honorably gift-Acc give-Past-Decl
 'John gave Mary an honorable gift.'
- b. *John-i Mary-eykey cengcwunghakey senmul-ul cwu-ess-ta
 John-Nom Mary-to politely gift-Acc give-Past-Decl
 *'John gave Mary a polite gift.'
 'John politely gave Mary a gift.'
- (34) John-i minsok-ul semilhakey YENKWU-lul ha-yss-ta
 John-Nom folk customs-Acc in detail study-Acc do-Past-Decl
 'John studied folk customs in detail.'
- (35) John-i kwanyek-ul cenghwakhakey KYENYANG-ul ha-yss-ta
 John-Nom target-Acc accurately aim-Acc do-Past-Decl
 'John aimed at the target accurately.'

(33a) is ungrammatical with the meaning where the nominal *senmul* 'gift' is modified by the adverb *kwuyhakey* 'honorably'. One might argue that if we substitute the adverb *kwuyhakey* 'honorably' with *cengcwunghakey* 'politely' as in (33b), the sentence is acceptable. Yes, it is acceptable, but with a different meaning. (33b) is interpreted as 'John politely gave Mary a gift.', but not as *'John gave Mary a polite gift.' That is, the adverb is interpreted as if it modifies the verb rather than the nominal in question. In other words, being a nominal, *senmul* 'gift' cannot be modified by an adverb. The sentences in (34) and (35), however, show that the verbal nouns *yenkwu* 'study' and *kyenyang* 'aim' can be modified by adverbs. This fact is easily accounted for if we assume that the verbal nouns head a P-arc in some stratum. Otherwise, we need an extra mechanism in our grammar to explain the distribution of adverbs with regard to verbal nouns.

Concerning the sentences like (34) and (35), Kim (1986, p. 64) suggested that the verbal nouns such as *yenkwu* 'study' and *kyenyang* 'aim' can

also be modified by adjectives of a certain kind:¹⁹⁾

- (36) a. John-un minsok-ul semilhan YENKWU-lul ha-yss-ta
 John-Top folk customs-Acc detailed study-Acc do-Past-Decl
 'John made a detailed study of folk customs.'
- b. *John-un minsok-ul cwungyohan YENKWU-lul ha-yss-ta
 John-Top folk customs-Acc important study-Acc do-Past-Decl
 'John made an important study of folk customs.'
- (37) a. John-un kwanyek-ul cenghwakhan KYENYANG-ul ha-yss-ta
 John-Top target-Acc accurate aim-Acc do-Past-Decl
 'John took accurate aim at the target.'
- b. *John-un kwanyek-ul elyewun KYENYANG-ul ha-yss-ta
 John-Top target-Acc difficult aim-Acc do-Past-Decl
 '*John took difficult aim at the target.'

The difference between (a) and (b) sentences lies in the fact that the adjectives used in the former describe the manner in which *yenkwu* 'study' and *kyenyang* 'aim' are done, while the adjectives used in the latter describe the properties of the nouns they modify. As a result, the sentences in (b) are ill-formed. This phenomenon can be interpreted as follows: First, the fact that the verbal nouns can be modified by adjectives is an indicator that they are acting as real nominals (i.e. 2s in this case) in a sentence. Second, given that even when they are modified by adjectives, the adjectives should be the one which describes the manner rather than the properties of the nouns, we can say that the verbal nouns *yenkwu* and *kyenyang* are predicates in nature. In other words, verbal nouns have the properties of both predicates and nominals at the same time, supporting our claim that they head a P-arc in some stratum and bear a 2 relation somewhere else. Provided that the verbal nouns do not have the capacity to head a final P-arc and that they are not initial 2, it is possible to further claim that it heads an initial P-arc and bears a 2-relation in the final stratum.

Now let us consider the interaction of verbal nouns with pronominals (cf. Kim, 1986, pp. 62-63).

19) The same point was pointed out by an anonymous reviewer.

- (38) a. John-to soseul-ul ilkki-lul cohaha-ko Mary-to soseul-ul
 John-also novel-Acc reading-Acc like-and Mary-also novel-Acc
ilkki-lul cohaha-n-ta
 reading-Acc like-Pres-Decl
 'John likes reading novels and Mary also likes reading novels.'
- b. John-to soseul-ul ilkki-lul cohaha-ko Mary-to kukes-ul
 John-also novel-Acc reading-Acc like-and Mary-also it-Acc
 cohaha-n-ta
 like-Pres-Decl
 'John likes reading novels and Mary also likes it.'
- (39) a. John-to Mary-lul chayk-ul cwu-ko Bill-to Mary-lul
 John-also Mary-Acc book-Acc give-and Bill-also Mary-Acc
chayk-ul cwu-n-ta
 book-Acc give-Pres-Decl
 'John gives Mary a book and Bill also gives Mary a book.'
- b. *John-to Mary-lul chayk-ul cwu-ko Bill-to kukes-ul
 John-also Mary-Acc book-Acc give-and Bill-also it-Acc
 cwu-n-ta
 give-Pres-Decl
 **John gives Mary a book and Bill also gives it.'

In (38) the two objects on the surface can be replaced with a pronoun *kukes* 'it' since being in the relation of object and predicate, they form a constituent, i.e. VP. On the other hand, in (39) the two objects are not in the object-predicate relation. Thus they cannot be substituted for by the pronoun *kukes*, which replaces constituents only. Now let us turn to light verb constructions.

- (40) a. John-to yenge-lul KONGPU-lul ha-ko Mary-to yenge-lul
 John-also English-Acc study-Acc do-and Mary-also English-Acc
KONGPU-lul ha-n-ta
 study-Acc do-Pres-Decl
 'John does the study of English and Bill also does the study of English.'

- b. John-to yenge-lul KONGPU-lul ha-ko Mary-to kukes-ul
 John-also English-Acc study-Acc do-and Mary-also it-Acc
 ha-n-ta
 do-Pres-Decl
 'John does the study of English and Bill also does it.'

If *yenge* 'English' and *kongpu* 'study' do not form a constituent, some other device will have to be added to the grammar to account for the appearance of *kukes* replacing *yenge-lul kongpu* 'study English' in the above example. Given this observation, the most natural account of the distribution of *kukes* in (40b) must be that *yenge* 'English' and *kongpu* 'study' are in the relation of object and predicate, thus forming a constituent (Baker, 1978). Therefore, the verbal noun in light verb constructions can head a P-arc.

In sum, the clause union analysis of light verb constructions, which is based on the assumption that a verbal noun heads an initial P-arc and that it bears a 2 relation in the final stratum, has been confirmed by the distribution of adverbs, the occurrence of adjectives of manner, and the interaction of verbal nouns with pronominals.

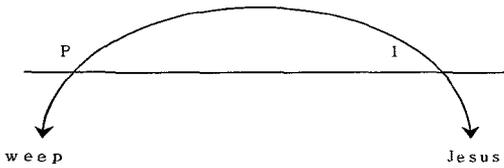
4. Unaccusativity and Some Residual Problems

The Unaccusative Hypothesis (Perlmutter, 1978a, b) claims that while intransitive verbs like 'weep', 'laugh', 'swim' and their cross-linguistic counterparts take 1s in the initial as well as final stratum of their RNs, certain intransitive clauses including the class of 'middle verbs' of traditional grammatical descriptions, occur without an initial 1 but rather with a 2. The Unaccusative Hypothesis further interacts with the Final 1 Law, which requires that the final stratum of every basic clause contain a 1-arc (Perlmutter & Postal, 1983). As a result, unaccusative verbs that occur without an initial 1 should undergo the process of Unaccusative Advancement, by which the nominal bearing an initial 2 is promoted to a 1. In this regard, as Gibson and Raposo (1986) noted, unaccusative clauses share with passive clauses the advancement of a 2 to a 1. Consider the following RNs.²⁰⁾

20) These examples and their RNs are from Horn (1980).

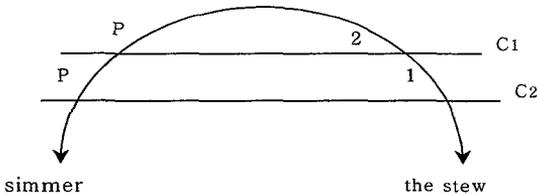
(41) a. Jesus wept.

b.



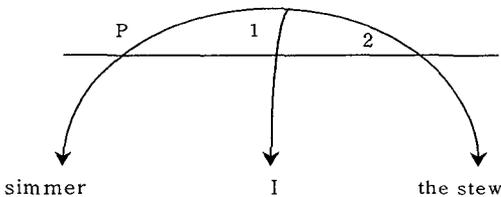
(42) a. The stew simmered.

b.



(43) a. I simmered the stew.

b.



The distinction between unergative (i.e. initial 1-taking intransitive) and unaccusative one-place predicates is assumed to be universally defined by semantic criteria. "The basic principle is that agents and experiencers are initial 1s, while non-agentive and patient subjects of intransitives are advanced 2s" (Horn, 1980, p. 134). Thus, the subject 'Jesus' in (41) is assigned initial 1 status, while 'the stew' in both (42) and (43) is considered to be an initial 2. This approach, therefore, allows the sentences (42) and (43) to be syntactically related without unnecessarily complicating our grammar.

In Miyagawa (1987, 1989), he notes that there exist some verbal nouns which show peculiar characteristics with regard to case marking in Japanese:

- (44) Taroo-ga *SISSIN* (*-o) sita
 Taroo-Nom faint-Acc suru-Past
 'Taroo fainted.'
- (45) Taroo-wa *SEIKO* (*-o) sita
 Taroo-Top success-Acc suru-Past
 'Taroo succeeded.'
- (46) Taroo-ga *TANZYOO* (*-o) sita
 Taroo-Nom birth-Acc suru-Past
 'Taroo was born.'

The verbal nouns above differ from those in (47)-(49) in that while the latter allows them to be accusative marked, in the former accusative morphology is impossible.

- (47) John-wa Mary-ni *HANASHI* (-o) sita
 John-Top Mary-to talk-Acc *suru*-Past
 'John talked to Mary.'
- (48) John-wa Tookyoo-kara *SHUPPATSU* (-o) sita
 John-Top Tokyo-from departure-Acc *suru*-Past
 'John departed from Tokyo.'
- (49) John-wa murabito-ni [ookami-ga kuru]-to *KEIKOKU* (-o)
 John-Top villager-to wolf-Nom come-Comp warn-Acc
 sita
suru-Past
 'John warned the villagers that the wolf was coming.'

Miyagawa (1987, 1989) attributed the distributional constraints of *sissin* 'faint', *seiko* 'success', and *tanzyoo* 'birth' to the assumption that they are unaccusative in nature. According to him, being unaccusative, they fail to assign an external theta-role. Then Burzio's Generalization predicts that lacking an external theta-role, the light verb which inherits all the arguments of the verbal nouns cannot assign (accusative) case to its object (i.e. the verbal noun).

Korean also contains unaccusative light verb constructions, but they

exhibit an interesting problem: unlike Japanese, unaccusative verbal nouns can be overtly accusative marked.

(50) John-i *SILSIN* (-ul) ha-yss-ta
 John-Nom faint-Acc do-Past-Decl
 'John fainted.'

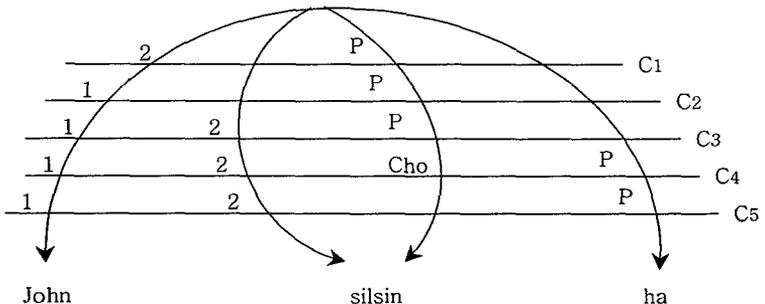
(51) John-i *SAMANG* (-ul) ha-yss-ta
 John-Nom death-Acc do-Past-Decl
 'John died.'

(52) catongcha-ka *PHOKPAL* (-ul) ha-yss-ta
 car-Nom explosion-Acc do-Past-Decl
 'A car exploded.'

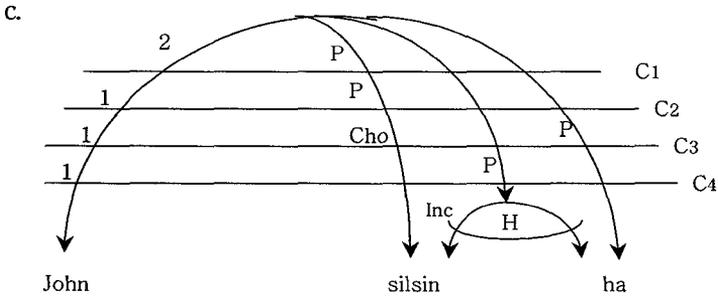
The verbal nouns in the above sentences are unambiguously unaccusative because they do not select agentive subjects.²¹⁾ The appearance of accusative morphology thus looks problematic at first sight. In the clause union analysis presented in this study, however, this problem can be taken care of without any stipulation. The two possible RNs of an unaccusative light verb construction are provided below:

(53) a. (=50) John-i *SILSIN* (-ul) ha-yss-ta
 John-Nom faint-Acc do-Past-Decl
 'John fainted.'

b.



21) Besides the absence of agentive subjects, evidence of accusative nature of this kind of predicates comes from the fact that they can launch quantifier floating, which is considered to be one characteristic of direct objects of transitive clauses. Interested readers may refer to Gerdtz (1985) and Miyagawa (1989).

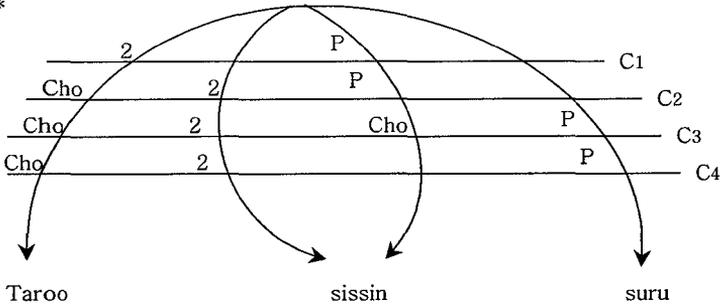


In (53b), the verbal noun *silsin* ‘faint’ initializes *John* as a 2, and then advances to 1 to satisfy the Final 1 Law that says every basic clause must have a 1-arc in the final stratum (Perlmutter, 1980, p. 211). The initial P (i.e. the verbal noun) acquires the 2 relation in the c3 stratum while keeping its P relation. In the next stratum, the initial P gets chomeurized by the entrance of the light verb *ha* due to the Stratal Uniqueness Law. In the final stratum, the multi-attachment is resolved in favor of the highest GR (i.e. 2 in this case). Therefore, case is assigned to the grammatical relation borne by the nominal in the final stratum: *John* gets nominative case, and the verbal noun *silsin* is accusative marked, as expected. Likewise, in (53c), unaccusative advancement occurs in the inner P-sector. Unlike (53b), on the other hand, the verbal noun *silsin* is chomeurized by the introduction of the light verb *ha* in the subsequent stratum, and the verbal noun and the light verb further incorporate, creating a single dependent heading a P-arc.

The main difference between Korean and Japanese unaccusative light verb constructions lies in the fact that Japanese does not allow unaccusative advancement in the inner P-sector (Dubinsky, 1989), while Korean does. The RN corresponding to the o-marked version of (44), repeated here in (54a), is the following.

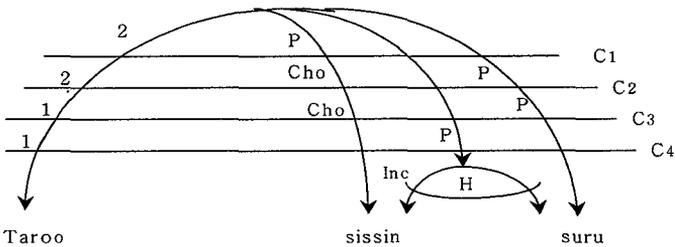
- (54) a. *Taroo-ga SISSIN -o sita
 Taroo-Nom faint-Acc suru-Past
 ‘Taroo fainted.’

b. *



The ungrammaticality of (54a) is readily accounted for because the P-2 advancement of the verbal noun *sissin* 'faint' would put the initial 2 (i.e. the subject) en chomage. Being a 2-Cho, this nominal cannot advance to 1, resulting in the violation of the Final 1 Law. Therefore, the only possible RN for this Japanese unaccusative construction must be the one in (55), where the verbal noun gets incorporated with the light verb. As a result, the unaccusative verbal noun cannot bear accusative morphology in Japanese.

(55)



The observation so far points to the conclusion that Final 1 Law must be parametrized: It constrains P-sectors in Korean, so that P-final strata must contain a 1-arc. On the contrary, it constrains clauses rather than P-sectors in Japanese, disallowing unaccusative advancement of a 2 to a 1 in the inner P-sector. The interaction of the parametrized Final 1 Law with other constructions and its independent motivation should be discussed in depth in future researches.

One further observation worth making at this point is that there are also some verbal nouns which do not allow accusative morphology in Korean:

- (56) * i muncey-nun KANTAN-ul ha-ta
 this problem-Top simple-Acc do-Pres-Decl.
 ‘This problem is simple.’

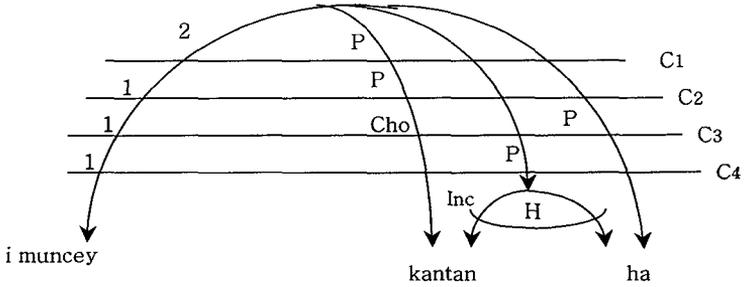
According to Ahn (1990), there are three types of light verb constructions in Korean. Type 1 is the most productive one and most Sino-verbal nouns, including the ones discussed in the present study, belong to this category. The nouns such as *philo* ‘fatigue’, *kantan* ‘simple’, and *hayngpok* ‘happiness’ comprise the second type and these constructions are transparent to some syntactic operations, indicating that they are not derived in the lexicon. Type 3 words²²⁾ are formed by the Word Formation Rule in the sense of Lieber (1980), so they are not analyzable in the syntax. Our main concern here is what makes Type 2 words distinct from Type 1. Observe the following sets of sentences:

- (57) a. John-i SILSIN-ul ha-yss-ta
 John-Nom faint-Acc do-Past-Decl
 ‘John fainted.’
 b. John-i SILSIN-to ha-yss-ta
 John-Nom faint-also do-Past-Decl
 ‘John also fainted.’
- (58) a.=(56) *i muncey-nun KANTAN-ul ha-ta
 this problem-Top simple-Acc do-Pres-Decl
 ‘This problem is simple.’
 b. i muncey-nun KANTAN-to ha-ta
 this problem-Top simple-also do-Pres-Decl
 ‘This problem is also simple.’

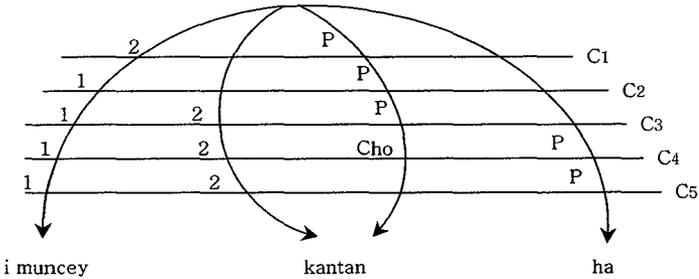
The verbal noun in (57) belongs to Type 1 and it can be followed both by the accusative marker and the delimiter *to* ‘also’. In contrast, (58a) and (58b) contain a Type 2 word. So it cannot bear accusative morphology, even though the delimiter *to* ‘also’ can be used right after the verbal noun. Given that the verbal noun in (58) is also unaccusative in nature, the resulting RNs of (58a) and (58b) should look like the following.

22) Some examples of Type 3 words are *yak* ‘weak’ and *kang* ‘strong’ (Ahn, 1990).

(59)=(58a) *



(60)=(58b)



The illicit RN in (59) indicates that unlike Type 1 constructions where incorporation is optional, non-incorporation in Type 2 would result in ungrammaticality. In other words, incorporation is obligatory in Type 2. However, the fact that delimiters can intervene between the verbal nouns and *ha* indicates that the incorporation in Type 2 is also syntactic just like in Type 1 constructions. Being syntactically incorporated, therefore, the constructions in question can be transparent to some syntactic operations such as the insertion of delimiters.

An immediate question is why the incorporated version of Type 1 and 2 behave differently, if the only difference between these 2 types is the obligatoriness of the incorporation. As Ahn (1990) points out, these 2 types differ from each other with respect to reply to yes-no-questions, gapping and the placement of a negative morpheme *an* 'not' (Ahn, 1990), and this suggests that the nature of the incorporation involved in Type 1 and Type 2 should be somewhat distinct. Unfortunately, however, the present study cannot be extended to this point. Further research must address this problem.

5. Conclusion

This paper has examined Korean light verb constructions and shown that their basic properties fall out from a union analysis within the framework of Relational Grammar, in which both verbal nouns and the light verb are taken to be predicates at some level of structure. To be specific, the theta-assigning property of verbal nouns is attributed to the fact that verbal nouns head an initial P-arc. And the occurrence of accusative morphology on verbal nouns is taken care of by the assumption that verbal nouns bear a 2 relation in the final stratum. Additionally, it has been argued that the present analysis can be extended to unaccusative light verb constructions, allowing us to offer an identical treatment to the distribution of case marking in those cases. That is, verbal nouns are assigned accusative case simply because they bear a 2 relation in the final stratum.

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Sun-Hee Kim
Division of General English
Seoul Women's University
126, Gongreung-2-dong, Nowon-gu
Seoul 139-744, Korea
E-mail : kimsh@swu.ac.kr

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