PROBLEMS FOR FOREIGNERS IN PRODUCING ARABIC SOUNDS AND A GUIDE FOR HELPING THEM, WITH A SPECIAL FOCUS ON NATIVE KOREAN SPEAKERS

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ABSTRACT

The present writer lived in Tunisia for 17 years. He has met many people who struggle with learning Arabic, especially with its pronunciation. This is a short guide for helping foreigners with the pronunciation of Arabic sounds, especially as it relates to Koreans.

This paper consists of 3 parts: consonants, vowels and the intonation of Arabic. In each part, problems for foreigners in producing Arabic sounds are shown, and helpful guides for solutions to these problems are introduced.

Keywords: Arabic learning, native Korean, foreigners, pronunciation, guide for helping

1. CONSONANTS

1.1. Number of consonants

The number of Arabic consonants is 28. But the number of Korean consonants is much less than Arabic. Korean has 19 consonants (including 5 fortis sounds). This is why Koreans have difficulties in pronouncing Arabic consonants.

Table 1: IPA (The International Phonetic Alphabet)symbols for Arabic Consonants.

Point of articulation	Bilabial	Labiodental	(Inter)dental	Alveolar	Postalveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal	Labial-velar		Manner of Articu- lation
vl.	(p)			t.t [°]			k	q					Dission
vd.	b			d.d [°] *			(g)			ያ			Plosive
				groo	oved								
vl.		f	θ	s.s [°]	2			χ	ħ	h			Fricative
vd.			ð.ð [°]	z.z [°] *	3			R	ያ				
vl.					(t͡∫ʰ)							asp.	
vd.					(d3)							1	Affricates

Point of articulation	Bilabial	Labiodental	(Inter)dental	Alveolar	Postalveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal	Labial-velar		Manner of Articu- lation
vd.	m			n			(ŋ)						Nasal
vd.				1								lateral	approxi-
vd.						j					w	central	mant
vd.				r									Trill

- [°] are pharyngealized sounds.
- grey indicates 'sun letters', while non-grey letters indicate 'moon letters'.
- In Tunisia, () are only used when assimilations have taken place or borrowed words are transcribed.
- Arabic consonants make up 28 phonemes but we can see 29 symbols in this chart. 27 phonemes are used in Tunisian Arabic because * are not used any more in Tunisia and have changed to ð[°].

ex) الأ (d[°]] → (d[°]) الأ (d[°]) (d[°]) (d[°])

Table 2: IPA (The International Phonetic Alphabet)symbols for Korean Consonants.

Point of articulation	Bilabial	Alveolar	Postalveolar	Palatal	Velar	Glottal	La Labial-velar		Manner of Articulation
vl.	p^{h}	th			k ^h			asp.	
vl.	р₩	t-₩			٩٢			lenis	Plosive
vl.	p,	ţ			ķ			fortis	TIOSIVE
vd.	(b)	(d)			(g)				
	Ę	groove	d						
vl.		S	([)			h			Fricative
vl.		s-						fortis	

Point of articulation	Bilabial	Alveolar	Postalveolar	Palatal	Velar	Glottal	Labial-velar		Manner of Articulation
vl.			$\widehat{t} \widehat{\boldsymbol{j}}^{ h}$					asp.	
vl.			ฟ _ช ี)					lenis	Affricates
vl.			(ts					fortis	7 millioutos
vd.			(d͡ʒ)						
vd.	m	n			ŋ				Nasal
vd.		1*						lateral	· · · · · · · · · · · · · · · · · · ·
vd.				j*			W*	central	approximant
vd.		r							Trill

- () are only used when assimilations have taken place .
- Korean consonants make up 19 phonemes.
 - is only used in final syllable position. Its underlying form is [r]. [r] is only used in the syllable initial position.
 - [j] and [w] are classified as semi-vowels in Korean. Thus, the 3 asterisks(*) are excluded from the list of 19 phonemes.

1.2. Distinctive feature of sun letters and moon letters

When we pronounce the article $\mathbb{J}[el]$ with nouns in Arabic, there is a rule which determines whether the sound [1] is maintained or not. This [1] is alveolar. So, if the next sounds have the same or similar point of articulation to this alveolar [1] – i.e. dental or postalveolar –the [1] is assimilated to the following sound. We call these sounds, which bring about assimilation of the definite article, 'sun letters'. However, there is an exception: ' \mathfrak{T}].

1.3. Influence of Korean consonants

There are many sounds which are difficult for native Korean speakers to pronounce because of the influence of Korean sounds. Arabic has 14 fricatives but it does not contain any affricates. (An affricate is a sequence of a stop released directly into a fricative at the same or nearly the same point of articulation.) But on the other hand, Korean has only one fricative [s/ ζ] and 3 affricates.

That is why the native Korean speaker faces problems in pronouncing fricatives. A Korean will pronounce fricatives like affricates. On the other hand, native Arabic speakers have difficulties pronouncing the affricates of Korean. They pronounce affricates like fricatives.

- solution: Teach native Korean speakers the differences between fricatives and affricates and make them practice the following examples.
 - (j'[z] is not same as [d͡z] in Korean word 자전거[t͡s̪ad͡zəngə]'bicycle'.
 - 'ɛ'[ʒ] is not same as [d͡ʒ] in English word 'jealous'[d͡ʒeləs].

In Korean, \equiv [ri±l] is pronounced two ways depending on the environment of the sound. One is [r] for the first consonant of a syllable, while the other is [l] in syllable final position. That's why Koreans always tend to pronounce [l] as [r] in any position within the syllable. But in Arabic these two sounds are totally different from each other. In other words, they are different phonemes.

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problem: [li:bi:] 'Libyan people' → [ri:bi:]
[ileyhi] 'to him' → [ireyhi]
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solution: Teach native Korean speakers the differences between laterals and trills and make them think about the sound [1] before they pronounce it as they are used to. Help them practice those sounds.

In Korean, $\neg [kij \notin k]$, $\sqsubset [ti \notin t]$, $\boxminus [pi \notin p]$ and $\neg [t \notin t]$ can be pronounced both as voiced or voiceless according to the environment. However, voiced and voiceless consonants in Arabic are totally different phonemes. Koreans tend to pronounce voiced consonants in syllable initial position as voiceless consonants, especially when it comes to lenis sounds.

problem: [bab] 'door' \rightarrow [pab] [dar] 'a house' \rightarrow [tar]

solution: Teach native Korean speakers the differences between voiced and voiceless sounds and make sure they are able to discriminate between those sounds.

1.4. Difficult Arabic consonants

Some sounds in Arabic do not exist in the phonetic inventory of other languages, making these sounds very difficult to produce for native speakers of those languages. Pharyngeal or pharyngealized sounds are especially difficult to pronounce for native Korean speakers. Of course, this applies to most foreign speakers of Arabic.

In producing these sounds, the body of the tongue is flattened, causing the tongue root to be drawn backwards towards the pharyngeal wall. This will cause a constriction of the pharyngeal cavity.[1] But Korean pronounces the pharyngeal/pharyngealized sounds as fortis consonants.

problem: '
$$[s^{\varsigma}] \rightarrow [s_{1}]$$

' \downarrow ' $[t^{\varsigma}] \rightarrow [t_{1}]$
Korean also pronounces a
pharyngeal ' ς ' $[\hbar]$ as a glottal ' \circ ' $[\hbar]$.

solution: Teach native Korean speakers how to pronounce pharyngeal/ pharyngealized sounds and make them practice those sounds.

Korean typically does not discriminate between uvular and velar sounds.

problem: 'ق'[q] \rightarrow [k]

solution: Teach native Korean speakers the point of articulation of velar and uvular sounds and make them practice those sounds.

Korean also doesn't discriminate between (inter)dental and alveolar sounds.

- problem: ' \dot{c} ' [$\check{\delta}$] $\overleftrightarrow{}$ ' \dot{c} ' [\check{d}] ' \dot{c} ' (\check{c}] $\overleftrightarrow{}$ ' \dot{c} ' [\check{z}]
- solution: Teach native Korean speakers the point of articulation of (inter)dental and alveolar sounds and make them practice those sounds.

Furthermore, some Korean speakers do not discriminate between fricatives and aspirated stops (plosives).

problem: '¿'[x] → [k^h] solution: Teach native Korean speakers the characteristics of fricatives and aspirated stops and make them practice those sounds.

Hamza (ϵ , ξ , ξ) in Arabic is pronounced as a glottal stop [?]. When we pronounce this, the vocal cords come together to form a complete closure. By very definition, a glottal stop means that the vocal cords cannot vibrate, so that only a voiceless sound is produced.[3] We can practice hamza with a vowel as below.

[?a?a?a?a?a?a?a] [a?a?a?a?a?a?a?]

The mistakes, that is, incorrect pronunciation, which have been mentioned above may be applied not only to native Korean speakers but to all nonnative speakers of Arabic.

1.5. Assimilations

Not a great deal of assimilation takes place in Arabic, except for alveolarization with sun letters and pharyngealization. For example,

 $[el_{\beta}ams] \rightarrow [et_{\beta}ams]$ 'the sun' $[i\partial_{\tau}^{S}taraba] \rightarrow [i\partial_{\tau}^{S}t^{S}araba]$ 'to wave'

However, Koreans have a tendency to assimilate much more often than native Arabic speakers. Let's look at an example of nasalization:

> Arabic: not yet [nαt jet^h] good morning [gud mɔːniŋ]

> Korean: not yet [n\alpha n n^jet], good morning [gun moːniŋ]

1.6. Released and unreleased consonants

The final consonant of Arabic is released normally but the final consonant of Korean should be unreleased. That is why the native Korean speaker speaks as below.

Arabic: [kiteb[°]] 'book' [nebɛt^h] 'plant'

→ Korean: [kiteb], [nebɛt[¬]]

2. VOWELS

2.1. Numbers of vowels

Arabic has, essentially, only 3 vowels. They are [a], [i], and [u]. As you see in Figure 1, [e] and [o] are allophones of [a] and [u]. But Korean has 8

vowels, as Figure 2 shows. So it is not difficult for native Korean speakers to pronounce Arabic vowels.

Figure 1: IPA (The International Phonetic Alphabet) symbols for Arabic Vowels.

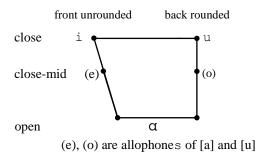
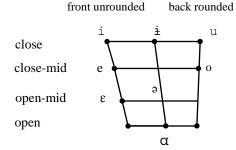


Figure 2: IPA(The International Phonetic Alphabet) symbols for contemporary Korean Vowels.



2.2. Long vowel

In Arabic, the meaning of each word and the parts of speech are changed according to the vowel length.

- [a] ⇔ [a:]
- [i] ⇔ [i:]
- [u] ⇔ [u:]

2.3. Allophones

Tunisian Arabic speakers pronounce [a] and [e], [u] and [o] in the same environment. These pairs are different sounds but they are same phoneme, i.e. allophones.

In this case there is a free variation relationship. Free variation in linguistics is the phenomenon of two (or more) sounds or forms appearing in the same environment without a change in meaning and without being considered incorrect by native speakers.[2] This typically means that they have difficulty in clearly distinguishing the difference between the two sounds. For example,

[manal]	'girl's name'	=	[menel]
[munʒi]	'man's name'	=	[monʒi]

[a] and [u] are used more often than [e] and [o] in Middle Eastern countries as compared with North Africa, that is, the Maghreb region.

With regard to [a] and [e], [a] especially is pronounced after uvular or pharyngeal/ pharyngealized sounds. [a] is also pronounced with alif(1) or alif-maqsura(ω), which is pronounced long.

2.4. Syllabic structure

Syllabic structure is a very important factor to take into consideration when trying to pronounce a language correctly. The syllabic structure of Korean is V, CV, CVC. However, in Tunisian colloquial Arabic, we can find more complex syllabic structures like CCV, CCVC and CCVCC.

3. INTONATION

The most prominent criterion which indicates whether a speaker is a foreigner or not is intonation. If someone can pronounce each syllable correctly but his intonation is not natural, native speakers can easily notice that he is a foreigner. So, teaching non-native speakers how to express the intonation well is a very important part of learning a new language. The pattern of Arabic intonation is like this:

Nananana Nananana Nananana Nananana This is very similar to the intonation pattern of Korean sentences except for the end of utterances.

Nananana Nananana Nananana

na**na**nana

So, teachers should recognize the difference of intonation patterns between the two languages.

4. REFERENCES

- [1] Ahn, J., Cho, K.-J. 2011 *Practical Phonetics*. ARILAC (Asia Research Institute of Language and Culture). Handong Global University, 50.
- [2] Ahn, J., Cho, K.-J. 2011 Practical Phonetics. ARILAC (Asia Research Institute of Language and Culture). Handong Global University, 51.
- [3] Definition of free variation. *http://en.wikipedia.org/wiki/ free_variation*