

SOUND CHANGE AND SYLLABIFICATION: The Interlanguage of Korean Speakers Studying Indonesian

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Abstract

Second language (L2) learners tend to apply their first language (L1) patterns over the second language (L2) when practicing the L2: what is known as the *Language Transfer* or *Interference* and the language is known as *Interlanguage*. This is quite normal and can obviously be observed in the earliest stage of L2 learning. The paper aims on describing the Korean sound system interference to Indonesian. The data is obtained from Korean speakers (KSs) studying Indonesian. Korean and Indonesian are two different languages, relatively unrelated. They have some distinct consonants and vowels in their consonants and vowels inventories. The incorrect pronunciation of Indonesian can be described in terms of sound change and syllabification with reference to Korean sound pattern. Syllable internal structure modifications are performed by KSs. In terms of sound change, the language transfer can be categorized into segment addition, deletion, and feature change. In consequence, the number of syllable might change. One might perceive the interlanguage as a type error, but in this paper, I consider the interference as an inevitable effort of studying L2.

Keyword: *First Language, Second Language, Language Transfer, Korean, Indonesian*

1. Second Language Learning and Language Transfer

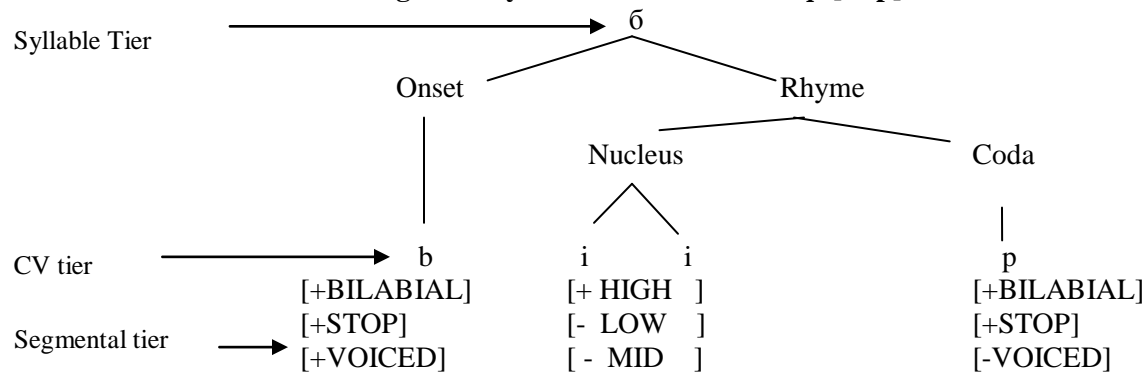
One fundamental distinction that distinguishes Second Language (L2) from First Language (L1) acquisition is that in L2 learning, the learners usually have completed the L1 acquisition. When studying L2, which is not the native language of the learners, learners tend to comprehend and to practice L2 with reference to the nature of L1ⁱ. This is known as interference, or language transfer: the influence of one language over another. The product is referred as interlanguage. The interference is not random, and can systematically be described.

The bilateral relation of Korea and Indonesia is significantly improving in diverse aspects, including local values recognition: where language is one of the components. The two countries are committed to improve the understanding of language and culture. This paper is expected to contribute to the same purpose. The aim is to obtain interlanguage patterns: the influence of native language (Korean) when studying Indonesian, with focus on word-level pronunciation by Korean native speakers (KSs). The processes involved in the interference, sound change and syllabification, are described with reference to the phonological systems of Korean. In order to structure forms of language transfer and comprehensively describe the patterns, I take the notion of features and syllable.

The concept of feature roots on Roman Jakobson, but significantly developed by Chomsky and Halle (1968). They posited that a sound segment has some features to distinguish one sound and another, and the features are binary in nature: meaning that each features have two coefficients which is marked by [+] or [-]. For instance, [p] and [b] have some common features such as [+BILABIAL] (from place of articulation), [+STOP] (manner of articulation) and [+ORAL] (state of velum). However, the two segments are distinct in terms of state of vocal foldsⁱⁱ: [p] is voiceless, but [b] is voiced. Therefore, we can assign [-VOICED] to [p], and [+VOICED] to [b].

Another useful concept is syllable structure with multiple tiers representationⁱⁱⁱ. The formal representation is devised to conveniently and formally describe basic phonotactic unit in each language, and elaborate the internal structure of a syllable. Consider figure 1:

Figure 1. Syllable Structure for *beep* [bi:p]



A syllable, represented by a σ symbol, is divided into onset and rhyme, where rhyme can further be divided into nucleus and coda. Consonant/s that begin/s the syllable is/are categorized as onset. Vowel/s, on the other hand, is/are the nucleus. The syllable end, which is/are composed by consonant/s is/are called coda^{iv}.

The analysis is capable of integrating these two concepts: feature and syllable structure, to comprehensively described segments that compose a syllable, which is most commonly known as THREE-TIERED STRUCTURE. This refined version of syllable structure is proposed by Clements and Keyser (1983). Where the syllable tier σ constitutes a node that dominates dominate consonant and vowel that compose the syllable, which is commonly known as CV tier (as they are composed by consonants and vowels). The CV tier dominates segmental tier: distinctive features of each segments.

On figure 1, you can see that the vowel [i] is doubled, under the category of nucleus, which indicates long vowel [i:], which brings consequence on vowel lengthening. This applies to onset and coda as well, that they might be composed of consonant cluster^v. This approach fits best for the description of some consonant clusters in Indonesian and also some geminated consonants in Korean. Specific literatures are required to understand the sound system, patterns and phonotactic of two languages are Lee (1991) and Lee (2004) for Korean and Chaer (2004) for Indonesian.

2. Methodology: Data Collection and Research Procedure

The data in this research is obtained from a participatory conversation in Indonesian with four KSs living in Indonesia for less than a year. The Korean speakers had no prior intensive contact with Indonesian before coming to Indonesia. In other words, the KSs just began to intensively acquire Indonesian about less than a year, in Indonesia. KSs, so far, do not study Indonesian in a particular formal class. From four KSs, three of them speak Seoul dialect (which is considered standard), and another one speaks in Gyeongsan dialect.

KSs' speech in Indonesian is transcribed, and the data extraction is focused on Indonesian words that were mispronounced. The data is compared with Received Pronunciation in Indonesian. The gap indicates sound change and syllable structure modification, under the influence of the phonology of Korean language. The sound change can further be categorized to substitution, deletion, insertion. These three changes definitely brings consequence to the internal structure of the syllable but only the later two can, but not necessarily, modify the syllabification. The analysis is performed by the notions of segment features and syllable structures, represented by three-tiered structure as it has been previously commented on section one.

3. Discussion: Korean Interference to Indonesian by Korean Speakers

The data in this paper is described in terms of integrated analysis. Separate analysis for substitution, insertion and deletion is avoided. The reason is that, in one data word, there might be several category of transfer. For some data, the language transfer takes place only on the category of substitution, for instance: [pa.gi] *morning*, which is pronounced [ba.gi] *to share*^{vi}. However, in [pa.gu.sə], which originally aimed at [ba.gus] *good*, a substitution is accompanied by a schwa insertion that radically changes the number of syllables from two to three syllables.

Before proceeding further to data analysis, consider the extracted data, presented by table 1. It contains Indonesian words that are frequently mispronounced by KSs:

Table 1. Mispronounced Words and Their Received Pronunciation

	Interlanguage	Received Pronunciation	gloss		Number of syllable/s
1	[pa.gi]	[ba.gi]	To share	S	same
2	[pu.laŋ]	[pu.raŋ]	To return home	S	same
3	[ru.pi.yah]	[lup.pi.ya]	Indonesian currency	S,I,D	same
4	[du.wa]	[tu.wa]	old	S	same
5	[ba.paʔ]	[ba.pak]	father	S	same
6	[o.raŋ]	[ɔ.raŋ]	person	S	same
7	[so.wal]	[sɔ.al]	Test item	I	same
8	[səllama]	[səlama]	Particular time duration	I	same
9	[kolla]	[kɔla]	Cola	I	Same
10	[buŋ.ku.sə]	[buŋ.kus]	to wrap	I	change
11	[ga.ri.sə]	[ga.ris]	line	I	change

Substitution

Indonesian and Korean share some consonants and vowels, for instance [m], [ŋ], [a], [ə]. However, the inventory of consonants and vowels for Indonesian is different to Korean in some respects. We begin by evaluating the consonants on the first place. First, is in terms of the state of vocal folds [\pm VOICED]: in Indonesian, the state of vocal folds is very important to distinguish segments with same place and manner of articulation, and hence can distinguish meaning. In Korean, however, the state of vocal folds does not necessarily serve for the purpose of meaning distinction^{vii}. For this reason, some minimal pairs are often interchangeable when they speak in Indonesian, as it is shown by the interchange of [+BILABIAL, STOP] consonants on the initial segment on data 1 (first syllable), [+ALVEOLAR STOP] consonants interchange on the initial segment of data 2 (second syllable), and 3 (first syllable).

Second, some consonants in Indonesian are not available in Korean consonants inventory, for instance [ʔ], which is represented by <k> in the writing system of Indonesian. This sometimes overlaps with [k] that is represented by the same character <k>. Data 5 show that a glottal stop is replaced by a velar stop. Although both consonants are articulated on different articulators, they share manner of articulation: [-VOICED, +STOP]. This might be the fact that triggers the preference of [k] to substitute [ʔ] as in Korean consonant inventory, sound [ʔ] does not exist, and [k] is considered the closest equivalence.

Korean has more vowels than Indonesian. This might be the reason why not many mispronounced vowels were found. However, KSs often make the round vowels interchangeable. Often they fail to recognize that round vowels are different in terms of their roundedness: [o] is more rounded than [ɔ]^{viii}. This may possibly be caused by the study of Indonesian via written artifact. KSs still use their Korean language writing mental image that every vowels is distinguished by different characters, whereas in Indonesian both mid vowels [o] and [ɔ] are represented by <o> in Indonesian writing system. In addition, [o] and [ɔ], in Indonesian in some contexts do not distinguish meaning.

Deletion and Insertion

Substitution does not relatively change the number of syllable. However, deletion and insertion can potentially do so. This section describes modification on syllable structure on the data where number of syllable might or might not change.

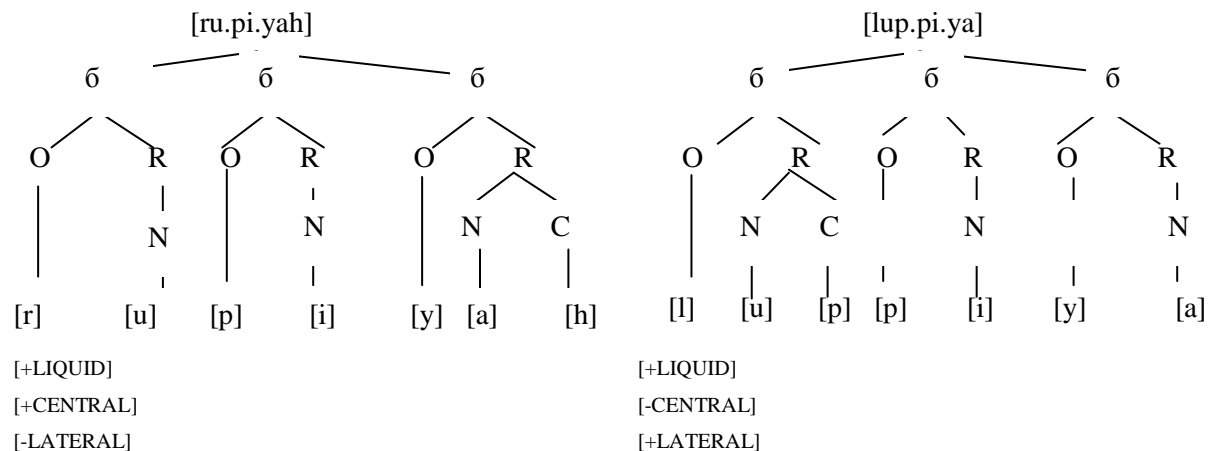
Deletion takes place for a glottal fricative consonant [h]. Interestingly, the deleted segment is always at the syllable end. KSs successfully produce [h] in the syllable initial position as in [ha.ri] *day*, [ha.sil] *result*, and [sə.hat] *healthy*. It seems to be the influence of Korean phonology where [h] cannot be the coda of a syllable. It can be described as the following shorthand notation:

(1) [+GLOTTAL, FRICATIVE] \rightarrow Ø/ _#

The shorthand notation can be described as follow: a glottal fricative is deleted, when it fills the slot of coda. In Korean, [h] can never end a syllable. KSs seem to apply this rule to Indonesian so that they

come up with deletion of [h], whereas [h] in coda position is acceptable in Indonesian, for words such as *sudah*, *marah*, *belah*, *kerah* etc. Consider figure 2 where KSs apply rule (1) to data 3:

Figure 2. Change on Syllable Internal Structure: [rupiyah] and [luppiya]



Liquid substitution^{ix} takes place for the onset of first syllable. However, the [r] in Korean is a flap Lee (1991) whereas in Indonesian the [r] is trill. The inexistence of the trill in Korean inventory triggers the selection of [l], which is available in both Korean and Indonesian.

Data 8 and 9 show gemination. However, unlike stop, the lateral [l] is geminated in order to avoid flap to occur. In Korean, if a liquid is coda and followed by a vowel, then the surface form is a trill. However, if the next syllable (assuming that the word is composed of two or more syllables) begins with lateral sound, the liquid at the coda will be lateral consonants as well. These rules can be summarized with the shorthand notations (2) and (3):

(2) [+LIQUID] → [+FLAP] / # [+VOWEL]

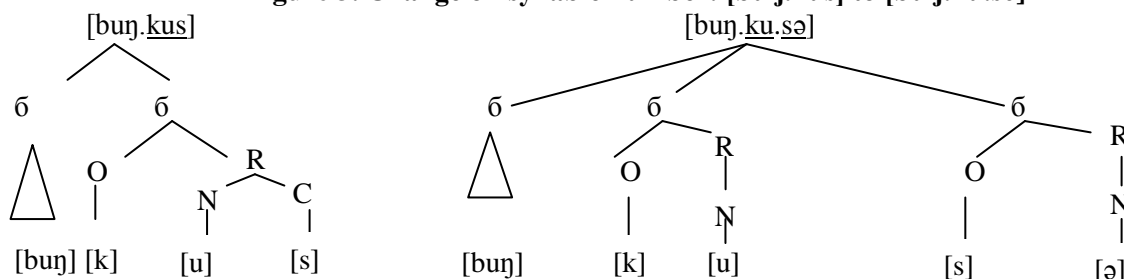
(3) [+LIQUID] → [+LATERAL] / _# [Ø] [+LATERAL]

KSs have preference to geminate [l] in order to avoid rule (2) to apply, as it tends to cause a flap to occur: hence, *Quran* [kur.an] would be pronounced [ku.ran], and *selama* [se.la.ma] will be pronounced [se.ra.ma]. KSs then apply rule no (3), although they understand that the internal structure of the syllable will be modified. However, the cost of changing a lateral to flap is considered higher than geminating the liquid. Now, focus on the rhyme of first and second syllable on the left and right side. Notice that the left figure lacks of coda. KSs insert a coda [p] (on the right hand side) so that the [p] is geminated. What constrained the preference of [b]? See rule (4). This is because in Korean, before vowels, nasals and lateral, a stop is voiced^x. And since the onset of the next syllable is a voiceless stop, [p] is preferred. If rule no (4) is applied, then the pronunciation will be [ru.bi.ya]:

(4) [+STOP, -VOICED] → [+STOP, +VOICED] / _# [-VOWEL]

The analysis has shown of how insertion, deletion and substitution are described. However, the change did not modify the number of syllable. As opposed to the previous analysis, the insertion of schwa in data 10 and 11 do modify the number of the syllable. Consider figure (3):

Figure 3. Change on syllable number: [buŋ.kus] to [buŋ.ku.sə]



In figure 3, We can observe that the insertion of schwa change the syllable structure from two to three syllables. The [s] on the left hand side (second syllable) is posited on coda position (syllable end). However, the internal structure is modified so that [s] is no longer part of the second syllable but it becomes the onset of a new, the third, syllable on the right hand side. The schwa is required to create a new syllable here, as in Korean [s] cannot be coda. The schwa insertion can formally be expressed by the following shorthand notation:

(5) $\emptyset \rightarrow \text{ə} / [+SIBILANT]\#$

4. Conclusion

This paper has described that in the early stage of L2 acquisition, language transfer is a common phenomena. It further describes that the interlanguage is not random, but under the influence of L1, in this case the influence of Korean to Indonesian.

Further studies can be conducted with larger data plus suprasegmental units. The focus can be wider, not only limited to production, but also to the extent of perception, for the reason that mispronunciation can take place for either of two reasons: production or perception problem. Best (1994), revisited in Best et al (2001) has proposed a number of perceptual assimilation model. This model will be adequate to describe KSs perception to Indonesian consonants and vowels. Instead of generative framework, the interlanguage data might also be analyzed by different framework such as optimality theory in (Kager, 2004) and also in (Prince & Smolensky, 2004).

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ⁱ It is true that sometimes L2 can also give interference to L1, but so far, the most widely investigated cases are the influence of L1 over L2 (Richards & Schmidt, 2002, p. 295)

ⁱⁱ Four features to classify a consonants are: place and manner of articulation, state of vocal folds and state of velum

ⁱⁱⁱ See (Kahn, 1976)

^{iv} In a syllable structure, onset and coda are optional, but nucleus is obligatory.

^v There is a tendency that some phonotactic rules are shared among languages in the world. For instance, many languages prefer open syllables as compared to closed ones. However, variations are also widely acknowledged. For instance, English allows consonant cluster on both onset and coda, while in Indonesian no consonant cluster can fill in the slot of coda.

^{vi} KSs perform substitution on bilabial stop consonants due to indifferent voicing recognition

^{vii} It does, however, determine the naturalness of the pronunciation. For instance, although [p^hab] and [bab] does not distinguish meaning 'rice', the natural pronunciation is the first one (in Seoul). Most of the minimal pairs are positional allophone in Korean. However, in Korean writing system, they are represented by the same character. For instance, [p] and [b] are represented by ㅂ. The stop will be completely voiced [b] given that the next syllable onset is vowel, or it ends the word. Otherwise, it will be pronounced without voicing.

^{viii} It is quite surprising that KSs often mispronounce round vowels. In fact, [o] and [ɔ] are completely distinguished in Korean, not only in terms of pronunciation but also in the writing system.

^{ix} Underlyingly the liquid is lateral /l/ in Korean

^x [p] and [b] are positional allophone in Korean