Korean Graphemics and Korean Orthography*

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Kim, Sang-Tae. 2011. Korean Graphemics and Korean Orthography. *The Linguistic Association of Korean Journal. 19*(4). 67-82. A writing system is a way of writing a language. The research in this field has concentrated on alphabetic writing systems. Also, the written language has been considered as a secondary system of spoken language. However, the writing system(also called graphemics) has recently been regarded as a linguistic system in its own right. Graphemics deals with properties which are not found in spoken language and a structural description of how sound system and writing system are related to each other. Graphemics includes all the ways which write a particular language. On the other hand, orthography is mainly concerned with the normative writing system. That is to say, an orthography is established as a prescriptive rule at a certain time among the feasible writing systems. Within the context of modern times, there was a great variety in the language forms; any dialectical, stylistic and 'free' variations in the Age of Information. These are all the main objects of Korean graphemics. Among them, one of the forms could be established as a Korean orthography within the limits of possibility. The purpose of this paper is to investigate the correlation between Korean graphemics and Korean orthography.

Key Words: graphic form, Korean graphemics, Korean orthography, phonetic form, variable form of word

1. Introduction

The written language has been long relegated to a backstage position as

supposedly a mere substitute of speech. Because of this background, the main concern has been on spoken language rather than written language. Actually, the numerous studies have attempted to find and explore the rules which define phonetic variations. For this reason, little attention to the graphemics has been attracted as an object of linguistics. Relatively, little research has been carried out on graphemics in contrast to phonemics until now. I think the research on graphemics in Korean linguistics is still in its early stage.

Graphemics was coined on analogy with 'phonemics', and several phonological notions have also been applied to the study of written language. In particular, the notion of grapheme has been developed, which is analogous to phoneme. Graphemes are the smallest units in a writing system capable of causing a contrast meaning(Crystal 1987:194, Kim 2008b). Graphemics includes the spelling as well as non-spelling expressed by visual means, besides the letters. There are two different views on graphemics(Hong 1981). One is a heterogeneous graphemics (dependent on phonemics) whose grapheme is the smallest segment of speech. In other words, grapheme corresponds to phoneme. The other is an independent graphemics (non-dependent on phonemics) whose grapheme is defined autonomously without reference to speech. We may think that the latter is more persuasive than the former because the correspondence between grapheme and phoneme does not exist. Actually, the double and compound graphemes are written to indicate one phoneme, and inversely one grapheme has many phonemes in accordance with adjacent surroundings[1].

For this reason, we may assume that the written language has its own domain and linguistic system. Grapheme is the smallest unit of graphemics. This is largely classified into primary and secondary grapheme.[2] The primary grapheme is a spelling grapheme which forms the word. The secondary grapheme is classified into figural and zero grapheme[3].

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1) For example, the graphemes <ㅅ s>, <ㅌ th>, <ㅆ ss>, <ㅈ c>, <ㄷ t> are transcribed as a phoneme /ㄷ t/ in '낫 nas, 낱 nath, 났- nass, 낮 nac, 낟 nat, 낯 nach'. And, <ㅊ ch> corresponds to /ㅊ ch/, /ㄴ n/, /ㄷ t/ in '꽃이[꼬치 k'ochi]', '꽃만[꼰만 k'onman]', '꽃과[꼳꽈 k'otkwa]' in Korean.

2) These terms are analogized with phonemics. In phonemics, the segmental phoneme is called a primary phoneme, whereas the suprasegmental phoneme is called a secondary phoneme(Kim 2008b).

3) The figural graphemes function as letters do. These graphemes include punctuation,

However, the consequences in the preceding studies have been confused with transcription and writing system. A few works[4] in Korea recently show the difference between spoken and written language. But no studies have been accomplished about writing system, based on graphemics.

The purpose of this study is to investigate the correlation between Korean graphemics and Korean orthography, focusing on the spelling grapheme[5]. To accomplish this purpose, this study is largely divided into two parts. First, as shown in the examples of words used in writings of students, I intend to show the variable forms of lexical items. Second, I try to investigate the correlation between Korean graphemics and Korean orthography.

2. Variable Form of Word

In this chapter, I will look into the examples of variable forms of word. These data have been collected from the reports of students who attended the Korean Writing as liberal arts in Cheongju University. The report's title is the *Field Investigation of Cheongju University's Museum*. I analyzed the material so as to investigate the aspects of using word. Through this process, I classified the uses of word into two categories, abbreviation and misuses of words[6]. The former is a colloquial expression, although it is usable in writing. The latter is the examples of misspellings.

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symbolic, numeric and prosodic graphemes. And the zero grapheme is a space. The space is very important in deciphering the sentence in Korean(Kim 2008b:309).

4) Chang(1983), Min(1999), Sin(2004), Kim(2008b, 2009b).

5) The spelling system is the central system. One advantage of the use we are making of the term 'grapheme' is that, with the notion of the classified grapheme inventory, we can speak of the central class as the 'graphemes of spelling', 'spelling graphemes' (Mountford 1990:704)

6) In the second semester in 2010, I analyzed the report to correct the mistakes of use of word. In this process, I could find that the variable forms of words are noticeably seen. In this study, I make these things an object of study. I think these data are a characteristic of the use of word in students.

2.1. Abbreviation

The abbreviated form in Korean is defined as the shortened linguistic form rather than the original form when the dimensional phrases which function as a word or phrase are combined into one form in which maintained the meaning(Song 1993, Lee 2005). The abbreviated form in Korean orthography is allowed to be used, although the original form is the existing regulation. However, the shortened form is colloquial style in contrary to the original form.

The examples[7] of abbreviated forms are as follows.

(1) mam → ma.um   'mind'
    chem → che.um   'first'
    i.dam → i.da.um. 'next'

(1) is the forms which two syllable is shortened into one syllable.

(2) ku.key → ku.kes.i   'that'
    wu.lil → wu.li.lul   'us'
    kel → kes.ul   'the fact that'

(2) is the forms when an uninflected word in Korean is combined with particle. The 33th stipulation in the Korean orthography specifies that two forms could be shortened when an uninflected word is combined with particle; subjective and accusative.

(3) nan → na.nun 'I'
    wu.lin → wu.li.nun 'we'
    i.ceyn → i.cey.nun 'just now'

The '-n' is an auxiliary particle which functions in order to indicate a topic[8]

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7) In this study, Korean is written in the system of Yale Romanization. Although the Korean Romanizaton is still used today among the Korean linguists, the Yale Romanization has mainly become the standard and universal romanization for Korean among linguists.

8) The auxiliary particle '-ㄴ' is written as a topic marker in 3), but this particle is diverse used to indicate a sentence component in sentences.

in attaching with an uninflected word in Korean sentence. This form is much higher colloquial style than the original form ʼ-nunʼ.

(4) cen.si.hay nwa.se → cen.si.hay noh.a.se   ʼbe on displayʼ

The ʼcen.si.hayʼ is an abbreviated form of ʼcen.si.ha.yeʼ. In Korean orthography, the 34th stipulation specifies that the word ʼha.taʼ is written not ʼha.aʼ but ʼha.yeʼ because this form is a declinable word. The form ʼhayʼ is shorted form of ʼha.yeʼ.

And then, the ʼnwa.seʼ is a shortened form of ʼnoh.a.seʼ. In Korean orthography, the 35th stipulation explains that when the stem ʼcoh-ʼ of ʼcoh.taʼ attaches the ending ʼ-aʼ, it becomes ʼcoh.aʼ. But it does not ʼcwaʼ in a shortened form. But, there is an exception in case of ʼnoh.taʼ. The shortened form is ʼnwaʼ when the form ʼnoh.aʼ is shortened.

(5) pwass.ten → po.ass.ten
            ʼsaw(past tense of see)+te(retrospective mood suffix)ʼ
    ka.kkwe → ka.kkwu.e   ʼdress upʼ
    cwe.ya.keyss.ta → cwu.e.ya.keyss.ta   ʼwill giveʼ

In Korean orthography, the 35th stipulation explains that when the stem ending with ʼo/wuʼ is combined with ʼ-a/e, -ass/ess-ʼ, it is possible to write the shortened form. The following examples are the shortened forms.

(6) tway → toy.e ʼbecomeʼ

In (6), the ʼtwayʼ is shortened form of ʼtoy.eʼ. In Korean orthograpy, the 35th stipulation explains that when the ʼoyʼ combines with ʼ-e, -essʼ, it becomes ʼway, wayssʼ. At this time, we could write the shortened form.

2.2. Misuse of Word

In this chapter, I will investigate the spelling errors. This chapter is subdivided into two parts. One is a spelling error which lacks in the knowledge

of word form. The other is a phenomenon which transcribes graphic form into phonetic form.

2.2.1. Spelling

A spelling is the correct order of the letters in a word. A spelling grapheme is the central system in graphemics. The spelling grapheme is included into a primary grapheme[9].

Spelling mistakes are often just the results of the insufficient of knowledge.

(7) mo.the → mo.thay   'matrix'
mac.um.phyen → mac.un.phyen 'opposite side'
ka.ok → ka.hok   'severity'
chayng → chang   'the shade of a cap'
twis.phyen → twi.phyen   'the back side'
yen.yek → yeh.hyek   'history'
tung.an.si → tung.han.si   'negligence'
kays.swu → kay.swu   'number'
pa.laym → pa.lam   'desire'

(7) is the misspellings of word. Some forms are caused by the phenomenon of 'h' weakening, and others are caused by vowel assimilation.

(8) me.li.sok → me.lis.sok   'in one's head'
tam.pay.kap → tam.pays.kap   'pack of cigarettes'

(8) is the fallacy of *saisios*. The *saisios* is inserted between morphs in making a compound word. The *saisios* in (8) is to make an implosive sound of a prior word's final sound and a fortis sound of a posterio word's onset sound. We often see the mistakes of *saisios*.

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9) Primary grapheme is a spelling grapheme which forms a word. The spelling grapheme is divided into logographic and phonetic grapheme. The logographic grapheme represents the meaning. The phonetic grapheme represents a sound. The phonetic grapheme is subdivided into syllabic and phonemic(Kim 2008b:308).

(9) sey.ccay → seys.ccay   'third'
    ney.ccay → neys.ccay   'fourth'

(9) is the fallacy of a numeral. In old days, the form 'sey.ccay' and 'ney.ccay' meant an order, whereas the forms 'seys.ccay' and 'neys.ccay' meant a quantity. But, the difference between two forms is disappeared in the present Korean standard grammar and is united with one form 'seys.ccay' and 'neys.ccay'.

(10) hak.sayng.u.lo.sse → hak.sayng.u.lo.se   'as a student'
     nay.lye.wass.up.ni.ta → nay.lye.wass.sup.ni.ta.   'came down'
     no.lyek.ha.keys.ta → no.lyek.ha.keyss.ta   'will make an effort'
     yey.ppes.ta → yey.ppess.ta   'was beautiful at an earlier time'
     is.ta → iss.ta   'there is - '

(10) is the fallacy of a particle and the ending of a stem. The particle '-lo.sse' means a measure or an instrument, whereas '-lo.se' means a status or position. Two forms are very confused to students. The ending '-sup.ni.ta' is a polite expression which means a continuity of a present state and movement. And then, we could often see the fallacy between the prefinal ending '-s' and '-ss'.

(11) ley.po.thu. → li.po.thu   'report'
     ak.sey.sa.li → ayk.sey.se.li   'accessory'

(11) is the fallacy of a loanword orthography. In Korean orthography, the loanword writing system is separately laid down to consider the peculiar traits of each language.

2.2.2. Phonetic Transcription

As a matter of fact, orthography is a kind of bridge leading from spoken utterances to their written counterparts. Inversely, pronunciation is a kind of bridge leading from written to spoken utterances. In phonemic grapheme such as Korean and English, the correspondence between grapheme and phoneme actually does not exist.

In this chapter, let us see the examples of a phonetic spelling which

represents phonetic forms.

    (12) yeth.po.ta → yes.po.ta   'peep'
         nac.sel.ta → nach.sel.ta   'unfamiliar'

(12) is the fallacy when the graphic forms are transcribed into phonetic forms. We could find the disagreement between phonetic forms and written forms. Two forms are mistaken for a final letter. In Korean, the final letters *s, c, ch, th, t* are neutralized into [t]. These examples are phonetic forms of final letters.

    (13) mwu.hwa.cey → mun.hwa.cay   'cultural assets'
         sayk.chey.kam → sayk.chay.kam   'color sensation'
         hey.mey.ta → hey.may.ta   'wander'
         kwa.cay → kwa.cey   'task'

(13) is the mistakes caused by the confusion between [e] and [ɛ]. Actually, most of the students indiscriminately pronounce [e] and [ɛ].[10] Hence, students spelled confusedly.

    (14) twis.pak → toys.pak   'doe, Korean unit of measure'

(14) is caused by the confusion between [wi] and [we].

    (15) pyel.kes.twu → pyel.kes.to   'a small thing'
         pyel.lwu → pyel.lo   'not in particular'

The grammatical morpheme {-o} has a tendency to change {-wu} after first characters of word. This case very often happens in Korean in case that both the ending '-ko, e.to' and particle '-to, -lo' have an inclination to change.

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10) In modern Korean, the system of Korean vowel has been changed by the sound similarity. For example, the difference between [e] and [ɛ] in simple vowel, [we]/[we, ø] and [wɛ] in dipthong vowel has gradually been disappeared.

(16) kkoy → kkway   'quite'
   wayn.man.khum → weyn.man.khum   'fairly'

We could find that the distinction between [we/ø] and [wɛ] has disappeared in the younger generation. This confusion is caused by the change of the system of modern vowel. I could see lots of these examples.

(17) yak.kan.ey → yak.kan.uy   'a little'
   na.man.ey → na.man.uy   'by myself'

(17) is caused by the difference between writing system and pronunciation. According to Korean orthoepy, the 'uy' is allowed to pronounce [i] except that the first syllable, particle 'uy' is allowed to pronounce [e], but is prescribed to write 'uy'.

(18) il.cci.ki → il.ccik.i   'early'
   swu.pa.kkey → swu.pakk.ey 'there is nothing for it but to do'

In 18), the examples are written in accordance with phonetic forms. According to liasion rule, the ending, particle, and suffix is pronounced into onset of next syllable when the final letter of morpheme meets the bound morpheme starting with vowel letter. The phonological rule is adapted to written form.

(19) kyek.ci → kyekk.ci   'doesn't experience'
   kwayn.chan.un → kwayn.chanh.un   'fine'
   en.ccan.a → en.ccanh.a   'displeased'

In Korean orthography, the final letter of characters is 27 letter including a zero. On the contrary, the coda of syllable in Korean orthoepy is 7 phonetic forms. In Korean, the disagreememt between phoneme and grapheme is very often between final letter of character and coda of syllable in Korean. In Korean orthoepy 9th stipulation, the final letters, *kk, kh, s, ss, c, ch, th, ph* which are located in the final letter of word or in front of consonantal letter is pronounced

[k, t, p]. These forms are phonetic forms.

Also, according to 14th stipulation, the *h* is prescribed not to pronounce when the final letter *h(nh, lh)* combines with the ending and suffix starting with the vowel letter.

(20) kat.tta o.ki → kass.ta o.ki.   'went and came'

These graphic forms are the same as phonetic forms. In Korean orthoepy 23th stipulation, the graphemes *k, t, p, s, c* are palatalized after the final letter of characters, *k(kk, kh, ks, lk), t(s, ss, c, ch, th), p(ph, lp, lph, ps)*.

(21) na.su.syess.ta → na.se.syess.ta   'took the lead'
     aph.cang.su.syess.ta → aph.cang.se.syess.ta
                                        'took the initiative in'

In Korean dialect, we could see the phonetic forms, which is to say, [ɨ] instead of [ə]. Also, the other examples, 'ku.me.li(ke.me.li), 'u.lun(e.lun)', 'ku.ci(ke.ci).

(22) ssey.lyen.doy.ess.ta → sey.lyen.doy.ess.ta   'refined'
     nok.ssul.ta → nok.sul.ta   'become rusty'

The palatalization is natural phonetic tendency in younger generation. I think this phonetic forms are the cases which are caused because of the generation gap.

(23) a.nim → a.ni.myen   'or'
     dwayss.um → doy.ess.u.myen   'I hope things will work out'

This phenomenon is seen in the phonetic forms. This phenomenon happens when two morphemes combine. These graphic forms are colloquial styles.

3. Correlation between Variable and Formal Form

In previous part, I investigated the variable forms in contrary to the formal forms which were regulated in Korean orthography-focusing on lexical items. In this chapter, I will try to inquire into the correlation between Korean graphemics and Korean orthography.

3.1. Classification of Variable Forms

In previous chapter, I investigated into the variable forms of lexical items written in students' reports. The main characteristics are the colloquial style and the misuses of words.

In analyzing the phenomenon, I found two main distinctive facts.

First, a number of students use the shortened forms. This form is that two forms are reduced to one linguistic form maintaining the meaning. This form is more colloquial style than original form. This form is permitted in daily life, although the Korean orthography makes original form a rule to write.

Second, we could see the fallacy of words. The fallacy of words is subdivided into two kinds. First of all, we could see the spelling errors caused by the insufficiency of knowledge. I think this mistake could be corrected by education. And also, we could see the phonetic forms which was applied by the phonological rule. The phonological rule is a bridge from written form to phonetic form. In alphabetic grapheme, for example, Korean and English, the correspondence between phoneme and grapheme is ideal. But, the discorrespondence very often happens between phoneme and grapheme. Actually, I could see the phenomenon that students write in phonetic forms.

Summing up, this will come to the following result. First, the students write the mixed forms which combine graphic forms with phonetic forms. That is to say, the students write the graphic forms as if they say. I think the distinction between graphic form and phonetic form disappears in ordinary life. Second, the students write the graphic forms, ignoring the existing orthography.

3.2. Establishment of Standard Language

The spelling is the convention which determines how the graphemes of a

writing system are used to write a language. The term is sometimes used interchangeably with orthography, but there is a difference. In the strict sense, an orthography is a standardized spelling system, where the standard has been codified, explicitly in official guidelines. An orthography has been developed over the centuries and perhaps laid down in generally accepted reference work such as a dictionary.

Generally, an orthography is a normative selection of the possibilities of a script for writing a particular language in a uniform and standardized way. On the other hand, the graphemics includes all the ways which write a particular language. Therefore, graphemics deals with the writing system, but an orthography is mainly concerned with the normative writing system. And also, graphemics is a study which concentrates on writing system, but orthography is a linguistic subsystems of writing a specific language. The orthography is often codified by official decree. So, all orthographies are included in one of all writing systems, but all the writing systems are not orthographic. In principle, an orthography is established as a prescriptive rule at a certain time among the feasible writing systems. Hence, normative rule is a means for people to prevent effectively confusion in communicating with other people in written language. The essential identity of words is conveyed by the correct selection and sequence of graphemes - the spelling rules of language. This is the main component of any graphological description.

However, graphemics is a study that needs to include, not only the 'normal' rules that have to be learned in order to read and write, but any dialectal, stylistic, or 'free' variations. Within the context of modern times, there was a great variety in the language forms that different authors wrote, and there was a great variety in the ways they employed to represent them. The variable forms are the objects for study of graphemics.

To a large extent, the standardization of spelling went hand in hand with the standardization of language and the consolidation of written form. Once a standard has been established, it has a tendency to perpetuate itself.

The orthography is established among the diverse writing systems, whereas writing system generally includes the method of writing within the limits of possibility. Hence, one of the graphic forms is in accord with the norm. Therefore, every orthography is one of the writing systems, but all the writing

systems don't become an orthography. In principle, the orthography is established in accordance with the binding force among the many writing systems. That is to say, the orthography is the device for the people to understand visual confusion in communicating literally with other people.

But, we may think that the norm could be changed according to the times. In the present, there was a great variety of written forms. These are all the main objects of Korean graphemics. Among these, some forms could be established as prescriptive forms.

Until now, the studies in this field have focused on the mistakes of writing system which does not accord with Korean orthography. However, I think the variable forms of lexical items are good enough to become the object of Korean graphemics.

Graphemics deals with the variable forms which can be theoretically written, whereas orthography deals with the regulation that is right among the variable forms. Generally, the students are asked to write in conform with orthography as a rule. However, orthography is normally prescribed based on the cognition as a result of graphemics. That is to say, the research on variable forms of lexical items could give an aid to establishment of Korean orthography.

4. Conclusion

In this study, I investigated the variable forms in lexical items. In considering the students' reports, I could see the variable forms in lexical items. In the main characteristics of variable forms, one is a use of abbreviation, the other is a use of phonetic forms which do not accord with Korean orthography. To sum up, students write words as if they say.

Up to now, there are many researches that have studied the mistakes of writing system in many fields; writing of students, the decision of court, an official document, and etc. The studies in these fields have concentrated on the wrong use of orthography. However, the studies have not found the rules which could be defined graphological or graphic variations in contrast to rules which could be defined phonological or phonetic variations. I think this tendency is caused by the concentration on spoken language as an object of linguistics. Up

to now, the mainstream of linguistics has long been on phonemics.

However, some researches have shown the difference between spoken and written language in recent studies. All the variable forms of lexical items are objects of graphemics. The orthography is established among the diverse writing systems. Hence, the orthography is one of the graphic forms within the limits of possibility.

Although this study did not present a rule of graphic variations, I think the variable forms of lexical items are good materials for exploring the rule of graphological variations. In the coming study, I will investigate into the graphological rule which could explain the diverse graphic forms.

At this point of time, I try to propose the new consideration of variable forms of words in establishing Korean orthography. To do this, I think it is time to investigate the diverse writing system-dialectical, stylistic, and free variation. Through this, we can explore the graphological rule which can explain the variatons, and then regulate the normative writing system,

That is to say, Korean orthography is based on the results of Korean graphemics. The latter is a matter of description of diverese writing systems. The former is concerned with the establishment of standard language. I think Korean orthography is a subdiscipline of Korean graphemics. As Korean grphemics develops, Korean orthography will grow more and more.

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