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A Study on Intelligibility of Korean English in Cross-cultural Context

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According to Pickering (2006), the studies of intelligibility between NNS and NNS are still in an infant stage, which challenges this research. The purpose of this study is to measure the intelligibility of Korean English in a small scale of multi-cultural context in the Philippines from a perspective of a Korean speaker. A total of 14 speakers and listeners participated in the study. Among them, three Korean speakers were enrolled in APNTS (Asia Pacific Nazarene Theological Seminary): Speaker 1 (beginner), Speaker 2 (intermediate) and Speaker 3 (advanced). Eleven listeners were in graduate studies in APNTS with at least 500 scores in local English exam. They consisted of NS and NNS students, and measured intelligibility of NNS students (3 speakers). Findings showed that the level of each speaker's English proficiency influenced on the degree of intelligibility. The Speaker 1 struggled with recognizing hard lexis, and her lack of confident knowledge of lexis influenced negatively on the intelligibility, The Speaker 3 was rated relatively highly in the perception scales, however, her fast speaking rate took the negative role in the intelligibility. The Speaker 2 was rated the most intelligible, especially in his free speech. The result of the study illustrated that it was not only speaker's English proficiency but also listeners' proficiency that is connected to the intelligibility. Intelligibility was mutually interactive and depending on the speaker-listener variables.

[intelligibility/cross-cultural context/Kachruvian Circles/proficiency/perception]

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I. INTRODUCTION

The issues of standardization or codification of languages in the global context have indeed taken a variety of forms in various cultures and educational agendas.... It is encouraging to see scholars from all the Circles of English expressing their concerns, and providing their constructs on various perspectives on the provocative topic of intelligibility (Kachru, 2008).

What could be the 'various perspective' from all the Circles of English, contributing to understanding or increasing the intelligibility among its multi-national users? For the past years, English has been acclaimed as a pluricentric language by Kachru (1997), and recognized with its growing relational usage between NNSs and NNSs, as well as NNSs and NSs (Smith, 1992; Honna, 2005; Honna & Takeshita, 1998). Yet, Pickering (2006) pointed out that the studies of intelligibility between NNS and NNS are still in an infant stage, which challenges this study.

Unto this NNS and NS variables, what possibly makes it more complicated is an additional dynamic factor; the context where these users of English meet. For instance, the generic character of mutual intelligibility between a Korean speaker of English and an Indian speaker of English could be variant depending on the context where they are encountered. Imagine they meet each other in Korea, or India, or U.S, or the Philippines. In those cases, their exposure, familiarity, previous experience, attitude, and other factors to the English variety of the context would influence on their mutual intelligibility. Now the world is getting closer and more opportunities of meeting the other varieties of English evolve in various places.

This study aims to measure the intelligibility of Korean English in a small scale of multi-cultural context in the Philippines from a perspective of a Korean English speaker. It has multi-centric factors in its nature; it is written from an Expanding Circle perspective regarding the intelligibility of English users from Expanding Circle toward the English users from all three Kachruvian Circles in the context of Outer Circle.

Through this research, I seek to find out: How intelligible is Korean English to the English users of various varieties, in a multicultural context specifically, in the Philippines?; Are there any relations between the speakers and/or listeners' levels of English proficiency and intelligibility?; What are the factors that contributes to or hinders from the intelligibility? To answer these questions in the given research locale, textual reading and free speeches of 3 Korean speakers (recognized as beginner, intermediate, and advanced) were recorded for 11 multi-national listeners to transcribe them in standard orthography. Supplementarily, listener's perception scales on the speakers' English were included.

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The definition of intelligibility is used in general term, not exclusively meaning the phonological feature but inclusive of cultural, lexical, grammatical, contextual factors. Yet, this study does not deal with segmental or supra-segmental features in depth, but only to be recognized as the influential factors.

II. LITERATURE REVIEW

1. Paradigm Shift

Most of the research on intelligibility has been conducted between NNS speakers and NS listeners yet not many studies between NNS are present (Derwing & Munro, 2005; Li, 2009; and Pickering, 2006). Furthermore, it used to be considered to be a one-way process through which NNS are understood by the NS (Bamgbose 1998, cited in Nelson, 2008).

However, that paradigm has been shifted as in Bent and Bradlow (2003) that declared "any measurement of overall speech intelligibility must take into account both talker- and listener-related factors" (Dayag, 2007a; Honna, 2005; Hung, 2002; Smith, 1992). Then, the need of studies measuring intelligibility lies more on mutual interaction between NNS and NNS.

In deciding the types of the listeners among three Kachruvian concentric circles, PNG (Papua New Guinean) did not seem to clearly fall in one circle. Yet, based on the fact that one of the three official languages in PNG has been English, I adopted Crystal (2003)'s categorization that included PNG in the Outer Circle (Yoneoka, 2002).

2. Definition of Intelligibility

The definition of intelligibility seems to be varied according to the linguistic areas; World Englishes (WE), English as a lingua franca (ELF) or English as an international language (EIL), or English as a second language (ESL). Berns commented that "Whereas Smith situates his views in cross-cultural communication, Jenkins draws from general linguistics and speech act theory. Commonalities between ElF and WE are seldom more than superficial." (2008, p. 328) From the perspective of ESL studies, it is said that pedagogical issue of improving intelligibility is among the issues (Derwing & Munro, 2005). Berns further analyzed that "The ultimate aim of ELF research is serving the needs of expanding circle users of English." (2008, p 331). To the questions of who judge the intelligibility of NNS, according to Berns (2008), WE would answer it is NNS as well as NS while EFL would do it is NNS in expanding circle.

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Smith earlier presented tripartite definition (1992); intelligibility, comprehension, and interpretability, which was criticized not to be clear or operationalized by many scholars (Dayag, 2007a; Li, 2009; Munro & Derwing, 2006 cited in Nelson, 2008; Pickering, 2006) yet was not completely ignored but utilized even recently (Rooy, 2009). Seemingly adopted from Smith, Derwing and Munro (1997) presented three aspects of speaker's foreign accented speech: intelligibility, comprehensibility, and accentedness.

On the other side, from the perspective of ELF, Jenkins (2000) defined that "intelligibility regards the ability to produce and receive phonological form as a prerequisite (though not a guarantee) of ILT (inter-language talk) success at the locutionary and illocutionary level" (Nelson, 2008). Hung (2002) commented Jenkin's (2000) 'lingua franca core' to be the most systematic for mutual intelligibility yet emphasized that the international intelligibility, is more on the concern rather than international conformity.

In some studies (e.g., Field, 2005), the definition of intelligibility narrows down to the features of the speech signal, thus focuses on the acoustic-phonetic content of the message ignoring the other factors such context, syntactic, and lexical knowledge. In James (1998)' study, he posited that the intelligibility is closely related to lexical level (cited in Nelson, 2008). Although it seems to be clear that intelligibility is concerned mainly in phonological issue, such as pronunciation or accents (Derwing & Munro, 2005; Gupta, 2005), those subordinate factors, for instance, lexical, grammatical, discoursal, and cultural matters (Hung, 2002), and listeners' cognitive ability, absence of prejudice, degree of being exposed to foreign accents (Gupta, 2005) are also significant in measuring the intelligibility. Nevertheless, from these varied definitions, some researchers consider that there is no universally accepted definition so far (Li, 2009; Pickering, 2006).

3. Some Factors Influencing Intelligibility

1) Segmental and suprasegmental (prosody)

It seems that number of researchers generally agree that suprasegmental (stress, rhythm, intonation, prosody) takes more roles in intelligibility than segmental (Anderson-Hsieh, et al., 1992, cited in Derwing & Munro, 1997; Field, 2005; Gupta, 2005; Gynan, 1985, cited in Llurda, 2000). Along this line, others emphasized pronunciation is ranked highly than grammar as the important feature in measuring intelligibility. (Fayer & Krasinski, 1987 cited in Llurda, 2000; Hinofolis & Bailey, 1981, cited in Llurda, 2000) However, Derwing and Munro (2005) admits that few studies support this belief yet.

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Providing the distinction between NS and NNS, Riney, et al. (2005) found out that NNS (in their case, Japanese) more focused on suprasegmental in measuring intelligibility while NS (Americans) did on segmental such as 'r' or 'l.' On the other hand, Jenkins (2005) argued that suprasegmental factor interferes the intelligibility between NS and NNS while segmental factor does between NNS and NNS (Pickering, 2006). Bent and Bradlow (2003) also suggested that there is a connection between segmental level and low English proficiency, and between word level and higher English proficiency.

2) Intelligibility or identity

As demonstrated in a statement of a NNS, "I won't like it non-native pronunciation but I won't correct it either" (Li, 2009, p. 95), it appears there must be a conflicting relation between L2 speakers' desire to be intelligible, with native-like accents, and to keep their national identity (Gatbonton, et al., 2005; Jenkins, 2005; Li, 2009), which Bamgbose calls "love-hate" relation (1998, p. 7, cited in Jenkins, 2005). Rooy (2009) also argues that the use of metaphors or figures of speech to express one's cultural identity could be problematic. Despite this conflict, however, Crystal (2003) argues that it is still possible for both to co-exist.

4. Korean Phonological Feature

Korean English was listed among the lowest intelligible NNS evaluated by most of the Asians in Smith (1979). It ranked second to the most in difficulty, fourth to the least in intelligibility, and second to the least in understanding.

Some segmental features of typical Korean English are shown in other studies. Brockley (2008) tried to identify some linguistic variables in Korean English: missing consonants, such as r, v, f, etc., word final epenthesis, no consonant clusters, no voice stops, syllable-timed language fat or opposite pitch slopes, no lexical stress. For syllable-timed characteristics, it is understood to be rather easier and more intelligible than the NS's stress-timed (Dayag, 2007a; Hung, 2002; Kirkpatrick, 2006). Bent and Bradlow (2003) also found out that salient word-final stop consonant releases facilitate the intelligibility for NNS listeners.

From British NS perspective, Tench (2003, p. 149) described the Korean consonant system that is distinctively different from English; no voicing contrast, limited fricative system, only a single phoneme for [l] and [r], limited set of consonants in the world-final system (/p, t, k, m, n, ŋ, l/), and no consonant cluster system in initial or final positions.

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He also added Ahn's (1997, pp. 105 - 108) prediction of "difficulties" this time in five respects (cited in Tench, 2003, p. 149): plosive voice contrasts in word-initial and final position, fricatives /f, v, θ, ð, ʒ / in all positions and /s, z/ and /ʃ/ in final position, affricate /dʒ / in initial and final position and /tʃ/ in medial and final positions, lateral /l/ in initial position, approximant /r/ in initial position, most consonant clusters.

5. Research Methods

According to Derwing and Munro (2005), transcription is one of the techniques that can estimate the intelligibility of L2 utterances. They further pointed out that natural production in classroom would not be sufficient evidence about learner's abilities of pronunciation because of the learner avoidance strategies. They suggested that collection of blind responses from community members, NS and NNS, with whom L2 speakers interact with is presently the best available technique for unbiased assessment of intelligibility. They also proposed the responses could be in various forms such as ratings, transcriptions, sentence verification, or answer to comprehension questions.

Research displays several types of research methods in measuring intelligibility: through measuring recognition of words and/or sentences, transcribing free speech in the given topic, transcribing the passages read by the speakers, and scoring the perception through scales. First, transcribing the words and/or sentences is mostly used in many studies (Bent & Bradlow, 2003; Bradlow, 1999; Field, 2005; Llurda, 2000; and Riney, et al., 2005). Lists of words or sentences vary depending on the researchers' need.

Secondly, transcribing the free speech under the given topics or through interviews is another type of popular method (Atechi, 2004; Dayag, 2007a; Deterding, 2005; Gupta, 2005; Munro & Derwing,1995 & 1997; and Rooy, 2009). Less preferred method is to have the speakers read the given passages and the listeners listen to the recorded reading aloud (Atechi, 2004; Gupta, 2005; Smith, 1992) In these studies, the first used the selected passages from Daniel O. Alishire's *Understanding Today's Youth* and David Crystal's *English as a Global Language* and the second from *New York Times* and the last from *Michigan Test of Aural Comprehension*.

The last type is using the scales or comments to measure the intelligibility through the listener's perception on the speakers' utterance or speech (Bradlow, 1999; Derwing & Munro, 1997; Deterding, 2005; Field, 2005; Lurda, 2000; Munro & Derwing, 1995; Riney, et al., 2005; and Rooy, 2009). The coverage of perception varies according to the nature of the study, such as the degree of L2 speakers' foreign accents, their English proficiency, intelligence, education, leadershp, ability, and hard-working or the degree of listeners' comprehension, word familiarity, attitudes toward L2 speakers, etc. It is surprising that a number of studies utilize the listeners' 'degree of perception' in

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measuring intelligibility than the actual testing. Thus, I adopted some of the perception scales and included as the additional resource for analyzing the intelligibility test.

III. METHODOLOGY

1. Participants

1) Speakers

All three Korean speakers are presently enrolled in APNTS (Asia Pacific Nazarene Theological Seminary), Speaker 1 (beginner) in ESL course and Speaker 2 (intermediate) and 3 (advanced) in graduate studies. They were identified to be the beginner level, intermediate, and advanced speakers of English proficiency respectively by the score of either local exam (which has been considered locally to be roughly equivalent to TOEFL PBT) or TOEFL and by the agreement in the English department according to their performance in class. Demographic questionnaire is given in the following Table 1.

TABLE 1

Demographic Profile of the Speakers

No	Age	Gender	Time of studying English (year/month)	Time spent In English environment	English exam score	Level of English Proficiency (Self perception)
1	54	F	7/5	4	Local Exam (equivalent to TOEFL) 403	Beginner (Beginner)
2	38	M	6/6	1/6	Local Exam 505	Intermediate (Beginner)
3	35	F	10	2	International TOEFL (PBT) 617-620	Advanced (Advanced)

2) Listeners

All the listeners are in graduate studies in APNTS with at least 500 scores in local English exam, which is the minimum score to take graduate courses. Nine listeners were selected at the first place, yet only eight of them appeared on the first listening session with one uninformed absence. After the first session, I found out two sets of result from

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a Filipino and Burmese scored too low to be valid data representing their nationality, thus I decided to include one more each from both countries to the second session that was arranged for that absent listener. Therefore, listeners attended either in the first or second session. The demographic information is followed in Table 2.

TABLE 2

Demographic Profile of the Listeners

No	Age	Gender	Nationality	First Language	Kachruvian Circle	Local English Exam score	Time spent in English	Time spent	Exposure to Korean	Listening section
1	49	F	American	English	Inner	Not required	49/1	20	1/1	I
2	25	M	American	English	Inner	Not required	25/3	10	6/6	I
3	43	F	American	English	Inner	Not required	43/11	0/6	0/6	I
4	22	M	Filipino	Tagalog	Outer	520	2/6	4/6	4/6	I
5	30	M	Filipino	Pangasinese	Outer	590	25	5	5	II
6	40	M	Indian	Marathi	Outer	558	25	0/6	0/6	I
7	35	F	PNG	Jiwaka	Outer	500	10	0/1	0/1	II
8	28	M	Korea	Korean	Expanding	573	2/3	2/3	16	I
9	29	F	Myanmar	Myanmar	Expanding	500	2	2	2	I
10	34	M	Myanmar	Chin	Expanding	528	3/1	22	8	I
11	23	F	Myanmar	Chin	Expanding	**500**	**2**	**2**	**2**	**II**

2. Methods

Following the previous studies measuring intelligibility, this experimental study is to measure the intelligibility of the Korean speakers of English towards NSs and NNSs. Three speakers recorded their textual reading and free speech in a selected topic and eleven listeners listened to each audio sample and transcribed it. The correct number of words out of the total number of words in the recording was transferred to percentage and treated as the scores of intelligibility. Simplified perception scales of listeners toward the speaker's English were used as the additional method in analyzing the data.

3. Research Locale & Limitation of the Study

This study is targeting the subjects who are presently enrolled in APNTS (Asia-Pacific Nazarene Theological Seminary) either in ESL or graduate studies. With its religious and friendly community environment, the perception of the subjects may not be equivalent to those out of the research locale but more positive in some ways. Another limitation was some of the listeners could easily recognize some of the speaker's voice.

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Personal familiarity to specific speakers could be a variable, yet is not concerned in this study.

4. Research Procedures

Out of four methods previously mentioned in the literature review, two of them were adopted from previously reviewed literature; free speech under the given topic and reading the given passages, both to be transcribed. Scoring the perception scales was modified and simplified in this study in that the number of subjects and the research locale is limited.

The rationale behind selecting the less preferred method, reading the given passages, is that a research locale is a theological graduate school where students are often asked to read aloud the paragraphs in classes or scripture in the chapel service. Furthermore, the majority of Korean students, with lack of confidence in English, tend to read the prepared scripts in their class presentation. Then, reading the passages still will be valid as much as natural speech in measuring intelligibility of NNS students toward other NS and NNS students in this context.

1) Each three speaker read different portion from *Accurate English: A Complete Course in Pronunciation* by Rebecca M. Dauer (1993). Those three passages were considered to be in similar lengths (for speaker one: 88 words; two 98 words, three100 words) with similar levels of vocabulary after the discussion in the English department in the research location.

To avoid the problematic factor that speakers, who share the same L1 as the researcher, might not take "target-like form" but employ "transfer-based replacement form" (Jenkins, 2000 cited in Pickering , 2006) in their speech, I appointed one of their Filipino colleagues, who might bring the genuine need of communicating in English, to ask the questions and administer the recording.

2) To get the data of free speech, speakers were asked to select one of the topics. The given topics were: *Why have you come to this school to study?; What is the most wonderful place you've ever visited?; Tell about something you are good at doing.; Talk about the importance of learning English.; Tell about something you miss the most in your country*. To prevent these 'EFL' speakers from giving a few sentences only but to encourage to give lengthy speech data sufficient for this study, they were guided to give speech at least two minutes to the topic selected.

3) Panasonic RR-US380 was used in recording.

4) Free speeches were transcribed by the researcher in standard orthography as the raw data afterwards.

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5) Since the six samples (free speeches and readings of three speakers) of the listening were given to each listener, I decided to edit the part that is not paused so long with adequate number of the words spoken. In editing, the factors such as the natural flow of utterances, completion of the sentences, and speakers' oral speed were considered, that resulted in different time and number of words contained in each listening sample. Adobe Audition 1.5 was used for audio conversion and editing. The finalized listening samples are edited as follows.

TABLE 3

Length of Speeches

Speakers	Speaker1 (Beginner)		Speaker 2 (Intermediate)		Speaker 3 (Advanced)	
Types of texts	Free Speech	Reading	Free Speech	Reading	Free Speech	Reading
Number of words	86	66	96	81	96	81
Amount of Time	1:11	1:25	1:18	0:49	0:48	0:41

6) As shown in Table 2, the listening was held in two sessions. Eight listeners attended the first session held in the computer lab and second group were smaller with three listeners and met in a smaller room, which was a media lab on the following day. The second session was arranged for the one who didn't appear on the first session. Yet, another Filipino and a Burmese were asked to attend it since the ones in the first session hit the lowest scores and I felt the need of having other listeners from their countries to increase the validity of the data. BEHRINGER MS 16 monitor speakers were connected to MAC for both sessions.

7) They listened to the same samples three times and transcribed in standard orthography by the method of "write-down-what-you-hear" which was adopted by both in Atechi (2004) and Dayag (2007a). The listeners had a choice either to write in long hand or type in the computers, as they want. Out of eleven, four of the listeners (#1-4) typed in MS words that were handed to me after the listening sessions through USB. The order of the speech to be played is as follows. (Legend: BG: speaker in beginner level; IM: speaker in intermediate level; AD: speaker in advanced level; R: reading the passage; F: free speech)

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TABLE 4

The Order of the Speech Played to the Listeners

No.	1	2	3	4	5	6
Speech Data	Speaker 1 Reading (BG-R)	Speaker 2 Reading (IM-R)	Speaker 3 Reading (AD-R)	Speaker 1 Free Speech (BG-F)	Speaker 2 Free Speech (IM-F)	Speaker 3 Free Speech (AD-F)

8) The perception questions for the listeners were asked, adopted from the other studies and simplified: Time spent in cross-cultural experience, modified from 'degree of familiarity with languages other than English' (Derwing & Munro, 1997), 'amount of contact with Korean English' (Derwing & Munro, 1997; Rooy, 2009), and the speakers' self-perception of level of English (Rooy, 2009).

9) Each listener's transcriptions were scored based on the raw data, by the corrected number of the words over the total number and were represented by the percentage. Minor grammatical errors and omitting a repetition of a word was treated trivial as in Derwing and Munro (1997). For spelling errors, Gupta (2005) did not penalize and he adopted "phonological base" rather than "content base" in scoring, as also seen in this paper. Unlike Bent and Bradlow (2003) which did not allow the words with added or deleted morphemes, this study counted them as correct as long as they are evidently due to the rushing and limited time.

IV. RESULTS AND DISCUSSION

Analyzing the data from the listeners' factor, it is notable that the top three by the percentage of corrected number of words in their transcription are ranked by the NSs followed by the Korean listener. It apparently could be explained by the general fact that these NSs might have knowledge of lexical items, especially appeared in the passage read, so that they can easily recognize hard words much better than others, and accustomed to the fast speed of English speakers, which benefits them in comprehending different variety of English as explained in Bradlow (1999). Interestingly, a NS with ranking no. 1 has the longest time period of exposure to Korean English, 6 years and 6 month, the second ranking with 1 year and 1month, and the third with 6 month. Bradlow (1999)'s findings, that listeners' prior experience and exposure to the certain L2 speakers' voice and articulatory habit influences on the intelligibility, could be

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generalized to a sense that the more exposed to a general habit of a certain L2 speaker, the more intelligible other L2 speakers with the same L1 background as that certain L2 speaker.

TABLE 5

Average Score of the Listeners

Listener No.	Nationality	Speaker1 (Beginner)			Speaker2 (Intermediate)			Speaker3 (Advanced)			Av.	Ranking by number of accuracy
		R	FS	Av	R	FS	Av	R	FS	Av		
1	American	42/66	60/86	**67%**	53/81	79/96	**74%**	51/81	59/96	**62%**	**68%**	**2**
		64%	70%		65%	82%		63%	61%			
2	American	43/66	63/86	**69%**	51/81	80/96	**73%**	50/81	74/96	**70%**	**71%**	**1**
		65%	73%		63%	83%		62%	77%			
3	American	31/66	71/86	**65%**	52/81	79/96	**73%**	46/81	68/96	**64%**	**67%**	**3**
		47%	83%		64%	82%		57%	71%			
4	Filipino	20/66	42/86	**40%**	32/81	52/96	**47%**	11/81	31/96	**23%**	**37%**	**10**
		30%	49%		40%	54%		14%	32%			
5	Filipino	37/66	56/86	**61%**	32/81	73/96	**58%**	21/81	45/96	**37%**	**52%**	**6**
		56%	65%		40%	76%		26%	47%			
6	Indian	32/66	61/86	**60%**	31/81	84/96	**63%**	28/81	43/96	**40%**	**54%**	**5**
		48%	71%		38%	88%		35%	45%			
7	PNG	16/66	34/86	**32%**	17/81	36/96	**30%**	12/81	25/96	**21%**	**27%**	**11**
		24%	40%		21%	38%		15%	26%			
8	Korean	33/66	80/86	**72%**	40/81	84/96	**69%**	33/81	54/96	**49%**	**63%**	**4**
		50%	93%		49%	88%		41%	56%			
9	Myanmar	12/66	55/86	**41%**	25/81	71/96	**53%**	14/81	42/96	**31%**	**41%**	**9**
		18%	64%		31%	74%		17%	44%			
10	Myanmar	18/66	67/86	**53%**	32/81	62/96	**53%**	17/81	37/96	**30%**	**45%**	**8**
		27%	78%		40%	65%		21%	39%			
11	Myanmar	18/66	53/86	**45%**	38/81	75/96	**63%**	21/81	45/96	**37%**	**48%**	7
		27%	62%		47%	78%		26%	47%			
Av.		**41%**	**68%**	**55%**	**45%**	**73%**	**60%**	**34%**	**50%**	**42%**	**52%**	

(Legend: R: Reading; FS: Free Speech; Av: Average)

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TABLE 6

Listening Scores of Kachruvian Circles

Listener No	Kachruvian Circle	Speaker 1 (Beginner)			Speaker 2 (Intermediate)			Speaker 3 (Advanced)			Average
		R	FS	Av.	R	FS	Av.	R.	FS	Av.	
1-3	Inner	59%	75%	67%	**64%**	**82%**	**73%**	**61%**	**70%**	**66%**	**69%**
4-7	Outer	40%	56%	48%	**35%**	**64%**	**35%**	**23%**	**38%**	**21%**	**43%**
8-11	Expanding	30%	74%	52%	**42%**	**76%**	**59%**	**26%**	**47%**	**37%**	**49%**

(Legend: R: Reading; FS: Free Speech; Av: Average)

Meanwhile, the fourth highest is a Korean listener who has high English proficiency and evidently marked out Bent and Bradlow (2003)'s "matched inter-language benefit." He scored much higher than other listeners from outer and expanding circle; however, he still scored lower than those three NSs. His lowest average is for speaker 3, lower in reading than in free speech, as all other listeners' are.

Moving to the lower rankings, the lowest is by PNG who barely has experience, less than a month, to Korean English, which is not surprising at all. Including her, others in the lower group all have intermediate level of English proficiency (local English exam score below 550.) Due to their insufficient knowledge of lexis or idiomatic expressions, they missed a lot of hard word especially in the reading portion. For example, except one Filipino (listener # 5) with high English proficiency, all other NNSs failed to recognize and transcribed the expression 'remain on alert,' which appeared in AD-R, unlike the NSs none of whom missed.

Between higher and lower groups, there were two ESL speakers with the medium level of scores, a Filipino and an Indian. Both of them have high level of English proficiency (local English exam score above 550), which naturally resulted as a positive factor in the intelligibility, despite the relatively short-term exposure (6 month) of this Indian to Korean English for short term. It is remarkable that Smith and Rafiqzad's study (1979) showed that it was the Indian listeners who got the highest scores for Korean English over eight other different varieties of English. The following Table 7 clearly shows that there is a correlation between the intelligibility and the listener's English proficiency. There is consistently more or less than 20% differences between two groups.

Although both Indian and Papua New Guinean had shorter exposure to Korean English, 6 months and less than 1 month respectively, the former ranked in the higher group and the latter at the lowest. Apparently, the first's high English proficiency contributed to this result positively over the latter. Moreover, borrowing Gupta (2005)'s finding, it could be explained that some individual factors, such as cognitive ability,

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absence of prejudice, greater exposure to a range of accents, might have been applied by these two listeners, as a strategy when listening to the unfamiliar foreign accents.

TABLE 7

Listening Scores of Higher & Lower English Proficiency

Local English score	Number of Listeners	Speaker 1 (Beginner)			Speaker 2 (Intermediate)			Speaker 3 (Advanced)			Average
		R	FS	Av.	R	FS	Av.	R	FS	Av.	
NS & Above 550	6	55%	76%	66%	53%	83%	68%	47%	60%	54%	62%
Below 550	5	25%	59%	42%	36%	62%	49%	19%	38%	29%	40%

(Legend: R: Reading; FS: Free Speech; Av: Average)

Turning the focus to the speaker factor, the level of lexis in Speaker 1's reading material was quite higher than her beginner's level that led her to misread some hard words, e.g. pronouncing *careers* as [keris]. The words such as *prestigious, grotesque, outrageously* were apparently above her level thus not clearly read that troubled the listeners from identifying, yet there still were some who could guess and transcribed successfully. Her foreign accent was scaled on 3 out of 1 – 9, heavily to non-accented degree (standard deviation 2.38) However, her free speech was easy, second to the most out of six listening samples, due to her slow speed of her speech. It is as reminded in Derwing and Munro (1997) that explained that accents "do not necessarily interfere with intelligibility" and the listeners' perception tend to be harsher in their rating on speakers' accent than the actual intelligibility score 3.

TABLE 8

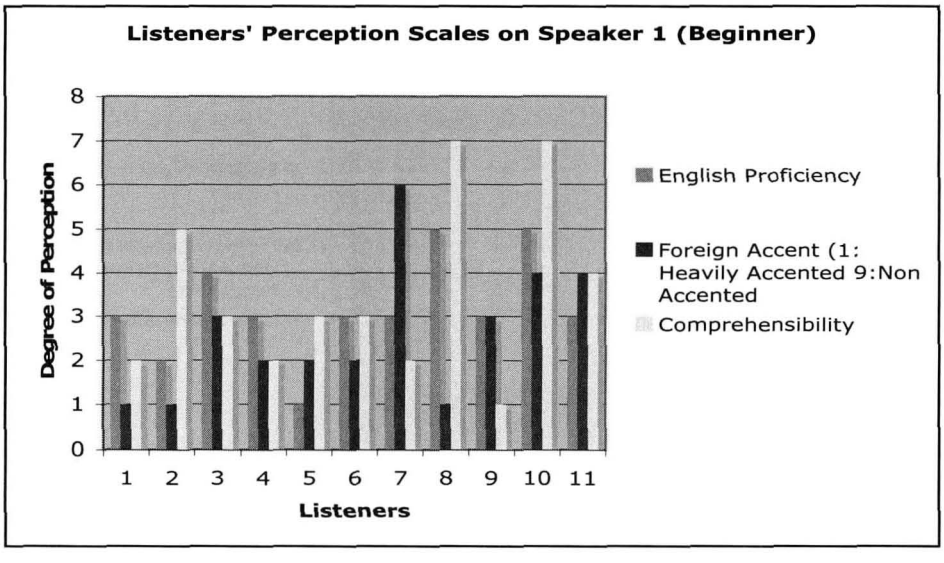
Average of Speakers' Foreign Accent Perceived by 11 Listeners

	Speaker 1	Speaker 2	Speaker 3
Average of Perceived foreign accent Degree of 1 – 9 (heavily to non-accented scale)	3	4	6
Standard Deviation	2.38	2.24	1.48

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FIGURE 1

Listeners' Perception Scales on Speaker 1 (Beginner)



Speaker 2 evaluated his English lower than intermediate. However, the result shows that there were distinguishable difference between the beginner and the intermediate user of English as shown in Figure 1 and 2. The total average of intelligibility measurement (Table 5) shows that Speaker 2 (intermediate) is identified most intelligible (60%), compared to the beginner (55%) and the advanced (42%). His voice was clear, articulated, repeating the important words, with fairly easy words in his free speech in appropriate or slightly slow speed. His free speech got the highest point (73%) out of all 6 sets of listening results. (3 speakers x 2 sets of listening material) This was higher than the average of the NS who got the first rank (71%), although he was perceived to retain slightly foreign accent (4 out of 1-9 scales with 2.24 standard deviation) as shown in Table 8. Derwing and Munro's comment on the relationship between accent and the intelligibility could be considered as well here. As seen in Table 8, his average in the perception scale stays just on the medium, meaning he could be confirmed as the intermediate speakers of Korean English in the given research context.

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FIGURE 2

Listeners' Perception Scales on Speaker 2 (Intermediate)

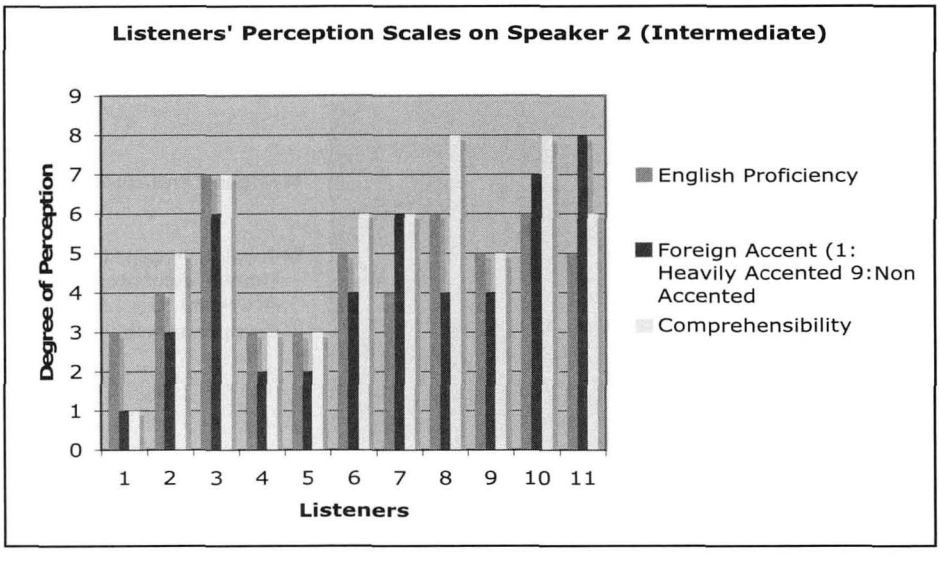


TABLE 9

Average of Perception Scales

Average Perception Out of 1 – 9 Degrees	Speaker 1	Speaker 2	Speaker 3
English Proficiency	3	5	6
Foreign Accents (heavily to non-accented scale)	3	4	6
Comprehensibility	3.5	5	7
Total Average	3	5	6

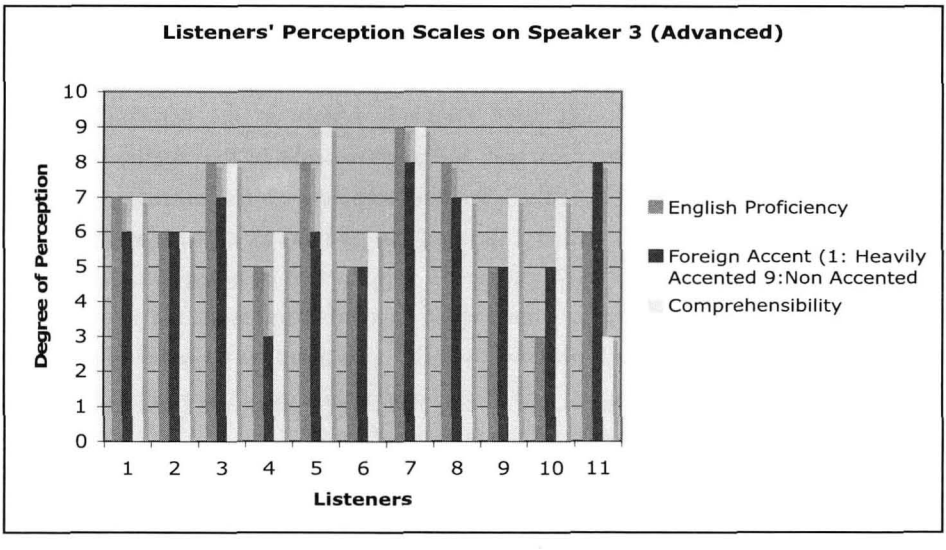
Speaker 3 self-evaluated her to be an advanced user of English as expected. All three NSs and other two listeners with high level of English proficiency (except the Indian listener) perceived her consistently above medium level in every category of perception, although others perceived her still in the lower level (e.g., Listener # 4 and # 10.) Yet, her speedy habit of articulation hindered the listeners from transcribing her speech. She was found to speak two words per second in average (AD-R: 81words for 41 seconds; AD-F: 96 words for 48 seconds), which is more than 4.5 phonemes per second that Llurda (2000) counted too fast to be understood appropriately. According to Llurda (2000), the listeners perceive the speakers' speed to be slower when 3 phonemes are projected per second and faster with more than 4.5 phonemes projected per second.

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Dayag (2007a) had the similar result with one of the speakers whose rate of speaking was faster and obtained lower scores than others in the intelligibility test. Bradlow (1999) also emphasized the importance of speaking rate and lexical factors in intelligibility, observing that the faster and the harder, the less intelligibility result comes out. Accordingly, the intelligibility of Speaker 3's reading was the lowest out of all six sets (34%), which is more than half of the most intelligible listening set, which was IM-F (73%).

FIGURE 3

Listeners' Perception Scales on Speaker 2 (Advanced)



It is interesting to note that the total average is displayed in a consistent way. The first positive variable is the level of the speaker and the second is the type of speech. In both types of speech, the intermediate is always at the top and the beginner at the bottom as shown in Table 10. In every level of speakers, free speech always comes higher than the reading. In conclusion, free speech of the intermediate level was the most intelligible while reading of the advanced level was the least intelligible.

TABLE 10

Average and Ranking of 6 Listening Samples

	BG-R	BG-F	IM-R	IM-F	AD-R	AD-F	Total Average
Average	41%	68%	45%	73%	34%	50%	52%
Ranking	5	2	4	1	6	3	

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VI. CONCLUSION

The listeners generally identified the speakers' level of English proficiency as expected, which could be recognized in the perception scales as in Figure 1, 2, & 3. And the level of each speaker's English proficiency influenced on the degree of intelligibility. However, some factors stepped in this relationship as going to be described below.

The Speaker 1 (beginner) seemed to struggle with recognizing hard lexis, and her lack of or less confident knowledge of lexis apparently influenced negatively on the intelligibility. In her free speech, the intelligibility score was quite high, yet her grammatical incorrectness led the listeners to unconsciously correct her sentences, not to be counted as correct. (e.g., Some of them inserted *in* in front of the year 2005, which originally was not projected by the speaker)

The Speaker 3 (advanced) was rated relatively highly in the perception scales, however, her fast speaking rate also took the negative role in the intelligibility. Her reading was scored the lowest out of six listening samples, which evidently shows that the both factors, the hard lexis and fast speed, could be marked as the hindrance in the intelligibility. For this kind of fast speakers, I suggest that transcription, without the audio paused in the midst, may not be a good method to measure the intelligibility. Overall, the level of the English proficiency influenced more on the intelligibility than the other influencing factor, the fast rate of speaking in this case. However, it is not to be generalized due to the small number of the sample subjects.

With his appropriate speaking rate and level of English proficiency, Speaker 2 was rated the most intelligible, especially in his free speech. But this highest score only reached 73%, which seems to be the least score that worth of intelligibility. Considering the total average intelligibility of all three speakers reveals 52%, Korean English would not be evaluated to be readily intelligible to NS and NNS in the given research locale (as also concluded in Rooy's study (2009) where Korean English was measured by the South African listeners in South African.) However, it was not only speaker's English proficiency but also listeners' proficiency that is connected to the intelligibility. It was found out that intelligibility is mutually interactive and depending on the speaker-listener variables.

Although the transcription of the free speech was known as the most popular way of measuring intelligibility in the literature, it seems some of the listeners from the under developed countries had hard time either in typing in the computer or fast hand writing. They seemed to be frustrated in lining up both jobs, listening and transcribing, simultaneously. I recommend to provide the listeners with some pause between the

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utterances, or several sentences at least. Further studies, in the given research locale, on measuring the intelligibility are suggested in several stretches: Measuring the NNS' intelligibility with the lists of the words spoken in different levels toward NS and NNS; Measuring NNS' intelligibility of actual academic speeches in classes rated by the NS and NNS listeners through the prepared comprehension questions and perception scales afterwards; Measuring the mutual intelligibility of the natural interlocution between the English users with different L1 backgrounds.

REFERENCES

Atechi, S. N. (2004). "The intelligibility of native and non-native English speech: A comparative analysis of Cameroon English and American and British English." Unpublished Ph.D. disserttion, Technischen Universitat Chemnitz. Retrieved 29 November, 2009 from http://archiv.tu-chemnitz.de/pub/2004/0088/data/atechi_intelligibility.pdf

Bent, T., & Bradlow, A. R. (2003). "The interlanguage speech intelligibility benefit." *J. Acoust. Soc. Am 114*(3), 1600-1609.

Berns, M. (2008). World Englishes, English as a lingua franca, and intelligibility. *World Englishes, 27 (3/4),* 327-334.

Bradlow, A. R. (1999) Recognition of spoken words by native and non-native listeners: Talker-, listener-, and item-related factors. *J. Acoust. Soc. Am, 106*(4), 2074-2085.

Brockley, T. (2008). Teaching pronunciation: Case study parameters for Korean elementary school learners. Retrieved November 26, 2009 from http://www.lang-works.com/index_files/pronunciationrationale.html.

Crystal, D. (2003). *English as a global language*. Cambridge: Cambridge University Press.

Dauer, R. M. (1993). *Accurate English: A complete course in pronunciation*. NY: Regents Publishing Co.

Dayag, D. T. (2007a). Exploring the intelligibility of Philippine English. *Asian Englishes, 10(1)*, 4-23.

Derwing, T. M., & Munro, M. J. (1997). Accent, intelligibility, and comprehensibility. *Studies in Second Language Acquisition, 20,* 1-16.

Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly, 39* (3), 379-397.

교보문고 KYOBO Book Centre

Deterding, D. (2005). Listening to Estuary English in Singapore. *TESOL Quarterly, 39*(3), 425-440.

Field, J. (2005). Intelligibility and the listener: The role of lexical stress. *TESOL Quarterly, 39(3)*, 399-423.

Gatbonton, E., Trofimovich. P., & Magid, M. (2005). Learners' ethnic group affiliation and L2 pronunciation accuracy. *TESOL Quarterly, 39*(3), 489-511.

Gupta. A. F. (2005) Inter-accent and inter-cultural intelligibility: a study of listeners in Singapore and Britain. Retrieved November 24 2009 from http://www.leeds.ac.uk/english/staff/afg/deterding.pdf

Honna, N., & Takeshita, Y. (1998). On Japan's propensity for native speaker English: A change in sight. *Asian Englishes, 1*(1), 117-137.

Honna, N. (2005). English is an Asian language: Some thoughts for Japanese actions. In D. T. Dayag and J. S. Quakenbush (Eds.) *Linguistic and Language Education in the Philippines and Beyond* (pp. 71-86). Manila, Philippines: Linguistic Society of the Philippines.

Hung, T. (2002). English as a global language and the issue of international intelligibility. *Asian Englishes, 5*(1), 4-17

Jenkins, J. (2005). Implementing an international approach: The role of teacher attitudes and identity. *TESOL Quarterly, 39*(3), 535-543.

Kachru B. B. (1992). Models for non-native Englishes. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (2nd ed.) (pp. 48-74). Urbana and Chicago: University of Illinois Press.

Kachru B. B. (1997), English is an Asian language. In M.L.S. Bautista (Ed.), *English is an Asian language: The Philippine context (Proceedings of the Conference held in Manila on August 2-3, 1996)* (pp.1-23). NSW, Australia: The Macquarie Library Pty Ltd.

Kachru B. B. (2008). Symposium on intelligibility and cross-cultural communication in world Englishes: Introduction. The first step: the Smith paradigm for intelligibility in world Englishes. *World Englishes, 27(3/4)*, 293-296.

Kirkpatrick, A. (2006). Asian Englishes: Implications for English language teaching. *Asian Englishes, 9*(2), 4-19.

Li, D. C. S. (2009). Researching non-native speakers' views toward intelligibility and identity: Bridging the gap between moral high grounds and down-to-earth concerns. In Sharifian, F. (Ed.), *English as an international language: Perspective and pedagogical issues* (pp. 81-118). Great Britain: MPG Books Ltd., 2009. Retrieved November 29, 2009 from http://www.booksgoogle.com/books.

교보문고 KYOBO Book Centre

Llurda, E. (2000). Effects of intelligibility and speaking rate on judgments of non-native speakers' personalities. *International Review of Applied Linguistics in Language Teaching, 38(3-4)*, 289-300.

Munro, M. J., & Derwing, T. M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning, 45*(1), 73-97.

Nelson, C. L. (2008). Intelligibility since 1969. *World Englishes, 27*(3/4), 297-308.

Pickering, L. (2006). Current Research on intelligibility in English as a lingua franca. Retrieved November 24 from http://www2.gsu.edu/~www/up/ara/proofs.pdf.

Riney, T. J., Takagi, N., & Inutsuka, K. (2005). Phonetic parameters and perceptual judgments of accent in English by American and Japanese listeners. *TESOL Quarterly, 39*(3), 441-466.

Rooy, Susan Coetzee-van. (2009). Intelligibility and perceptions of English proficiency, *World Englishes, 28*(1), 15-34.

Smith, L. E. (1992). Spread of English and issues of intelligibility. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (2nd ed.) (pp. 75-90). Urbana and Chicago: University of Illinois Press.

Smith, L. E., & Rafiqzad, K. (1979). English for cross-cultural communication: The Question of Intelligibility. *TESOL Quarterly, 13*(3), 371-380. [Reprinted in L.E. Smith (Ed.), *Readings in English as an International Language*. Oxford: Pergamon Press, 1983, 49-58].

Tench, P. (2003). Non-native speakers' misperceptions of English vowels and consonants: Evidence from Korean adults in UK. *International Review of Applied Linguistics, 41*, 146-173.

Yoneoka, J. (2002). Englishes in Asia. Retrieved 15 December 2009 from www2.kumagaku.ac.jp/teacher/~judy/gyoseki/30AsianEnglish.doc.

Examples in: English
Applicable Language: English
Applicable Level: College

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