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On the autonomy of the morphological component and its relationship to other components *

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I. Introduction

Morphology did not become an independent branch of linguistics until the 1960s when Generative Grammar appeared. As we all know, morphology had always been the backbone of grammar, but within the 'parts of speech' in traditional grammar. In the 19th Century, the development of historical linguistics scored, by the name of Wortlehre or Formenlehre, a great achievement in explaining morphological characteristics and the changes of individual languages. Around the time of the 2nd World War, owing to the descriptive analysis of actual languages, morphemes were identified and their alternation conditions and distribution explained. E. Nida's *Morphology* (1946/1949) was the most important work of that time.

I studied morphology with Nida's book in the late 1950s. As an undergraduate, I worked with data from Middle Korean, and as a graduate student, with data from present-day Korean, returning to Middle Korean once again for my doctoral thesis. My morphological research was based on the structural linguistics of Saussure and Hjelmslev and on the descriptive grammar of Nida. I tried to explain the particles, endings, quasi-free forms, and especially morphological structures of Present-day Korean. In my research in the early 1980s on tense, aspect and mood in Middle Korean, I devoted a chapter entitled "Morphology" to the identification of morphemes. And when I wrote my grammars of Present-day Korean and Middle Korean, I reserved a chapter for morphology. In Ko Yong-Kun (1986), I tried to explain the relationship between the morphological component and syntactic structure using Middle Korean data. And in Ko (1993), when I set up a grammatical system describing all the variations of Korean, morphology likewise had its own individual chapter.

Today, on the basis of Korean grammatical research (including North Korean research) stretching from the early 19th Century to the late 20th Century¹⁾.

My goal here is to discuss the autonomy of the morphological component and its relationship to other components from a theoretically neutral viewpoint. By "theoretically neutral" I mean that I will attempt going to delineate a morphological theory based on Korean typological characteristics without leaning toward one particular theory. ²⁾

* The Yale System is used to romanize Korean linguistic data, while the McCune-Reischauer system is used principally for transcribing Korean authors' names and references. In preparing this article Professor Ross King (British Columbia University) helped me very much. I would like to thank him. But I take the full responsibility all the errors.

1. For overviews of the general trends in morphological research hitherto on Korean grammar, see Ko Yong-Kun (1983, 2000). For trends after Liberation (1945), see Kim Changsup (1996) and Song Cheolhui (1997). Chon Sangbom (1995) and Ahn Sang-chol (1998) introduce morphological research from countries other than Korea.

2. The Morphological Typology of Korean. 3)

Typologically, Korean is an agglutinative language.⁴⁾ When we say a language is agglutinative, it means there is a one-to-one correspondence between grammatical forms and their functions.⁵⁾ Please observe the following examples in English.

- (1) a. He sees a flower.
b. They see a flower.
c. He saw a flower.

(1a) has the verb *see* with an ending *s* because the subject noun phrase *he* is the third person singular. In (1b), the subject noun phrase is plural and it does not have *-s*. Thus there is a one-to-three correspondence between *-s* and its functions: third person, singular and the indicative mood. One grammatical form has multiple functions.

But when we say (1ab) in Korean,

- (2) a. Chelswu ka kkoch ul po - n ta
name nom. flower acc. see pres. Plain Style decl.
'Ch'olsu sees the flowers'
- b. Chelswu ka kkoch ul po - ass - ta
acc. see past
'Ch'olsu saw the flowers'

The **pon**ta in (2a) is analysed into a stem **po-** and an ending **-nta**. The ending structure **-nta** is again analysed into a prefinal ending **-n-** and a declarative ending **-ta**. Where **-n-** has the function of present tense and **-ta** has that of sentence final statement for the Plain Style speech level. Thus, *s* in English has multiple functions while Korean has singular function, though they are of the same property in the sense that they are both grammatical forms attached to verbal stems. The English conjugations as in (1a) are called external inflection.

Generally, English conjugates the verbal past tense form by attaching *-ed*. But in (1c) the vowel in verbal stem (s)**i** is changed to (s)**ɔ** : to get a past form. In *saw*, we cannot draw a line between the stem and the ending. This is called 'ablaut' or internal inflection.⁶⁾

In Korean there is a one-to-one correspondence between a grammatical form and its function. In this sense, unlike English or other Indo-European languages, the morphological characteristic of Korean is 'agglutinative'. When we say the morphological characteristics of a language are agglutinative, we can clearly see the constituents of words

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- 2). Chinese was believed to have nothing to do with morphology because it is an isolating language, Packard (2000) showed that even Chinese has morphological characteristics. Thus, the morphological component seems to be a universal, cross-linguistic component of grammar existing regardless of a language's typology.
- 3). This section is a more detailed version of Ko Yong-Kun (1989/ 2002). Much research has been conducted on the typological characteristics of Korean, especially in relation to other "Altaic" languages.
- 4). For the agglutinative characteristics of Korean, see Kim Yun-Kyong (1938), Lee Kun-Yong (1985: 6-18), Ko Sin-suk (1987:3-11), Ko Yong-Kun (1989/ 2002) and Im Hon-bin (1997). For the agglutinative characteristics of Japanese, which is similar to Korean in many respects, see Kaneko (1991).
- 5). Kuznekov (1956) referred clearly to this.
- 6). See Bubenik (1999: 18) for the latest discussion on external and internal inflection.

and the meaning/function is usually single.

Though the overriding paradigm or word-formation in Korean is agglutinative, some examples of internal inflection as in Indo European or isolating aspects as in Chinese are found, too. Isolating aspects are found in pre-nouns and adverbs. Pre-nouns and adverbs take their grammatical functions by virtue of the position they are placed in. The time-denoting word in Middle Korean had only three declensions: *pski*, *pskul*, *pskuy* but no free form **psku*. It is quite difficult to make a distinction between case particles and noun stems in such a declension. Though rare, nouns could derive verbs through the change of final consonant order. Nouns and verbs could acquire each other's function by zero-modification. In the following examples, the prefinal endings are fused and cannot be separately identified.

- (3) a. *nay ho- ta la* (1st-person retrospective)
 I-nom. do 1st.-p. retr. plain sl.
 'I retrospect that I do then'
- a' *tye y ho- te la* (3rd-person retrospective)
 he non-1st-p. retr.
 'I retrospect that he does then'
- b. *nay ho- kwa la* (1st-person assertive)
 1st perfect ass.
 'I assert that I have done'
- b'. *tye y ho- ke ta* (3rd-person assertive)
 non-1st perf. ass.
 'I assert that he has done'

In (3ab), retrospective *-te-* and assertive *-ke-*, are combined with the speaker marker *-wo-*. And it is very difficult to clarify where the retrospective or assertive is and where the speaker marker is. This is similar to Indo-European internal inflection, or ablaut. Compared to the modifiers *-n*, *-non*, *-ten*, the presumptive modifier *-l* can be reconstructed as **-lin*, but the *-li-* and *-n* are fused into *-l*. Similar cases are found in presumptive interrogatives. Paradigms like *-nye*, *-nonye*, and *-tenye* lead us to expect **-linye*, but *-lye* is realized instead. Note also that discontinuous morphemes are found in Korean.

- (4) a. *ka- ke si nul*
 go converb ('while')
 "while he goes"
- b. *ka- no - ningiskwo?*
 1st p. ind. Polite interr.
 'where are you going?'

(4a) is analysed into stem *ka-* 'to go' and the converb ending structure *-kesinul*. The *-si-* in this ending structure is a subject-honorific prefinal ending. It is placed in the middle of the converb *-kenul* and makes *-kenul* a discontinuous morpheme *-ke...nul*. (4b) is analysed into *ka-*, *-no-*, and *-ningiska*. The *-ngis-* in *-ningiskwo* is an addressee-oriented polite prefinal ending in the Middle Korean *hoyassye* speech level. Because it is placed in the interrogative ending *-nye*, we have a discontinuous morpheme *-ni...kwo*.

Korean has a massive amount of language data stretching from the Kwanggaet's stele of the early 5th century to the late 19th Century. ⁷⁾

Nevertheless, Korean language data before the mid-15th century are recorded in Chinese characters and it is quite difficult to determine the grammatical characteristics of Korean from such data. Korean did not truly show itself until Hangul, the indigenous Korean

7). Professor Kim Dong-so (1998/2003) has this stele as the upper limit of attested ancient Korean, a position we consider reasonable.

never existed at all, and for all practical purposes are no different from native Korean words. But such Sino-Korean words are small in number, where most Chinese characters are used as constitutives.

- (6) a. 1. **inlyu** cf. **swulyu** **insayng**
 mankind animals life
 2. **sanci** cf. **supci** **sanchwul**
 place of production swampy land production
 b. 1. **hankwuk-in** cf. **hankwuk-san** **hankwuk**
 Korean Korean production Korea
 2. **ilpon-san** cf. **ilpon-in** **ilpon**
 Japan prod. Japanese Japan

In (6a-1), **in** in **inlyu** is paradigmatically compared to **swu** in **swulyu**. Syntagmatically it is compared to **insayng** with the meaning of 'man'. But **in** cannot be used as a free form because Korean has its native equivalent **salam**. In (6a-2), **san** in **sanci**, bearing the meaning of 'produce', is compared to **supci** and **sanchwul**. And it can be interpreted as a constitutive. This **san** cannot be used as a free form, either -- both **in** and **san** are constitutives appearing in Sino-Korean words. Sino-Korean constitutives do not go into Korean dictionaries, but into Chinese Character dictionaries (**okphyen** in Korean). On the other hand, the **in** in **hankwuk-in** of (6b-1) is paradigmatically compared to the **san** in **hankwuk-san** and syntagmatically to **hankwuk**. It has the meaning of 'race with certain characteristics'. It is different from the constitutive **in** in the sense that it can be attached to a free word in order to derive a new word. In (6b-2), **ilpon-san** is paradigmatically compared to **ilpon-in**, and syntagmatically to **ilpon**, with the meaning of 'things produced somewhere'. The **in** and **san** in (6b), like **-kay** in (5), have word-formation function. They are grouped into formatives which belong in the dictionary. Most dictionaries carry them as suffixes.¹¹⁾

Constitutives and formatives are found in verbal inflections.

- (7) a. **Chelswu ka kkoch ul po- -n- -ta** (cf. 2a)
 b. **Chelswu ka kkoch ul po- -nu- -nya**
 Ind. Plain Style Interr.
 (8) a. **Chelswu ka kkoch ul po- -te- -la**
 'I retrospect that Ch'olsu sees the flowers then'
 b. **Chelswu ka kkoch ul po- -te- -nya**
 'Do you retrospect that Ch'olsu sees the flowers then'

In (7), the **verb po-** has tense- and mood-related constituents attached to it. (7a) is present indicative declarative and (7b) is indicative interrogative. (8a) is retrospective declarative and (8b) is retrospective interrogative. (7b) and (8b) are paradigmatically related in the environment of [po--nya]. Thus, the indicative **-nu-** and **-te-** are easily analysed. But in (7a) and (8a), the situation is quite different; **-n-** in (7a), as we saw in (2), is paradigmatically related to **-ess-** and expresses present tense, while **-te-** in (7b) coexists with past tense **-ess-** as **-esste-** syntagmatically.

As I mentioned in the final part of section 2, tense- and mood-related morphemes in Present-day Korean were often more transparent in Middle Korean. This makes the analysis relatively simple. If we change (7) and (8) into Middle Korean, we get the following:

11). Thus, **san** is entered as a suffix in all dictionaries from North and South Korea except the P'yojungugo taesajon (The Great Standard Dictionary of Korean)(1999).

- (7') a. *Chelsywu y kwoc ol pwo-no-ta* (cf. 7a)
 b. *Chelsywu y kwoc ol pwo- no - nye* (cf. 7b)
- (8') a. *Chelsywu y kwoc ol pwo- te - la* (cf. 8a)
 b. *Chelsywu y kwoc ol pwo- te - nye* (cf. 8b)

The *-no-* in (7'a) is indicative and the *-te-* in (8') is retrospective. The forms *pwonota* and *pwononye* in (7'a) and (7'b) are syntagmatically compared to *pwota* and *pwonye*. They are paradigmatically compared to *pwo-te-la* and *pwo-te-nye* in (8'ab). Retrospective *-te-* is easily analysed as was the case with *-no-*.

The ending structure in Middle Korean complies with both the paradigmatic and syntagmatic relation, making the analysis simple. But in order to analyze the Present-day Korean morphemes, we need to either set up a zero marker or adjust the paradigm. The fact that the analysis is so hard supports the notion that that tense- or mood-related morphemes are nearly fused into one unit with the endings following them. In other words, they cannot take part in sentence formation before they have been combined with the following endings. Observe the direction of the arrows in the following.

- (9) a. [Chelswu ka kkoch ul po-] n ta
 b. [Chelswu ka kkoch ul po-] nu nya
- (10) a. [Chelswu ka kkoch ul po-] te la
 b. [Chelswu ka kkoch ul po-] te nya

Those morphemes which can constitute only when they are combined with the following ending are called **muncangkusengso**; the English equivalent would be 'sentence-constitutive'. These have properties similar to the **tanekusengso**, or word-constitutives in (5a). But **-ass-** of **poassta** in (2b) is a different case. Paradigmatically, it contrasts with **-n-** in **ponta** of (2a). It is in paradigmatic relation with **-keyss-** in future tense.¹²⁾

The morphemes **-ass-** and **-keyss-** are usually combined with endings to give the sentence the meaning of future tense as well as presumptive modality. These kinds of final endings are different from the prefinal endings which are sentence constitutives. They give the function of tense and modality to the whole sentence. These endings are called **muncanghyengsengso**; the English equivalent would be 'sentence-formatives', in contrast to the 'sentence-constitutives'. Please observe example (2b) again.

- (11) **Chelswu ka kkoch ul po-ass-ta**. cf. (2b)

The **-ass-** in **poassta** of (11) gives the function of past tense to the primary proposition **Chelswu ka kkoch ul po-**. If we show the relation by arrows, we get the following:

- (11') [Chelswu ka kkoch ul po] -ass -ta

The declarative ending **-ta** has the function of closing the past-tensed proposition **Chelswu**

12). This **-keyss-** has two functions; the one is future tense and the other is presumptive modality. **-keyss-** gets the meaning of presumptive modality when combined with past tense **-ess-**. See Ko Yong-Kun (forthcoming: chapter 6) for more.

ka kkoch ul poass-. Thus, the concept of 'sentence-formative' includes all kinds of final endings such as past tense **-ass-**, **-keyss-** subject honorific **-si-**, etc. But we still have the problem of how to explain **-n-** in **ponta**. Let us return to sentence (2a).

(12) **Chelswu ka kkoch ul ponta**

The **-n-** in **ponta** is an inactive constituent because it is realized only before a few endings. When I first combined **-n-** and **-ta** in (9a) and then attached it to the proposition **Chelswu ka kkoch ul po-**, I did this on purpose in order to make **-n-** a constitutive. It also carries the function of a sentence formative in the sense that it is in paradigmatic relation on the same level with the sentence-formatives **-ass-** and **-keyss-**. Thus, we get another diagram like this:

(12') **[Chelswu ka kkoch ul po-] -n- -ta**

In (9a), **-n-** is a sentence constitutive and in (12') **-n-** is a sentence-formative. To give two functions to one grammatical form would seem to be an expedient way to avoid responsibility. But assigning two functions in this way matches native speaker intuitions. We can find this kind of phenomenon in other areas of Korean grammar, too.

Is the term 'morpheme' appropriate for designating 'the smallest meaningful unit'. The word 'morpheme' is from English, and goes back to 'morpheme' which the French linguist Vendryes used for 'semantème'. Bloomfield (1933:161) used 'morpheme' to designate a semantic element as well as a grammatical element, if it had any meaning at all. Chu Sigyong (1876-1914), the founder of linguistics in Korea identified the smallest meaningful unit according to his theory and called it '**nus-ssi**'. He identified the morpheme as a word-and sentence constitutive as well as a word-and sentence formative 20 years before Bloomfield did.¹³⁾

Chu Si-gyong's '**nus-ssi**' means 'atoms' word' or 'elements' word'. I would like to use '**eso**', as suggested in Kim, Min-su (1955), instead of morpheme; the English equivalent would be 'word-element'. In fact, currently 'morpheme' means 'the smallest meaningful element of a word', so **eso**, meaning 'word-element', may be more appropriate. However, one may use the traditional term 'morpheme' instead of 'word-element' proposed by me. Below the term word-element/morpheme come the constitutives and formatives, each in word and sentence level.

(13) word-element/
morpheme

{	word-constitutive
	constitutive
	sentence-constitutive
	word-formative
{	formative
	sentence-formative

Those two morphological components which I suggested for Korean -an agglutinative language- are not yet affirmed if they apply to inflectional languages or isolating languages, too. But if we examine various languages cross-linguistically, we may have a good chance to prove it.

4. How Autonomous Is the Morphological Component?

Morphology is the part of grammar that researches the internal structure of words. Taking morphology as a component of the total system of grammar, it is appropriate to call it the 'morphological component'. The morphological component consists of a word-formation component and an inflectional component. The word-formation component contains compounding and derivation while the inflectional component contains nominal inflection and verbal inflection. The word-formation component and inflectional component are both sub-components of the morphological component, but they have different properties. The former deals with constitutive and formative shapes of words, while the latter deals with

13). See Kim Min-Su (1961/1986: 98-121).

how the word function changes with the help of sentence-formatives, still retaining the original meaning.

4.1. The word-formation component

The word-formation component is divided into a word-formative component and a word-constitutive component. This division depends on which unit we take between word-formative and word-constitutive. The 'Word-formative component' deals with the process of forming new words with the help of word-formatives. The 'Word-constitutive component' deals with the process of analyzing complex words into word constituents. Like **-wung** in **cip-wung**, if it is distributed only for a particular stem, it belongs to the word-constitutive component. Like **-kay** in **tephkay** or **in** in **hankwun-in**, if it participates productively in word formation, it belongs to the 'word-formation component'.¹⁴⁾

The constituents of the word-formation component are the stem and the affix. Some stems have structural autonomy, like **cip** in **cipwung**. Some are unique morphemes, like the **in** in **mwutwu** in **mwutwu-cil** 'tanning'. For affixes, Korean has prefixes and suffixes. We can draw a line between constitutives and formatives according to their productivity. For the preference of languages users or language planning, constitutives may become formatives, and vice versa.

Morphemes in the word-formation component combine with each other according to common morphophonological rules. Similar cases are found in Middle Korean; it is a cross-linguistic phenomenon. When a stem and another stem combine, or when a suffix is attached to a stem, changes may happen to the stem or the suffix.

4.2. The inflectional morphological component

The inflectional morphological component has a sentence-constitutive component and a sentence-formative component in it. The distinction depends on which it takes between sentence-constitutives and sentence-formatives. In the sentence-formative component, sentence-formatives combine and control the process of sentence formation. In the sentence-constitutive component, sentence-constitutives combine and control the sentence formation process. The **-ass-** in **poassta** of (11) directly participates in sentence generation and belongs to the sentence formative component. The **-nu-** in (7) and the **-te-** in (8) combine first with the following ending to act as sentence-formative. Therefore, they belong to the sentence-constitutive component.

The units of the inflectional morphological component are the stem and the particle. The stem is again divided into free stems and bound stems. The former denote nominal stems and the latter verbal stems. Amongst free stems, the bound noun is a kind of quasi-free stem, and amongst bound stems auxiliary verbs are bound stems, but it is quasi-bound. Some stems are defective and occur only with certain particles. Particles are roughly grouped into nominal particles and verbal particles.

4.2.1. Nominal particles

Case particles, conjunction particles and emphatic particles belong to nominal particles. Case particles are subdivided into nominative, genitive, accusative, adverbial and vocative, according to their function in sentence formation. Adverbial case is again divided into locative, instrumental and comitative. When a nominal particle combines with a nominal stem, the particle as well as the stem changes. For example, the dropping of **-h** in the **h**-final nouns, the **mwo/mwu-** stem alternation and pitch-accent alternation in Middle Korean are all examples of non-automatic alternations that belong to the morphological component. Some phonologists may think they belong to phonology, but is incorrect.¹⁵⁾

That the cause of alternation is non-automatic means it cannot be explained in terms of synchronic phonology. Then how can it be the concern of the phonological

14). Song Won-Yong (2002) conducted a study of derivation by word-formatives from morphological and semantic nets.

15). The interface between the morphological and phonological components is often called the morphophonemic component. See Kim, Kyong-ah(1999) for this. See Lee, hyokhwa (2002) for alternation of morphemes.

component? Alternation in nominal particles is to be explained in the morphological component, except for the cases affected by phonological rules like vowel harmony. Though broadening the territory of the phonological component is not necessarily a bad thing, building a house on somebody else's land is never a good thing. ¹⁶⁾

The international journal *Yearbook of Phonology* never deals with a subject of this nature.

4.2.2. Verbal particles

Verbal particles are subdivided into final particles and prefinal particles. The final particle corresponds to the final ending of present school grammar. The prefinal ending is the above introduced sentence-formative. In final particles, we have sentence-final particles and non-sentence final particles. In sentence-final particles, sentence type marker (so-called sentence-mood), speech level and mood (verbal) category are correlated each other. Let's see the following examples:

- (14) **apeci ka naka- -si- -ess- -up- -ni- -ta**
 father nom. go out subj-hon. past polite m, ind. decl.
 'My father went out' (Formal honorific)

The verbal structure **naka-si-ess-up-nita** is analysed as follows:

- (14') **naka si ess upnita**

In (14'), **si, ess, upnita** are sentence formatives, since they directly participate in sentence formation. The complex unit, sentence-formative **upnita** is analysed into three sentence-constitutives: a polite-formal style (speech level) marker **-up-**, indicative **-ni-** and declarative ending **-ta**. These three morphemes are in the category of prefinal ending, but they always act together as one unit with the result that they count only as constitutives. Generally, sentence-constitutives are under the control of the semantic component or communicative-pragmatic component.

When a verbal particle combines with a verbal stem, alternations often happen according to morphological conditions. The Korean imperative particle has many allomorphs such as **-ela, -ala, -yela, -kela**, etc. Among these, **-ela** and **-ala** are chosen according to the rule of vowel harmony and thus are phonologically conditioned. On the other hand, the others are chosen by particular lexical items and are morphologically conditioned. **-yela** is chosen after stem **ha-**, **-kela** after stem **ka-**, **-nela** after stem **o-**, **-o** after **tal-**. Such alternations of verbal particles were more common in Middle Korean: **-kenul, -enul**, and **-nanol** were chosen according to their morpho-lexical features. Thus, **-kenul** comes after non-transitive verbs and **-enul** after transitive verbs, while **-nanol** is chosen after the non-transitive verb **wo-** 'come'. Many linguists in Korea explain the alternation of **-ke-** and **-e-** with syntactic features, but I believe this is incorrect. ¹⁷⁾

Syntactic features always accompany changes in syntactic structures. In Middle Korean, interrogatives were subdivided into two types. For example,

- (15) a. **ne y icey ka - no - nye?**
 you now go ind. plain inter. (yes-no question).
 'Are you going now?'

16). Ever since Kim Wan-jin (1975/1996: 97) tried to expand the territory of the phonological component, many phonologists have followed his lead. Bae Ju-Chae (2003) deals with morphological matters such as words, verbal conjugations and nominal particles in his book *Korean Pronunciation*. It is absurd to carry morphological issues in a pronunciation text book, as if it were an Introduction to Korean Linguistics.

17). My views on this problem are presented in Ko Yong-Kun (1989/ 1999: 14, 732), but some scholars still adhere to a syntactic explanation.

- b. *ne y icey etuy* *ka-no-nywo?*
 where plain inter.(wh-question)
'Where are you going'

(15a) is a yes-no question and (15b) is a wh-question. By changing the sentence-final particle *-nye* into *-nywo*, the syntactic structure changes from yes-no question to wh-question. The Middle Korean endings *-nye* and *-nywo* in (15ab) are not allomorphs of one morpheme, but different morphemes themselves. If they were allomorphs of one morpheme, they would appear in the same syntactic constructions. Now, let us examine sentences with *-ke*-endings and *e*-endings

- (16) a. *ne y icey cip ey* *ka-kenul*
 ne-i now home to go-converb
 'While you go home'
- b. *ne y icey pap* *mek- -enul*
 meal eat converb
 'While you eat a meal now'

In (16), the verb determines the alternation between *-kenul* and *-enul*, not some difference in syntactic structure, 'circumstance construction', as some scholars with inexact understandings of morpheme alternations wrongfully claim.¹⁸⁾

When a verbal stem combines with a verbal particle, various alternations happen. This phenomenon was also more complicated in Middle Korean than in present-day Korean. The unexplainable alternations of stems with *-p*, *-s*, *-t* are to be explained by morphological component. Ever since Kim, Chin-W. (1971/1988: 509-519) set up different underlying forms and explained them as 'regular alternation', this has been a main theme in Korean phonology. But it has been proved repeatedly that the alternation condition is non-automatic. Rather, these verbs must be explained in the morphological component.

The word-formation component is the most autonomous part of the morphological component. Firstly, we are obliged to admit its autonomy because the relationship between roots and affixes does not go beyond the word. Identifying the constitutives and formatives or changes in form and meaning of word formation is the most attractive theme in morphological research. The inflectional morphological component belongs to the morphological component in that a particle attached to a stem creates alternations with each other. At the same time, the functions go beyond the word to sentence formation. In this sense, the inflectional morphological component is under the control of the syntactic component. This is why the inflectional morphological component is often placed in the category of morpho-syntax.

5. Relation between Morphological Component and Other Components

In the previous sections, I claimed that the word-formation component is the most autonomous and that the inflectional morphological component is on the boundary between the morphological and syntactic components. These have their own identity but often correlate with the phonological component, syntactic component or lexical component.

Among the examples of imperatives given above, **-ela** and **-ala** are controlled by the phonological rule of vowel harmony. But **-yela**, **-kela**, **-nela**, and **-wo** are controlled by the morphological component. So we need a dual explanation for these. **-ela** and **-ala** are examples of vowel harmony in the phonological component. On the other hand, **-yela**, **-kela**, and **-nela** are generally explained in the morphological component. Such phenomena occur widely in Middle Korean. In the phonological component, various phonological phenomena in each category are explained by one rule. But in the morphological component the restrictions of individual morphemes are scattered and detailed according to their categories.

The following examples show that the morphological component has a close

18). For this kind of approach see Kim, Yu-pom (2001). I intend to go into more detail on this question in the near future.

relationship with the syntactic component.

- (17) a. **khun cip**
 big house
 'big house' or 'the house of one's elder brother',
- b. **eps - i**
 has not suf. (adv.)
 'not having'
- c. **mek - hi - ta**
 eat pass.suf s. final e.
 'is eaten up'

In (17a), one cannot determine whether **khun cip** means 'the house of one's elder brother' or 'a big house'. In order to distinguish whether phrases or strings of words are a syntactic construction or compound word, one needs knowledge from the syntactic component and the lexical component. Here, 'the lexical component' is different from the mental lexicon. The **-i** of **epsi** in (17b) is an adverb-making suffix and cannot go beyond the boundary of one word. But **-i** in the following example goes beyond the word boundary; it participates in sentence formation.

- (17b') **pay eps-i kenne- ki - ka elyep - ta**
 ship without crosses gerund difficult
 'It is difficult to across the river without taking a boat'.

Here, **-i** is not an adverb-making suffix, but follows the proposition **pay eps-** 'to take a ship' and makes it an adverbial clause. The adverbializing suffix **-i** becomes a sentence-formative and participates in sentence forming. The suffix **-hi-** of **mekhita** in (17c) participates not only in word formation but also in sentence formation since **-hi-** has the function of changing the syntactic structure.¹⁹⁾

This is similar to the case of **-n-** in the plain style declarative ending in **-nta** of (2a) where we admitted two functions of formative and constitutive. In Middle Korean, quotation verbs often took the transitive marker **-e**.

- (18) *nom muyW-un ptut ul twul tta*
ho-ya-si-nol
 other hates rel. part. Thought acc. have interrog.pcl says
 'while he says " Do you hate another?" '
- (18') *[[nom muyW-un ptut ul twul tta]S]NP ho-ya-si-nol*

In (18), the main sentence has a transitive marker. As we can see in the direction of the arrow of (18'), this is a piece of morphological evidence that proves that the embedded sentence is an object noun phrase. (18) shows the morphological component is closely related to the syntactic component

As discussed in (17a), the word-formative component controls word formation and has a close relation with the lexical component. A word-constitutive such as **-wung** in

19). The question as whether the suffixes for passive and causative constructions are word-constitutives or word-formatives is so complicated that we cannot give a simple answer. For the purpose of this article, I regard them as word-formatives.

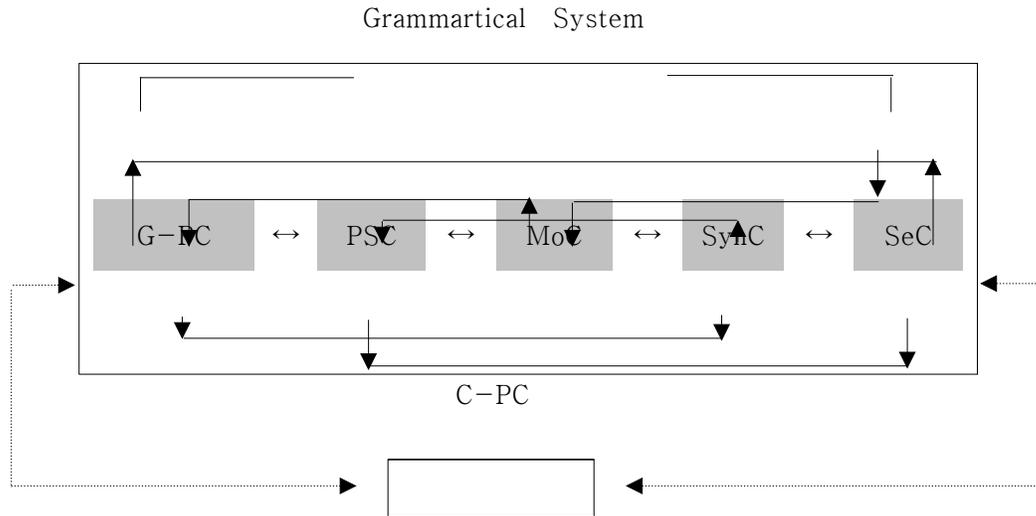
cipwung cannot take part in new word formation. So from the viewpoint of word formation, it seems meaningless to analyse it. But from the point of view of lexical semantics, identification of word constitutives is obligatory. Of the sentence-formatives, emphatic particles and speech levels are closely related to the communicative-pragmatic component.²⁰⁾

6. Closing Remarks

In this article, I have confirmed the autonomy of the morphological component and described its relation with other components. The morphological component consists of a word-formation component and an inflectional component. The most autonomous part is the word-formation component. The inflectional component is on the boundary of morphology and syntax and may be called the morpho-syntactic component.²¹⁾

On the other hand, the morphological component is primarily related with the grapho-phonological component, the syntactic component and the semantic component.²²⁾

It is secondarily related with the communicative-pragmatic component and even with the lexical component. The morphological component that I have suggested is based on the following tree diagram in Ko Yong-Kun (1993:202).



20). Kim Jin-Hyong (1999)'s morpho-pragmatics system with special reference to derivational suffixes can deal with the functions of speech levels and emphatic particles.

21). Park Jin-Ho (1999) insists that the lexicon (different from the lexical component) be the proper province of morphology and that the inflectional component as well as the word-formation component be included in it. The problem reverts to the question of how to define the so-called 'lexicon'

22). See Meren (ed.) (1999) for the boundaries among morphology, syntax, morpho-syntax, pragmatics, and semantics.

* The meaning of symbol

G-P C: graphemic-phonological component, PSC: part of speech component, MoC: morphological component, Sy C: syntactic component, SeC: semantic Component, CPC: communicative-pragmatic component

In traditional grammar, or in historical and descriptive grammar, the morphological component was considered to control not only the identification and alternation of morphemes but also their syntactic and semantic characteristics. At that time, the syntactical component led a comfortable life in the narrow confines of dealing with sentence structure as well as the syntactic function of words. But the situation has changed greatly since the 1980s. Korean school grammar as revised in the mid 1980s shifted all the meaning- and function- related themes (formerly dealt with in 'parts of speech' or 'morphology') to the syntactic component.²³⁾

Now the morphological component deals only with the identification of morphemes and their alternations; the morphological field has been much reduced. Whatever model we adopt, there should be no problems as long as we describe grammar consistently,²⁴⁾ but for now the best way forward is first to define clearly the proper domain of morphology, and then clarify in detail its relations to other components.²⁵⁾

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23). See Nam Ki-Shim & Ko Yong-Kun (1985/ 1993) and Ko Yong-Kun (1987/1997).

24). Suh Cheong-Soo (1994) describes Korean grammar by theme, without making a distinction between morphology, syntactix and semantics. This cannot lead to a general and systematic view of total grammar, though it may help avoid repetitions of description.)

25). A Korean grammar from North Korea (Lee Kun-Yong 1985), Bybee (1985) and Mel'chuk (1993, 1994, 1996) regard tense, mood and aspect as the object of morphology.)

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