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# A Brief Description of Korean Language Phonology and Its History: From the View of Sinosphere

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***Abstract:*** This paper explores the historical and linguistic facets of the Korean language's development, emphasizing its profound ties to the Korean Peninsula and mainland China. Beginning with the use of Han characters dating back to the 12th century BCE, when Jizi sought sanctuary in Korea, the evolution of these characters into the native Korean script, known as "Hangul," in the 15th century is discussed. Hangul's transformation from addressing writing issues to symbolizing Korean cultural and national identity, particularly in the 20th century, is highlighted. The paper also delves into the distinctive vowel characteristics, consonantal complexities, and syllable structures of the Korean language, making it conducive to continuous speech. Additionally, it touches upon the challenges faced by learners, especially those from Chinese-speaking backgrounds, in mastering these linguistic features. This paper serves as a concise overview of the multifaceted nature of the Korean language's historical and structural elements.

***Keywords:*** history of Korean, vowel phoneme, consonant phoneme, syllable structure

## 1. History and Development of Korean Language

The Korean Peninsula and the Chinese mainland are closely connected geographically, and they have a natural and close historical, cultural, and linguistic relationship. The Korean Peninsula has historically relied on Chinese characters and the Korean language for communication. According to "The History of Korean Language Development," the author suggests a closely intertwined relationship between Korean writing and Chinese characters, as well as the Goguryeo language. Examining historical records, it is confirmed that Korea began using Chinese characters around 1122 BC when the Shang Dynasty royal family fled to the Korean Peninsula due to Jizi's exile [1]. As history progressed, the use of Chinese characters on the Korean Peninsula gradually diverged from the Mandarin language of the Central Plains.

The Korean Peninsula has a unique history of using Chinese characters, with the adoption of Chinese language elements dating back to around the 5th century AD. Initially, Koreans began using Chinese characters to record their language, which they referred to as Hyangchal or "local script." Although they used Chinese characters, many of the pronunciations did not correspond to Chinese phonetics; for example, the character night was pronounced as /pam/. Some words sounded similar to Chinese but had different meanings. In essence, Hyangchal was not understandable to Chinese speakers. The second stage was the "idu" period, which occurred around the 7th century. During this time, Chinese and Korean languages started to merge. Substantive words were primarily

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in Chinese, while function words were predominantly in Korean. The third period was the gugyeol era, which began around the 8th century. Originally, gugyeol meant "auxiliary words" and referred to Korean words inserted between sentences and paragraphs when reading Chinese texts. These auxiliary words were represented using Chinese characters, mainly borrowing their pronunciations and occasionally their meanings. Over time, these Chinese characters gradually simplified, eventually forming a style similar to Japanese katakana. Texts with gugyeol were closer to Chinese compared to those from the "idu" period [2].

While the initial shifts from Hyangchal to "idu" and then to gugyeol were driven by practical considerations and geographical constraints, language is more than just a means of communication—it is a significant component of culture. In the 15th century, the Korean Peninsula introduced the "Hunmin jeongeum," establishing Hangul, the indigenous writing system for the Korean people [3]. While the emergence of the Korean language might not have originated solely for cultural or ethnic purposes, its widespread adoption, usage, and global popularity are undoubtedly influenced by cultural, ethnic, and political factors.

The close connection between the Korean Peninsula and the Chinese mainland has not only geographical significance but also deep cultural and historical implications, shaping the linguistic landscape of the region [4].

## 2. Korean Vowel Characteristics

In modern Seoul Korean, there are primarily eight vowels in the Korean phonetic system, and all eight vowels exhibit a contrast between long and short forms [5]. However, when discussing older forms of Korean or among a larger population of elderly speakers, there are ten vowel distinctions involving vowel length. Additionally, similar to Mandarin Chinese, Korean contains borrowed sounds or diphthongs, totaling thirteen diphthongs in the language. Diphthongs are composed of partial monophthongs and /j/ or /w/. The following figure (figure 1) illustrates the tongue positions of Korean vowels, including the eight main vowels used today and the two front-mid rounded vowels /ø/ that are only present in the speech of some elderly speakers [5].

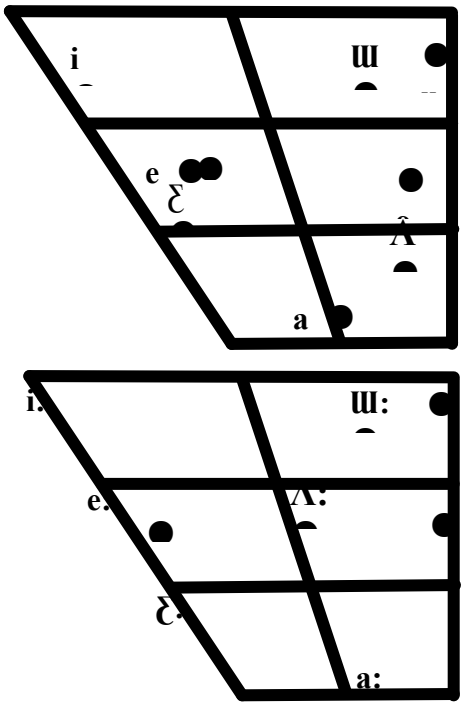


Figure 1: The vowel phonemes of Korean.

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Furthermore, in modern Seoul Korean, apart from the vowels /ø/ and /y/, which have been largely replaced by the diphthongs /wɛ/ and /wi/, the contrast between long and short vowels has mostly disappeared [6]. Individuals can choose appropriate vowel lengths based on their pronunciation habits. Additionally, due to their similar articulation, the front rounded vowels /e/ and /ɛ/ have merged in pronunciation and are no longer differentiated by mouth opening size, only being distinguished in writing. Therefore, with the consideration of the merger of /e/ and /ɛ/, Korean vowels can be categorized into three levels of height:

1. Front, high unrounded vowel: /i/
2. Back, high rounded vowel: /u/
3. Back, high unrounded vowel: /ɯ/
4. Front, mid unrounded vowel: /e/ /ɛ/ (merged in modern Seoul pronunciation)
5. Back, mid rounded vowel: /o/
6. Central, mid unrounded vowel: /ʌ/
7. Central, low unrounded vowel: /a/

Chinese and Korean languages exhibit notable differences in their phonological systems, which can pose challenges for second language learners, like the phonological difficulties encountered by Mandarin Chinese speakers when learning Korean. Compared to Mandarin Chinese, which has nine monophthongs (Lin Tao. "Phonetics Tutorial." 2013), Korean possesses the back high rounded vowel /ɯ/, which does not exist in Mandarin. Conversely, Mandarin lacks the front high rounded vowel /y/, the central vowel /ə/, and the back high unrounded vowel /ɤ/, all of which are absent (or have been replaced) in Korean monophthongs. These four vowels pose challenges for teaching and learning between Korean and Mandarin, with Mandarin learners struggling more due to their complexity.

Korean has complex diphthongs composed of the approximants /j/ and /ɯ/ (some are /w/), which can be seen as resulting from these approximants serving as glide sounds. However, these two glides are absent in Mandarin, and Korean only employs these few glide sounds (or diphthongs) in simple and fixed patterns, unlike Mandarin, which has complex diphthongs and glide + diphthong combinations. Consequently, both language learners are prone to making errors when learning each other's sounds. Mandarin speakers tend not to release these diphthongs, while Korean speakers often mispronounce or omit the glide sounds in Mandarin.

Similarly, because Korean diphthongs consist only of approximants /j/ and /ɯ/ (with some /w/) combined with certain other monophthongs, the Korean diphthong system is relatively simple. In contrast, Mandarin has a more complex diphthong system with nine diphthongs, including /i/, /u/, and /y/ serving as glides, and it also features whole syllables in the syllabic structure. This complexity poses challenges for Korean speakers learning Mandarin vowels. Conversely, when Mandarin speakers learn Korean, they may inadvertently transfer elements from their native phonology. This phenomenon is known as "language transfer" and has been extensively studied in second language acquisition [7]. Due to factors such as Mandarin Pinyin, they often turn Korean monophthongs into diphthongs. For instance, the Korean /wi/ might be pronounced as /uei/ by Mandarin speakers. This is because in Mandarin Pinyin, "uei" (written as "wei") loses the initial "e" in spelling, but in actual pronunciation, it is still pronounced as "initial + uei" while written as "initial + ui." In reality, the /e/ is not dropped, causing Mandarin speakers to read the Romanized Korean /wi/ as the Mandarin diphthong /uei/. These studies emphasize the importance of understanding the phonological disparities between native and target languages, as such awareness can significantly impact the effectiveness of language acquisition.

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## 3. Korean Consonant Characteristics

Korean consonants exhibit three primary contrasts: aspirated sounds, tense sounds, and lax sounds, each with distinct characteristics. From the perspective of the Korean 40-letter script, there are a total of nineteen consonants, including one null initial sound. These consonants are classified into four categories: the three mentioned earlier, plus an additional category labeled as "no affiliation" (excluding approximants). The majority of Korean consonants are stops, with twelve out of nineteen being either plain stops or affricates. Additionally, there are two nasal sounds, three fricatives, and two liquids (technically one consonant letter, which is pronounced differently at the beginning and end of words, but this article still considers the total number of Korean consonants as nineteen). The Korean consonant chart is illustrated in Table 1.

Table 1: The consonant phonemes of Korean.

| Consonant phonemes | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Bilabial | Alveolar | Post-alveolar | Palatal | Velar | Glottal |
| Nasal | | m~b | n~d | | | ŋ | |
| Stop and Affricate | plain | $p^{(h)}$~b | $tɕ^{(h)}$~$dʑ$ | $tɕ^{(h)}$~$dʑ$ | | $k^{(h)}$~g | |
| | tense | p͈ | t͈ | tɕ͈ | | k͈ | |
| | aspirated | $p^h$ | $t^h$ | $tɕ^h$ | | $k^h$ | |
| Fricative | Non-tense | | $s^h$~$ɕ^h$ | | | | h~ɦ |
| | tense | | s͈~ɕ͈ | | | | |
| Liquid | | | l~ɾ | | | | |

In modern Seoul Korean, consonants can also undergo initial aspiration and voicing, but these phenomena do not significantly impact expression or comprehension. For example, according to the 40-letter script, the word for "song" should be pronounced as /ka su/, but in actuality, it is pronounced as /$k^h$a su/.

Korean consonants can be seen as formed by three variations of five consonants: /k/, /t/, /p/, /s/, and /tɕ/, supplemented by two nasal sounds and two liquids (now often pronounced as /ŋ/ at the end of words). This makes for a relatively simple composition. However, the challenge in pronunciation lies in the clear differentiation of tense, lax, and aspirated sounds, particularly at the normal pace of conversation [8].

Compared to Mandarin Chinese, Korean consonant codas are much more complex. Korean has seven final sounds (coda), whereas Mandarin Chinese only has two: /n/ and /ŋ/ [9]. For Mandarin native speakers, the aspirated coda /p/, /t/, and /k/ present difficulties in pronunciation.

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## 4. Korean Syllabic Characteristics

Influenced by Mandarin Chinese, Korean syllables, like in Chinese, correspond to individual characters [10]. Korean, being a language capable of being spoken in a connected manner, analyzes syllabic characteristics based on both internal and external structures.

### 4.1. Internal Syllable Structure

The internal structure of a Korean syllable exhibits a linear tripartite nature [10], consisting of an initial consonant, a vowel or diphthong, and a final consonant. This is often referred to as the "initial sound," "medial sound," and "final sound." "Hunminjeongeum" (The Correct/Proper Sounds for the Instruction of the People) also records: "The combination of the initial, medial, and final sounds creates characters." [10]

For instance:

- 른 /lɯn/ = /l/ + /ɯ/ + /n/
- 렸 /ljʌs/ = /l/ + /jʌ/ + /s/
- 이 /i/ = Null initial sound + /i/
- 노 /no/ = /n/ + /o/ + No final sound

### 4.2. External Syllable Structure

In Korean, syllable boundaries are not clearly demarcated, and there is a strong continuity between adjacent syllables. This is primarily due to several reasons. Firstly, the phonotactic structure of Korean is conducive to connected speech. Korean has seven consonant codas, with closed syllables outnumbering open syllables. Additionally, there are many syllables that start with vowels. As a result, the original boundaries between syllables can easily blur, and syllables with consonant codas and syllables starting with vowels tend to blend together in a smooth and uninterrupted sequence [10]. For example:

- 가을 아 /k ɯl a/ might be pronounced as /ka ɯl͡a/ in connected speech.
- 그 아들의 /kɯ a tɯl ɯi/ might be pronounced as /kɯ a tɯl͡ɯi/ in connected speech.

Consequently, learners from the Korean Peninsula, when studying Mandarin Chinese, often find it challenging to discern clear boundaries between words. They might read a phrase with uniform intonation, failing to emphasize the boundary between characters by elevating their pitch at Mandarin consonants.

## 5. Conclusion

The Korean language, deeply intertwined with the history and culture of the Korean Peninsula, has evolved over centuries, reflecting the region's unique linguistic identity. From its early use of Han characters to the development of the Hangul script, Korean writing systems have played a crucial role in both communication and cultural expression.

Korean phonology presents challenges and unique features. Vowel distinctions, including long and short vowels, provide richness to the language. The presence of complex diphthongs and glide elements like /j/ and /w/ adds complexity to pronunciation, especially for learners from non-Korean language backgrounds.

In the realm of consonants, Korean's contrasts between fortis, lenis, and aspirated consonants offer depth to its phonetic inventory. However, phenomena like initial fortition and aspiration, while present, don't hinder intelligibility significantly.

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Korean's syllabic structure, characterized by linear trisyllabic patterns and smooth transitions between syllables, contributes to its unique prosody and allows for continuous speech. Understanding these linguistic features is crucial for learners and linguists interested in the Korean language and culture. The evolution of Korean language and script reflects the enduring spirit of the Korean people, their cultural identity, and their commitment to effective communication through the ages.

## References


[1] *Guo S.. Exploring the Origin and Development History of Korean Chinese Dialect:A Review of the History of Korean Language Development[J].China Education Journal,2016(11):118.*

[2] *Wang, L. (2013). Manuscript of Chinese History. Zhonghua Book Company.*

[3] *Yang Q. (2014). From the Hunmin jeongeum watching Korean pronunciation relations with ancient Chinese phonetics (a master's degree thesis, Shaanxi Normal University). https://kns.cnki.net/kcms2/article/abstract?v=DxGmxfxkPoEf17kNl8Z7OrIhxiB5R2viu0uxMaWrd_H2oAldujv-3UUvmSYFFQiZx7VAyZ7z_DZlp2sgPHS4w_XeQhHtFfwWkAL93Bj15Teql8P40pHtyarIyZsBgTJuxxh5xTVz-6Y=&uniplatform=NZKPT&language=CHS*

[4] *Lee, D. Chun, Jin, K. (2002). Views on Korean Language History. Dongjiang Journal (01),4-8.*

[5] *Jin G.Z. (2019). Historical Studies of Korean Language in China. Chinese Korean Language (03),14-30.*

[6] *Moo R.K. (2012). A survey on the phonological studies of the ancient Korean. Korean Linguistics, 55, 21-39.*

[7] *Kim C. & Park S.. (2016). Mother tongue transfer in the process of Korean vowel acquisition among Han students. Journal of Yanbian University (Social Science Edition) (02),86-91. doi:10.16154/j.cnki.cn22-1025/c.2016.02.012.*

[8] *Zhao X. (1982). Overview of Korean language. National Languages and Languages (03),63-80.*

[9] *Jin B.Q.. Comparison of Korean-Chinese phonetics and Korean phonetic teaching[J].Heihe Academic Journal,2009(02):111-114.DOI:10.14054/j.cnki.cn23-1120/c.2009.02.013.)*

[10] *Shen D.Y.. Comparison of Chinese and Korean syllables and Chinese phonetic teaching [C]/. Selected papers of the 9th International Chinese Teaching Symposium, 2008: 463-466. Hunmin jeongeum.*