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# Intelligibility and attitudes

## How American English and Singapore English are perceived around the world

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This paper investigates international responses to Singapore English (SgE), in terms of both intelligibility and attitudes toward the speaker, and compares it to responses to American English (AmE). It surveys 200 respondents from over 20 countries as they listen to a set of 15 sound recordings, including read SgE, spontaneous SgE, and read AmE. The results suggest that the intelligibility of SgE and AmE does differ between informants from different regions. However, the intelligibility of the test stimuli does not correlate simply to positive and negative attitudes. While SgE elicits generally positive attitudes, what is interesting is that the judgments of respondents from South-East Asia and East Asia are often more negative than those of English speakers of Inner Circle varieties. This seems to suggest not only an impenetrable mindset of these traditionally “non-native” English speakers, who seem to be still clamoring to speak an idealized “standard”, but also an inferiority complex over their own varieties of English.

**Keywords:** intelligibility, Singapore English, American English, language attitudes, Inner Circle, Expanding Circle, English world-wide

### 1. Introduction

Studies on the intelligibility of international forms of English usually fit into the realm of accent studies. Most of these studies are very specific, examining a particular type of accent and how intelligible it is to traditional “standard” English speakers (e.g. Hahn 2004; Field 2005; Setter 2005; Watanabe 2008). The most consistent finding is that intelligibility is lower any time the speaker has a different accent from the listener, but degrees and types of variation are not consistent across studies. Even without these inconsistencies, however, there is still a major problem with this kind of study — namely, that it does not take into account situations where two people

speaking the supposed “non-native” varieties of English are using English to communicate with each other, as opposed to with someone from America or Australia.

What is perhaps more disturbing is that most of the existing research, especially that carried out in the United States, seems to subscribe to the “standard language ideology” (Milroy and Milroy 1991). Standard language ideology is defined as “a bias toward an abstracted, idealized, homogenous spoken language which is imposed and maintained by dominant bloc institutions and which names as its model the written language, but which is drawn primarily from the spoken language of the upper middle class” (Lippi-Green 1997:64). This “standard”, as Lippi-Green writes in the American context, can be said to be what Kretzschmar (2004:257) refers to as “Standard American English”, which “designates the level of quality that is employed by educated speakers in formal settings”, while still bearing in mind that there are still regional differences within the US. There is an especially large corpus of research using international teaching assistants in America to show how **other** “non-native” accents, anything other than American English (AmE), are detrimental to teaching (e.g. Bailey 1984; Munro and Derwing 1995a; Derwing, Rossiter and Munro 2002; Bresnahan *et al.* 2002; Derwing and Munro 2005; Riney, Takagi and Inutsuka 2005; Lindemann 2005). Their concerns are often primarily centered on the negative reactions of American students to instructors who are “non-native” speakers of English. In Lindemann’s 2005 study, these “non-native” speakers are perceived to speak “broken English”, and she further shows how negative attributes are assigned to these speakers. The “non-native” speakers used in these studies were Chinese, Indian and Mexican (and sometimes Russian). Yet, few have investigated the attitudes of “non-native” English speakers towards other English speakers, as if by default, “non-native” speakers have no such authority to make judgments on the speech of others.

The “standard language ideology” is not restricted only to the American context. Singaporeans themselves, especially the Singapore government, English language purists, and pedagogists, are concerned about the intelligibility of Singapore English (SgE). In the Singapore context, it is not the ideology of the “standard” of SgE that one is concerned about, but rather, that the ideology is tilted toward an idealized notion of speaking the “standard” AmE or British English (BrE). There is often also an implicit sense that SgE is an inferior variety and that one needs to move toward the “standard”. In the last ten years, government involvement in English language policy has also taken the form of the *Speak Good English Movement*, which was officially launched in 2000. The *Speak Good English Movement* is set to dissuade the use of “Singlish”, the colloquial variety of English (see Rubdy 2001 for an extensive discussion on the economic and pragmatic forces behind this campaign and Chng 2003 for the politics behind the campaign’s rhetoric). This campaign focuses on the idea that the English spoken in Singapore is “wrong” — as

evidenced by the 2010/2011 slogan “Get it Right!”, which features common SgE phrases and “corrects” them by changing them to “standard” English. This campaign (or the people behind this campaign), interestingly, does not make a clear distinction between the colloquial variety, Singlish, and the formal SgE, which is fairly “standard” English spoken with a Singaporean accent. Therefore, while the slogans seem targeted at correcting Singlish, the underlying messages for this campaign are often quoted as the need for Singaporeans to be understood internationally — with no clear indication if this refers only to the colloquial variety, or if it also applies to Singaporean-accented standard English.

The common impression seems to point toward SgE as being inferior to other “standard” varieties of English. This is despite the fact that almost all Singaporeans born after independence in 1965 would have undergone an “English-knowing” bilingual education program (Pakir 1991) and that many young Singaporeans can be considered “native” speakers of SgE, and that research has shown SgE to be a legitimate variety of English (e.g. Mohanan 1992; Deterding 2007). The motif of key government speeches on English in Singapore is that Singaporeans speak bad English. David Wong, the then-Chairman of the *Speak Good English Movement* in 2003 gave one of the many speeches that reminded Singaporeans of how important it is to speak English well, and how poor Singaporeans are at speaking English:

Every Singaporean must recognise the importance of speaking good English and make the effort to do so. Our standard of English as a nation may not improve overnight, but if we work at it, I am confident that we will achieve what we set out to do — to Speak Well and Be Understood. (Wong 2003)

Emeritus Senior Minister Goh Chok Tong, then Prime Minister, in 2000, commented that Singaporeans’ command of English is poor and reminded Singaporeans that “poor English reflects badly on us and makes us seem less intelligent or competent” (Goh 2000). Prime Minister Lee Hsien Loong, in his speech for the *Speak Good English Movement* in 2001 (Lee 2001), echoed that same sentiment: “it is equally, if not more important, to get Singaporeans to speak good, standard English, which will be understood not only by Singaporeans, but by English speaking people all over the world”. The key argument pointing to the inferiority of SgE, as has been repeated over the years in government speeches and campaigns, is that SgE is unintelligible outside of Singapore. Even the English language curriculum in Singapore schools states that all students must be trained to speak in “internationally acceptable English”, with “internationally acceptable English” being defined as “the formal register of English used in different parts of the world, that is, standard English” (Singapore Ministry of Education 2001). To speak this “internationally acceptable English” is to gain acceptance by the international community and to be intelligible to the other English speakers.

The question remains, however: is SgE really unintelligible outside of Singapore? If SgE is to be viewed negatively, is it due to unintelligibility or could it be attitudes and perceptions toward this variety of English? There is, at present, very little research to show how well SgE is understood in international contexts, and even less investigating international attitudes towards the variety. Unless these areas are addressed, the impression of SgE as being inferior will remain. It is therefore the aim of this paper to address several concerns related to the issue of intelligibility and attitudes towards SgE. In this paper, we aim to answer the following questions:

1. How intelligible is SgE internationally? To this question, we refer not just to “standard” English speakers, but also to speakers across different nationalities and backgrounds.
2. How does SgE compare to AmE in terms of intelligibility?
3. What is the attitude toward SgE internationally?
4. How does SgE compare to AmE in terms of attitudes toward these two varieties?

## 2. Intelligibility

Several studies (e.g. Howes 1952; Smith and Nelson 1985; Derwing and Munro 1997, 2009; Kirkpatrick and Saunders 2005) have recognized the necessity to investigate the relationship between respondents’ attitudes towards an accent and their ability to understand it. There are different definitions and treatments of the term “intelligibility” (see Smith and Nelson 1985 for their summary of intelligibility research from 1950–1985). In particular, “intelligibility” and “comprehensibility” are two terms commonly used to describe the listener’s “understanding” toward a language variety. In fact, Smith and Nelson (1985:334) make a further distinction between “intelligibility”, “comprehensibility” and “interpretability”. According to their definition, a word or utterance is “intelligible” if the listener can correctly identify the words used. “Comprehensibility” goes further, requiring the meaning behind the word or utterance to be understood (locution), and “interpretability” refers to the intention or purpose behind the word or utterance (illocution). However, in this paper, we prefer to take a broad definition of the term “intelligibility” as simply ‘the ability to recognize the intended message of the speaker’, or, according to Nelson’s definition of intelligibility, as “the apprehension of the message in the sense intended by the speaker” (1982:63).

Most of the existing intelligibility studies have focused on how intelligible L2 speakers are to native (usually American) speakers. One of the first studies

investigating intelligibility across “non-native” English speakers is an early study by Smith and Rafiqzad (1979), who surveyed eleven countries where English is used as either a second or foreign language. They found that there was a high level of consistency among the listeners in the sense that a speaker found to be highly intelligible in one country was likely to be judged similarly in another country. Munro and Derwing (1995a, b) attempted to measure intelligibility by asking AmE listeners to transcribe in standard orthography utterances produced by L2 speakers. Most of these studies were done with a pedagogical slant, either to evaluate teachers or to investigate techniques for teaching pronunciation to students. Recently, a few researchers have gone out of the pedagogical orientation and have worked on the intelligibility of different varieties of English to native speakers of non-standard varieties (e.g. Deterding 2005; Deterding and Kirkpatrick 2006; Kirkpatrick, Deterding and Wong 2008). Deterding (2005) found that Estuary English (EE) was not understood very well by Singaporeans, who judged the speaking style as “lazy”. Kirkpatrick, Deterding and Wong (2008) found Hong Kong English to be very intelligible to both Australian and Singaporean audiences. Deterding and Kirkpatrick (2006) surveyed the intelligibility of different forms of educated South-East Asian Englishes as understood by other South-East Asian speakers. Their study focused on conversations among speakers from Brunei, Thailand, Laos, Vietnam, Singapore, Malaysia, Indonesia, Cambodia, Myanmar and the Philippines. As was expected, intelligibility was very high and many of the shared non-standard features of these varieties actually seemed to serve to enhance communication instead of limiting it.

Kirkpatrick and Saunders (2005) is one of the few works that have looked at the interaction between attitudes and intelligibility. Kirkpatrick and Saunders asked Australian university students to listen to one-minute recordings of both Singaporean and Australian speakers, and then to answer open-ended questions about whether they liked the student and thought the student was intelligent. The reasons given for the student’s responses indicate that students made their judgments based on the content of information within the speech (i.e. someone who said they liked to read a lot was judged as intelligent, while another who talked about many accomplishments sounded “conceited”) rather than rating the accent itself. In another similar work, Chia and Brown (2002) compared SgE, Received Pronunciation (RP) and EE using stimuli consisting of six speakers. They found that Singaporeans rated RP to be more intelligible than SgE and EE, and in terms of attitudes, RP was also rated to be more refined than SgE and EE.

In this paper, we follow the direction set by Kirkpatrick and Saunders (2005) and Chia and Brown (2002) by looking at both intelligibility and attitudes towards different varieties of English, and in our case, between SgE and AmE. Our task, however, is broader, as we expand our intelligibility and attitudes test beyond the

speakers of SgE and AmE, to look at the reception of these two varieties across participants of different nationalities hailing from various locales.

### 3. Methodology

This study involves participants listening to a set of test stimuli and answering a set of questions to each stimulus they hear. The survey was sent out to speakers in countries in North America, East and South-East Asia, Australia, New Zealand, and Europe. Respondents listened to 15 sound files of read standard SgE speech, spontaneous standard SgE speech, and read AmE speech. The survey was completed successfully by over 200 participants from over 20 countries. The analysis involves comparing the judgments on SgE and AmE across participants from different regions.

#### 3.1 Test stimuli

The test stimuli consist of 15 short utterances, each utterance of no longer than 20 seconds. Of the 15 utterances, 12 utterances are in SgE and three are in AmE. All 15 utterances are taken from existing corpora. The choice of the corpora was based on two pragmatic considerations: (1) the recordings were done in quiet environments, and as such, provide good quality speech samples well-suited for the intelligibility and attitudes test, and (2) the corpus has already been tagged, lexically transcribed and filed sentence-by-sentence, which makes for convenient use. A complete list of the text of each sentence and its associated details can be found in Appendix A. For the SgE utterances, six of them were obtained, with permission, from the NIE Corpus of Spoken Singapore English (NIECSSE; Deterding and Low 2001). The NIECSSE corpus was chosen, in addition to the above pragmatic reasons, because this is a corpus of spontaneous SgE speech. The NIECSSE corpus consists of interviews of 46 educated Singaporeans conversing with their professor, David Deterding, a BrE speaker. The interviewees were asked to speak on a set topic, e.g. a memorable holiday or how they spent their vacation. All the interviewees were reading their degree in English Language Teaching in Singapore and had English as their primary language of communication, either at work or at home. As they were conversing with their English professor, they were all conscious of speaking “properly”, i.e. speaking the “standard” and formal variety of SgE (as opposed to the colloquial variety). As this corpus comprises data collected from close to 50 speakers of different gender and ethnic groups, the decision was made to choose from within the corpus six speakers who are similar in terms of ethnic and linguistic background, for consistency. The speakers are all female,

ethnically Chinese, spoke Mandarin or other Chinese languages from birth, and learnt English only at a later age.

Six other utterances were taken, with permission, from a corpus of read SgE, recorded by the Institute of Info-Communication Research in Singapore. The participants were local undergraduates who were asked to read sentences taken randomly from periodicals such as the *Wall Street Journal*. The three AmE utterances were obtained from the TIMIT database (Trustees of the University of Pennsylvania 1993). As all the recordings from these two corpora were read sentences randomly taken from periodicals, care was taken to make sure that the utterances chosen as test stimuli do not contain overly difficult words, as well as place or proper names. This is so that they would not cause additional burden on the participants in terms of comprehensibility.

### 3.2 Questionnaire

The questionnaire was designed to elicit the intelligibility of the utterance, as well as the attitudes towards the speaker of the utterance in terms of status and solidarity dimensions (Cavallaro and Ng 2009). Traits associated with the status dimension are intelligence and education. The solidarity dimension, on the other hand, focuses on features such as likeability, naturalness and desirability. The questionnaire also asks the participants for their familiarity with the variety to ascertain exposure to the stimuli heard.

There are in total ten questions to each utterance played, of which two are open-ended questions, and eight questions on a Likert scale of 1–5. A sample of the survey is presented in Appendix B. The first open-ended question required the participant to write down exactly what he/she heard. This is to make sure that the participants could recognize and understand the utterances, i.e. this question looks at the intelligibility of each utterance. For the second question, the participant was asked to make a guess as to where the speaker is from, and this is meant to provide a sense of the participant's familiarity to the speaker's accent. The other eight questions, on the Likert scale, were meant to elicit responses on the following traits. To elicit responses for the status dimension, participants were asked questions about the stimulus speaker's

- a. intelligence: participants were asked if the speaker was intelligent
- b. educational attainment: participants were asked if the speaker was university educated
- c. fluency: participants were asked if the speaker was a fluent speaker of English
- d. proficiency: participants were asked if the speaker was a learner of English.



To elicit responses for the solidarity dimension, participants were asked questions about the stimulus speaker's

- e. naturalness: participants were asked if the speaker sounded natural
- f. familiarity: participants were asked if the speaker's accent sounded familiar
- g. likability: participants were asked if the speaker was likeable
- h. desirability: participants were asked if they would like to sound like the speaker.

### 3.3 The participants

A total of 224 participants formed the pool of participants in this study. A total of 219 responses were accepted for analysis. Five surveys were discarded due to the fact that all 15 of their transcribed sentences were consistently incomplete, missing only the last word or two, while the rest of the sentence demonstrated a high transcription accuracy. This indicated that most likely there was a problem with their sound clips or player such that they did not hear the full sentences.

Singaporeans were not included in the participants pool, as the study is meant to investigate the intelligibility and attitudes towards SgE outside of Singapore. The participants were contacted via the network of students of the first author of this paper. They were provided the sound files of the stimuli, and they were then asked to listen to the sentences and fill out the questionnaire at the same time. The participants were recommended not to listen to each sentence more than three times so as to keep scores as accurate and consistent as possible.<sup>1</sup> They were also asked to write down how many times they listened to each sentence. The primary motivation was to reach a large number of participants in as many geographical locations as possible, and this necessitated the data collection via several channels. For some of the participants (particularly those in Hong Kong, the United States and Malaysia), the data collection was done by student assistants who administered the test by playing the sound files to the participants and collecting the physical copies of the completed questionnaires. The student assistants were students of the first author who were at an overseas university as part of the exchange program, or overseas students who were in Singapore for exchange and have since returned to their home institutions. Some other participants were sent copies of the sound files (on a CD) and the questionnaire via physical mail and electronic mail, and the participants could return the completed questionnaires either by post or by email.

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1. We asked each participant to write down the number of times they had listened to each file, and almost all stayed within or near the three times guideline. The aim of this guideline was to make sure we did not have particularly diligent participants who listened to a recording many times, possibly resulting in falsely higher intelligibility scores.

Some participants who had good internet connections preferred an online survey, and they accessed the questionnaire and sound files via a link to the first author's website. The responses were collected over a period of five months in 2010.

The respondents were from a total of 25 countries. In order to make these responses more manageable, they were grouped into 12 general regions, classified by the language use of the region as well as geographical locations. The following table shows the spread of regions and nationalities of our participants.

**Table 1.** Number of respondents by region

Region	Number of Respondents
Malaysia and Brunei	29
Indonesia	13
Other South-East Asia <sup>2</sup>	11
China	27
Taiwan	7
Hong Kong	23
Korea	12
United States and Canada	37
Australia and New Zealand	25
United Kingdom	15
Other Europe <sup>3</sup>	20
TOTAL	219

Given the range of the countries that the participants were from, the first task at hand was to classify the regions into groups. There were two possible ways of classifying the data. The first way was to classify the respondents according to Kachru's Three Circles Model (Kachru 1982, 2005), in which case one would then compare the results of the Inner Circle respondents with the Outer and Expanding Circle respondents. However, that does create problems with comparability in numbers as one is looking at simply comparing Malaysia and Hong Kong with the rest of the other South-East Asian and East Asian countries. The other possible way was to classify the data according to geographical regions, i.e. Asia, Europe, Australia and so on. However, such classifications could end up being arbitrary and may not take

2. The group "Other Europe" includes participants from Sweden, Estonia, Switzerland, Denmark, Germany, the Netherlands, Italy, and France.

3. The group "Other South-East Asia" includes participants from Laos, Myanmar, Thailand and the Philippines.

into account the actual linguistic situation of each country. In order to provide a classification system determined by evidence from the patterns of responses, we analyzed the scores for these regions by looking at their responses to the intelligibility question. The rationale for this is that intelligibility can serve as a good starting point for attitudes, and those participants who have similar intelligibility judgments pattern together. The groupings will be discussed in more detail later.

An intelligibility score was devised, and this score was computed by calculating the percentage of completely accurate sentence transcriptions divided by the total number of sentences transcribed. Correct spelling was not considered necessary, as long as it was clear that the student had heard the correct word. Missing or additional plural / tense markings were also considered to be “correct”. Beyond these, any misheard, added or omitted words would render the sentence “incorrect”. For instance, we looked at the number of correct transcriptions of Sentence 1 done by British listeners and divided it by the total number of British transcriptions for Sentence 1. The resulting percentage was the British score for Sentence 1. We calculated this percentage for each region, for each of the 15 sentences, resulting in 180 (12 regions x 15 sentences) distinct intelligibility scores. We will present the results of these intelligibility scores in the following section.

#### 4. Results

Before we discuss the results of the attitudes questions, we will present a general overview of how the participants performed in the intelligibility task. In later subsections, we compare the attitudes of the three groups of participants toward SgE and AmE. The mean scores of the responses to each of the attitudes questions in the questionnaire are compared using one-tailed ANOVA and the post-hoc Tukey test, and the aim of the comparison is to find out if the participants differ with regard to their impressions of SgE and AmE along the following criteria: a) intelligence; b) education; c) fluency; d) naturalness; e) familiarity; f) likeability; and g) desirability, in the above order. At this point, we would like to add that the question asking about the speaker’s English proficiency will be left out in the following report as all the participants reported that the stimuli were produced by highly proficient speakers. In addition, it was decided that the question was not clearly relatable to “proficiency” as a speaker could be a highly proficient “learner” of a language. We could not be sure that all of the respondents had understood the question similarly, and therefore we excluded the results from the analysis.

As the SgE stimuli contain both spontaneous and read speech, they will be looked at separately.

#### 4.1 Intelligibility

Figure 1 presents the intelligibility scores of the participants' rating on the intelligibility of the speakers across SgE, spontaneous and read, and AmE. As mentioned earlier, the intelligibility score was computed by calculating the percentage of accurate sentence transcriptions divided by the total number of sentences transcribed. Each percentage score in Figure 1 is the mean of the scores for each set of stimuli, namely, AmE, SgE (spontaneous) and SgE (read), calculated across the ten regions, as shown below.

A few observations can be made from the above figure in terms of intelligibility. The participants from the US, Canada, the UK, Australia and New Zealand have the highest intelligibility scores across all three types of stimuli. They are closest to the other groups' performance when it comes to spontaneous SgE speech. For read SgE speech, however, these participants score about 50% while the other participants from other regions range from as low as 15% to slightly below 50%.

Across all participants, spontaneous SgE speech scores poorly in terms of intelligibility (25% at its best), and it is particularly so for participants from Taiwan, Korea and China. The low intelligibility of spontaneous speech is expected, as spontaneous speech requires more extralinguistic knowledge as well as an understanding of prosodic information.

The biggest difference lies in the intelligibility of the AmE stimuli and the read SgE stimuli. Participants from the US, Canada, UK, Australia and New Zealand achieved high intelligibility scores for the AmE stimuli, in the range of 60–80%.

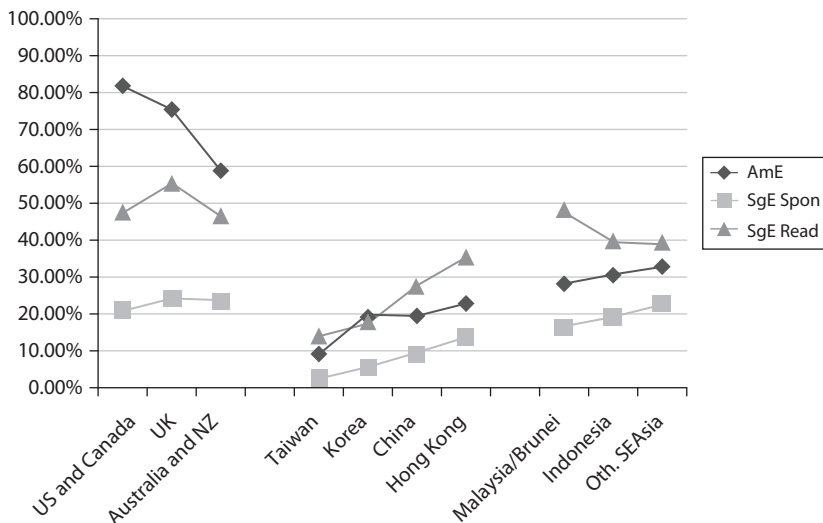


Figure 1. Intelligibility scores of AmE, SgE (both read and spontaneous) across regions

However, the read SgE stimuli have intelligibility scores of only between 45 and 55%. Participants from the US and Canada, in particular, gained the highest intelligibility score for AmE at over 80%, and this is to be expected since it is the variety that they are most familiar with. In contrast, participants from Malaysia, Brunei, Indonesia and other South-East Asian countries reached higher scores for the read SgE stimuli, as compared to the AmE stimuli, which scored an average of 30%. We see participants especially from Malaysia and Brunei achieving a high intelligibility score to the read SgE stimuli, which can be attributed to their familiarity with this variety of English. Participants from Taiwan, Korea and China had low intelligibility scores to both AmE and the read SgE stimuli, with AmE (averaging 20%) scoring slightly lower than the SgE stimuli (ranging from 15–35%).

The patterns of the intelligibility scores provided three fairly obvious clusters. Participants from the US, Canada, UK, Australia and New Zealand cluster in one group because they have the highest intelligibility scores across all three types of stimuli, and also because they rate AmE higher than SgE. We will refer to this group of participants as Group 1 participants. Incidentally, they are the traditional “Inner Circle” English speakers. Group 2 participants, the East-Asian group, i.e. participants from Taiwan, Korea and China, form another clear cluster as they gave relatively low intelligibility scores to both AmE and the read SgE stimuli. Participants from Malaysia, Brunei, Indonesia and other South-East Asian countries cluster in another group, as they reached higher scores for the read SgE stimuli as compared to the AmE stimuli. They are the Group 3 participants. Geographically, they are all based in South-East Asia. Hong Kong, however, does not fall neatly into Group 2 or Group 3. Going solely by the intelligibility scores, Hong Kong participants score slightly lower than the South-East Asian participants, but not as low as the other East Asian countries. The reason for this is because Hong Kong has a British colonial history which the other East Asian countries do not have, making Hong Kong more similar in linguistic history to South-East Asian countries such as Malaysia. Classifying Hong Kong into Group 3 would then suggest that the grouping is based on linguistic history. However, not all countries that cluster in Group 3 have an English colonial history, and putting Hong Kong in that band and perhaps calling Group 3 the “Outer Circle” cluster would be inaccurate. The decision was made therefore, based on geography, to put Hong Kong into the East Asian group.

Therefore, the intelligibility scores on the whole can be used as justification to classify the regions into three major groups:

- Group 1: United States and Canada, Australia and New Zealand, UK (N = 77)
- Group 2: East Asia (China, Taiwan, Hong Kong, Korea; N = 69)
- Group 3: South-East Asia (Malaysia, Indonesia, Brunei, Thailand, the Philippines, Laos, Myanmar; N = 53)

We excluded “Other Europe” from our analysis as these respondents did not behave similarly enough to a larger group to be included and there were also not enough tokens in each of these groups to be analyzed reliably on their own. A total of 199 participants’ responses were analyzed.

The following statements sum up the results of the intelligibility scores:

1. AmE is only highly intelligible to Group 1 participants, and not so for Group 2 and Group 3 participants.
2. Read SgE is reasonably intelligible to both Group 1 and Group 3 participants.
3. Read SgE is more intelligible to Group 1 participants than Group 2 and Group 3 participants.
4. For Group 3 participants, read SgE is more intelligible than AmE.
5. Most Group 2 participants find both AmE and read SgE to be equally unintelligible.
6. Spontaneous SgE is the most unintelligible for all participants.

If intelligibility can be used as a prediction for positive attitudes, then the following hypotheses can be made:

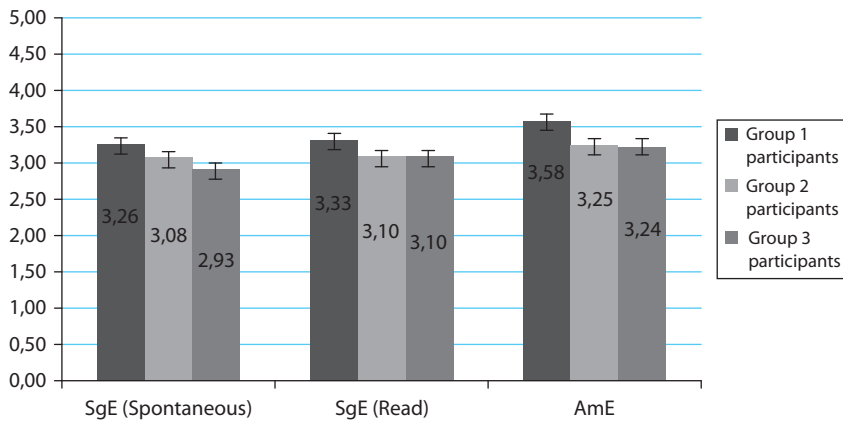
1. Group 1 participants will have positive attitudes to AmE (based on high intelligibility scores for AmE)
2. Group 1 participants will have more positive attitudes in general to both SgE and AmE as compared to Group 2 and Group 3 participants (based on a higher intelligibility score across all stimuli)
3. Group 2 participants will have negative attitudes to both AmE and SgE (based on low intelligibility scores)
4. Group 3 participants will have more positive attitudes towards SgE than to AmE (based on higher intelligibility scores for SgE as compared to AmE)

The following sections detail the participants’ perceptions and attitudes towards AmE and SgE.

#### 4.2 Status markers: Intelligence and education

Figure 2 presents the mean scores of the participants’ rating on the intelligence of the speakers across SgE, spontaneous and read, and AmE.

There is no doubt that the Group 1 participants (Inner Circle English speakers) tend to give higher scores as compared to the other participants in their intelligence rating both with the SgE and AmE stimuli. This is not surprising, since, as hypothesized earlier, higher intelligibility scores correlate to positive attitudes, and since Group 1 participants gave higher intelligibility scores to both SgE and AmE as compared to the other two groups of participants, it is logical that they



**Figure 2.** Mean scores of intelligence ratings

give more positive ratings in this attitudes question. The intelligence mean score of the Group 1 participants is significantly higher than that of the Group 2 (East Asian) and Group 3 (South-East Asian) participants at  $p < 0.05$  ( $F = 7.424$ ,  $N = 199$ ,  $df = 2$ ) across all three types of stimuli, suggesting that AmE speakers as well as SgE speakers are perceived to be more intelligent by the Group 1 participants than Group 2 and 3 participants.

It can also be observed from Figure 2 that the intelligence mean scores for the AmE stimuli are higher across all groups of participants as compared to the SgE stimuli. A comparison between Group 1 participants' rating of spontaneous SgE speech, read SgE speech and AmE speech shows that the difference between SgE spontaneous speech and AmE speech is significant at  $p < 0.05$  ( $F = 4.492$ ,  $N = 231$ ,  $df = 2$ ). The same is observed in Group 3 participants' rating across the three speech stimuli ( $F = 3.751$ ,  $N = 158$ ,  $df = 2$ ). However, no significant differences are observed specifically within Group 2. This suggests that the AmE stimuli are rated as more intelligent than the SgE stimuli (for both read and spontaneous SgE), particularly for the Inner Circle English speakers and South-East Asian group of speakers, but not necessarily by those in the rest of Asia.

Related to intelligence is the participants' perception of the speaker's education level. The general pattern of the mean scores for education is very similar to that seen in Figure 2, and to avoid repetition, it will not be presented in detail. The similarity in the results for intelligence and education ratings is not surprising, as one can expect that the perception of intelligence will be correlated to the perception of education level.

### 4.3 Status marker: Fluency

Figure 3 presents the mean scores of the participants' rating on the fluency of the speech of various speakers across SgE, spontaneous and read, and AmE.

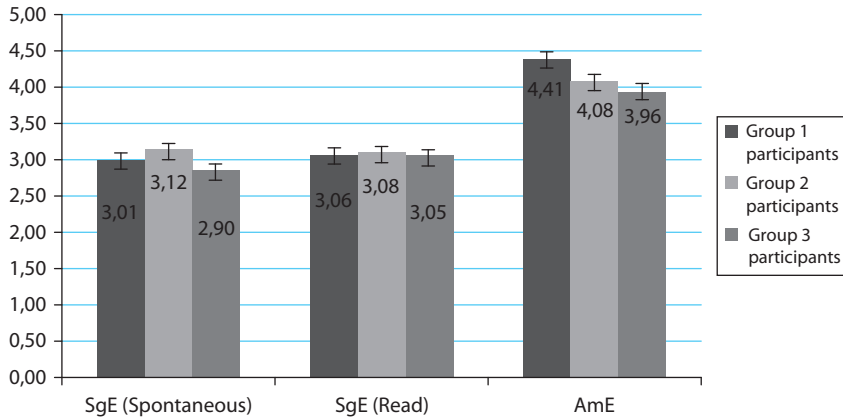


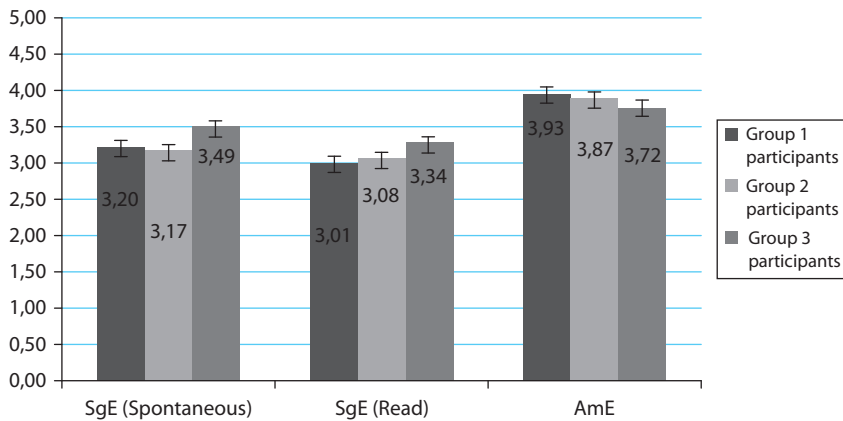
Figure 3. Mean scores of fluency ratings

What is particularly striking, as can be observed from Figure 3, is the high scores for AmE, and the corresponding low scores for SgE, for both the spontaneous speech and read speech, across all three groups of participants. A comparison between Group 1 participants' rating of AmE speech is significantly different from that of SgE (both read and spontaneous) at  $p < 0.05$  ( $F = 20.571$ ,  $N = 231$ ,  $df = 2$ ). The same is observed in Group 2 ( $F = 18.451$ ,  $N = 207$ ,  $df = 2$ ) and Group 3 ( $F = 10.682$ ,  $N = 158$ ,  $df = 2$ ) participants' rating across the three speech stimuli. For all three groups of participants, AmE speech is perceived as far more fluent than that of SgE (both read and spontaneous). This, however, runs counter to the intelligibility scores as seen in Section 4.1. Both Group 2 and Group 3 participants score AmE poorly in terms of intelligibility, as compared to read SgE. This is an indication that what is perceived to be fluent may not necessarily be intelligible. Intelligibility is a direct response to understanding an utterance, but the perception of fluency is an attitude toward the speaker. The results here show that the link between intelligibility and perception of fluency is limited.

### 4.4 Solidarity marker: Naturalness and familiarity

Figure 4 presents the mean scores of the participants' rating on the naturalness of the speech of various speakers across spontaneous SgE, read SgE, and AmE. As can be seen from the figure, the situation in this case is unlike what was presented in the earlier subsections. Here, Group 3 participants, in the perception





**Figure 4.** Mean scores of naturalness ratings

of naturalness of SgE, gave the most generous scores, in contrast to Group 1 and Group 2 participants. This is expected, given that Group 3 participants are geographically and culturally closest to Singapore and therefore likely to have the most familiarity with SgE.

There are no significant differences between the three groups when judging the naturalness of the AmE stimuli, and the scores for AmE are in general high as compared to the scores for the SgE stimuli. This is likely a result of the fact that American speech is very common all around the world through global media, so most of the respondents would most likely have heard a fair share of it, resulting in feelings of naturalness. SgE, however, has a much more limited exposure, so it makes sense that people from the region, being more familiar with it, would find it more natural than those from elsewhere.

While it still remains that AmE receives the highest scores for naturalness across all three groups of participants, what is striking is that SgE (both read and spontaneous) receives high scores from Group 3 participants, but not from Group 1 and 2 participants. A comparison between Group 1 participants' rating of spontaneous SgE speech, read SgE speech and AmE speech shows that the difference between AmE speech to SgE (read and spontaneous) is significant at  $p < 0.05$  ( $F = 20.966$ ,  $N = 231$ ,  $df = 2$ ). The same is observed in Group 2 participants' rating across the three speech stimuli ( $F = 16.231$ ,  $N = 207$ ,  $df = 2$ ). For both Group 1 and Group 2 participants, AmE comes across as more natural than SgE. However, there is no significant difference between the naturalness of SgE and AmE for Group 3 participants, demonstrating that South-East Asian speakers, who are more familiar with SgE, would also find it more natural than Group 1 and Group 2 speakers, who are likely to have had a limited exposure to it.

The fact that Group 3 participants find SgE more natural as compared to Group 1 and Group 2 participants can be seen in their responses to both the spontaneous and read SgE stimuli. For the spontaneous SgE stimuli, the post-hoc test shows that the difference between the naturalness mean score of the Group 3 participants is significantly higher than that of the Group 2 participants at  $p < 0.05$  ( $N = 199$ ,  $df = 2$ ), suggesting that the Group 3 participants perceive the spontaneous SgE stimuli to be more natural than the Group 2 participants. The same situation also arises in the rating of the read SgE stimuli, though this time the difference is observed between Group 1 and Group 3 participants. The difference between the naturalness mean score of the Group 3 participants is significantly higher than that of Group 1 participants at  $p < 0.05$  ( $N = 199$ ,  $df = 2$ ). Even for read SgE, which is presumably less “natural” than spontaneous speech, Group 3 participants still find it more natural, as compared to Group 1 participants.

Related to naturalness is the participants’ perception of familiarity. The general pattern of the mean scores for familiarity is very similar to that seen in Figure 4, and to avoid repetition, it will not be presented in detail. This similarity in the results for naturalness and familiarity ratings is to be expected, since people who find a variety more familiar would not think of it as unusual, and therefore perceive it as being natural.

#### 4.5 Solidarity marker: likeability

Figure 5 presents the mean scores of the participants’ rating on the likeability of the speakers across SgE, spontaneous and read, and AmE.

It can be observed, from Figure 5, that Group 1 participants are more generous in their ratings. What is even more interesting is that they find spontaneous

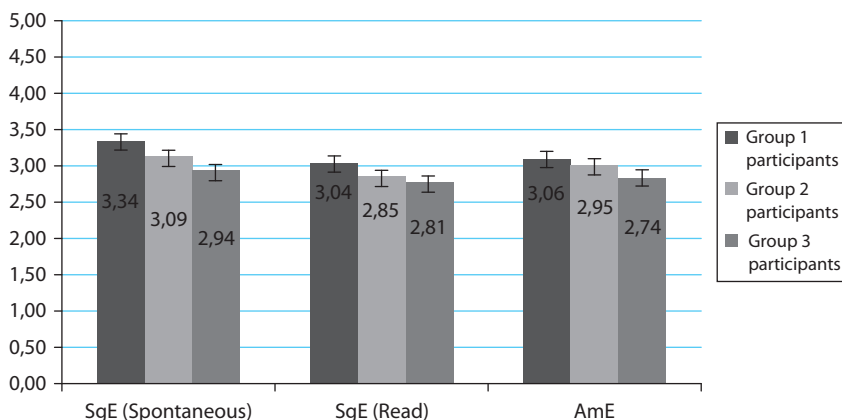


Figure 5. Mean scores of likeability ratings

SgE more likeable than AmE. The trend is similar for both Group 2 and Group 3 participants as the spontaneous SgE stimuli obtained higher mean scores than the read SgE and AmE ones. The differences, however, are not found to be statistically significant. With the previous sections highlighting how AmE speakers have been perceived to be intelligent and well-educated, it is interesting to see that AmE speakers are not perceived as being more likeable than SgE speakers. Of course, that it is spontaneous SgE and not read speech that has achieved high ratings here may suggest that participants in general prefer the naturalness of spontaneous speech in contrast to the rigidity of read speech. Nonetheless, this is one instance where AmE has not been rated favorably as compared to SgE.

#### 4.6 Desirability: I desire to speak like this

Figure 6 presents the mean scores of the participants' rating on their desirability views towards SgE and AmE, across all three groups of participants. This is the question that receives the lowest average mean scores in comparison to the other attitudes questions.

AmE receives the highest scores for desirability for all three groups of participants. A comparison between Group 1 participants' rating of spontaneous SgE speech, read SgE speech and AmE speech shows that the difference between AmE and SgE (read and spontaneous) is significant at  $p < 0.05$  ( $F = 7.004$ ,  $N = 231$ ,  $df = 2$ ). As is to be expected, Group 1 participants desire AmE more than SgE. The same is observed in Group 2 and Group 3 participants. A comparison between the participants' rating of spontaneous SgE speech, read SgE speech and AmE speech, using the post-hoc test, shows that the difference between AmE and SgE (read and spontaneous) is significant at  $p < 0.05$  ( $N = 207$ ,  $df = 2$ ) for Group 2, and for Group

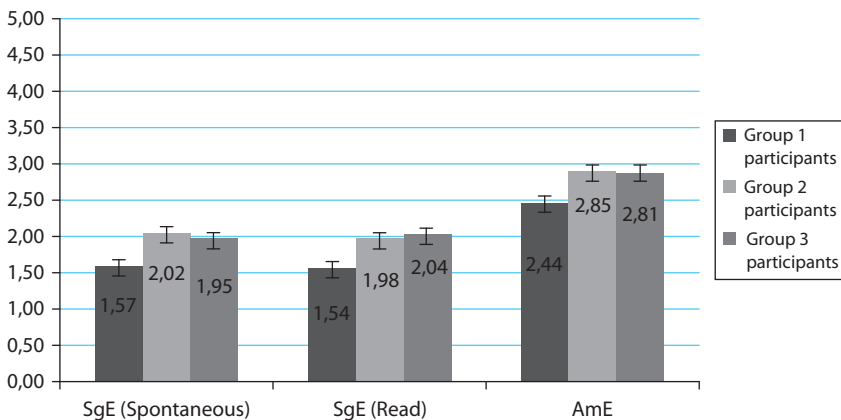


Figure 6. Mean scores of desirability ratings

3, at  $p < 0.05$  ( $N = 159$ ,  $df = 2$ ). It is clear that all the participants desire AmE over SgE.

While it is clear that the AmE stimulus is more desired than both the read and spontaneous SgE stimuli, what is more interesting is the comparatively high ratings Group 2 and Group 3 participants give to the desirability of the AmE stimuli, in contrast to Group 1 participants. In fact, the difference in the desirability scores between Group 1 participants and Group 2 participants is significant at  $p < 0.05$  ( $N = 199$ ,  $df = 2$ ) and between Group 1 and Group 3 participants at  $p < 0.05$  ( $N = 199$ ,  $df = 2$ ). This seems to suggest that Group 2 and Group 3 participants desire AmE significantly more than Group 1 participants.

This runs counter to the results presented in Section 4.5. SgE, as mentioned in the previous section, has been judged to be more likeable than AmE. If SgE is more likeable, then one would expect this variety to be also more desirable, yet this is not what is shown here. The results in this section suggest that desirability is not in itself a solidarity marker, but a litmus test for what is more important for speakers on the status-solidarity dichotomy. AmE speakers so far have been judged to sound more intelligent, educated and fluent — all of which are on the status dimension. SgE on the other hand, has been judged, by most participants, to be familiar, natural and likeable — which are features that belong to the solidarity dimension. Between status and solidarity, it is clear that status wins over solidarity, especially for Group 2 and Group 3 participants, which explains why AmE is more desired than SgE for them.

## 5. Conclusion

We set out in this paper to investigate the intelligibility of SgE and the attitudes towards this variety of English in an international context, using AmE as a point of comparison and contrast. We asked if the negative view toward SgE, as often highlighted by the Singapore government, English language purists, and pedagogists, is due to the unintelligibility of SgE (as often claimed) or other factors such as attitudes and perceptions.

The results reveal that SgE is in fact intelligible outside of Singapore, and for participants in some regions, SgE is even more intelligible than AmE. SgE is intelligible not only to speakers in the South-East Asian region, but also to the traditionally “native” speakers of English of the Inner Circle varieties. It is unsurprising that participants from the South-East Asian region would find SgE intelligible as they are most likely to be more familiar with the variety given the geographical proximity. What is important to note here is that Inner Circle English speakers found SgE to be highly intelligible, and this group of participants in fact gave the

highest intelligibility scores to SgE as compared to participants from other regions. On the other hand, East Asian participants found SgE to be relatively unintelligible, just as they had difficulties in understanding AmE. One must perhaps consider intelligibility by taking into account who the listeners are, and some listeners seem to find SgE unintelligible. Korea, China, and Taiwan (Hong Kong being the exception) are countries where English is still very much a foreign language. Their relative unfamiliarity with English regardless of variety, as compared to the other groups within this study, would have posed a challenge for them in deciphering English utterances in general.

In terms of attitudes, AmE scores better overall on the status dimension, while SgE receives better ratings on the familiarity parameters. In general, speakers who speak AmE are rated as sounding more intelligent, more educated as well as more fluent. This is generally consistent across all three groups of participants. On the solidarity traits however, SgE is perceived in a better light. While AmE is judged to sound natural and familiar, especially by the Inner Circle English participants and the East Asian participants, SgE receives high scores for naturalness and familiarity by the South-East Asian participants. The results are no surprise for the Inner Circle English participants — AmE itself is after all an Inner Circle English variety. The East Asian participants would have been exposed to American media and therefore find AmE to be natural-sounding and familiar, as compared to SgE. The South-East Asian participants, having had more exposure to SgE, would naturally find SgE to be more natural-sounding and familiar than AmE.

What is most interesting of all is that SgE is judged to be more likeable than AmE by all three groups of participants. Obviously, SgE has evoked some positive feelings in the participants. The questionnaire unfortunately did not have provision for asking further questions about why such feelings come about. The authors do not claim to have an answer to this. But perhaps, in contrast to AmE, which may have been associated with formality, superiority or power, SgE may have come across as more neutral and less intimidating, and therefore more likeable.

What the results imply is that while SgE may be no less intelligible than AmE to a large proportion of speakers, and may even be more likeable than AmE, it does not change anything about speakers all over the world hankering after an “idealized” standard. As the results show, AmE is desired far more than SgE, and in fact, the non-traditional “native” speakers of English desire AmE far more than the “native” speakers themselves. This seems to suggest that the Inner Circle English speakers are comfortable with the variety of English that they already speak. Of course, since the Inner Circle English speakers themselves already speak an Inner Circle variety of English, be it AmE itself or other varieties such as BrE or Australian English, one can argue that there seems to be no impetus for them to feel the desire to speak otherwise. There could even be nationalistic pride involved

such that they would resist desiring another man's variety of English other than their own. It also comes as no surprise that the East Asian participants would desire AmE more than SgE. Being in the exonormative phase of development in their varieties of English (Schneider 2007; Deterding, Wong and Kirkpatrick 2008), nations such as China and Japan are at the stage where they would be looking for a model or a standard to which they would follow, and there still may be some residual attachment to an external model such as AmE. In fact, this corroborates with Mollin's (2007) study on European English where she concluded that in places where institutionalization of the nativized variety of English has yet to take place, the familiar "native standards" (BrE or AmE) are what speakers aim to emulate. AmE here can therefore be seen to be clearly the model of choice over SgE since AmE is not only the variety that these participants are more familiar with given the US-dominant media exposure, it is also an influential variety, enjoying a great deal of prestige. It is also quite clear from the results that the South-East Asian participants, like the East Asian participants, desire AmE over SgE even though for them read SgE is more intelligible than read AmE and has elicited more positive attitudes and feelings overall. Evidently, intelligibility or even positive attitudes do little to change the bias toward AmE.

Despite the fact that the "native speaker" model has been shown to be disadvantageous to learning in English classrooms of the Outer and Expanding Circles countries (Kirkpatrick 2007), it is clear that the "native speaker" remains still the model to be emulated and desired. However, as this study has shown, there is potential for SgE to serve as a new model of English Language teaching, especially in the South-East Asian region, for not only is it accessible and intelligible, it provides the cultural bridge that the Inner Circle varieties are not capable of. Until Singaporeans and the Singapore authorities themselves step out of their belief that SgE is substandard, SgE will never be taken seriously as a teaching model, both within and outside the country. This mindset that AmE or other traditional "standard" varieties are the best may never change unless speakers begin to embrace their own unique varieties of English.

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## Appendix A

The following is a detailed list of each sentence that was used in the 15-sentence test, including information about the speaker's country of origin, gender, type of speech (read or spontaneous) and the database origin of the sentence. Full database information is found at the end of this appendix.

- (1) She had your dark suit in greasy wash water all year.
- (2) I saw a lot of statues, and in the end it's like everywhere you turn you see statues.
- (3) Coffee is grown on steep, jungle-like slopes in temperate zones.
- (4) I'm so busy with readings and assignments and exams.
- (5) The serpent in this case is government.
- (6) Don't ask me to carry an oily rag like that.
- (7) I stayed at home and helped my sister babysit my niece and nephews.
- (8) He says some of us will become dolphin.
- (9) I shifted to a new house, so, I spent most of my time searching for furnitures and renovate my house.
- (10) He doesn't panic when things start to go wrong.
- (11) The causeway ended abruptly at the shore.
- (12) And within half an hour they already used about two to three of his cards.
- (13) Modern electronics has become highly dependent on inorganic chemistry.
- (14) And it was very relaxing, very refreshing because after the exams we were all so tired, having back-aches, neck-aches and all.
- (15) It's time to get a few things straight.

Sentences 1, 6, 11: AmE. Male. Read speech. Database source: TIMIT (Trustees of the University of Pennsylvania 1993).

Sentences 2, 4, 7, 9, 12, 14: SgE. Female. Conversational speech. Database source: NIECSSE (Deterding and Low 2001). Speakers are F2, F3, F21, F10, F18 and F30 respectively.

Sentences 3, 5, 8, 10, 13, 15: SgE. Male. Read speech. Database source: I2R. Used with permission from Dr Li Haizhou.

## Appendix B

The following presents a sample from the survey that was given to each of the respondents. These are the questions asked in regards to the recording of "Speaker 1", and this same set of questions was presented for each of the 15 recordings.

**Speaker 1**

Write down what you heard:

---

Where do you think this speaker is from (e.g. Asia, Europe, or if you can, state the country)?

---

Rate the speaker, on the scale of 1 (least agreeable) to 5 (most agreeable), for the following statements:

	Your rating
1. This speaker is intelligent.	
2. This speaker is likeable.	
3. This speaker is fluent in English.	
4. This speaker is university-educated.	
5. This speaker is a learner of English.	
6. This speaker sounds natural.	
7. I would like to speak English like the speaker.	
8. I have heard speakers with this accent before.	

How many times did you play this sound file? \_\_\_\_\_

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