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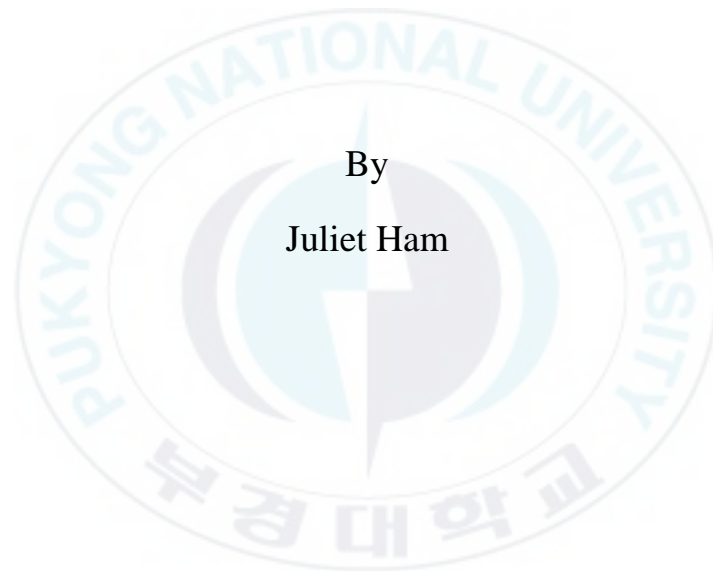
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Thesis for the Degree of Master of Arts

# **The Influence of L1 on L2 Pronunciation Among University Students**



By

Juliet Ham

Division of English Language and Literature

The Graduate School

Pukyong National University

August 26, 2016



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대학생의 L1 이 L2 발음에 미치는 영향

Advisor: Professor John Stonham

by

Juliet Ham

A thesis submitted in partial fulfillment of the requirements

for the degree of

Master of Arts

in the Department of English Language and Literature

The Graduate School

Pukyong National University

August 26, 2016

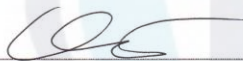
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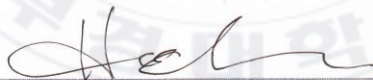
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August 26, 2016

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## 대학생의 L1 이 L2 발음에 미치는 영향

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요약

현대사회에서 수많은 나라들과 교류하고 경쟁을 하면서 영어로 의사소통을 하는 것이 필요가 아닌 필수적인 것으로 여겨지면서 한국의 교육과정은 초등학교부터 영어를 필수 과목으로 인정하여 다양한 수업을 시도하고 있는 추세이다. 초등학교의 경우, 내국인 선생님과 원어민 선생님이 함께 영어 수업을 진행함으로써, 실제 영어화자들이 쓰는 표현들을 직접적으로 구사할 수 있도록 말하기 중심의 실용적인 수업방안들을 지도방법으로 채택하고 있다.

그러나 초등학교 교육과정 이후, 영어 교육은 문법과 독해에 중점을 둔 입시 교육에 맞추어지며, 또한 대학 입학 후에는 일시적이고 단기의 영어 수업을 수강하게 되고, 취업을 목표로 한 듣기와 읽기에 비중을 두는 토익과 같은 시험을 위한 영어공부에 치중하게 된다. 그렇다 보니 실제로 영어를 공부하는데 대부분 10년 이상의 긴 시간을 소비하여 듣기와 읽기 영역은 꽤 잘하고 문법적으로는 완벽한 문장을 만들어내는 학생들이지만, 말하기에 있어서 원어민 수준의 발음을 구사하는 데는 자신 없어하는 학생들이 많다.

Lenneberg(1976)은 결정적 시기 가설(Critical Period Hypothesis)에 따르면 인간의 언어 습득은 생물학적으로 규정된 특정 시기에만 일어나며, 그에 따라 사춘기 이전과 이후로 비교하였을 때 사춘기 이전에는 언어환경에 노출이 되는 것만으로도 자연스럽게 언어 습득이 이루어지지만, 사춘기 이후의 언어습득은 특정한 노력이 없는 힘들다고 주장한다.

본 논문은 한국외국어대학교에 재학 중인 학생들을 대상으로 필수교양 영어강의의 선택교양 영어강의를 수강한 학생들을 대상으로 영어와 한국어로 질문을 하여, 영어로 응답하도록 한 후, 녹음하여 후천적인 교육환경이 영어 발음에 미치는 영향을 분석하여 학생들의 영어발음을 향상시킬 수 있는 말하기 교육 방법에 방향을 제시하고자 하였다.

제 1 장에서는 한국에서 영어 구사능력의 중요성을 시사하고, 현재되고있는 영어 교육과정을 소개하였다.

제 2 장에서는 영어 발음 및 음운체계에 관한 선행 연구들을 소개, 분석하였다.

제 3 장에서는 발음 및 음운체계에 근거하여 실제 응답한 학생들의 영어발음에 영향을 끼칠 수 있는 다양한 요인 및 교육환경을 소개하고 분석하였다.

제 4 장에서는 영어 인터뷰 응답 내용들을 소개하고 분석하여, 다양한 요인들이 영어 발음에 끼친 결과를 설명하였다.

제 5 장에서는 제 4 장의 분석과 결과에 대한 토론 및 결론을 도출하고자 하였다.

제 6 장에서는 본 논문에서 소개한 한국에서의 영어 교육 환경과 그의 영향을 받은 영어 발음의 문제점을 통해 앞으로 한국의 영어 발음 교육의 방향을 제시하고자 하였다.

# **1 Introduction**

It is widely accepted that people are able to acquire a language with thorough proficiency if learned before puberty. Eric Lenneberg (Lenneberg 1967) states in his Critical Period Hypothesis, that a person is able to achieve fluency in a language if learned before puberty. He believed that languages could only be learned within childhood and that the brain loses plasticity after puberty, which is needed when acquiring a language. Throughout the years, there have been many people who have carried over the Critical Period Hypothesis into their studies.

For example, Johnson and Newport (1989) devised two different ways in which the critical period hypothesis could be used. The first is called the “exercise hypothesis,” which states that people have the highest capacity when learning languages. However, if not used during the critical state, it would decline over time. On the other hand, if used often, the language abilities will remain throughout the learner’s life. Another way Johnson and Newport included the critical period hypothesis, is with the “maturational state hypothesis,” which agrees that people have the ability to acquire languages. However, the only outcome is that the ability completely disappears with age. As both hypotheses have the same outcome for first language acquisition, they differ in second language acquisition. Second language acquisition has been studied for many years, and studies have looked at how the critical period affects the way words are pronounced.



In general, most students in South Korea start learning English as a second language in elementary school and continue until high school. Most of these classes are taught in a classroom setting, where the students rely on the teacher and textbooks to guide them (Park 2015). In these public schools, basic English skills are taught, then over time, the curriculum focuses more and more on grammar. Students in elementary school typically spend less than 10 hours per week studying English (Cho 2014). However, as they enter high school, they end up spending more time studying English, because they have to receive the highest score on the university entrance exam (CSAT), especially on the part of the English test (Cho 2014). Since schools place such heavy emphasis on grammar, other attributes such as pronunciation and basic English conversation are considered difficult for most students. Furthermore, South Korean public schools are taught in a lecture style environment, which allows little opportunity for students to speak out loud or ask questions. In addition, due to the importance of memorizing grammar skills until their high school years, little correction is being made on pronunciation.

In the classroom setting, elementary schools typically have one native speaker and one Korean teacher for English classes. However, once they reach middle school and high school, only one Korean teacher is responsible for teaching English. Therefore, they are not taught how to apply their grammar into speaking, which is why students find it difficult to carry a simple conversation with a native speaker. Being that the teacher is not a native speaker, most teachers tend to skip pronunciation altogether. Harmer (2007) suggests three reasons why teachers may not teach

pronunciation: (1) a lack of confidence, (2) limited class time for teaching all areas of English, and (3) doubt about the effect of pronunciation instruction . Therefore, students are often found using Korean pronunciation rules and carrying them over into English, whether it may be right or wrong.

So, in order to master the language, students attend a “hagwon”, where they are taught grammar and English proficiency test skills. These academies are usually taught by native speakers, which give the students the only opportunity to converse with a native speaker for a long period of time.<sup>1</sup> However, most “hagwons” focus on memorizing grammar and teach students how to effectively answer test questions. These after-school classes are usually taught in three hour chunks and children end up coming back home anywhere from 9 to 10pm. Specifically, elementary and middle school students are taught skills in listening, reading, vocabulary, writing and grammar. They are taught in order to master standardized English tests like the TOEFL and TOEIC, which are often taken by university students. So, instead of understanding the content of the passages or listening prompts, the students are expected to apply the test taking approaches in all aspects of reading, writing, and listening, that have been taught and memorized in these academies. As for high school students, they are sent to academies that focus mainly on grammar techniques to help them master the CSAT's (College Scholastic Ability Test in South Korea). After-school academies are all supplemental to their one hour English class at school

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<sup>1</sup> The curriculum of “hagwons” was asked to be explained in detail.

and can be seen as a major beneficial resource for their end result, of either taking the TOEIC, TOEFL, or CSAT.

However, not all students can afford these after school academies, so public schools have started to offer free supplemental classes. If students do not attend after school academies to further their language ability, it is difficult for them to acquire a level of fluency in English or may even result in them being left out from the rest of their age group. However, if they attend academies and have no desire to learn, it would also be difficult for them to master the English language.

As English is becoming a primary second language in South Korea, grammar and conversation are becoming general education requirements at the university level. Now that most South Korean companies are becoming more and more global, it is becoming a prerequisite for post university graduates, to master their English ability. Therefore, universities have taken measures to make sure students are fully prepared for the “real world”, by making standardized English tests, like the TOEFL and TOEIC, a requirement for graduation. In addition, since English is used in most countries, the TOEIC exams have now added different English accents, which have been found to be more challenging. Universities also provide internships with foreign companies and study abroad programs, so students can have the opportunity to improve their English. In order for post graduates to fulfill their dream in working for a conglomerate corporation, many years go into the preparation for their first interview. English has become such a key requirement for newly hired employees, that the companies require a separate language aptitude test, which can

either make or break their future. So, motivation has become a very important factor in determining whether a student wants to be fluent in the English language.

As speaking tends to be the weakest element in learning English among South Koreans, this study will examine pronunciation patterns. In particular, some twenty South Korean university students were analyzed for this research. The study will examine when the students use the phonological feature of assimilating consonants, as well as the duration of the assimilation. It will also look at the reasons as to why these students make this error in pronunciation. The results will then be assessed to observe at whether or not these errors were made because of their native language influence, their choice in university major, or their desire or motivation to learn English.

The order of this thesis will be as follows. First, the literature review will look at other studies of second language acquisition, L2 learners of English and look at the phonological feature of assimilation, by looking at patterns of Korean speakers learning English. The literature review will cover the major differences of assimilation between Korean and English. Then, Chapter 3 will review the methodology of the study, including the participants involved, design of experiment and any challenges there may have been throughout the study. Chapter 4 provides an in-depth analysis of the results, followed by the discussion in Chapter 5 and conclusion in Chapter 6.

## **2 Literature Review**

With the current study focusing on South Korean university students learning English as a second language, background information on second language acquisition will be discussed in this section. In addition, this chapter will review other cases in which Korean is the first language and English, the second. Finally, it will explore the phonological feature of nasal assimilation and how it is used in the Korean language, and then compare this to how it arises in the English of the learners.

### **2.1 Second Language Acquisition (SLA)**

Over the years, many studies have been done on second language acquisition, with the emphasis on pronunciation. Second language acquisition(SLA) deals with how people learn another language other than their native tongue. SLA is defined by Gass and Selinker (2001) as below:

It is the study of how second languages are learned. It is the study of how learners create a new language system with only limited exposure to a second language. It is the study of what is learned of a second language and what is not learned; it is the study of why most second language learners do not achieve the same degree of proficiency in a second language as they do in their native language; it is also the study of why only some learners appear to achieve native-like proficiency in more than one language.

For many years, it has been said that a child can acquire proficiency and native-like pronunciation in another language, if learned in their primary years. However, it is thought to be possible only through motivation, reinforcement, and practice (Suh 1985). As for adults, gaining a level of proficiency in another language other than their first is considered difficult. The outcome for adults is different than that of children. There are 4 main factors that lie behind this theory, according to Suh (1985), which are:

1. **Biological** – where language learning has to do with a critical period of neurological development
2. **Cognitive** – a person's cognitive ability is known to develop quickly for the first 16 years, then slowly decline once they reach adulthood
3. **Affective** – factors that contribute to second language learning, like motivation, emotion, maturation, etc.
4. **Environmental** – differences in learning environment

While these four factors may contribute to a majority of SLA theories, there still continues to be a debate on whether or not a second language can be completely acquired at a later age.

## **2.2 English as a second language for Korean learners**

First of all, it would be helpful to note that English and Korean have phonemic differences. English has a total of 24 phonemes, 14 of which, do not exist in Korean

(Ryu 1997). On the other hand, Korean has 19 consonant phonemes and 10 vowels. Among them, there are some that do not exist in English, others, as allophones, which are found to be problematic for Korean learners. For instance, Korean also does not have interdental fricatives like /θ/ as in *with*, and /ð/, as in *bathe*, which are, therefore are found to be difficult to pronounce for Korean learners of English (Kim 2005). In addition, labiodental fricatives like /f/ and /v/ from English, do not exist in Korean. So, for words like “fuss” and “vein,” they are replaced with sounds that exist in the Korean language like [p<sup>h</sup>as] and [bein], respectively (Kim 2005). Some other sounds that are difficult to pronounce include /r/ and /l/. These two are found to be the more difficult sounds to create, as Korean speakers cannot distinguish between the two. Sometimes the two are switched around and can lead to mispronunciation or even misinterpretation during a conversation. Due to the basic differences between the two languages, sometimes words can be switched around, but this can change the entire meaning or purpose of what a Korean learner of English may be trying to express. This is a common problem among Korean learners of English.

### **2.3 Phonology**

In phonology, assimilation is a common process which occurs among speakers. Assimilation occurs to make words easier to pronounce, by making sounds similar to each other (Stonham 2009). There are different types of assimilation, some of which include nasal, place and manner. Korean and English have different



phonological rules, however, native speakers of Korean tend to transfer rules when producing English words. Studies have observed the use of Korean assimilation patterns in English (Kim 2005). Assimilation from Korean could prevent the second language learner of English from attaining a good level of fluency. In the following literature review, we will look at different studies of Korean and English assimilation patterns, as well as accents and sounds.

First of all, we can take a look at Korean nasal assimilation which happens when a nasal consonant follows a preceding obstruent. Its purpose is to reduce the difference in sonority between neighboring consonants (Kim 1999). An example Stonham (2009) provides, is with *없*는, which means “not exist” in the Korean language. It should be pronounced, /ɔpsnin/, but it is actually pronounced, [ɔmnin]. In this case, there is a deletion of the /s/ and assimilation of the /p/ to the following /n/. A similar occurrence arises in *웃*는, which means to *laugh*, and should be pronounced /usnin/. But, with nasal assimilation, it becomes [unnin]. In both cases the obstruent appears as a copy of the following nasal stop. In Korean formal speech, the place of articulation does not change, but in casual speech however, they do change articulation places, typically following the consonant (Park 2012).

These regular phonological processes of Korean occur as are the common errors that second language learners of English tend to carry over into their English speech. They often occur due to the differences in internal structure of the syllable between both Korean and English or when the speaker does not recognize the differences in phonology between the two languages (Kim 1999).



### **3 Methodology**

This chapter will discuss the design of the actual experiment conducted in this study. It will look closely at the nature of the participants, including their English educational background, university major and motivation towards learning English. In addition, it will discuss the design of the experiment and how the phonological factors were analyzed. Then it will go over any challenges that were faced throughout the experiment.

#### **3.1 Subjects**

This study was conducted on twenty-three South Korean university students, who were in their first year of school at a private university. The school has a College of Occidental Studies, in which they have a division of English and departments that focus on seven different European languages. The university also has a College of Asian Studies, in which they mainly focus on Japanese and Chinese, with eight departments in other Asian languages. In addition to the language divisions, the university also has Colleges of Humanities and Social Science, Commerce and Business, as well as Natural Science and Engineering. Although this study focused on students who were majoring in a foreign language, some of the participants had a major other than a language. All students are native Korean speakers, who have

learned English as a second language. Since their identity was protected, each student is represented with a number, for example, “student 1,” for their privacy.

### ***3.1.1 Early Education***

First, the students were asked if they attended English after school programs or “hagwons.” This question was asked to establish whether their supplemental class affected their pronunciation. Out of the twenty-three students, nineteen attended “hagwons.” Students 1, 2, and 3, specified that they had attended academies for ten years. Students 8, 9, and 15 specified that they attended “hagwons” from elementary school to middle school. Students 6 and 16 started academies in high school. Student 4 started in elementary school, student 9 only took college preparatory classes, student 14 started in middle school, student 17 started in high school, student 20 only attended for 3 years, student 21 attended for 7 years and student 23 attended for three months. Students 10, 12, 13, and 14 mentioned they attended after school academies, but did not specify how long. The remaining four students, 6, 18, 19, and 22 mentioned they did not attend after school programs. All 23 students stated that they have studied English for a total of ten years, which is the duration of time they learned English throughout the time they attended public school.

### ***3.1.2 University Major***

The students were asked what their current majors were, to determine if it impacted their English pronunciation. Some students were majoring in East Asian languages. Students 1, 6, and 7 were studying Japanese. Students 8, 16, 21, and 23

were majoring in Chinese. Another language group came from the European region. Student 6 was majoring in Russian and Turkish. Student 14 was also studying Russian. Students 11, 19 and 20 were majoring in Portuguese. Student 12 was majoring in Spanish. Student 13 was majoring in French. Other miscellaneous majors included Burmese/Arab for student 22; Vietnamese, Cambodian, English and Japanese for student 4; and International Secretary for students 2 and 3. However, out of the twenty-three, students 10 and 15 did not have a major pertaining to a foreign language.

### ***3.1.3 Motivation***

As mentioned, some students who have no desire to learn English or have difficulty learning it, are not able to reach a good level of fluency. However, learners who have a passion for the language or are self-motivated to learn, it is easier for them to reach a certain level of fluency. So, students were asked if they found English to be easy or difficult to learn. Students 3, 9, 10, 11, 12, 13, 16, 18, 19, 21, 22, and 23 found English to be fairly easy. The remaining students 1, 2, 4, 5, 6, 7, 8, 14, 15, 17, and 20 found English to be difficult. Although the outcome was almost split in half, the overall result of fluency was a lot less, which will be discussed later in the analysis (Chapter 4).

In addition to the questions asked, a final question was posed regarding opportunities to study abroad. Out of the 23 students, only four had the opportunity to study abroad. Student 2 studied in the Philippines for six months. Student 9

immigrated to the United States in 8th grade, then came back to South Korea and attended Korean school. Student 13 immigrated to Kazakhstan for six years from 8 years old to 14. Finally student 17 studied for 1 year in Australia. The students who had an opportunity to live abroad did exhibit some sort of impact on their English pronunciation. In addition, there was a small number of students who had a strong desire to perform well in English and taught themselves.

### **3.2 Design of Experiment**

All instructions for the experiment were given in Korean. Students were asked permission to be a part of this experiment and were told that their identity would be withheld. The majority of the participants were females with a few males. In addition, about 90% of the participants were around 20 years old. In other studies, age and gender play an important role in language acquisition. Shakouri & Saligheh (2012) state that adults do not have the skill for native-like pronunciation because of the localization of the linguistic function. They believe this is because the features of language develop independently and take place at different rates, demonstrating the multiple critical periods. In terms of gender, Shakouri & Saligheh (2012) come to the conclusion that girls learn languages much faster than boys do. Therefore, they have a wider range of vocabulary and articulation. However in this study, age and gender were both found to be inapplicable.

The questions were asked in a classroom after their previous class had just ended. One class was an English prerequisite course that was mandatory for graduation. Another class was a supplemental one credit course that students took either because they needed the credit to graduate or they wanted an opportunity to further improve their English ability. The instructions for this experiment required the first 14 students to repeat a set of English questions in the following order:

- 1) I'm fine. What about you?
- 2) Will you go to the park with me?
- 3) Can I come with you?

Once they repeated the prompts, they were asked a series of background questions. The questions were:

- 1) Have you attended a "hagwon"?
- 2) Have you studied overseas?
- 3) How long have you studied English?
- 4) Have you studied any other languages?
- 5) Do you find English to be difficult?

While the English prompts were recorded with a microphone, their response to the background questions were not recorded, but input into a spreadsheet.

To examine if the students used nasal assimilation in Korean and carried it over into English, a series of English and Korean phrases were asked to be repeated. So, in order to compare English with their native language, the other 9 students were asked to repeat a series of Korean and English prompts in the following order:

- 1) 물약있어? (Do you have liquid medicine?)
- 2) 핫요가 다녀왔어? (Did you come back from hot yoga?)
- 3) 핫메일 주소가 뭐야? (What is your Hotmail address?)
- 4) 오늘 월요일이야? (Is today Monday?)
- 5) I'm fine. What about you?
- 6) Will you go to the park with me?
- 7) Can I come with you?

These questions were able to deliver promising results, which will be discussed later in the analysis section.

### **3. 3 Phonetic Analysis**

Once all the information was gathered, the duration of the consonant assimilations of each prompt was measured using the phonetic software Praat version 6.0.17<sup>2</sup>. Praat was used to analyze speech phonetically, including the degree of

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<sup>2</sup> <http://www.fon.hum.uva.nl/praat/>

assimilation which was relevant to the research conducted here. Through Praat, the length of the assimilation was measured and compared to other similar phonetic contexts to see how fluent or proficient the participants were. The results will be discussed and examined in the analysis portion of the paper.

### **3.4 Challenges**

With Korean being the first language for all of the students interviewed, they were shy and embarrassed when asked to repeat the questions. Since the questions were asked right after a class was finished, some classmates who were not a part of the experiment stayed to watch. Perhaps the questions could have been asked in a more confined room, so they could feel more confident in their responses. Another challenge with the experiment was with time. Since the questions were asked in between classes, some of the students felt rushed and the responses were very quick. The students should have been given a time when they were available and not rushed, so they could feel more calm and relaxed. Overall, the experiment was completed successfully, but those are some factors that should be considered for the future.

## 4 Analysis

The results from the recordings of the twenty-three students were very intriguing. The pronunciation of common English phrases for non-native speakers are often overlooked. Little emphasis is put on these phrases, mainly because grammar tends to overpower speaking prompts and its pronunciation in schooling. For basic English speaking skills, rather than pronunciation, being able to carry on a simple conversation seems to take the lead. By measuring the duration of assimilation in the experiment, there was a clear divide between beginners and advanced learners of English. The analysis will closely look at the problems found in the recordings, which include, issues of nasal assimilation with an n-insertion/epenthesis, affrication, simple nasal assimilation, correlations and look at how the Korean forms compare with the English.

### 4.1 Nasal Assimilation/N-Insertion/Epenthesis

In most beginner level English conversation courses, students have a difficult time with pronunciation. With common greetings, such as, “I’m fine and you?” rather than learning how to apply it, they memorize it. While it’s important that they memorize this phrase, as they are common test questions, little emphasis is put on the pronunciation. So, the *and you* is commonly pronounced, *n-you*. Since *and you* was



a common pronunciation error, the study changed the question into a full question prompt. The new greeting for the experiment was, “I’m fine. What about you?” The purpose behind this phrase was to see if the participants carried over the use of nasal assimilation into English and to see if the mispronunciation was simply because of what they learned in school. The graph below shows the participants who were measured.

About You		
	“I’m fine. What about you?”	fine (n)
	about-new [əbauʔnju:]	[fam]
Student 2	0.35	0.13
Student 10	0.11	0.07
Student 14	0.25	0.18

**Table 1: About You**

Out of 14 students, only 3 students were found to pronounce *about you* in a way similar to their native tongue. They transferred over the Korean nasal assimilation rule into English. While *about you* should be pronounced the way it is spelled, or possibly with the affrication as [əbauʔtʃu:], the n-insertion rule from their L1 changed *you*, to *new* [nju:]. In addition, there is a slight use of epenthesis, a sound added between two consonants, between the *with* and *new*.

With the program Praat, the duration of the *n* in *you* was measured. This was then compared the correct usage of *n* in the word *fine*. If we look at the table above, Student 2 measured at 0.35 for *new*, and 0.13 for *n* in *fine*. Student 10 at 0.11 for *new* and 0.07 in *fine*. Student 14 measured at 0.25 for *new* and 0.18 for *fine*. Through the

results, it is shown that the inappropriate usage of *n* in *you* was longer in all three situations because of the assimilation with a consonant. However, when the “n” was used appropriately in “fine,” the duration was shorter, proving that their native tongue can negatively impact the pronunciation of the L2.

Although all 3 participants had studied English for 10 years, students 2 and 14 found English to be difficult, with majors in International Secretary and Russian, respectively. Most students who find English to be difficult commonly make errors in pronunciation and are often reluctant to change, because of a lack of confidence. So, in this case, it looks like their choice in major did not have an impact on their pronunciation. However, student 10 did not find English to be difficult, yet mispronounced *about you*. Compared to the other 2 students, however, the duration of *about new* was shorter for this student. The participant's major, Portuguese could have been an influence on their pronunciation. In addition, not having the studying abroad experience could have an impact on the mispronunciation as well. As mentioned in the introduction, if the speaker has a passion for the language and makes steps to improve their L2 on a consistent basis, they could become close to fluency. This student's lack of motivation or desire to learn English was the root of the problem, with the influence of their major in Portuguese. Based on the findings, it looks like motivation and choice of major played a part in their mispronunciation.

## 4.2 Nasal Assimilation

While 4.1 looked at three different categories, this section will only examine nasal assimilation. Since nasal assimilation is a common theme in the Korean language, there were more students who used it in this section. Table 2 looks at the use of simple nasal assimilation for the question, “will you go to the park with me?” Instead of pronouncing the *th* in *with*, the students were found saying, *win me*. The duration between the *in* and *m* of *me* was measured. Perhaps the reason behind this common error was because of the influence in their choice in major. The graph below shows the participants who were measured.

With Me	
	“Will you go to the park with me?”
	win-me [wɪn mi:]
Student 1	0.12
Student 3	0.28
Student 4	0.13
Student 6	0.16
Student 7	0.14
Student 8	0.09
Student 9	0.03
Student 11	0.12
Student 12	0.13
Student 13	0.14
Student 14	0.19

*Table 2: With Me*

Table 2 looks at the use of simple nasal assimilation for the question, “will you go to the park with me?” With the exception of 3 participants, the rest of the

group mispronounced *with me* with *win me*. This group simply carried over the use of nasal assimilation from Korean to English and had the most participants recorded. For this portion of the study, the distance of nasal assimilation from *in* of *win* to *m* of *me* was measured. Student 3 had the longest duration of nasal assimilation. The reason behind her mispronunciation could be because her major does not consist of another language, except for core pre-requisite beginner level English courses. In addition, with all her classes being taught in Korean, her lack of exposure and usage to the English language could also be a cause. Student 8 had one of the lower gaps of assimilation. Although this student found English to be difficult, they attended an after school “hagwon,” from elementary school to high school, which could have impacted their pronunciation. Another factor that could contribute to the lower duration, could be the participant's major in Chinese. Since the two languages are similar in grammar, it could positively influence their pronunciation in English as well. Student 9 had the lowest duration of assimilation. Although this student only attended a TOEFL “hagwon,” they had the opportunity to live in the United States in middle school, for a year.

Students 2, 5 and 10 were not recorded for this portion of nasal assimilation. However, students 2 and 10 were recorded for nasal assimilation, n-insertion and epenthesis. As for student 5, they were recorded for other phonological representations. This student found English to be difficult. However, perhaps their major Russian and Turkish, influenced their pronunciation in a positive way.

The remaining students all had very similar results, with the duration lasting from 0.12 to 0.19. Students 1, 4, 6, 7, 12, and 14 all found English to be difficult, which could have been the reason for the mispronunciation. As for student 11, they didn't find English to be difficult, yet transferred nasal assimilation into English. Their major was Spanish, which could have been a cause for the mispronunciation. Finally, student 13, immigrated to Kazakhstan for six years from the age of 8 to 14 and his major was Russian. Although this student spent 6 years in a European country and had a very clear English accent, this mispronunciation could be due to the lack of English usage. In this section of nasal assimilation, it looks like their choice in major had an impact on their overall pronunciation. In some cases it made a positive influence and in others, the opposite.

### 4.3 Affrication

While the first two sections focused on nasal assimilation, this section focused on affrication. Table 3 shows the use of affrication with the phrase “Can I come wid-chu?” for “Can I come with you?” English has two affricate phonemes, which include [tʃ] or *ch*-sound and [dʒ] or the *j*-sound. Affricates consist of two parts: 1) a full closure similar to that of a stop; and 2) a partial opening, similar to that of a fricative (Stonham 2009). These two parts result in a more complicating two part sound (Stonham 2009). While only few used *wid chu*, more than half used *win you*.

Perhaps the reason for the latter half could be since it's closer. The graph below shows the participants who were measured.

With You	
	“Can I come with you”
	<b>wid chu</b> [wid tʃʱ]
<b>Student 1</b>	0.26
<b>Student 13</b>	0.17
<b>Student 14</b>	0.19

**Table 3: With You**

Out of the 14 participants, only 3 were found to have used affrication. Student 1 had the longest duration of *wid chu* at 0.26. This student specifically stated that they found English to be very difficult, which could have been the reason by the long duration of the affrication. Students 13 and 14 had a similar duration of *wid chu*, with 0.17 and 0.19, respectively. Out of the 14 participants, these two were only majoring in Russian. Perhaps the influence of their major impacted the way they pronounced *you*. While the prediction that the students found English to be difficult remained true for Student 1, it didn't for the other two students. However, if we look at native English speakers, they often simplify *won't you* with *won't chu*. This is a similar pattern to these participants, except in the study, they pronounce with as *wid*, due to the lack of pronunciation they have in their mother tongue. As a result, this could mean that the students know the rule, but are not applying them, simply because they are not aware of the rule or were not taught the proper pronunciation in school.

#### 4.4 Korean Forms vs. English Forms

The first three sections focused on only English questions and prompts, with the same 14 participants. However in this section, 9 new participants were selected to speak in both Korean and English. This was to see if they showed the same transfer of nasal assimilation, n-insertion, and affrication from Korean to English. The first table will look at the Korean forms and the second table will look at the English forms. In the Korean forms, the assumption here is, if the participants use nasal assimilation in Korean, it is most likely that they have transferred it over to English. The reason behind this transfer could be because of their lack of overseas experience as well as lack of influence from another foreign language, leaving heaving emphasis on their Korean pronunciation. The graphs below show the participants who were measured.

Korean Forms					
	물약았어? “mool yak e- suh”	핫요가다녀왔어? “hot yoga da- nyuh wah- suh?”	핫메일 주소가 뭐야? “hotmail ju- seo-ga mo- ya?”	오늘 월요일이야? “oh neul wul yo eel e-yah?”	will you
<b>Student 1</b>	0.14	0.25	0.09	0.33	0.13
<b>Student 2</b>	0.15	0.15			
<b>Student 3</b>	0.16			0.19	0.13
<b>Student 4</b>	0.15				
<b>Student 5</b>	0.16		0.15	0.23	0.16
<b>Student 6</b>	0.17	0.16	0.14		
<b>Student 7</b>	0.14		0.14		
<b>Student 8</b>	0.07	0.14	0.14	0.23	0.23
<b>Student 9</b>	0.15	0.21	0.13		

*Table 4: Korean Forms*

English Forms						
	“I’m fine. What about you?”  about-new [əbauʔpj:u]	fine (n) [fam]	about-chu [əbauʔtʃʰ]	“Will you go to the park with me?”  wid-me [wid mi:]	“Can I come with you?”  wid-chu [wid tʃʰ]	wid-you [wid ju:]
Student 1						0.13
Student 2				0.1		
Student 3				0.11		
Student 4				0.09		0.19
Student 5						0.12
Student 6						0.15
Student 7			0.12			
Student 8			0.2	0.15	0.17	

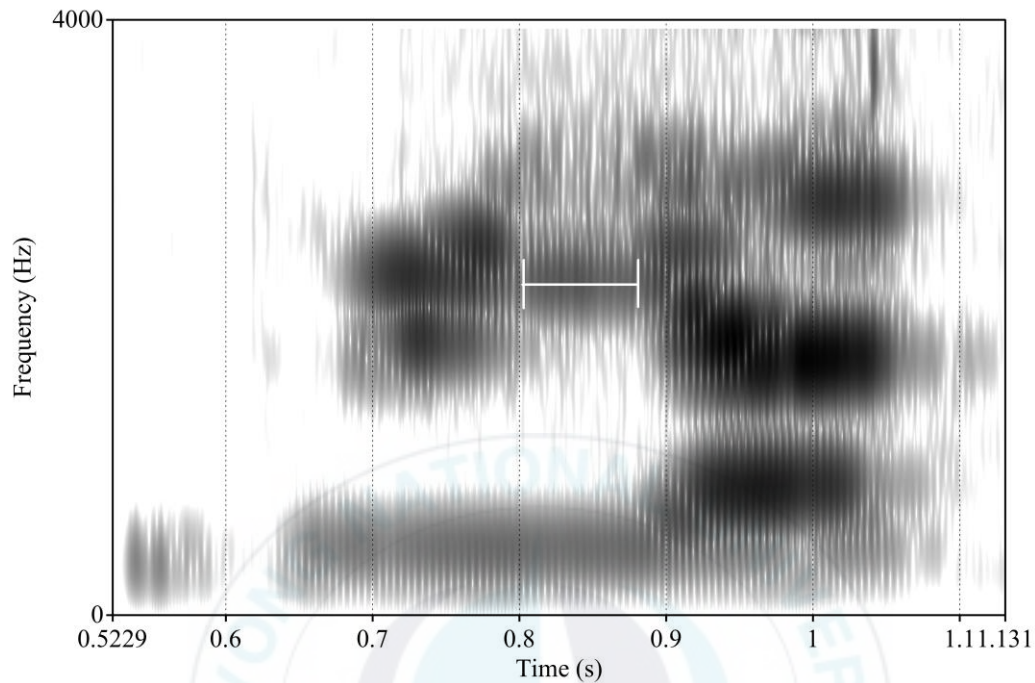
*Table 5: English Forms*

While looking at the Korean forms, every participant used nasal assimilation for the first question, “물약있어?” Instead of separating the first two words, they blended the sound to be “물락” or [mul:ɟak] as expected by the Korean speaker.

Below, we can see assimilation with the program Praat.<sup>3</sup>

<sup>3</sup> The shaded area measures the duration of assimilation of [l] between “mul” and “ɟak” for “Student 1.”



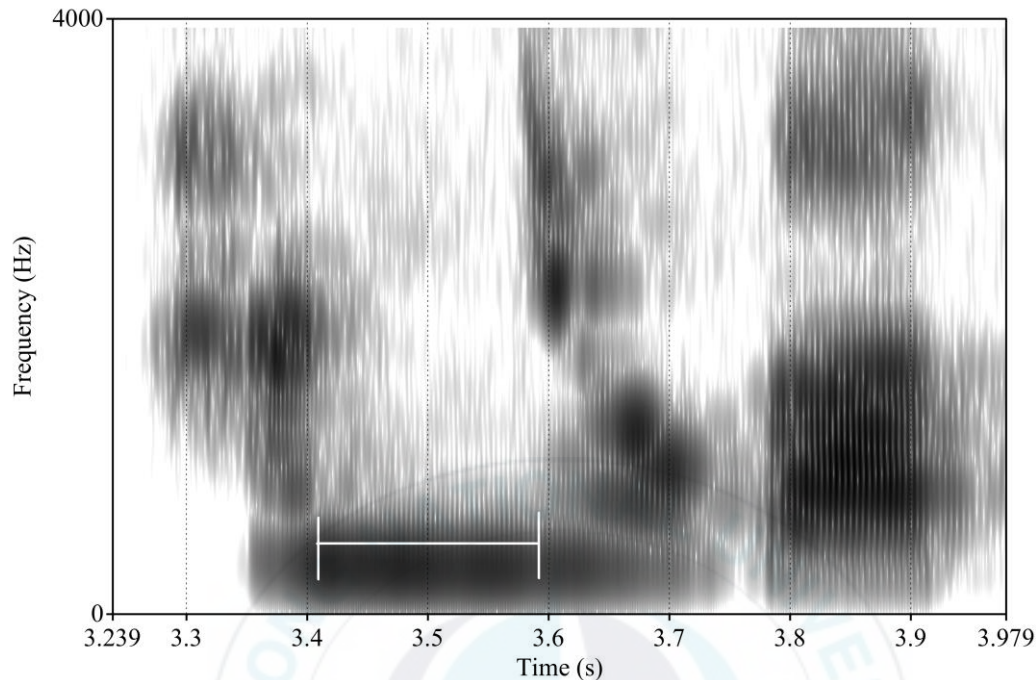


This goes to show that their usage of nasal assimilation in their mother tongue has a great influence on the way they speak and pronounce Korean words.

However, the next question mixes in English words “hot yoga” with Korean. If we look at the results, only 5 out of the 9 participants were shown to use nasal assimilation and n-insertion. They pronounced the question as, “한요가” or *han yoga*, rather than clearly pronouncing the *t* in *hot*. You can compare the Praat image as the example above<sup>4</sup>.

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<sup>4</sup> The shaded area measures the duration of assimilation of [l] between “han” and “yoga” for “Student 1.”



Although the 5 participants had English experience in a “hagwon,” they only attended for a short period of time. Students 1 and 2 only attended academies from elementary to middle school. Student 6 attended for 3 years, student 8 never attended, and student 9 only attended for 3 months. This shows that their lack of exposure in the English language could have been the reason behind their mispronunciation.

In the third question, “핫메일주소가 뭐야?” 6 out of the 9 participants also used nasal assimilation and the n-insertion rule. Same as the results above, the participants did not spend much time in a “hagwon.” To add, student 5 did not attend in an academy and student 7 only spent 7 years in one. Then, why is it that student 2 did not make the same mistake again? Perhaps it was because “hotmail” did not

assimilate with a vowel, like “hot yoga.” Also, why didn't students 5 and 7 make the mistake in the first question? Perhaps they felt more comfortable assimilating with a consonant, rather than a vowel.

In the last example of “오늘 월요일이야?” 4 out of the 9 participants used an l-insertion and assimilation. Since the sound is similar to *will you* in one of the prompts, both durations were measured and compared. In the English prompt *will you*, they were pronounced properly, however in the Korean question, the phonological rules were in place. This led to the duration of the Korean question longer than the English prompt. While students 1 and 3 found English to be difficult, perhaps their native tongue influenced their Korean assimilation and insertion rule. However, students 5 and 8 did not find English to be difficult, yet did not attend any after school English programs, so it looks like their native language impacted the way they pronounced the Korean question.

Now, when compared to the English prompts, there seems to be a smaller number of participants who carry over the assimilation and insertion rule. In the first prompt, “I'm fine. What about you?” only 2 students made an error, by pronouncing it *about chu*. However, the pronunciation of *chu* is actually closer to the native English pronunciation. In addition, the reason why these students were able to perform well was because they did not find English to be difficult. Motivation seems to have been a key factor in their pronunciation.

For the second prompt, “Will you go to the park with me?,” only 4 out of 9 pronounced *with me* as *win me*, using the nasal assimilation rule. While students 2, 4

and 8 did not find English to be difficult, they did not attend after school programs for an extended period. Student 2 only attended an academy from elementary to middle school, while students 4 and 8 did not attend at all. If they would have attended the after school programs, perhaps it could have helped with their overall pronunciation. As for student 3, they studied abroad in Australia for a year, but they found English to be difficult. Therefore, confidence and motivation both could have been the reason behind the mispronunciation.

Finally, looking at the last example, “Can I come with you?” was pronounced both as *wid chu* and *wid you*, both showing the assimilation rule. Student 8 was the only one who pronounced *wid chu*. They also did not find English to be difficult, which means that their motivation could have been the reason for the similar English pronunciation. As for students 1, 4, 5 and 6, the short amount of time they spent at a “hagwon” could be a result of the mispronunciation. Student 1 attended from elementary to middle school, students 4 and 5 did not attend and student 6 only attended for 3 years. Since they were not guided in correct pronunciation for a long period of time, it may have impacted their overall pronunciation.

While examining both Korean and English side by side, most students made very little pronunciation errors in English. Since they had used all the phonological rules in the Korean questions, they were more cautious when reading the English prompts. It may have influenced their English performance. While these results show that students transferred over the rules of nasal assimilation and insertion, the main factor behind poor pronunciation was their lack of supplemental English

education. If they had attended after school programs, perhaps the number of mispronunciation errors would have been less.

#### 4.5 Other Forms

Other than the major word combinations and mispronunciations, there were a few other correlations among the responses in the first group of 14 students. For the English prompt, “I’m fine. What about you?” the *about you* was replaced with *about chu*. This affrication was similar to the English pronunciation because nothing was added nor assimilated. The *t* in *about* was perfectly pronounced. It could be assumed that the respondents found English to be easy. In addition, while a few who were close to the pronunciation of *with you* in the question, “Can I come with you?” there was another combination used. Half of the respondents were recorded as saying *wid you*. It could be also be assumed that this group may have found English to be easy. For both cases, it could be that motivation was a factor in their pronunciations.

Other Forms		
	about-chu	wid-you
	[əbauʔtʃʰ]	[wɪd ju:]
Student 3	0.28	
Student 5	0.33	0.09
Student 6	0.29	0.42
Student 7		0.13
Student 8	0.13	0.05
Student 9		0.09
Student 11	0.16	0.11
Student 12		0.14

*Table 6: Other Forms*

Here, students 5, 6, 8, and 11 were recorded as using both *about chu* and *wid you*. While student 5, 6 and 8 found English to be difficult, student 11 did not. Since none of their majors had a correlation, their experience with after school “hagwons” could have been an influence. Student 5 attended only in high school, student 6 didn't attend at all, student 8 attended from 6<sup>th</sup> grade to high school and student 11 did not specify how long they attended. However, they also do not coincide with each other. The only factor that could have influenced their native like pronunciation is their major. Student 5 was studying Russian/Turkish, student 6 was studying Japanese, student 8 was studying Chinese and student 11 was studying Spanish. It is safe to conclude that Asian and European languages can positively influence English pronunciation.

As for the remaining student for the *about chu* pronunciation, their native like pronunciation could be due to the fact that they attended an English “hagwon” for 10 years. As for the remaining students 7, 9 and 12, who pronounced *wid you*, they all attended an English “hagwon” as well, which could have been the reason behind their near native like pronunciation. Student 7 attended a “hagwon” for 5 years, student 9 attended a college preparatory academy, as well as studied abroad for a year, and student 12 who did not specify the duration of time. Here, it can be concluded, while some students may not benefit from after school programs, for some, it could have a long lasting affect on their overall pronunciation and general knowledge.

## 5 Discussion

After observing the analysis of the 23 students, it is clear that their native tongue had a significant impact on their ability to learn a second language. Although a majority of the students attended an after school English program, it played no major role in their pronunciation. The ones who attended these after school programs mainly attended anywhere from 3 to 10 years, yet none of them had perfect pronunciation. Then, why is it that these students were not able to attain a level of fluency in English? The reasons remain unknown. From the experiment, the main cause for their low level of proficiency was their lack of motivation. Many of the students received supplemental courses, but still found English to be difficult. It could have been due to the lack of confidence these students had and the instructors were unaware.

The main reason behind the mispronunciation of the English phrases derived from the use of nasal assimilation in their native tongue, Korean. If we review the results from the analysis, the main causes of implementing the phonological factors of nasal assimilation, n-insertion and epenthesis, seemed to have been the heavy influence of their native tongue, motivation and choice in major. The use of those phonological factors were evident when students were asked to repeat, “한요가다녀왔어” or [han:joga dapɔ wa sɔ] and for “한메일주소가 뭐야” or [hanmeil dʒusɔ ga mo ja]. They used nasal assimilation with the n-insertion rule between the *hot* and *yo*



and *hot* and *mail*. Most Korean students are found learning these rules in school, when they are taught basic conversation skills. The response taught in school for “how are you” is “I’m fine and you.” However, when responding with *and you* they completely delete the *d* in *and* and it becomes *an you*. Since this is a common error, the English prompt in the experiment was worded differently to see if they would still apply the same rule, in which they did.

English pronunciation requires the pronunciation of a *t* or a *th*, like in *with you* or *about you*. However, because the Korean rules allow for nasal assimilation and *n*-insertion, the students are found applying it when speaking in English, especially since the *th* does not exist in Korean pronunciation. Although the students may have learned English for 10 years in a school setting, many of them were not able to acquire the native-like pronunciation. This may be, as mentioned earlier, due to the heavy emphasis on grammar in the South Korean public school system and lack of focus on conversational skills. If the schools balanced out the English curriculum between grammar and conversational skills, this experiment may have had different results.

When looking at the results of nasal assimilation, the reasons for this in their English pronunciation, stems from the lack of English exposure, experience studying abroad and influence of their choice in major. In this category, there were a few students who did not have a major in a foreign language. Since it was a general major, most or all classes were taught in Korean, which meant that the students had less exposure to English than they normally would. However, some students were



positively influenced by their major in a foreign language. This could have been due to the similar attributes in grammar and pronunciation. In addition, some students were influenced by their opportunity to study abroad. While a student who lived in the United States had a low duration of assimilation, a student who spent a significant time in Kazakhstan, had a high duration. Therefore, it is safe to say that whichever language the student had more exposure to, could have either positively or negatively influenced them.

The use of affrication in English would be close to near native like pronunciation. Therefore, the number of participants who showed using affrication were very few. In this experiment, the main reason for its use, seemed to be the influence of the participant's third language they were majoring in at university. Now that the students were learning to be fluent in their major, and were gaining more exposure to it during school, it could have been the reason behind the use of *chu* in English.

Overall, if we look at the progression of the responses, none of them seemed to be consistent with one another. In the appendix, the table with all the responses can be seen. For students 2 and 10, while they made the biggest mistake with “about new,” using nasal assimilation, n-insertion and epenthesis, they were not recorded making any other mispronunciations. Students 5, 7, 9, 12, and 13, however, were recorded making 2 or more mistakes in 2 different categories. The remaining students, 3, 6, 8, 11, and 14 were recorded as making 3 or more mistakes, some making a mispronunciation in every English prompt. What this concludes, is that

even with their 10 years of mandatory English education from elementary to high school, they still haven't reached a level of fluency.



## 6 Conclusion

This study was done on 23 first year students from a university in South Korea. The first 14 students were asked to repeat 3 English questions, “I’m fine. What about you?” “Will you go the park with me?” “Can I come with you?” These questions were asked to see what kind of phonological attributes the participants adhered to. They were also closely looked at to see if their native Korean language had an effect on their English or L2 pronunciation. Once their responses were recorded and observed, another group of 9 students were asked Korean and English questions. They were asked, “물약있어?” “햇요가 다녀왔어?” “햇메일주고가 뭐야?” and “오늘 월요일이야?” In addition, they were asked to repeat the same English prompts as the first group.

The purpose of this exercise was to see if they applied the same phonological rules from their native tongue and transfer them into English, their second language. Once all the questions were asked and recorded, they were asked a series of questions about their language background. The participants were asked how long they studied English, how long they attended a “hagwon,” if they studied abroad, if they are studying any other languages and if they found English to be difficult. Those questions were asked, to see what level of fluency they had in English. While there were doubts the recordings would show a strong result, it proved to be otherwise.

Once the results were gathered and input into a spreadsheet, the duration of the assimilations, if present, were measured. The results were organized into different categories in the following order: 1) nasal assimilation/n-insertion/epenthesis; 2) nasal assimilation; 3) affrication; 4) Korean vs. English forms and; 5) other forms. The most used phonological rule was the use of nasal assimilation. The main factors behind their mispronunciation was the influence of their native tongue. As mentioned earlier in the study, nasal assimilation is a common phonological rule that is applied in speech, which is why students were recorded as applying the same rule in English. Out of the 23 participants, with the exception of 4 students, they attended some sort of supplemental English class. The students who attended the academies, continued to do so for 10 years or less. In addition, they all received 10 years of English education in their public schools and started within the critical period, before puberty. However, with all of these available resources, none of the participants were able to achieve near native like pronunciation. An observation made throughout the study was that the result of their mispronunciation could have been because of the heavy emphasis put on grammar in the South Korean education system. By the time students entered middle school, basic conversation skills were forgotten and not used. They were then taught to memorize English grammar skills until their CSAT exam, the South Korean university entrance exam.

## 6.1 Further Research

Although the study was able to conclude that the native language among Korean students placed a heavy influence on their English pronunciation, more in-depth research should be done in the future. First of all, to find out exactly what kind of English curriculum South Korean public schools teach, would be beneficial in finding out why students still find English to be difficult. Once the curriculum is presented, the South Korean public schools, should update it to include more conversation skills and accurate pronunciation. These traditional methods should be reorganized to help prepare the students for more realistic situations (Lee 1961). This may mean that the system in which public elementary schools have in place already, with English being taught by one native speaker and one Korean teacher, may encourage students to be more confident and prepared in speaking situations.

Second, researching the curriculums of the main English “hagwons” in South Korea, would help in explaining why students were still struggling with pronunciation, even after many years. In addition, finding out why parents send their children to after school programs like “hagwons” would help understand the motive of the students. Then, finding out if the students actually enjoyed attending these after school programs, would also help understand the motivational factor.

Finally, as this study was conducted on some students studying a third language, it would be helpful to find out more about those languages. In some of results from this study, the languages had either a positive or negative affect on their

English pronunciation. For the languages that were a part of the study, researching their phonological attributes in speech and comparing it to English, may impact the results in the future.

Overall, from the results of this study, phonological factors from their mother tongue transferred over to their 2<sup>nd</sup> language. As seen, it doesn't seem to matter if the student has additional schooling in that particular language. If the school itself does not focus on conversation or pronunciation skills, the student is likely to resort back to the phonological features of their first language. In addition, schools may need to divide the curriculum between grammar and conversational skills of a second language, since most students will need it in the future. As stated by Lee (1961), all schools in South Korea must look to improve the preparation they give the students, beyond the classroom. It may be beneficial to change the curriculums in South Korean schools to be more suited for the functional needs of society, rather than being too heavily oriented on college preparation (Lee 1961). This may be able to correct the inconsistencies in pronunciation and lead to fluency in the English language, opening up more opportunities in the future for South Korean students.

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## 8 Appendix A

### List of Questions for the First Group

- 1) I'm fine. What about you?
- 2) Will you go to the park with me?
- 3) Can I come with you?

### List of Questions for the Second Group

- 1) 물약있어?
- 2) 핫 요가 다녀왔어?
- 3) 핫메일주소가 뭐야?
- 4) 오늘 월요일이야?
- 5) I'm fine. What about you?
- 6) Will you go to the park with me?
- 7) Can I come with you?

## 9 Appendix B

**Table for 14 Responses (English Only)**

	<b>“I’m fine. What about you?” About-new [əbauʔɿj:u]</b>	<b>fine (n) fam</b>	<b>about-chu [əbauʔtʃʰ]</b>	<b>“Will you go to the park with me?” win-me [win mi:]</b>	<b>“Can I come with you” wid-chu [wid tʃʰ]</b>	<b>wid-you [wid ju:]</b>
Student 1				0.12	0.26	
Student 2	0.35	0.13				
Student 3			0.28			
Student 4				0.13		
Student 5			0.33			0.09
Student 6			0.29	0.16		0.42
Student 7				0.14		0.13
Student 8			0.13	0.09		0.05
Student 9				0.03		0.09
Student 10	0.11	0.07				
Student 11			0.16	0.12		0.11
Student 12				0.13		0.14
Student 13				0.14	0.17	
Student 14	0.25	0.18		0.19	0.19	

## 10 Appendix C

**Table for 9 Students (Korean/English)**

	몰약았어? mool yak e-suh	핫요가다녀왔어? hot yoga da-nyuh wah-suh?	핫메일 주소가 뭐야? hotmail ju-seo-ga mo-ya?	오늘 월요일이야? oh neul wul yo eel e-yah?	about-chu	Will you go to the park with me? win-me	will-you	wid-you
Student 1	0.14	0.25	0.09	0.33			0.13	0.13
Student 2	0.15	0.15				0.1		
Student 3	0.16			0.19		0.11	0.13	
Student 4	0.15					0.09		0.19
Student 5	0.16		0.15	0.23			0.16	0.12
Student 6	0.17	0.16	0.14					0.15
Student 7	0.14		0.14		0.12			
Student 8	0.07	0.14	0.14	0.23	0.2	0.15	0.23	
Student 9	0.15	0.21	0.13					