

## Transcription of the Korean Language into the Greek Alphabet

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### 1. Introduction

National Institute of Korean Language (Korean: 국립국어원) established the “Revised Romanization of Korean (RR)” to romanise the Korean language correctly into the Latin script. This rule has been officially approved by the Korean government in 2000. Now, all road signs, official documents and textbooks are obliged to follow this rule. Also, there are some proposed rules to correctly transcribe the Korean language into Japanese Kana script or Cyrillic script. However, currently there is no rule proposed for correct transcription or transliteration of the Korean language into the Greek alphabet.

### 2. Previous Tendency of Transcribing the Korean Language into the Greek Alphabet

#### 2.1. Examples of Previous Transcription of the Korean Language into the Greek Alphabet

English as romanised Korean has been used as a medium to transcribe the Korean language into the Greek alphabet. But, this method evoked many problems such as incorrect description of Korean names and places into the Greek alphabet, and it was also inconsistent. Therefore, a proper method should be introduced to directly transcribe the Korean language into the Greek alphabet. Below are some examples of the problems which were observed in Greek press, the encyclopaedia, and from internet search.

- (1) “Το μεσημέρι της Τετάρτης ο κ. Παπούλιας και η ελληνική αντιπροσωπεία θα μεταβεί στη περιοχή **Ιντσέον**, όπου βρίσκεται το Μνημείο των Ελλήνων Πεσόντων στον πόλεμο της Κορέας....” (Η Καθημερινή 2013)

Korean	Pronunciation	IPA	RR	Greek from Text	IPA of Greek Transcription
인천	[인천]	[in.te <sup>h</sup> ʌn]	Incheon	Ιντσέον	[in'tseon]

- (2) “Νικήτρια των προεδρικών εκλογών της Ν. Κορέας είναι η Παρκ **Γκεούν-Χίε** σύμφωνα με ανακοίνωση της εκλογικής επιτροπής της χώρας.” (Voria.gr 2012)

Korean	Pronunciation	IPA	RR	Greek from Text	IPA of Greek Transcription
근혜	[근혜/근혜]	[kʌn.h(j)ɐ]	Geun-hye	Γκεούν-Χίε	[ge'un. 'ɕie]

- (3) “Το **Τάε Κβον Ντο** είναι η πιο δημοφιλής κορεάτικη πολεμική τέχνη και το εθνικό σπορ της Κορέας.” (Ελληνική Βικιπαίδεια 2015)

Korean	Pronunciation	IPA	RR	Greek from Text	IPA of Greek Transcription
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태권도	[태권도]	[tʰɛ.ɰwʌn.do]	Taegwondo	Τάε Κβον Ντο	[ˈtae.kvon.do]
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(4) “*Νταεγιόν*: Πόλη στη Νότια Κορέα....” (Google 2015)

Korean	Pronunciation	IPA	RR	Greek from Text	IPA of Greek Transcription
대전	[대전]	[tɛ.dʒʌn]	Daejeon	Νταεγιόν	[daeˈjɔn]

(5) “...για τον τερματισμό της στρατιωτικής έντασης μεταξύ των δυο χωρών, τόνισε την Παρασκευή ο βορειοκορεάτης ηγέτης Κιμ *Γιονγκ Ουν*.” (Το Βήμα 2015)

Korean	Pronunciation	IPA	RR	Greek from Text	IPA of Greek Transcription
정은	[정은]	[tɕɛ:ŋ.un]	Jeong-eun (Jong-un*)	Γιονγκ Ουν	[jɔŋk.un]

\* The transcription 'Jong-un' (Chŏngŭn) is according to the romanisation rule of North Korea, which is based on the McCune-Reischauer romanisation. This rule was also used in South Korea as an official rule of romanisation until the establishment of RR.

The following names of places are the transcriptions of the Korean places into the Greek alphabet shown on the Google Maps as of November, 2015.

(6)

Korean	Pronunciation	IPA	RR	Greek from Google Maps	IPA of Greek Transcription
광주	[광주]	[kwaŋ.dʒu]	Gwangju	Γκουανγκγού	[guanɰkˈɣu]
서귀포	[서귀포]	[sʰʌ.gwi.pʰo]	Seogwipo	Σεογκουίπο	[seoguˈipo]
전주	[전주]	[tɕʌn.dʒu]	Jeonju	Γεονγού	[jeonˈɣu]
천안	[천안]	[tɕʰʌ.nan]	Cheonan	Τσεονάν	[tseonˈan]
충주	[충주]	[tɕʰuŋ.dʒu]	Chungju	Τσουνγκιού	[tsuŋgiˈu]
철원	[철원]	[tɕʰʌ.rwʌn]	Cheorwon	Τσεοργουόν	[tseoryuˈon]
경기도	[경기도]	[kjaŋ.gi.do]	Gyeonggi-do	Γκυεόνγκι-ντο	[gieˈoŋgido]

The above examples show that many problems exist on transcribing the Korean words into the Greek alphabet. We can also conclude that transcription into the Greek alphabet using the romanised Korean is not proper by looking at this figure.

## 2.2. Previous Tendency to Transcribe the Korean Language into the Greek Alphabet

By analysing examples, we can find a tendency to transcribe the Korean words into the Greek alphabet based on the romanised Korean. This can be shown as below.

Vowels					Glides			Consonants												
a	e	i	o	u	j	w	y	b	ch	d	g	h	k	l	m	n	p	r	s	t
α	ε	ι	ο	ου	γι, γ, ι, τζ, ζ	γου, ου, β	υ, ι	μπ	τσ, χ	ντ	γκ, γ	χ	κ	λ	μ	ν	π	ρ	σ	τ

The letter 'j' which is used to represent [tɕ] or [dʒ] sound in RR as in a word '제주(Jeju)' [tɕe:.dʒu], has been sometime simply replaced by the letters 'γι', 'γ', or 'ι' in Greek or used to represent the [j] sound.

Also, there was a tendency to romanise [w] sound as not only 'γου' and 'ου', but also 'β', which has [v] sound. It is assumed that this tendency is due to the influence of the German language.

In addition, for the acute accent mark (τόνος), there was a tendency to be stressed on the one of the last two syllables.

Since these phenomena could lead to the big confusion as an increasing popularity of Korean culture as a K-Pop, the transcription rule for Korean Language to Greek alphabet should be established to avoid further confusion.

### 3. Limitations of Transcribing the Korean Language into the Greek Alphabet

Since the Greek language have different phonemes to the Korean language, transcribing the Korean words into the Greek alphabet for a proper pronunciation can be very difficult. Below are some characteristics of Greek pronunciation and limitations of transcribing Korean Korean language into Greek.

- 3.1. Since there are no distinct letters or combinations of letters to pronounce [ŋ] in the Greek language, the final consonant of Korean language [ㅇ] cannot be transcribed perfectly. The letter combination of 'γγ' or 'γκ' could be pronounced as [ŋ], but it can also be pronounced in other ways. The general way is to use letter combination of 'νγκ' [ŋk] but it should be avoided when it is followed by the vowel, since [k] sound could affect the pronunciation of next sound.
- 3.2. Greek language does not has a phoneme [h] ([ㅎ] in Korean). The closest sound can be represented by the letter 'χ' [x], [ç]. We should notice that 'χα' [xa] and 'χι' [çi] have close sound to '하' [ha] and '히' [hi] but 'χε' [çɛ] sounds similar to '헤' [hje] or '해' [hjɛ], but not to the '헤' [he] or '해' [hɛ]. It's hard to transcribe these '헤' [he] and '해' [hɛ] sounds into the Greek alphabet.
- 3.3. Since Greek language doesn't have sound corresponding to 'ㅏ' [ʌ], [ə:], 'ㅓ' [jʌ], [jə:], and 'ㅡ' [ɯ], [ɯ:], we should use same Greek alphabet to match with several Korean vowels, unless we use extra alphabets which do not exist in Greek.

#### 4. Idea of the Transcription System

We have to think about the idea of this new transcription system from Korean language to the Greek alphabet, that will help me build this system in a proper manner.

First of all, since I considered that to deliver the correct pronunciation is more important than making reader figure how it was originally written in Hangeul (except for the research purpose – such as Yale Romanisation System which is only used in academic purposes), I decided to transcribe the words instead of transliterate them. This also matches to the basic idea of McCune-Reischauer Romanisation method being used by North Korea and previously used by South Korea, and the RR of South Korea.

Also, one of the trickiest things that we have to think about is the acute accent (τόνος) of Greek language. Since Korean language (except for some Korean dialects) doesn't have stress in the pronunciation, it is difficult to decide to what vowel we should put the acute accent on. And since it becomes more natural when we put accent on the first syllable of Korean word in isolation, I decided to use this method throughout my system. I ignored the antepenult rule which is the rule that on the Greek words, accent can be fall only to the last three syllables which is ultima, penult, or antepenult. This is to make transcription more accurate to the Korean pronunciation. I have applied this strategy because there are some transcriptions of foreign names into Greek which does not observe this rule, and because this is not a native Greek words, but a transcription of a foreign language.

Most important purpose of the transcription is to make it pronounced accurately. But, there are some issues that should be considered. There is a problem in RR, that the combination of the 'ㅇ' [ŋ] and 'ㅇ' [ ], and the combination of the 'ㄴ' [n] and 'ㄱ' [g] is both represented as 'ng' in RR (McCune-Reischauer solved this problem by using an apostrophe, for example 'ng' and 'n'g' respectively). Similarly, when we use letter combinations like 'μπ' or 'ντ' in transcription, it is uncertain whether this is a combination for one consonant sound or it is the combination of two consonants, 'ㅁ' [m] and 'ㅍ' [p<sup>h</sup>], and the combination of the 'ㄴ' [n] and 'ㄷ' [t<sup>h</sup>] respectively. However, since almost every Greek transcriptions of foreign words don't use special symbols like apostrophe to make these problems clear, I also decided not to use apostrophe or other symbols to guide to proper pronunciation, even though the transcription may be ambiguous.

Moreover, one of the characteristics of the RR and McCune-Reischauer method is that it romanise the 'ㅈ' [ɛ] and 'ㅉ' [e] sound differently to 'ae' and 'e', and it is thought to be one of the characteristics from transliteration – to distinguish these 2 commonly used sound although it has no significant pronunciation difference. However, since Greek language doesn't have a minimum pair of [ɛ] and [e], I decided to use the 'ε' for in both case of 'ㅈ' and 'ㅉ'. Furthermore, since Greek language does not have a distinction between 'ㅊ' [ɰ], [ɰ:], and 'ㅌ' [o], [o:] sound, and between 'ㅡ' [u], [u:], and 'ㅓ' [u], [u:] sound, I decided to use letter 'ο' for both 'ㅊ' and 'ㅌ', and similarly, letter 'ου' for both 'ㅡ' and 'ㅓ'.

Therefore, based on these ideas, I will systemise the transcription method of the Korean language into the Greek alphabet.

## 5. Summary of the Transcription System into the Greek Alphabet

### 5.1. Vowels

Words are stressed on the first letter in every case except for when the transcription is one syllable word, and for when ‘-ι’ combination appears as ‘ουι’ on the words. In this case, ‘ουι’ is always stressed as ούι. If more than two of these combinations appear in same word, we only stress the last combination. When the transcription is one syllable word, word is not stressed.

#### 5.1.1. Simple Vowels

	ㅏ	ㅓ, ㅗ	ㅜ, ㅡ	ㅣ	ㅓ, ㅕ	ㅛ	ㅟ
	α	ο	ου	ι	ε	οε	ουι
stressed	ά	ό	ού	ί	έ	οέ	ουί

- (7) 시외 [시:외]: σίοε, 외래 [외:래]: οέρε  
 주위 [주위]: τζούουι, 위치 [위치]: ουίτσι  
 주의 [주:의/주:이]: τζούι

#### 5.1.2. Diphthongs

	ㅑ	ㅕ, ㅛ	ㅗ	ㅓ, ㅕ	ㅛ	ㅓ, ㅕ	ㅟ	ㅠ
	ια	ιο	ιου	ιε	ουα	ουε	ουο	ουι
stressed	ιά	ιό	ιού	ιέ	ουά	ουέ	ουό	ούι

If syllable is onsetless on following syllables, we add 'γ' as below to transcribe the diphthongs:

	ㅑ	ㅕ, ㅛ	ㅗ	ㅓ, ㅕ
	για	γιο	γιου	γιε
stressed	γιά	γιό	γιού	γιέ

- (8) 야구 [야:구]: γιάγκου, 주야 [주야]: τζούγια  
 야유 [야:유]: γιάγιου, 의자 [의:자]: ούιτζα  
 기와 [기와]: γκίουα, 원석 [원석]: ουόνσοκ  
 의정부 [의정부]: Ούιτζονγκμπου

### 5.2. Consonants

If a transcription contains a combination of two consecutive identical consonants such as ‘κκ’, ‘λλ’, ‘μμ’, ‘νν’, ‘ππ’, and ‘ττ’, these are **simplified** as ‘κ’, ‘λ’, ‘μ’, ‘ν’, ‘π’, and ‘τ’, respectively.

### 5.2.1. Plosives (Stops)

ㄱ		π, ɸ	ㄷ			ㅌ, ㅍ	ㅂ		ㅃ, ㅍ
Onset	Coda	κ	Onset	Coda	‘ㄷ’ + ‘ㄴ/ㄹ’ Combination	τ	Onset	Coda	π
γκ	κ		ντ	τ	σ		μπ	π	

- (9) a. 악어 [아거]: άγκο, 바다 [바다]: μπάντα, 가방 [가방]: γκάμπανγκ  
 b. 죽순 [죽순]: τζούκσουν, 견기 [견:끼]: γκότκι, 답 [답]: νταπ  
 c. 낫새 [낫새]: νάσεκ  
 d1. 학교 [학교]: χάκιο (κκ Simplified), 조각칼 [조각칼]: τζόγκακαλ (κκ Simplified)  
 d2. 깃털 [깃털]: γκίτολ (ττ Simplified)  
 d3. 합판 [합판]: χά판 (ππ Simplified), 갑판 [갑판]: γκά판 (ππ Simplified)

### 5.2.2. Affricates

ㅈ	ㅊ, ㅌ
τζ	τσ

- (10) 자주 [자주]: τζάτζου, 짬뽕 [짬뽕]: τσάνματ, 추위 [추위]: τσούουι  
 맞춤법 [맞춤법]: μάτσουμποπ (ττ Simplified)

### 5.2.3. Fricatives

ㅅ, ㅆ	ㅎ
σ	χ

- (11) 석류 [성류]: σόνγκνιου, 싸움 [싸움]: σάουμ, 해류 [해:류]: χέριου

### 5.2.4. Nasals

ㄴ	ㅇ
ν	μ

ㅇ				
‘ㅇ’ + ‘ㄱ’ Combination	‘ㅇ’ + ‘ㄷ’ Combination	‘ㅇ’ + ‘ㅎ’ Combination	‘ㅇ’ on Onset	‘ㅇ’ on Coda
νγκ	νκ	γχ	νγ	νγκ

- (12) 진통 [진통]: τζίντονγκ, 진동 [진:동]: τζίντονγκ (νν Simplified) (cf. 지도 [지도]: τζίν토)  
 선녀 [선녀]: σόννιο (νν Simplified) (cf. 소녀 [소:녀]: σόννιο)  
 심판 [심:판]: síμπαν, 심방 [심방]: síμπανγκ (μμ Simplified) (cf. 시비 [시:비]: síμπι)  
 삼면 [삼면]: 사́μμιον (μμ Simplified) (cf. 사면 [사:면]: 사́μμιον)

- (13) 경기 [경:기]: γκιό**νγκι**, 장구 [장구]: τζά**νγκου**, 종각 [종각]: τζό**νγκακ**  
 땅콩 [땅콩]: τάν**κονγκ**, 상쾌 [상쾌]: σάν**κουε**  
 동해 [동해]: ντό**γχε**, 황해 [황해]: χουά**γχε**, 강화도 [강화도]: Γκά**γχ**ουαντο  
 평양 [평양]: Πιό**νγκ**ιανγκ, 강원 [강원]: Γκά**νγκ**ουον, 강우 [강:우]: γκά**νγκ**ου, 평일 [평일]: πιό**νγκ**ιλ  
 강산 [강산]: γκά**νγκ**σαν, 충청 [충청]: Τσού**νγκ**τσονγκ, 장소 [장소]: τζά**νγκ**σο

### 5.2.5. Liquids

We transcribe the ‘ㄹ’ or the combination as:

‘ㄹ’ on Onset	‘ㄹ’ on Coda
<b>ρ</b>	<b>λ</b>

- (14) 설악 [서락]: σό**ρακ**, 길목 [길목]: γκί**λ**μοκ, 설날 [설:랄]: σό**λαλ** (*λλ Simplified*)



## 6. Special Provisions for Transcription

### 6.1. Cases of Korean Sound Value Change Affecting the Transcription

In following Korean sound values change happens, transcription follows the real pronunciation. Unlike RR system, the transcription is affected in following cases: diphthong ‘ㅚ’ pronounced as ‘ㅓ’; aspirated sounds in nouns when ‘ㅎ’ follows ‘ㄱ’, ‘ㄴ’, and ‘ㅁ’; change to the tense sounds in cases when morphemes are compounded.

#### 6.1.1. The case of assimilation of adjacent consonants

- (15) 백마[백마] (RR: Baengma): Μπένγκμα  
신문로[신문노] (RR: Sinmunno): Σίνμουνο

#### 6.1.2. The case of the epenthetic ㄴ and ㄹ

- (16) 학녀울[항녀울] (RR: Hangnyeoul): Χάνγκνιουλ

#### 6.1.3 Cases of palatalization

- (17) 해돋이[해도지] (RR: Haedoji): χέντοτζι

#### 6.1.4. Diphthong ‘ㅚ’ pronounced as ‘ㅓ’

Unlike RR system, when diphthong ‘ㅚ’ pronounced as ‘ㅓ’, it follows the pronunciation and transcribed as ‘ㅓ’

- (18) 광희문[광히문] (RR: Gwanghuimun): Γκουάγχιμουν  
연희[연히] (RR: Yeonhui): Γιόνχι

#### 6.1.5. Aspirated Sounds in Nouns when ‘ㅎ’ follows ‘ㄱ’, ‘ㄴ’, and ‘ㅁ’

Unlike RR system, the aspirated sounds in nouns of ‘ㅎ’ are shown on the transcription.

- (19) 집현전[지편전] (RR: Jiphyeonjeon): Τζίπιοντζον

#### 6.1.6. Tense (or glottalised) Sounds in cases where morphemes are compounded (in all cases)

Unlike RR system, the tense sounds are shown on the transcription.

- (20) 일산[일싼] (RR: Ilsan): Ίλσαν  
압구정[압꾸정] (RR: Apgujeong): Άπκουτζονγκ  
한자 [한짜] (RR: Hanja): Χάντσα

### 6.2. Capitalisation in Proper Names

First letter should be capitalised in proper names.

- (21) 부산 (RR: Busan): Μπούσαν, 세종 (RR: Sejong): Σέτζονγκ

### 6.3. Word Stress in Case of Using Hyphen

In case of the word is separated by the hyphen in the transcription, each part of word divided by the hyphen is stressed separately according to as it's mentioned in 5.1. That is, if word divided by the hyphen is one syllable word, it is not stressed.

- (22) (경상북도 포항시) 남구 이동 희망대로: Χίμανγκ-**ντέρο**, Ι-ντονγκ, **Ναμ**-γκου  
(Not Χίμανγκ-**ντέρο**, **Τ**-ντονγκ, **Νάμ**-γκου)

### 6.4. Transcription of Personal Names

Personal names are written in the order of last name (family name) and first name. Hyphens may be used to separate each letter of first name in hyphen.

\* Assimilated sound changes between syllables in given names are not transcribed.

- (22) 한복남: Χαν Μπόκναμ (Χαν Μποκ-ναμ)  
홍빛나: Χονγκ Μπίтна (Χονγκ Μπιτ-να)

\* Romanisation of last name follows the rule, (18a) but aspirated sound on the letter, (18b) and following the pronunciation of romanisation is also permitted.

- (23) a. 권 (Gwon, Kwon): Γκουόν (Correct), Κουόν (Permitted)  
b. 최 (Choe, Choi): Τσοέ (Correct), Τσόι (Permitted)

### 6.5. Transcription of Administrative Units and Address

Administrative units such as 도, 시, 군, 구, 읍, 면, 리, 동, and 가, and type of roads such as 대로, 로, and 길(-변길) are transcribed as a rule, which is -ντο, -σι, -γκουν, -γκου, -ουπ, -ρι, -ντονγκ, -γκα, -ντέρο, -ρο, and -γκιλ (μπον-γκιλ), respectively. All of these suffixes are separated with hyphens and assimilated sound changes are not reflected before and after the hyphen.

- (24) 충청북도: Τσουνγκτσονγκμπουκ-ντο, 의정부시: Ούιτζονγκμπου-σι  
경상북도 포항시 남구 희망대로 1: 1, Χίμανγκ-ντέρο, Ναμ-γκου, Πόχανγκ-σι,  
Γκιόνγκσανγκμπουκ-ντο

### 6.6. Names of Geographic Features, Cultural Properties and Man-Made Structures

Names of geographic features, cultural properties and man-made structures may be written without hyphens.

- (25) 남산: Νάμσαν, 독도: Ντόκτο, 경복궁: Γκιόνγκμπोकουνγκ

## 7. Verification of the Practicality of the Transcription System

To verify that this transcription system is plausible, a simple experiment has organised. The following 15 proper nouns are selected randomly from the list of examples of Section 8, and the transcriptions in Greek Alphabet using my system are prepared. Also, the wrong transcription based on the romanisation of the Korean words, which was mainly used until now, is reconstituted by the analysis from the Section 2 and prepared.

Then, the native Greek speaker who does not have any knowledge of the Korean language are instructed to read these transcriptions.

No.	Korean	RR-Based Transcription (Reconstituted)	Greek Transcription
1	현충사	Χυεοντσουνγκσά	Χιόντσουνγκσα
2	독립문	Ντονγκνιμμούν	Ντόνγκνιμουν
3	천안	Τσεονάν	Τσόναν
4	청주	Τσεονγκγιού	Τσόνγκτζου
5	순창	Σουντσάνγκ	Σούντσανγκ
6	춘천	Τσουντσεόν	Τσούντσον
7	불국사	Μπουλγκουκσά	Μπούλγκουκσα
8	의정부	Ουιγιεονγκμπού	Ούιτζονγκμπου
9	서귀포	Σεογκουιπό	Σόγκουιπο
10	금강	Γκεουμγκάνγκ	Γκούμγκανγκ
11	집현전	Γιπχυεονγιεόν	Τζίπιοντζον
12	제주	Γιεγιού	Τζέτζου
13	대전	Νταεγιεόν	Ντέτζον
14	해운대	Χαεουννταέ	Χέουντε
15	철원	Τσεοργουόν	Τσόρουον

After that, the 20 native Korean speakers listened to the recordings of the Greek speaker to guess what was the original words and sentences in Korean language. However, these 20 people are separated into the 2 groups, 10 people in each group, and listened to RR-Based transcription (Type A), and in my Greek transcription (Type B), respectively. Recordings read each word twice in the interval of 2 seconds, and new word is read after 3 seconds.

	RR-Based Transcription (Type A)					My Transcription (Type B)				
Participant	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Score	2	4	5	7	10	9	10	11	12	14
Average	5.6/15					11.2/15				

The chart above shows the result of the experiment with RR-based transcription (Type A), and my new transcription system (Type B). We can see that people can guess the word correctly at the twice of chance in my transcription system than the previous RR-based transcription.

Corrects\No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Type A (Out of 5)	0	4	2	0	4	2	5	3	1	1	1	2	2	0	1
Type B (Out of 5)	1	2	5	3	2	5	5	5	5	1	5	5	5	2	5
Total (Out of 10)	1	6	7	3	6	7	10	8	6	2	6	7	7	2	6

When we look through each words, we can observe that more than half of the participants got wrong at word no. 1, 2, 5, 10, and 14 even listening to the recordings based on my transcription system. The common characteristics of the word no. 1, 2, 5, and 10 is that it contains letter combination <νγκ> [ŋk], where it should be pronounced as [ŋ] in the Korean language, seems to lead confusion to the participants. Word no. 2 – Χέουντε [çeude] – was also seems to be hard to be guessed by the participants because of the sound difference of the original letter “ἥ” [hɛ] and “χε” [çe], and because of the missing final consonant sound [n] in the Greek transcription. These issues have their origin at the fundamental pronunciation difference between Korean and Greek language, therefore it's hard to make better system to completely get rid out of these issues.

One interesting result is that there exist two words which the participants of Type A guessed better than the participants of Type B – word no. 2, and 5. It's interesting since only difference of the pronunciation of these words in each type is different location of stress. In Type A, two words are pronounced as [doŋkni'mun], and [sun'tsaŋk], while in Type B it is pronounced as ['doŋknimun], and ['suntsaŋk]. This should be further investigated by more test cases.

To sum up, we can see that participants understood twice as many words when they listened to the transcription based on my system, comparing to the previous transcription based on RR system. There were some words that many participants guessed incorrectly, but it's because of the fundamental pronunciation difference of two languages. Therefore, it can be said that although it cannot exactly transcribe the Korean words due to fundamental pronunciation difference of two languages, it increased the rate of correct answer drastically, and my transcription system has greater plausibility comparing to the previous RR-based practice.

## **8. Conclusion**

In this research, the very first transcription method of the Korean Language into the Greek Alphabet has been proposed and discussed, as opposed to the previous practice of transcribing it based on the RR system. Although the Korean words cannot be transcribed exactly into the Greek alphabet due to the fundamental pronunciation difference between two languages, the new transcription method proposed here are focused to transcribe the Korean words as precise as possible in the pronunciation. This new method has then verified by the simple experiment that it drastically increased the intelligibility of the words. This system must also be selected as a standard in Greece and Cyprus of transcribing the Korean language into the Greek Alphabet to avoid further confusion of both Greeks and Korean.

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### Appendix. Some Examples of the Transcription

Korean	Pron.	IPA	RR	RR-Based Transcription (Reconstituted)	Greek Transcription
광희문	[광 <sup>h</sup> 히문]	[kwaŋ.hi.mun]	Gwanghuimun	Γκουανγκχουιμούν	Γκουάγκχιμουν
구미	[구 <sup>h</sup> 미]	[ku.mi]	Gumi	Γκουμί	Γκούμι
영동	[영 <sup>h</sup> 동]	[jɒŋ.doŋ]	Yeongdong	Υεονγκντόνγκ	Γιόνγκντονγκ
옥천	[옥 <sup>h</sup> 천]	[ok̚.tɕʰɐn]	Okcheon	Οκτσέον	Όκτσον
합덕	[합 <sup>h</sup> 떡]	[hap̚.tɕɐk̚]	Hapdeok	Χαπντεόκ	Χάπτοκ
호법	[호 : 법]	[ho:.bɐp̚]	Hobeop	Χομπεόπ	Χόμποπ
월곶	[월 <sup>h</sup> 곶]	[wɐl.goɕ]	Wolgot	Γουολγκότ	Ουόλγκοτ
한밭	[한 <sup>h</sup> 밭]	[han.bat]	Hanbat	Χανμπάτ	Χάνμπατ
구리	[구 <sup>h</sup> 리]	[ku.ri]	Guri	Γκουρί	Γκούρι
설악	[서 <sup>h</sup> 락]	[sʰɐ.rak̚]	Seorak	Σεοράκ	Σόρακ
칠곡	[칠 <sup>h</sup> 곡]	[tɕʰil.gok̚]	Chilgok	Τσιλγκόκ	Τσίλγκοκ
임실	[임 : 실]	[i:m.sʰil]	Imsil	Ιμσίλ	Ίμσιλ
울릉	[울 <sup>h</sup> 릉]	[ul.luŋ]	Ulleung	Ουλλεούνγκ	Ούλουνγκ
대관령	[대 : 팔령]	[tɕɛ:.gwal.ljɒŋ]	Daegwallyeong	Νταεγκουαλλυεόνγκ	Ντέγκουαλιονγκ
백마	[백 <sup>h</sup> 마]	[pɛŋ.ma]	Baengma	Μπαενγκμά	Μπένγκμα
신문로	[신 <sup>h</sup> 문노]	[sʰin.mun.no]	Sinmunno	Σινμουन्नό	Σίνμουννο
종로	[종 <sup>h</sup> 노]	[tɕoŋ.no]	Jongno	Γιονγκνό	Τζόνγκνο
왕십리	[왕 <sup>h</sup> 십니]	[waŋ.sʰim.ni]	Wangsimni	Γουανγκσιμνί	Ουάνγκσιμνι
별내	[별 <sup>h</sup> 래]	[pjɐl.lɛ]	Byeollae	Μπυεολλαέ	Μπιόλε
신라	[실 <sup>h</sup> 라]	[sʰil.la]	Silla	Σιλλά	Σίλα
학여울	[학 <sup>h</sup> 녀울]	[haŋ.njɐ.ul]	Hangnyeoul	Χανγκνυεοούλ	Χάνγκνιουσουλ
해운대	[해 <sup>h</sup> 운대]	[hɛ.un.dɛ]	Haeundae	Χαεουννταέ	Χέουντε
광주	[광 <sup>h</sup> 주]	[kwaŋ.dɕu]	Gwangju	Γκουανγκγιού	Γκουάνγκτζου
전주	[전 <sup>h</sup> 주]	[tɕɐn.dɕu]	Jeonju	Γιεονγιού	Τζόντζου
천안	[천 <sup>h</sup> 안]	[tɕʰɐ.nan]	Cheonan	Τσεονάν	Τσόναν
경주	[경 : 주]	[kjɛ:ŋ.dɕu]	Gyeongju	Γκυεονγκγιού	Γκιόνγκτζου
대구	[대 <sup>h</sup> 구]	[tɕɛ.gu]	Daegu	Νταεγκού	Ντέγκου
제주	[제 : 주]	[tɕɛ:.dɕu]	Jeju	Γιεγιού	Τζέτζου
서귀포	[서 <sup>h</sup> 귀포]	[sʰɐ.gwi.pʰo]	Seogwipo	Σεογκουιπό	Σόγκουιπο
대전	[대 <sup>h</sup> 전]	[tɕɛ.dɕɐn]	Daejeon	Νταεγιεόν	Ντέτζον
청주	[청 <sup>h</sup> 주]	[tɕʰɐŋ.dɕu]	Cheongju	Τσεονγκγιού	Τσόνγκτζου
성남	[성 <sup>h</sup> 남]	[sʰɐŋ.nam]	Seongnam	Σεονγκνάμ	Σόνγκναμ
인천	[인 <sup>h</sup> 천]	[in.tɕʰɐn]	Incheon	Ιντσέον	Ίντσον
의정부	[의 <sup>h</sup> 정부]	[wi.dɕɐŋ.bu]	Uijeongbu	Ουιγιεονγκμπού	Ούιτζονγκμπου
춘천	[춘 <sup>h</sup> 천]	[tɕʰun.tɕʰɐn]	Chuncheon	Τσουντσεόν	Τσουντσον

철원	[처원]	[tɕʰʌ.rwʌn]	Cheorwon	Τσεοργουόν	Τσόρουον
속초	[속초]	[sʰok̚.tɕʰo]	Sokcho	Σοκτσό	Σόκτσο
강릉	[강릉]	[kaŋ.nuŋ]	Gangneung	Γκανγκνεούνγκ	Γκάνγκνουνγκ
동해	[동해]	[toŋ.hɛ]	Donghae	Ντονγκχαέ	Ντόγγχε
충주	[충주]	[tɕʰuŋ.dzu]	Chungju	Τσουνγκγιού	Τσουνγκτζου
김해	[김해]	[kim.hɛ]	Gimhae	Γκιμχαέ	Γκίμχε
경기도	[경기도]	[kjaŋ.gi.do]	Gyeonggi-do	Γκυεονγκγκί-ντο	Γκίόνγκι-ντο
강원도	[강원도]	[kaŋ.won.do]	Gangwon-do	Γκανγκγουόν-ντο	Γκάνγουον-ντο
충청북도	[충청북도]	[tɕʰuŋ.tɕʰʌŋ.buk̚.ɸo]	Chungcheongbuk-do	Τσουνγκτσεονγκμπούκ-ντο	Τσουνγκτσεονγκμπουκ-ντο
충청남도	[충청남도]	[tɕʰuŋ.tɕʰʌŋ.nam.do]	Chungcheongnam-do	Τσουνγκτσεονγκνάμ-ντο	Τσουνγκτσεονγκναμ-ντο
전라북도	[절라북도]	[tɕʌl.la.buk̚.ɸo]	Jeollabuk-do	Γιεολλαμπούκ-ντο	Τζόλαμπουκ-ντο
전라남도	[절라남도]	[tɕʌl.la.nam.do]	Jeollanam-do	Γιεολλανάμ-ντο	Τζόλαναμ-ντο
경상북도	[경상북도]	[kjaŋ.sʰʌŋ.buk̚.ɸo]	Gyeongsangbuk-do	Γκυεονγκσανγκμπούκ-ντο	Γκίόνγκσανγκμπουκ-ντο
경상남도	[경상남도]	[kjaŋ.sʰʌŋ.nam.do]	Gyeongsangnam-do	Γκυεονγκσανγκνάμ-ντο	Γκίόνγκσανγκναμ-ντο
부산	[부산]	[pu.sʰʌn]	Busan	Μπουσάν	Μπούσαν
목호	[무코]	[mu.ko]	Mukho	Μουκχό	Μούκο
집현전	[지편전]	[tɕi.pʰjaŋ.dʒʌn]	Jiphyeonjeon	Γιπχγεονγιεόν	Τζίπιοντζον
압구정	[압꾸정]	[ap.ku.dʒʌŋ]	Apgujeong	Απγκουγιεόνγκ	Άπκουτζονγκ
죽변	[죽뽀]	[tɕuk̚.pʌn]	Jukbyeon	Γιουκμπυεόν	Τζούκπιον
낙성대	[낙성대]	[nak̚.sʰʌŋ.dɛ]	Nakseongdae	Νακσεονγκνταέ	Νάκσονγκντε
합정	[합정]	[hap̚.tɕʌŋ]	Hapjeong	Χαπγιεόνγκ	Χάπτσονγκ
팔당	[팔당]	[pʰal.ɸaŋ]	Paldang	Παλντάνγκ	Πάλτανγκ
울산	[울산]	[ul.sʰʌn]	Ulsan	Ουλσάν	Ούλσαν
중앙	[중앙]	[tɕuŋ.aŋ]	Jungang	Γιουνγκάνγκ	Τζούνγκανγκ
반구대	[반구대]	[pan.gu.dɛ]	Ban-gudae	Μπαν-γκουνταέ	Μπάνγκουντε
세종	[세 : 종]	[sʰe:.dʒoŋ]	Sejong	Σεγιόνγκ	Σέτζονγκ
양주군	[양주군]	[jaŋ.dzu.gun]	Yangju-gun	Υανγκγιού-γκουν	Γιάνγκτζου-γκουν
도봉구	[도봉구]	[to.bon̚.gu]	Dobong-gu	Ντομπόνγκ-γκου	Ντόμπονγκ-γκου
신창읍	[신창읍]	[sʰin.tɕʰʌŋ.wɸ]	Sinchang-eup	Σιντσάνγκ-εουπ	Σίντσανγκ-ουπ
삼죽면	[삼죽면]	[sʰʌm.dʒuŋ.mjʌn]	Samjuk-myeon	Σαμγιούκ-μυεον	Σάμτζουκ-μιον
인왕리	[이왕리]	[i.nwaŋ.ni]	Inwang-ri	Ινγουάνγκ-ρι	Ίνουανγκ-ρι
당산동	[당산동]	[taŋ.sʰʌn.don̚]	Dangsan-dong	Ντανγκσάν-ντονγκ	Ντάνγκσαν-ντονγκ
봉천1동	[봉 : 천일동]	[po:ŋ.tɕʰʌn il.ɸon̚]	Bongcheon 1(il)-dong	Μπονγκτσεόν 1(ιλ)-ντονγκ	Μπόνγκτσον 1(ιλ)-ντονγκ
종로2가	[종노이 : 가]	[tɕon̚.no i:.ga]	Jongno 2(i)-ga	Γιονγκνό 2(ι)-γκα	Τζόνγκνο 2(ι)-γκα
퇴계로3가	[퇴 : 계로삼가]	[tʰø:.gje.ro sʰʌm.ga]	Toegyero 3(sam)-ga	Τοεγκυερό 3(σαμ)-γκα	Τοέγκιερο 3(σαμ)-γκα



청주시	[청주시]	[tɕʰʌŋ.dʑu.sʰi]	Cheongju-si	Τσεονγκγιού-σι	Τσόνγκτζου-σι
함평군	[함평군]	[ham.pʰʌŋ.gun]	Hampyeong-gun	Χαμπυεόνγκ-γκουν	Χάμπιονγκκ-γκουν
순창읍	[순창읍]	[sʰun.tɕʰʌŋ.ʊp]	Sunchang-eup	Σουντσάνγκ-εουπ	Σούντσανγκ-ουπ
남산	[남산]	[nam.sʰan]	Namsan	Ναμσάν	Νάμσαν
속리산	[송니산]	[sʰoŋ.ni.sʰan]	Songnisan	Σονγκνισάν	Σόνγκνισαν
금강	[금강]	[kum.gan]	Geumgang	Γκεουμγκάνγκ	Γκούμγκανγκ
독도	[독도]	[toḱ.to]	Dokdo	Ντοκντό	Ντόκτο
경북궁	[경 : 북궁]	[kjə:ŋ.bok.kun]	Gyeongbokgung	Γκυεονγκμποκγκούνγκ	Γκιόνγκμποκουνγκ
무량수전	[무량수전]	[mu.rjan.sʰu.dʑʌn]	Muryangsujeon	Μουρυανγκσουγιεόν	Μούριανγκσουτζον
연화교	[연화교]	[jan.hwa.gjo]	Yeonhwagyo	Υεονχγουαγκυό	Γιόνχουαγκιο
극락전	[극락전]	[kuŋ.nak.tʃʌn]	Geungnakjeon	Γκεουνγκνακγιεόν	Γκούνγκνακτσον
안압지	[아 : 납지]	[a:nap.tʃi]	Anapji	Αναπί	Άναπτσι
남한산성	[남한산성]	[nam.han.sʰan.sʰʌŋ]	Namhansanseong	Ναμχανσανσεόνγκ	Νάμχανσανσονγκ
화랑대	[화랑대]	[hwa.raŋ.dɛ]	Hwarangdae	Χουαρανγκνταέ	Χουάρανγκντε
불국사	[불국사]	[pul.guk.sʰa]	Bulguksa	Μπουλγκουκσά	Μπούλγκουκσα
현충사	[현 : 충사]	[hjə:n.tɕʰuŋ.sʰa]	Hyeonchungsa	Χυεοντσουνγκσά	Χιόντσουνγκσα
독립문	[동립문]	[ton.nip.mun]	Dongnimmun	Ντονγκνιμμούν	Ντόνγκνιμμουν
오죽헌	[오주헌]	[o.dʑu.kʌn]	Ojukheon	Ογιουκχεόν	Ότζουκον
촉석루	[촉쟁누]	[tɕʰoḱ.sʰʌŋ.nu]	Chokseongnu	Τσοκσεονγκνού	Τσόκσονγκνου
종묘	[종묘]	[tɕoŋ.mjo]	Jongmyo	Γιονγκμυό	Τζόνγκμιο
다보탑	[다보탑]	[ta.bo.tʰap]	Dabotap	Νταμποτάπ	Ντάμποταπ
행신	[행 : 신]	[hɛ:ŋ.sʰin]	Haengsin	Χαενγκσίν	Χένγκσιν
민용하	[민 용 하]	[min jon ha]	Min Yongha (Yong-ha)	Μιν Υόνγκχα (Υονγκ- χα)	Μιν Γιόνγκχα (Γιόνγκ- χα)
송나리	[송 나 리]	[sʰoŋ na ri]	Song Nari (Na-ri)	Σονγκ Νάρι (Να-ρι)	Σονγκ Νάρι (Νά-ρι)
한복남	[한 복 남]	[han bok nam]	Han Boknam (Bok-nam)	Χαν Μπόκναμ (Μποκ- ναμ)	Χαν Μπόκναμ (Μπόκ- ναμ)
홍빛나	[홍 빈 나]	[hoŋ bit na]	Hong Bitna (Bit- na)	Χονγκ Μπίтна (Μπιτ- να)	Χονγκ Μπίтна (Μπίτ- να)