A Survey of Korean Phonological Studies in Its Relation to European and American Linguistic Theories

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1. Introduction

General linguistic theories explain and describe universal linguistic phenomena found in most languages. Therefore, it is inevitable that they are used in research on individual languages. However, because general linguistic theories explain and describe linguistic phenomena that are found in languages generally, they are inadequate for explaining each and every linguistic phenomenon.

General linguistic theories are formed through research based on individual languages; those currently in existence include European and American linguistic theories which have developed through data on Indo-European languages. However, because Indo-European languages are inflected languages, they differ significantly in form and structure from agglutinative languages, which form grammatical connections through the combination of word endings. Consequently, it is unreasonable to expect that European and American language theories derived from data on Indo-European languages can be directly applied to the study of

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1 This problem has been dealt with in various studies, e.g. Lee Ki-moon (1980 64)
agglutinative languages.

Beginning in the 1930s to the present, Korean linguistics has undergone a substantial growth which has been due in a large part to a liberal use of European and American linguistic theories. Results from research conducted through the years have been evaluated either totally or separately. Through such evaluations the relationship between foreign linguistic theories and research on the Korean language has been established and evaluated, albeit on a superficial level. In light of this, a thorough study investigating the use of Western linguistic theories in Korean linguistic research seems necessary. Thus, the objective of this paper will be to evaluate the use of European and American linguistic theories in Korean language studies.

Korean linguistic research is centered around phonology, and the European and American linguistics theories used in Korean phonology research are confined to structural linguistics and transformational and generative grammar theories. I will first examine studies on Korean phonology which use these theories, and discuss the problems which stem from such a usage, and then present my ideas on the subject.

2. Studies on Korean Phonology Based on Structural Linguistics

It was Yi Sung-nyǒng (1939, 1940) who pioneered the use of structural linguistics, particularly European structural linguistics, in modern Korean phonology. Although his work is significantly influenced by nineteenth century historical comparative linguistics and among the non-structural linguistics of the twentieth century, French linguistics’ influence and Saussure’s influence is highly evident in the treatment of linguistic facts. While this is obvious in Yi’s positive approbation of Saussure’s ideas, the following evidence makes the connection more apparent. Firstly, Yi Sung-nyǒng clearly distinguishes “phoneme,” “phonetics,” “diachronic phenomena,” (ex.: 심란 (十萬) > 심란, 바람 (風)이 > 바람이) and “synchronic phenomena” (ex. 손 (手) + 빚 (用) > (승부) > 승씨, 가야미 (蝦) > 개야미). Moreover, he does not isolate phonological phenomena as individual

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2 Representative examples include Kim Wan-jin (1978), Lee Ki-moon (1977), Nam Ki-shum (1977), Kim Wan-jin, Yi Pyǒng-giǔn (1979), Yi Pyǒng-giǔn (1982), and Song Ch’ǒl-di (1985)

3 Evidence can be found in the studies themselves as the works of the following are frequently referred to: historical comparative linguists K. Brugmann and H. Paul, the psychophysiological linguist M. Grammont of the French linguistics school, the psycholinguist J. Vendreyes, and the sociolinguist A. Meillet
objects (1939, 1940) but instead, attempts to comprehend systematically them in their relation to other phenomena or in relation to phonology as a whole.

Thus, Yi Sung-nyŏng (1940) examines the change of “∧” by dividing it according to the number of syllables, position, declension, conjugation, and phonological environment. Therefore, in initial syllables ∧ > a is absolute, and because this is a self-generated change which occurs regardless of the sounds preceding and following, it is presumed that “∧” and “a” are vowels in close proximity to one another on the vowel chart. In non-initial syllables, ∧ > i is absolute; however, because this is not a self-generated change but a change due to the ambiguity of the hearing effect, it is exempt from phonetic value estimations of “∧” (p. 52). Among the exceptions from changes in initial and non-initial syllables as mentioned above—such as ∧ > o, ∧ > e, ∧ > u, and ∧ > i—∧ > u and ∧ > i, which are not direct changes of “∧”, are excluded from the phonetic value estimation of “∧”. The fact that they are not direct changes of “∧” becomes more clear when we look at the sounds preceding and following them in corresponding words, examine the diachronic dialectal forms of these words, and consider them in relation to the changes undergone by words in other environments. The remaining changes such as ∧ > o and ∧ > e are believed to show that on the vowel chart, “∧” is in close proximity to “o” and “e”, and that its phonetic value is “a,” “o,” and “e” (p. 85). In the relationship between vowels and the umlaut phenomenon, “∧” is shown to be a vowel within the umlaut category such as “o”, “e”, and “a”, and the aforementioned point is asserted again. Therefore, because “e” is between “a” and “o,” “∧” is concluded to be a sound in between “a” and “o” (p. 97).

It is clear that studies such as those above have broken off from the arbitrary methods of historical comparative linguistics. Such studies try to understand phonological phenomena through their relationships with other phenomena or with phonology as a whole; and, thus, are similar to structural linguistics in their approaches. However, terms such as “phonological system,” “consonant system,” and “vowel system” were not used during this time. In those situations where “vowel system” might be used, “vowel chart” or “vowel series” was used instead.

In examining phonological change one must pay close attention to the relationship between sounds preceding and following and changes in phonological order brought on by changes in the system, as well as decipher whether or not there is an interrelationship

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4 Phenomena such as “마늘 > 마늘(針),” which corresponds to ∧ > u, result from word forms which are not developments from ∧ itself, and therefore “아침 > 아침(朝),” which corresponds to ∧ > i, results from i > i below the sibilant like “뜻 > 잡(容)”
While the word "system" is used above, "system" in this case does not mean "vowel system." Here "system" is equivalent to the "system" used in the following quotation, in which it refers to the the changes of "볶 > 불(火), 물 > 물(水), 풀 > 풀(草)" which are put in opposition to the changes of "돕 > 돌(馬), 풀 > 풀(臂), 풍리 > 포리(蝸): "such developments are in opposition to the development similar to '♀' versus '♂' and thus represent an abrupt systematic shift in the development of linguistics" (1939: 64-65). Such facts make it difficult to determine whether or not Yi Sung-nyŏng understood the concept of "vowel system" at the time.

Yi Sung-nyŏng was the first to use "system" to indicate "vowel system" as well as introduce the terms "phonological system," "vowel system," and "consonant system" (1954/55)

If one conforms to the theories of the Prague School which states that the vowel system is a counterpart of phonology, in the Korean phonological system vowels can be categorized into three correlative bundles (Korrelationsbundel, faisceaux de correlatives) as supported by commentaries on hunminchong'um (Korean script) (1954/55: 330-333)

As one can see from the citation above, during this period linguistic theories of the Prague School were used in Korean phonology. Supporting this viewpoint is the employment of such terms as "correlational bundles," "two-member correlational bundles" (corrélatifs), "correlative units" (unités corrélatives), "correlation" (Korrelation, corrélation), and "disjunction" (Disjunktion, disjonction) during this time. Furthermore it is thought that "i, u, o" and "ʌ, o, a" in the vowel system of fifteenth century Korean constitute respectively a high vowel order and a low vowel order. Among them "i · ʌ," "u · o," "o · a" are correlational bundles which have opposing phonological relationships, and "i" is stipulated as a disjunction which does not have a phonological counterpart (pp. 330-333).

Vowel harmony of the Korean language is a phonological phenomenon stemming from progressive assimilation based on the correlational opposition in the vowel system (p. 362). Phenomena, such as high pitch and low pitch which appear in hunminjongim (Korean script), and "라(勛)" and "불려(不勛)" used to indicate the relative depth of vowels and phonetic difference, are all interpreted as being characteristics of sound. In addition to this, the method of discerning "ʌj," "ʊj," "oj," "aj," "uəj," "əj" as diphthongs of the fifteenth century by examining phonological phenomena of that period's written language records in relation to other phonological phenomena (Yi Sung-nyŏng, 1949) shows similarities with
European structural linguistics, (Yi Sung-nyŏng, 1949; 1939, 1940).

Thus, European structural linguistics, especially that of the Prague school, was used in synchronic phonological studies of the Korean language and in diachronic phonological studies of fifteenth century Korean. However, the only theory available during this period was the diachronic phonological theory of the Prague School. Kim Wan-jin was the first person to divorce himself completely from historical comparative linguistic theories and use the diachronic phonological theories of the Prague school with the synchronic phonological theory in studies on Korean phonology (1957). It is also Kim Wan-jin who most thoroughly uses this theory in Korean phonology theory research (1963b/71).

Kim Wan-jin tried to show that in the vowel system of proto-Korean which differentiates itself from Altaic proto-languages, there exists an order of opposing consonants which designate sonority as the corresponding mark. In his research, the essential points of the synchronic phonological theory of the Prague School are premised as follows:

Phonology forms systems and phonological changes signify changes from one phonological system to another. (N. van Wijk).

It is more reasonable to say that what changes are not so much phonology itself, but that within a phonology or between phonologies, differences form, disappear, and are altered (R. Jakobson).

Phonological changes are far from being unrelated to diachronic linguistic systems and instead a have close relationship (N. van Wijk).

Kim Wan-jin attempts to analyze carefully the Korean vowel system from the ancient times to the present. Firstly, on the debate surrounding the middle Korean vowel system, he asserts that the vowel system of this period is not a system of opposition between high vowels and low vowels which is unrelated only to “ı”, but rather a system of opposition between central vowels and back vowels. He defines the nine vowel systems of the modern Korean language in relation to phonological phenomena such as the disappearance of “^”, single vocalization of diphthongs, and retrogressive assimilation of “ı”. Furthermore by comparing the data on written language before the middle ages with Altaic languages, he examines the relationship between vowel systems of middle Korean and pre-middle Korean.

The fundamental theories of Kim Wan-jin on vowel systems and vowel changes have the following foundation:

What changes is the system itself, and it is the system which internally produces the
changes (Trubetzkoy)

Changes in vowel systems set out to isolate any unstaibilit) formed in the system in order to establish a more harmonized system" (A. Martinet)

Changes include phonemalization, post-phonemalization, pre-phonemalization, and the ultimate goal of change is to stabilize the system" (R. Jakobson)

A stabilized system is a square system which maintains an identical parallactic ability, and reduces the burdens of the hearer, thus changes in the vowel system aspire toward a square system" (A. Martinet) [pp.3-4]

Such concepts are the basis of the Prague School's synchronic phonological theories.

Thereafter, linguistic theories of the Prague school greatly influenced Korean phonological theories, especially the synchronic phonological theory, as a result, research such as that of Kim Pang-han (1964), Lee Ki-moon (1968), and Yi Pyŏng-giŏn (1970) continued to center around systems.

Descriptive linguistics theories were first utilized by Hŏ Ung (1954). In this study, Hŏ Ung gives a diachronic description of pitch found in the southeast dialect. He first determines tonemes through a minimal pair language and distinguishes pitch type according to the number of stem syllables; then he describes the changes produced in pitch when word stems and word endings combine. The methods for describing pitch are based on Pike's theory (1947) and were utilized in the synchronic and diachronic studies of pitch in the Korean language until the early 1970's (Hŏ Ung 1955; Chŏng Yŏn-ch' an 1960, 1974; Mun Hyo-giŏn 1974)

Phoneme descriptions based on descriptive linguistics first appeared in studies by Hŏ Ung (1957). In his research, he aims to define modern Korean consonant system and vowel system based on distribution and meaning. In this study phonetic difference is automatically determined by phonetic environment, and those sounds not recognizable to the hearer are treated as variations of one phoneme. Those sounds which manifest simultaneous distribution and are interchanged to produce specialized meanings are treated as separate phonemes. Studies by Pak Chang-Hae

5 While Martin precedes this in 1957, I will only examine research by Korean scholars in this paper.

6 While it appears that in determining phonemes great importance is placed on "meaning," it is difficult to ascertain whether or not this is a result of Bloomfield's influence (1936/61) or Prague linguistics. As one can see from the following—"p p' forms correlations of plosives while p pʰ forms aspirates, and the two correlations form three-member correlational bundles" (p 666)—this writer from that period was familiar with Prague linguistic theory.
(1963), Kim Wan-jin (1964), and Hö Ung (1968) also adopt similar methods.

Until alternative phenomena of morphemes became an issue in generative phonology studies, morphophonemic studies on the Korean language were largely based on American descriptive linguistics, mostly on the theories and methods of Nida (1949) and Harris (1951). These studies (Kim Min-su 1952; Ahn Pyong-hi 1959; Kim Sŏk-duk 1962; Lee Ki-moon (1962) set out to analyze morphology according to distribution, to establish a standard form based on analysis of these morphologies, and to describe morphophonemic changes.7

As one can see from the discussion thus far, it was not until fifteen to twenty-five years after its first appearance that European structural linguistics, especially that of the Prague school, was widely used in studies of Korean synchronic phonology. American structural linguistics was applied in studies of Korean synchronic phonology, that is in studies of phonemes, pitch, and morphophonemes of modern and middle Korean, seven years after it first appeared. However, the distinction between the adoption of these two theories is not absolute. In the early 1960’s, these two theories of linguistics began to appear side by side in the same studies. Examples of such studies include Kim Wan-jin, who understood change as systematic change and tried to uncover internal mechanism through external pitch formations (1963), and Chŏng Yŏn-ch’an (1968), who compiled a phonological list according to distribution and viewed phonological systems in terms of opposition between phonemes.

3. Research on Korean Phonology Based on Generative Phonological Theory

Compared to European and American theories of linguistics which were introduced indirectly through theory texts written by scholars in Korea, generative phonological theory was introduced into in Korean phonology studies by researchers who had studied it in the United States (all majored in English or another foreign language in Korea at the undergraduate or graduate level) in or prior to the mid-1970s. During this time, researchers in Korea relied heavily on structural linguistics but depended on generative phonological theory mostly in studies of synchronic phonology, while researchers who had received their degrees in the United States mostly used it in diachronic studies of Korean phonology. Lee Ki-

7 Martin (1952) pioneered research in this direction. In this paper, the focus is closer to morphemics than morphophonemics.
moon (1969, 1972) and Kim Wan-jun (1972) belong to the former category, while Kim (1968, 1970) and Yi Pyŏng-gŏn (1973/76), Kim Renaud Young-gi (1973) belong to the latter.

During this period, abstract phonology was used in studies of Korean phonology. Abstract phonemes were 1) established in underlying forms, and 2) the rule order was followed. Instances of the first case include Kim's (1968) study which defines the Korean vowel system as having four underlying vowels (ı, a, o, a), Kim Ch’a-gyun who determines the underlying abstract phonemes as “职业道德” or “道德” in order to explain the irregularity of “t” and “s”, and Kim Wan-jun (1972) and Yi Pyŏng-gŏn (1973/76). The second category includes Kim (1970), who tries to explain how “weekday” becomes [osillipko] or [osaripko] through the “#” and “a” deletion rule order, and Kim Renaud (1973), who clearly indicates the rule order series such as y-insertion rule, the metathesis of “y,” and the initial sound “a” of an [word] ending in order to explain the e-irregularity.

It is not until the mid 1970s that concrete phonology, which criticizes the problems of abstract phonology, is used in studies on Korean phonology. This theory was first used by scholars who had studied phonology in the United States. Instead of determining underlying abstract phonemes, researchers (Kim Su-gon 1976, 1977; Moon 1981) during this period focused on forms of phonetics and tried to explain alternative forms according to morphophonemic rules which include structural characteristics of phonetic forms and morpho-synthetic information.

The decade following this period marks the formation of a new chapter in the history of phonological research on the Korean language. This is not only due to the expansion of the scope of research on Korean phonology, but also due to the substantial growth of research in terms of quality and quantity. Because such a growth occurred, young phonologists in Korea familiar with generative phonology began to conduct research and those phonologists who had acquired their degrees abroad also carried out research and taught in classrooms, allowing its rapid introduction as well as the exchange of new theories.

Korean phonology studies thus far include studies of the underlying vowel system of the Korean language (Yi Ik-hwan 1978, Kim Kong-on 1978), studies of phonology of irregular verbs (Kim Su-gon 1977, Moon 1981, Choi Myung-ok 1982), and studies of nasalization (Kim 1980).

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8 Kim Ch’a-gyun (1971) and Kim Wan-jun (1972) are significant in their studies on diachronic generative phonology by Korean scholars.

9 For more on abstract phonological theory and concrete phonological theory, refer to the following: Hooper (1976), Skousen (1975), and Tranel (1981).

4. On the Use of European and American Linguistic Theories: In Lieu of a Conclusion

4.1 One can ascertain from the discussion thus far that a thorough understanding of European and American linguistic theories was attained before they were incorporated into studies on Korean phonology. In this chapter, I will discuss the use of these theories and the influence they had on Korean phonology research as well as the problems stemming from such usage.

Firstly, it can be said that two positive results came about through the influence of structural linguistics on Korean phonological studies: the division between "phonetics" and "phonology," and the understanding of the Korean language as a system. Prague linguistics particularly had a significant impact by putting the focus on the opposing relationships internal to a system, and contributed to the discovery of internal rules existing in interrelationships. Moreover, phonological changes were systematically interpreted by associating the fundamental position of synchronic phonology which originates in phonological changes with phonological changes, phonological phenomena, or vowel systems. Furthermore, through descriptive linguistic theory one can compile a phonological list through a scientific method of language analysis, and make morphophonemic description and phonological combination patterns possible within morphemes. Thus, the strong presence of Prague linguistics and descriptive linguistics in Korean phonological theory played an important role in its development; through these two factors, Korean phonological theory does not limit itself to the study either of internal rules or external patterns but is able to consider both problems.

However, although these theories were intended for research on modern languages, they were mostly used in diachronic studies of middle Korean phonology or synchronic studies of the phonology of the Korean language, rather
than on diachronic phonological studies of modern Korean. Thus, while it is true that diachronic research on middle Korean or synchronic phonological studies of Korean have effectively been conducted and have strengthened the foundation of Korean phonology in general, on the other hand it has deterred the development of modern Korean phonology.

Generative phonology use in Korean phonology research shifted from studies of written language to modern Korean phonology. Thus, this shift made it possible for a more accurate study and precise descriptions of diachronic phonological phenomena which were not possible prior to that period. As a result, a close examination of phenomena was conducted and the rules governing them were ascertained, through which many phonological phenomena of the Korean language could be explained.

However, generative phonology cannot explain all phonological phenomena in the Korean language. In spite of many studies that have been conducted thus far, there remain phonological phenomena about which a consensus of opinion has not been reached. An example of this is irregular verbs. Whenever theoretical developments were made, many phonologists offered explanations for this phenomenon, but none were accepted (Choi Myung-ok, 1985), which indicates that it is a phenomenon peculiar to the Korean language.

4.2. As stated in the introduction, it is difficult to explain phenomena peculiar to an individual language like Korean with general linguistic theories, as such theories only account for universal linguistic phenomena which exist in all languages. Thus the pursuit of explanations for distinct phonological phenomena existing in the Korean language has a special significance. Such a pursuit allows the Korean phonological theory to develop while it makes a positive contribution to the establishment of general linguistic theory.

In the pursuit of solutions for phonological phenomena particular to the Korean language, it is necessary to define clearly the concept of “Korean language” as the object of study of Korean linguistics. While anyone can see clearly that Korean linguistics is a study of the Korean language, the objective of Korean linguistics remains unclear. Research is divided into “the study of the Korean language”, “the study of dialect”, “the study of Korean phonology”, and “research on dialectal phonology”, making this point more evident. The reason for this lies in the fact that in most of the studies included in the category of “Korean language research”, there are no references to the source language of the data presented in the study, and thus it is difficult to see the actual data presented as reflecting “the Korean language.”
In order to break from a mere adoption and usage of foreign linguistic theories and to form a phonological theory of the Korean language based on such a foundation, and also to correct those concepts presented in studies conducted thus far which we have misapprehended (i.e. understanding umlaut or palatal phenomena of passive and active endings as diachronic phenomena), it is essential to clarify the concept of the Korean language as the object of study of Korean linguistics.

As linguistics is the study of “natural language”, Korean linguistics should be a study of the “Korean language” as well as “natural language.” The categories of “Korean language research” and “dialect research” should then be distinguished. A general linguistics study examining one dialect can be included in the broad definition of “Korean language research” as a division of Korean linguistics. An example of this would be designating a study of written language reflecting upper class dialect among central dialects of the middle ages as “middle Korean research.” However, if the scope of research is limited to examining dialects, geographic dialect research, or comparative studies of dialects, then it falls under the category of “dialect studies.” Thus, in general “Korean language research” should be assigned to studies examining dialects in a broader context.

In defining what can be included under the heading of “Korean language research” in such a manner, it is possible now to explain why a consensus of interpretation on phonological phenomena peculiar to the Korean language has not been reached. The reason lies in the fact that various theories were imposed on incomplete data. Thus, many studies were conducted but fundamental problems still remained unsolved as research findings attained through insufficient data lack validity. However, insufficient data is not a problem which originates in the data itself but in the person conducting the study. Problems of inadequate data arise when researchers limit themselves to data with which they are already familiar. When a more extensive understanding of Korean language data is reached, it will show how insufficient the data used as a basis for studies conducted in the past was, as well as how unsolved problems may be solved with supplementary data.

I have already expressed such views elsewhere (Chon Myung-ok, 1985), but what I want to add here is that no theory is absolute. Theory is something which is formed on the basis of data. If a certain phenomenon cannot be explained through theory then its data must be thoroughly evaluated. If the data is found to be insufficient, more information must be collected in order that the theory may be modified based on this new information, or else a whole new theory must be created. We must therefore expand our concept of “Korean language data” and accumulate more information and evidence in order that such steps may be possible.
The accumulation of data in this case is for the comparison of dialectic distribution of common linguistic objects, and thus derives from common items of investigation.

Moreover, along with diachronic data, emphasis must be placed on synchronic data as well. Diachronic linguistic phenomena result from synchronic linguistic changes, and a thorough understanding is more easily attained as diachronic phenomena reflect synchronic changes. Furthermore, in natural generative phonology, just as the historical change of a given language is the most substantial proof reflecting the speaker's psychological reality, synchronic studies based on data on dialects and written language are urgently needed.

We must first expand our knowledge of what constitutes data, and collect and accumulate more data nationwide. Once this is done, new diachronic studies and synchronic studies based on data on written language and dialects will be conducted. Subsequently, when we begin to place greater significance on our data rather than on foreign theory, we will be able to incorporate foreign theory in a more critical manner, and through such a process, Korean phonological theory (broadly Korean linguistics) will undergo a more productive process of development.

(Translated by Kim Ji-young, S N U)

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