Language Change and Linguistic Fossils

SONG, Cheol-eui*

1. Introduction

Language changes continuously over time. Because language change does not take place across the board at all levels of the language system, there are cases in which during the process of change some traces or exceptional elements are left behind. These have often been termed fossils which remained unchanged beneath the waves of change. Fossilization is a linguistic phenomenon which leaves certain linguistic elements as fossils. In the study of the Korean language, however, there has not been much discussion about the concept and nature of fossils and fossilization. In practice, most of the studies have been limited to citing isolated or occasional examples of such a phenomenon.¹

As has already been mentioned above, because fossilization is related to diachronic language change, it has often been dealt with in the discussion of the history of the Korean language or in the discussion of exceptional cases to the synchronic analysis of the language. The following are some typical examples of fossils pointed out by Ki-moon Lee (1972a):

(1) a. cops' al 'hulled millet' cf. co 'millet' + s'al(<MK p's'al) 'hulled rice' (p. 145)
   b. amt³alk 'hen'    cf. am(<MK amh) 'female' + talk 'chicken'
       sul³alk 'cock'    cf. su(<MK suh) 'male' + talk 'chicken'
       anp³ak' 'inside and outside' cf. an(<MK anh) 'inside' + pak' 'outside' (p 145)

*Professor of Korean Linguistics, Seoul National University


1 Several important facts about linguistic fossils have recently been pointed out in Lee Ki-moon (1995) and Lee Sung-chae (1992). This paper has benefited greatly from both these works.
The example in (1a) contains ‘p’ which is the trace of word initial consonant cluster ‘ps’ in ‘psʌl’ (hulled rice). In Korean, word initial consonant clusters developed into tense consonants, e.g. ps>s’, pt>t’, pc>c’ ‘psʌl’ changed to ‘s’al’. So there is no word initial consonant cluster in Present-day Korean (PK). The examples in (1b) contain the trace of h-stem final nouns. In Middle Korean (MK) there were some h-stem final nouns. amh, suh, anh, etc. But all of those words have lost stem final ‘h’. The examples in (1c) are the traces of the unsyntactic compound-formation rule (verbal/adjectival stem + verbal/adjectival stem), and those in (1d) contain traces of the prolicative case marker ‘-l’. The example in (1e) contains the trace of the MK causative suffix ‘-ʌ’ which also does not exist in PK. ‘salʌcap-’ containing the suffix ‘-ʌ’ changed to ‘salocap’ in the process of dephonologization of ‘ʌ’. All these examples show the traces of diachronic changes that have taken place in the history of Korean. Although both word initial consonant clusters and h-stem final nouns have disappeared from the Korean language, they did not disappear completely at all levels of the language system, but, as can be seen from (1a) and (1b), there are cases where traces remain in the complexes. These traces have been dubbed ‘fossils’. As yet, however, no discussion has been made in the explanation of those fossils on their notion, nature and characteristics.

Our discussion starts off by raising a few questions concerning linguistic fossils on the basis of the examples given above. Firstly, ‘salʌcap-’ in (1d) has become ‘salocap-’ in PK. This shows that the causative suffix ‘-ʌ’ did not remain as a fossil in its original form, but it went through a change in its form. This phenomenon differs from what we know about biological fossils. Our general knowledge about the fossils found in the natural world is that the fossils usually maintain their form after they are buried beneath the layers of the earth’s crust. This fact suggests that there exist some differences between biological fossils and linguistic fossils. Because of this, it may be interesting to raise the question of in what ways these fossils differ from each other. The identification of the differences between the two categories of fossils would lead to highlighting the characteristics of linguistic fossils.
This, of course, is related to clarifying the concept of linguistic fossils in the study of language.

Secondly, all the examples in (1) cannot be accounted for from any synchronic approaches. This means that the words in these examples cannot be formed by synchronic linguistic rules. A reasonable explanation for these phenomena can only be given from a diachronic perspective. In current morphology, the term ‘lexicalization’ is often used for those linguistic forms that cannot be generated by synchronic linguistic rules. This raises a few questions about the relationship between lexicalization and fossilization. Are these two concepts identical or different? It would be desirable to unify the two concepts if they are identical, and it would also be necessary to clearly point out the differences if they are different.

Thirdly, while in the example ‘cops’al’ of (1a) the phoneme ‘p’ is the problem, in the example ‘salacak’ of (1e) the morpheme (or the causative suffix) ‘-ə’ is the problem. On the other hand, in the case of the examples ‘tolpo-, solik’ of (1c), the compound formation rule which combines two verbal stems is the case in point. As a result, we can see that in each case the fossils found in (1a), (1b) and (1c) are not of the same nature. This suggests that there are various types of linguistic fossils. In connection with this, we can raise another question concerning the types of linguistic fossils.

Fourthly, in a discussion of linguistic fossils the most fundamental question seems to be which parts are referred to as fossils, for example, in the case of ‘anphak’, ‘anphak’ is a combination of ‘anh + pak’. The question is whether ‘anphak’ as a whole is the fossil, whether the h-stem final noun ‘anh’ which does not exist in PK is the fossil, or whether the final phoneme ‘h’ of the h-stem final noun is the fossil. It seems that this problem has not been dealt with properly in any discussions about linguistic fossils in linguistics.

As can be seen from the questions raised above, there are quite a few questions as regards linguistic fossils. The purpose of this paper is to deal with some of the basic problems with linguistic fossils. If the term ‘fossil’ has been introduced into linguistics to account for certain linguistic phenomena, it also suggests the need for a detailed discussion about them.

2. Biological Fossils and Linguistic Fossils

The term ‘fossil’ was borrowed from geology. The geological definition of fossils is ‘any remains, impression, or trace of an animal or plant of past geological ages that has been preserved in the earth’s crust’.
It is likely that we may make the mistake of linking fossils with something made from stone, but the term 'fossil' covers a wide range of the remains of any living things which existed over 10,000 years ago. These biological fossils are static in the sense that they are covered with thick ground layers. So they are not affected by any possible later change of the living things in the outer world. For example, in case an animal or a plant which existed tens of thousands of years ago is fossilized, the state of the fossil do not get affected by the change or evolution of the living things in the outside world at a later period.

If we accept the term 'fossil' in this sense of the word, linguistic fossils should refer to the old written languages which remain in documentary records (e.g. manuscripts, bronze and stone inscriptions, etc.). They are very similar to biological fossils in that they are preserved in documentary records as they were, and they are rarely affected by any later linguistic changes. In linguistics, however, those old written languages in documentary records are not referred to as fossils. This means that there is a fundamental conceptual difference between biological fossils and linguistic fossils.

Linguistic fossils do not refer to those static linguistic elements, but to those historical elements remaining in the language of certain periods. Words like 'cops'al, amthalk, tolpo-, salocap-, 1h' given in (1a-d) above are all words of current use in PK. The term 'fossil' can only be applied to the traces of the historical change included in the linguistic elements in current use. Because of this, it can be said that while biological fossils are not found in the living things of the present day but in the ground layers of earth formed in the past, linguistic fossils are not found in the documentary materials written in the past but in the contemporary language in any period. In short, one distinguishing feature between the two categories of fossils is that while biological fossils are hidden beneath the ground layers of earth, linguistic fossils are exposed to actual usage.

Because linguistic fossils are exposed to actual usage, unlike biological fossils, they are not always in a static state. This means that after a process of fossilization the original form of linguistic fossils is not always maintained, but they are subject to changes. This fact has already been suggested in the previous section by the example 'sal\cap- > salocap-', and we can also see the same phenomenon in the

---

2 This fact has already been pointed out in Lee Ki-moon (1995 178)

"There is a difference, after all, between the fossils in the language and those in the earth's crust. Unlike biological fossils, linguistic fossils are not burned, but rather belong to the lexicon of actual usage. As a result, they are subject to the same changes as other linguistic elements."
word 'kosimtocbi' (hedgehog). It is a well-known fact that because 'kosimtocbi' has developed from its earlier form 'kosomatoci' (kosom+toci), within this word the obsolete word 'totbi' (pig) remains as a fossil. However, the fossil is not preserved in its original form, but it has changed to 'tocbi' following the palatalization (t^h -> c^h / _i). On the other hand, in some dialects the word 'totbi' has remained as a fossil, as in 'amthotbi' (female pig), 'suthotbi' (male pig), but, in other dialects where coronal (tongue-tip) sounds in stem-final nominal position changed to spirant sounds, these words have been reconstructed as 'amthos, sutbos'. In this case, because the word 'totbi' underwent the change 'totbi>tos' after the fossilization process, the fossil does not retain its original form. In short, although 'totbi' came to remain as a fossil, in some cases it became 'tocbi', and in other cases it became 'tos'.

Now let's consider the example 'selop' (to be new, to be fresh). 'se' in 'selop' should not be treated as an adnoun, but as a noun, for '-lop' (adjective formation suffix) never combines with adnouns. It is well known that 'se' used to function as a noun in MK. In other words, 'selop' is a derivative formed by the combination of the noun 'se' (when it functioned as a noun) and '-lop' (Cheol-eui Song 1983, 1992). In contrast, because there are no cases where 'se' functions as noun in PK, we can argue that in the case of 'selop' the nominal function of 'se' came to remain as a fossil. At first glance, 'se (se)' is most likely to be recognized as a fossil which has maintained its original form because its written form is identical in both MK and PK. However, one important point to note is that the phonemic value of 'se' is not the same: while the phonemic value of 'se' in MK was /saj/, the phonemic value of 'se' in PK is /se/.  

As can be seen from the examples given above, unlike biological fossils, linguistic fossils go through changes continuously and even the same linguistic element may end up with remaining as different forms in different environments. In this respect, it can be said that there is, by nature, a conceptual distinction between biological fossils and linguistic fossils.

In connection with this, however, note that the fact that linguistic fossils are subject to change does not always mean that they are ready to accept all the possible changes. As has often been pointed out, linguistic fossils are conservative in their

---

3 For a detailed discussion about spirantization of coronal (tongue-tip) sounds in stem-final nominal position, see Kwak Chung-Ku (1984).
4 'se' functioned as both noun and adnoun in MK, but it functions only as adnoun in PK.
5 In MK the phonemic value of 'se' was the diphthong /ay/, but since Modern Korean its phonemic value has changed to the monophthong /e/.
attitudes towards change. By conservative I mean their opposition to change. In fact, it can be said that the notion of linguistic fossils presupposes the conservativity. In that case, isn’t the conservativity of linguistic fossils incompatible with their subjectivity to change? In order to answer this question, it is necessary to consider the types of change. To jump to the conclusion in advance, linguistic fossils are subject to some types of change, but they are not subject to other types of change.

In the case of ‘\text{anphak}’ \textsuperscript{1}, the h-stem final noun ‘anh’ as such has been reconstructed as ‘an’ after the process of losing the stem final ‘h’, but the fossil ‘anh’ in ‘\text{anphak}’ is resisting such a change. As an example, consider the word ‘\text{uci}’ (a crybaby). It is the combination of the verbal stem ‘\text{ul}’ (to cry) and the suffix ‘-\text{ci}’ Here the consonant ‘l’ is deleted in front of the consonant ‘c’. The ‘l’ deletion rule in front of ‘c’ has disappeared in PK, but the form ‘\text{uci}’ is the result of the application of this rule. In short, PK does not accept the ‘l’ deletion rule. In view of this, fossils tend to be conservative either in the process of reconstruction that stems undergo independently or in the phonological phenomena which take place on the boundaries of morphemes. As has already been shown in the example ‘\text{se}’, fossils do not normally resist either unconditional phonological changes like the monophthongization of diphthongs or phonological changes taking place irrespective of the morpheme boundary.

One characteristic of linguistic fossils is that in many cases it is extremely difficult to determine whether the element is a fossil or not if there is no historical information about a linguistic element. Let’s take ‘\text{mip}’ (to be hateful) as an example. In PK, synchronic linguistic information alone is not sufficient enough to judge whether ‘\text{mip}’ is a single morpheme or a combination of more than two morphemes. It is highly likely that ordinary people recognize it as one single morpheme. It would be impossible to find a fossil in ‘\text{mip}’ so long as it is regarded as one single morpheme. As is well known, however, ‘\text{mip}’ which has developed from ‘\text{mjip}’, is formed by the combination of the verbal stem ‘\text{mj}’ and the adjective formation suffix ‘\text{-p}’ (Pyong-hi Ahn 1959). The form ‘\text{mjip}’ underwent phonological changes on a historical basis and then became ‘\text{mip}’.

This historical information makes it clear that the fossil of the verb ‘\text{mj}’, which does not exist in PK, is included in the form ‘\text{mip}’. At one time, traditional grammars of Korean agreed that ‘p’ and ‘h’ were inserted into ‘\text{ cops’al}’ and ‘\text{amphalk}’ respectively during the process of forming compounds. This seems to have been caused by the absence of historical information about these words. The analysis of these words in this way would make it very difficult to treat them as fossils. Consequently, these examples highlight the importance of historical information in dealing with linguis-
tic fossils.

This is more true of the examples which became fossilized over a long time ago, for they may have underwent much greater changes in proportion to the time elapsed. In the case of 'kawi' (scissors), for example, assuming that 'kawi' has developed like ‘k∀z-kaj’ (> k∀zgaj > k∀zaj > k∀aj > kawi) (Ki-moon Lee 1968), we can say that the fossil of the verb ‘k∀z-’ is remaining in ‘kawi’. It is, however, not a simple process to extract the fossil of ‘k∀z-’ from ‘kawi’. It would not be too much to say that it is almost impossible to carry out this analysis without sufficient historical information about the word. There may sometimes be cases where details of etymological information are needed. As an example, let’s consider the example ‘sine’ (brook, stream). In this case, ‘si’ has often been misconstrued as having the meaning of ‘sil(thread)’, but recent studies of place names and etymologies proved that the meaning of ‘si’ here was not ‘thread’, but ‘ravine’. As a result, it is evident that ‘si’ in ‘sin’ is the fossil of ‘sil’ (ravine) (Ki-moon Lee 1987).

3. Fossilization and Lexicalization

In current morphology, the term ‘lexicalization’ is used for derivatives or compound words which cannot be accounted for by any synchronic linguistic rules. Lexicalized derivatives or compounds cannot be derived by any synchronic rules. These derivatives or compounds may undergo changes independently of their components, or they as a whole may resist the changes open to their components, for the newly formed words take on the status of individual words in their own right. It is also likely that although word formation rules involved in the creation of these derivatives or compounds may disappear, the new words can remain intact. In the process of word formation, these various factors create the phenomenon of lexicalization and they are all related to historical change. In some cases, the derived nouns ‘kimim (kimil- + -m, the last day of the month), salkøc (salkøc- + -i, dishwashing)’ became lexicalized by the disappearance of their bases ‘kimil-(to wane), salkøc-(to wash dishes)’, respectively. In other case like ‘kalchi’ (kal(i) + -ch, a hair-tail), its component ‘kal(kalh)’ has changed into ‘kbal’ (knife), but the derivative (kalchi) did not undergo such change and became lexicalized. We regard it as lexicalized item.

---

6 This word was derived from verbal stem k∀z-‘to cut’ + -kaj ‘noun formation suffix’
7 ‘sine’ is a compound It is analyzed into ‘si’ and ‘ne’ ‘ne’ means ‘river’
8 For detailed discussions on lexicalization in current morphology, see Bauer (1983), Kim Seong-gyu (1987), and Song Cheol-eui (1992)
because 'kalehi' cannot be derived from 'kahal + ch' synchronically. Examples like 'jotat-(jol- + tat-), kempulk-(kom + pulk-), cacu(cac- + -u), namu(nam- + -u), cuk m(cuk- + -om), mut m(aut- + -om)' became lexicalized, for the word formation rules involved in the creation of them lost their productivity.

In connection with this, it is interesting to note that this lexicalized item contains fossil In 'kalehi' we can see the fossilized form before 'kahal' went through the word-initial aspiration In the case of 'kimim, solkoc', the obsolete verbs 'kimil-, solkoc-' came to remain as fossils. All these examples illustrate the close relationship between lexicalization and fossilization, and we feel the need to discuss the relationship between them in detail.

In his explanation of lexicalization, Bauer (1983: 49-50) points out that his use of the term 'lexicalization' is almost identical with the term 'fossilization' used by Lyons (1977 547). According to Lyons (1977: 547), '... word-compounds ... are fossilized ... in that the rule by which they are derived from the simple lexemes of which they are composed is no longer productive in the present state of the language-system.' He cites two such examples: 'pick-pocket' and 'turn-coat'. This way of defining fossilization makes it impossible to distinguish between lexicalization and fossilization, for that is not much different from what we have explained for lexicalization above. In that case, are these two terms the same concept? Is there no need to distinguish between the two terms?

To tell the conclusion in advance, we need to draw a distinction between them. First of all, let's define the concept of fossils in preparation for a detailed discussion of the problem. The basic notion of a fossil is 'the trace of something that disappeared'. We don't treat 'co' or 's' al' in 'cops' al' as fossils because they are not the defunct elements, but their life is still maintained synchronically in the present day. However, 'p' should not be regarded as an element maintaining its life, for it is simply the trace of 'p'-word initial consonant cluster. It is because of this that we need to treat only 'p' in 'cops' al' as a fossil In contrast, although 'se' in 'serop-' is an element which still performs an independent function at present, its nominal function has disappeared. What is remaining in 'serop-' is only the trace of the nominal function. In short, in 'serop-' the nominal function of 'se' is a fossil. In this respect, it seems possible to distinguish between fossilization and lexicalization to a certain degree. In the case of 'p' in 'cops' al', it can be seen as the fossilization of 'p' in the 'p'-word initial consonant cluster, but not as the lexicalization of it. 'cops' al' can be seen as the lexicalized compound, but not as the fossilized compound.

Now let's introduce the terms 'constituent' and 'constitute' to make the distinction clearer. As an example, consider the word 'kimim'. Here, 'kimim' is a consti-
tute, and its elements ‘kimil-’ and ‘-im’ are constituents. Of the two constituents, ‘kimil—’ is an element which does not exist as an independent element synchronically. This means that ‘kimil-’ remains only as a fossil in ‘kimim’. It is argued that the fossilized body is not ‘kimim’, but ‘kimil-’. On the other hand, ‘kimim’ can be considered to be a lexicalized derivative, for its base ‘kimil-’ does not exist synchronically. The analysis of these examples shows that while fossilization is to do with constituents, lexicalization is to do with constituents. In other words, whereas lexicalization refers to the cases where certain constitutes reach a state in which they cannot be produced by synchronic linguistic rules, fossilization refers to the cases where each constituent of a constitute underwent changes, but either their original forms are maintained within the constitute, or their traces are left.

When the constituent of a constitute becomes fossilized, the constitute naturally becomes lexicalized, for it can no longer be produced by synchronic linguistic rules. It is for this reason that we cannot but accept the close relationship between fossilization and lexicalization, even though we distinguish one from the other. Fossils tend to remain in the lexicalized constitute. It would not be too much to treat the constitutes containing fossils as lexicalized items. This is, however, not true of the opposite case. That is, lexicalized constitutes do not always contain fossils. For example, ‘norim’ (gambling) is a derivative formed by the combination of ‘nol-’ (to play), and ‘-im’ (noun formation suffix). In this case, because its meaning ‘gambling’ cannot be derived from ‘nol-’ and ‘-im’, ‘norim’ is a semantically lexicalized derivative. Nevertheless, we should not maintain that ‘norim’ contains a fossil, for its constituents ‘nol-’ and ‘-im’ exist synchronically as individual items. ‘norim’ is thus a lexicalized item which does not contain a fossil. The same is true of ‘koi’ (peacefully). ‘koi’ is a lexicalized item, for its meaning cannot be derived from the combination of the meanings of ‘kop-’ (to be pretty) and ‘-i’ (adverb formation suffix). (In this case stem final ‘p’ is deleted). Neither ‘kop-’ nor ‘-i’ should be treated as fossils because both of them are in current use. In short, ‘norim’ and ‘koi’ did not become lexicalized because of the change of their constituents, but the constitutes themselves underwent changes. Lexicalization of an item may take place either because of the change of the constituent or because of the change of its constituents. It is limited only to the latter case that lexicalization has some sort of relationship with fossilization.

Incidentally, in case we treat both ‘p’ in ‘cops’al’ and ‘kimi- (<kimil-)’ in ‘kimim’ as fossils, we face the question of what should be the appropriate term for ‘cops’al’ and ‘kimim’ which contain the fossils. We suggest terming them ‘fossil forms’. A fossil form can be defined as a linguistic form which contains a fossil.
4. Types of Fossils

In geology, biological fossils are divided into three types in terms of size: macro-fossil, micro-fossil, and nonno-fossil. Fossils can also be divided into two types in terms of shape: body fossil and trace fossil. Body fossils refer to biological fossils and trace fossils refer to the prints made by the movement of animals (e.g. footprints, crawling prints, sitting prints, lying prints, etc.). Just like biological fossils, linguistic fossils can also be divided into some different types.

Because there are linguistic units such as phoneme, morpheme, word, etc., we can perhaps have fossils of phoneme, morpheme, word, etc. It is now possible to classify some of the examples dealt with in the preceding sections into different types: phoneme fossils (e.g. ‘p’ in ‘cops’ al’), morpheme fossils (e.g. ‘-ri’ in ‘tri, kir’ and ‘-o’ (＜-ʌ-) in ‘saracap’), and word fossils (e.g. ‘totb(toch, tos)’ in ‘kosimtocb, amtbotb, amtbos’ and ‘kal(kalh), anh’ in ‘kalcbi, anpbak’). Although adjectival/verbal stems are not autonomous, their fossils are included in the word fossils. We would like to call all these fossils — i.e. phoneme fossils, morpheme fossils and word fossils — ‘unit fossils’ as opposed to ‘rule fossils’ to be discussed later.

Phoneme fossils are further subdivided into the following two types:

(2) a cops’al ‘huller millet’, pɔʌps’i ‘rice seed’ (pɔʌ ‘rice’ + ɔ’i ‘seed’)
   cf. s’al < MK psʌl, s’i < MK psʌi
b hamk’e ‘together’, imant’e ‘around this time’
   kimanat’e ‘around that time’
   cf hamk’e < MK hʌnpk’i (hʌn + p’k’ + -i)
   imant’e < imant’aj (iMAN + pt’aj)
   kimanat’e < kimanat’aj (kiman + pt’aj), pt’aj > t’e ‘time’

Both examples in (2a) and (2b) are related with ‘p’-word initial consonant cluster, and yet the patterns of trace are different from each other. Whereas the examples in (2a) retain the phoneme ‘p’ of the ‘p’-word initial consonant cluster, those in (2b) lost ‘p’ only with its trace being left. As is well known, ‘hamk’e’ developed from ‘hʌnpk’i’ of MK (hʌnpk’i’ > hʌnpk’i’ > hʌmk’i’ > hamk’e). In this process of change, the alteration of ‘n’ into ‘m’ should be regarded as an assimilation of the

---

9 This information is taken from Han’guk Minyok Munhwa Taebaekkwa Saﬃn (edited by Academy of Korean Studies, 1991) Vol 25

10 Sentence is also a linguistic unit. It is likely that we can have fossils at the level of sentence, but fossils of sentence are not dealt with in this paper, for they have not been identified yet.
final consonant ‘n’ in ‘han’ to the initial consonant ‘p’ in ‘pk’i’. As a result, the consonant ‘m’ in ‘hamke’ e’ is the trace of the initial consonant ‘p’ of the word initial consonant cluster in ‘pk’i’.

Etymologically, ‘imanpt’ e’ developed from ‘imanpt’ aj’ In this case, it seems highly likely that the final consonant ‘n’ in ‘iman’ was assimilated to the initial consonant ‘p’ of the following word ‘pt’ aj’, with the accompanying change of ‘n’ into ‘m’. Despite this, in Korean linguistics these examples have not been discussed in connection with fossilization. They are, however, very similar to the trace fossils of biological fossils, because the consonant ‘p’ of the ‘p’-word initial consonant cluster left its trace behind in compensation for its disappearance. In this sense, the consonant ‘p’ in ‘cops’ al, pt'aps’ i’ should be termed ‘a form fossil’, while ‘m’ in ‘hamke, imanpt’ e’ should be termed ‘a trace fossil’. In short, whereas a form fossil is the case where the original shape of a linguistic form is maintained to some extent, a trace fossil is the case where a linguistic form disappears as a whole, only leaving its trace

Morphemes or words have their own forms, functions and meanings. In some cases, fossilization takes place at all different levels of these aspects. In other cases, fossilization takes place at either one or two levels of these aspects. Sung-chae Lee (1992) pointed to this and suggested terms such as ‘form fossil’, ‘meaning fossil’ and ‘function fossil’. Form fossils draw special attention to the forms of the morpheme, word, or sound, meaning fossils draw special attention to the meanings, and function fossils draw special attention to the functions. Because the types of fossils relating to morphemes have already been discussed in Sung-chae Lee (1992), we will focus on the types of fossils at the level of word.

First of all, ‘se’ in ‘selop’- can be cited as a typical example of the function fossil. As has already been explained in section 2, ‘se’ should not be treated as an adnoun but as a noun, because it is the trace of its nominal function of the MK period. ‘mat’ in ‘mati(발이)’ (mat + -i) is another example of the function fossil. Although ‘mat’ lost its nominal function and functions like a prefix in PK, it was originally a noun and its function as a noun is still retained in ‘mati’. There is no way of explaining the structure of ‘mati’ systematically without treating ‘mat’ in ‘mat-i’ as a noun (See Cheol-eui Song 1983, 1992).

As an example of the meaning fossil, we can take ‘twp’- in ‘twon mul’ (warm water). The general meaning of ‘twp’- in PK is ‘to be hot (熒)’, and the semantic

11 ‘twu’ is the composition of adjective stem ‘top’- and ending ‘-m’ ‘top’- is irregular adjective. So the stem final ‘p’ changes into ‘w’ in front of vowel (top- + in -> tw + in -> twu) Regular adjectival
opposite of ‘tap’ is ‘chup’ (to be cold, 寒). However, the meaning of ‘tap’ in ‘taun mul’ is ‘warm’ (溫), and its semantic opposite is ‘cha’ (to be cool, 冷) in ‘chan mul’ (cool water). The adjective ‘tap’ originally possessed the meanings of both ‘to be hot’ and ‘to be warm’. Nevertheless, in PK ‘tap’ is usually used for the meaning of ‘to be hot’, and the meaning ‘to be warm’ is now replaced by ‘ta’ at ‘isha’. As ‘ta’ at ‘isha’ came to replace the meaning ‘to be warm’, the referential scope of the meaning of ‘tap’ became more narrowed or specialized. In this process of semantic change, however, the trace of one of its original meaning ‘to be warm’ came to remain in idiomatic phrase like ‘taun mul’. Consequently, we can argue that the meaning ‘to be warm of ‘tap’ in ‘taun mul’ is a meaning fossil.

Unlike those examples examined above, ‘kal(kalh)’ in ‘kalch’ and ‘anh’ in ‘anphak’ can be seen as form fossils, for these examples have something to do with their form. The treatment of them as form fossils is not due to the change of their function or meaning, but to the change of their form. It is very important to note here that linguistic fossils do not always belong to either one of form fossils, function fossils, or meaning fossils. For example, in the case of ‘kimi-(kimi)’ in ‘kimi m’, it is the lexical item as a whole that became obsolete. In this case, there is no point in classifying the types of fossils as form fossils, function fossils, or meaning fossils, because the form, function and meaning of the lexical item have disappeared completely. Suffice it to say that these examples are classified as fossils of word.

Linguistic change takes place not only in linguistic forms, but also in linguistic rules. Certain linguistic rules which existed in the past may disappear on the one hand, and new linguistic rules which did not exist in the past may appear on the other. Because of this, we may also have fossils relating to linguistic rules, as in ‘tolpo-, solik-, kompulk-’ As has already been explained in section 1, these examples show that although PK does not have compound formation rules which produce a compound by combining one adjectival/verbal stem with another adjectival/verbal stem, such compound formation rules existed in the past. In a nutshell, these words are fossil forms containing the fossil of morphological rule(compound formation rule) Given that a language has fossils of morphological rules, it would be natural for the language to have fossils of phonological rules as well, as in ‘uci(<ul+ ci(derivative suffix))’. Because in the example the ‘l’ deletion in front of ‘c’ is not recognized as a synchronic phonological rule (e.g. sal- + -ca(ending) -> salca, sal- + -ci(ending) -> salci, sol+ -cil(derivative suffix) -> solcil), ‘uci’ is a fossil form containing the phonological rule (‘l’ deletion in front of ‘c’).
The existence of fossils of both morphological and phonological rules lead to the possible existence of fossils of syntactic rules, but I am not in a position to show such examples due to lack of my research into the whole range of the Korean grammatical system. This paper is thus limited to showing some examples of the fossils of morphological and phonological rules.

5. Conclusion

Terms like ‘fossil’ and ‘fossilization’ have often been used in Korean linguistics, but an in-depth study of their concepts, characteristics and types has not been conducted until recently. The purpose of this paper was to deal with all these problems. Although I was not able to carry out a detailed investigation into them on a deeper and wider scale, a number of problems relating to linguistic fossils have been pointed out from a new perspective. The following is a summary of what has been discussed in this paper.

Linguistic fossils generally refer to the traces which are left following the process of language change. These traces cannot be approached from a synchronic point of view. It is thus possible to say that linguistic fossils refer to diachronic elements found in a synchronic point of time. In this respect, in examples like ‘cops’al’ and ‘anphak’ , only ‘p’ and ‘anh’ are treated as fossils. It is also suggested that words like ‘cops’al’ and ‘anphak’ which contain these fossils should be termed fossil forms. We may be able to say that while fossils are diachronic elements, fossil forms are synchronic elements.

The term ‘fossil’ is borrowed from geology, but there are considerable differences between biological fossils and linguistic fossils. Whereas biological fossils are buried in the earth’s crust and they are rarely affected by the change of nature on the surface, linguistic fossils are not buried (they are contained in the lexicon or idiomatic phrases of actual usage) and, as a result, they are subject to linguistic changes. As has often been pointed out, this may seem to conflict with the fact that fossils are reluctant to change, but a closer look at the types of change makes it clear that they do not conflict with each other. Linguistic fossils show reluctance to the change that their related elements undergo independently, but they do not show reluctance to the changes that other linguistic elements undergo universally. That is, whereas linguistic fossils are often reluctant to either the restructuring process of stems or the phonological phenomena taking place on the morpheme boundary, they do not resist either the monophthongization of diphthongs or the phonological changes taking place irrespective of the morpheme boundary.
There seems to be no clear distinction between lexicalization and fossilization, for both terms are involved in language change. This paper, however, attempted to distinguish between the two terms: while lexicalization is the concept which is applied to the constitutes (e.g. phrase, compound, derivative) of a language, fossilization is the concept which is applied to the constituents of a constitute. In ‘anphak’, for example, ‘anphak’ as a whole is a lexicalized item, and its constituent ‘anh’ is a fossilized item. It has also been pointed out that linguistic fossils generally come to remain in the lexicalized constitute, but it does not always contain the fossils.

The types of linguistic fossils are divided broadly into two: unit fossils (which are related to linguistic units) and rule fossils (which are related to linguistic rules). Unit fossils are further subdivided into three: phoneme fossils (e.g. ‘p’ in ‘cops’al’), morpheme fossils (e.g. ‘-li’ in ‘ili, kili’), and word (or stem) fossils (e.g. ‘kim-(kimi-1)’ in ‘kimim’ and ‘anh’ in ‘anphak’). Fossils of phoneme in turn consist of form fossils (e.g. ‘p’ in ‘cops’al’) and trace fossils (e.g. ‘m’ in ‘hamk’e’). Both morpheme fossils and word fossils include form fossils (e.g. ‘anh’ in ‘anphak’), function fossils (e.g. ‘se’ in ‘selop’), and meaning fossils (e.g. ‘təp’ in ‘təun mul’). Rule fossils are also subdivided into two: fossils of phonological rules (e.g. ‘uci’ (‘1’ deletion in front of ‘c’)) and fossils of morphological rules (e.g. ‘tolpo’ (compound formation rule of ‘adjective/verb stem + adjective/verb stem’)).

(Translated by Heok-Seung Kwon, Lecturer, Seoul National University)

References


Han’guk Ch’öngsin Munhwa Yön’guwôn [Academy of Korean Studies] (1991), Han’guk Minjok Munhwataebaekkkwa Sayôn Vol. 25.


Kim, Seong-kyu (1987), Õ hwiso Söljông-gwa Úmunhyönsang [Lexeme—based phonological processes], Kugöyön’gu 77

Lee, Ki-moon (1955), Ŭduja‘m‘gun-ŭi Saengsŏng mit Paltal-e Daehayŏ [On the creation and development of word-initial consonant clusters], Chindan-hakpo 17.

Lee, Ki-moon (1968), Kyerimyusa-ŭi Jaekŏmt’o [A Review of Kyerimyusa], Tong’a munhwah 8


Lee, Pyong-geun (1976), P’asaengŏ Hyŏngsŏng-gwa 1-yŏkhaeng Tonghwa Kyuch’iktul [Derivational word-formation and i-regressive assimilation rules], Chindan-hakpo 42.


Lee, Sung-chae (1992), Yusŏnyŏng-ŭi Hyŏngt’ae Punsŏk-kwa Hyŏngt’ae-ŭi Hwasŏk [A morphological analysis of fusion forms and morphological fossils], Chushugyo̖ng-hakpo 10.

Lyons, J (1977), Semantics 1 & 2, Cambridge Cambridge University Press


Song, Cheol-eui (1977), P’asaengŏ Hyŏngsŏng-gwa Ŭmunhyŏnsang [Derivation-al word-formation and phonological phenomena], Kugŏyŏn’gu 38.

Song, Cheol-eui (1983), P’asaeng’ŏ Hyŏngsŏng-gwa T’ongsisŏng-ŭi Munje [Derivational word-formation and diachronic problems], Kugŏha 12

Song, Cheol-eui (1992), Kugŏ-ŭi P’asaeng’ŏ Hyŏngsŏng Yŏn’gu [A study on derivational word formation in Korean], T’aehaksa

Song, Ha-jin (1991), Kugŏ Pokhapuksŏng-gwa Ŭhunronŏk T’aksŏng [Lexical features of compound verbs in Korean], in Kim Yŏng-bae Sŏnisaeng Hoegap Kinyŏn
Nonch’ong

GLOSSARY

be reconstructed 再構造하다
biological fossils 生物의 化石
body fossil 体化石
bronze and stone inscriptions 金石文
constituent 構成要素
constitute 構成體
dephonologization 非音韻化
diachrony 通時態
disappear 死語化하다
documentary materials 文獻資料
documents 文獻
form fossil 形式化石
fossil 化石
fossil of morpheme 形態素化石
fossil of phoneme 音韻化石
fossil of word (or stem) 單語化石
fossilization 化石化
function fossil 機能化石
genitive case marker 屬格助詞
h-stem final noun ‘고’終聲體言
honorific noun 尊稱體言
Korean linguistics (or the study of the Korean language) 國語學
lexicalization 語彙化
linguistic fossil 言語의 化石
macro-fossil 巨化石
meaning fossil 意味化石
micro-fossil 微化石
Middle Korean 中世國語
Modern Korean (16th century - 19th century) 近代國語
nonno-fossil 超微化石
perlative case marker 沿格語尾
Present-day Korean 現代國語
synchrony 共時態
the history of the Korean language 國語史
tongue-tip sound 舌端音
trace fossil 痕跡化石
word initial aspiration 語頭有氣音化
word initial consonant cluster 語頭子音群
word(or stem) final consonant cluster 語末子音群
zero-modification 零變化