



## 7 On attitudes, intelligibility, and perception

### Cases of studies in World Englishes using surveys and questionnaires

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#### Introduction

As discussed in the chapter on surveys and questionnaires in the first section of this volume, questionnaires and surveys, when designed well, are versatile tools that can answer an array of questions in World Englishes (WE). The strengths and weaknesses of this methodological tool have been discussed in the companion chapter, and I will not belabour the points here. Suffice it to say, the use of questionnaires and surveys as a methodological tool will likely increase in the research on WE, as they can be used to elicit large amounts of data quickly, easily, and cheaply.

As also mentioned in the earlier chapter, the bulk of the WE research employing questionnaires and surveys looks at language attitudes. Besides that, the other areas that have been studied are accent perception, language use, intelligibility, acceptability judgements, and phonetic perception. And unique to WE research, many of these questionnaires and surveys are conducted with additional stimuli, usually in the form of recordings. The four studies that will be discussed in detail in this chapter are chosen to represent three different topics of study, namely: language attitudes, intelligibility, and phonetics. More importantly, these four studies also employ four different modes of data collection. The first study, Flaitz (1994), is a language attitudes study that made use of a questionnaire without additional stimuli. This is also one of the first studies on language attitudes published in the journal *World Englishes*. The second study to be described is Matsuura, Chiba, and Fujieda (1999). This is a study on intelligibility and comprehensibility of Englishes, and it makes use of a questionnaire with verbal guise stimuli. The third piece of work to be discussed is another language attitudes study, published a good 15 years after Flaitz's. Cavallaro and Ng's (2009) study on language attitudes also makes use of a questionnaire, but it is accompanied instead by matched guise stimuli. We can thus see, from these three studies, how verbal and matched guised stimuli are used, and also compare how language attitudes can be studied both with and without additional stimuli. The final study to be described in this chapter is what I think represents a departure from the norm. Tan (2015) is an experimental phonetic study looking at the perception of stress in Singapore English (SgE) by speakers of British, American, Australian, and SgE. The reason



for including Tan's piece here is to evaluate how questionnaires and surveys can be utilised beyond the conventional sociolinguistic issues and topics. In the next section, these four pieces of work will be briefly described, in the following order: Flaitz (1994), Cavallaro and Ng (2009), Matsuura, Chiba, and Fujieda (1999), and then Tan (2015), for topical relevance and ease of comparison. For each case, I will also provide a few remarks specifically focusing on the way the questionnaires and surveys were designed and implemented.

### Study box 7.1

Flaitz, J. (1994). French attitudes towards the ideology of English as an international language. *World Englishes*, 12(2), 179–191.

#### Background

Despite arguments indicating that an increase in international lingua franca usage has led to English shedding its cultural and ideological association, the author puts forth that such belief may not hold true in France. He argues that because French has previously acted as an international lingua franca and has traditionally been seen as a carrier of French culture and ideology, English thus cannot exist within the country without similar associations. For the power elite in France, as argued by the author, the increasing invasion of English in France then poses a threat to the French language and French culture.

#### Research questions

1. Is the threat to French and to France real or imagined?
2. Do members of the general public share the sentiments of the power elite with regards to the threat of English?
3. Is English ideologically encumbered or is it “supra-ethnic”? In other words, does English carry the ideological baggage of its native speakers or is it unrelated to world view?

#### Method

Research question (RQ) #1 was addressed through a series of “mini-studies” in which the author surveyed the use of English in a number of social contexts. These included language borrowing, education, television, radio, cinema, the press, and employment. The results of these mini-studies will be presented briefly, to allow a greater focus on the methodology of interest.

RQs #2 and #3 were addressed using five ethnographic interviews and the use of a four-part questionnaire. The ethnographic interviews, conducted

with native-French speakers, were guided by “authentic and emotion-laden” questions such as “How do you feel about English?” (p. 185). Biographical data were not provided for the five interviewees, nor was much detail provided regarding their actual responses. Instead the interviews served as the stimuli for the development of the questionnaire. Interviewees were asked to perform a thematic coding of their own responses (e.g., attitudes towards America, French prestige, and knowledge of other cultures), and the author devised three key themes to serve as guides for the creation of the questionnaire: attitudes towards English-speaking people, their culture and ideology, and their language.

The four-part questionnaire consisted of a series of scaled, forced choice items. For example, participants would respond to the item “American influence on French culture worries me” by ranking the statement between  $-2$  (negative endpoint) through  $2$  (positive endpoint). Part I examined attitudes towards American and British culture and ideology; Part II attitudes towards their respective varieties of English; and Parts III and IV focused on motivation, proficiency, and demographic variables. The questionnaire was distributed in Paris, Rouen, Troyes, and Montbard. However, no description of the participant population or questionnaire procedure was provided.

### Results

A series of “mini-studies”, which were included to address the potential infiltration of English into France (RQ #1) provided a wide range of examples where natives are exposed to this foreign language. The sources surveyed by the author revealed that 75% of all new words introduced into French were English, 87% of grades 6–12 students chose to study French as their second language, 39% of films in France were American, and 15% of all employment announcements required English.

An analyses of the items in Part I of the survey indicated relatively positive attitudes from French respondents, though American people, culture, and ideology were perceived more positively than the British. An analysis of Part II items, which also indicated positive attitudes, showed a greater preference for British English over American English. Parts III and IV of the survey were not analysed. The preceding results addressed RQ #2.

To respond to RQ #3, through factor analysis the 20 items of Part I were condensed down into four smaller sets of variables. Correlation analyses were then run between these four sets of predictor variables and the language attitude items used in Part II. A strong correlation ( $r = .66$ ) was found between negative attitudes towards people and culture and attitude towards their language (for both American and British English), as well as a strong correlation ( $r = .50$ ) between positive attitudes towards people and culture and towards language (though only for American English).

### Discussion

Though the author admits that the data collected to address RQ #1 does not provide definitive proof that English is truly infiltrating France, and thus serves as a threat to the French language and culture, he argues that the pervasiveness of the language gives credence to the apprehension felt by the French power elite.

Based on the questionnaire results, the author argues that there appears to be less concern among the French public regarding the threat of English to the French language and culture than there is among the French power elite (RQ #2). The author also draws readers' attention to the seemingly present link between the English language and American or British culture, though he quickly cautions that the nature of this relationship is unknown and that this does not necessarily mean that the English language carries with it ideological content.

### Implications

The author concludes with a brief discussion of why, despite a seemingly positive perception of American and British people, visitors to France often return with negative anecdotes. Possible reasons provided include that visitors base their perception solely on visits to Paris, where locals are overcome with the number of tourists. These perceptions are, therefore, not representative of the country as a whole, and negative experiences stem from incorrectly placing behavioural expectations within one's own culture (in this case American or British) on those of another (French).

The major advantage of using questionnaires and surveys is the ability to engage a large number of participants and across different geographical locales. Flaitz (1994) made use of that and distributed the questionnaire in four French cities: Paris, Rouen, Troyes, and Montbard, and from the figures provided in the paper, between 143 to 145 participants responded. However, some major pieces of information were missing. For the reader unfamiliar with French cities, it was not immediately apparent what those four French cities represented. Were they chosen because they were cities that have had the most exposure to English, or were they chosen because they had the most educated French citizens? How did each city differ from one another in terms of their population? As the decision to choose the cities was not made explicit to the reader, it was difficult to understand the correlation between the responses and the participants.

Understanding the participants is one of the most important components of any study using questionnaires and surveys, as the responses elicited in language attitudes study directly reflects what the participant *thinks*. It is absolutely crucial, therefore, to have a sense of who these participants are and which group of community they represent. In Flaitz's study, it was not clear who the participants were. Were they all males or females, or were there more males than females? It

could well be that men and women think about language issues differently. Were these participants all equally well educated, and did they all come from the same socioeconomic background? We know from enough sociolinguistic studies that these are important variables to consider. It was also unclear what the participant distribution from each city looked like. Were there equal numbers of participants from each city, or were there more participants from Paris as compared to Montbard? When these different variables are controlled, it not only allows one to make finer comparisons between groups, it also can provide more definitive conclusions without the distracting doubts about exactly *whose* attitudes this paper was describing.

The questionnaire Flaitz designed was comprised of four parts, each part aiming to elicit different aspects of French attitudes towards American and British English and culture, on a Likert scale. Respondents would read a statement and rank the degree to which they agreed with the given statement. One of the biggest challenges of designing such a questionnaire is not to make direct statements related the topic. For example, if the aim of the study is to look at how the French feel about English, it would not make good sense to ask baldly if they like the English language. One would aim to tease out the attitudes to the language using other related statements. Herein lies a problem with Flaitz's questionnaire: the items in the questionnaire are too far detached from the main point of the research. Some of these items reflect the respondent's attitudes to tourists: *I welcome the British to France with pleasure*. Others show political inclination: *I agree with those who say that England should not be a member of the EEC* and *American foreign policy is, in general, correct*. Some statements are reflections of the respondents' prejudices against British and American people: *Americans are poorly cultivated and crude*, and *I find the British cold and reserved*. These items, however, do not reflect the respondents' attitudes to the English language. Any such inference would be a leap, and conclusions drawn may at best be conjectures linking these sentiments to language attitudes.

### Study box 7.2

Cavallaro, F., & Ng, B. C. (2009). Between status and solidarity in Singapore. *World Englishes*, 28(2), 143–159.

#### Background

Language attitude studies have shown that the majority language and its speakers tend to be rated positively along status, intelligence, and power dimensions (“Educated”, “Successful”, “Intelligent”), while the minority variety and its speakers elicit positive responses in the solidarity semantic category (“Friendly”, “Honest”, “Responsible”). This study examines subjective reactions to Singapore Standard English (SSE) and Singapore Colloquial English (SCE), widely known as “Singlish”, using the matched

guise technique. Despite criticisms, it is commonly believed that the matched guise technique, given the long tradition of matched guise studies, is one way of eliciting information about attitudes to language without explicitly drawing attention to the language. Yet, such a methodology has not been widely used and applied in research on SSE and SCE.

Though Singapore Standard English is the desired and officially prescribed norm for the community, there is little doubt that for the great majority of Singaporeans, SCE is the language which is closer to home. SCE is the language of chat, banter, informal gatherings, and the language of day-to-day interaction. The aim of this study is to apply the matched guise technique, which employs prerecorded speech stimuli to present a more neutral context for the study.

### **Research question**

1. Investigate adult Singaporeans' attitudes towards SCE and SSE.

### **Method**

A total of 75 Singaporean and 19 non-Singaporeans took part in the study. A Singaporean Chinese female speaker, aged 35, was used to provide the stimulus for the study and made a total of 12 recordings, 6 in SSE and 6 in SCE. As a pilot study, these recordings were played to 10 Singaporeans, and they were ranked on a 7-point Likert scale on how Singaporean each recording sounded, how authentic the SCE recordings were, and how natural and spontaneous they sounded. The top two recordings were chosen for the study.

The two recordings were played to the participants using an online survey. The survey was administered as part of an Introduction to Linguistics class, during the first week of term before the students gained any linguistics knowledge. Participants were required to rate the speaker according to a 7-point Likert scale based on binary traits (e.g., fluent English, intelligent, trustworthy, confident, kind, honest, and sincere).

### **Results**

The results showed that the SSE speech had the highest mean rating across all the traits except for the honesty trait. Singaporeans assessed SCE low on all qualities. For non-Singaporeans, they rated both varieties higher than the Singaporean participants. They rated SCE speaker higher in all solidarity traits than Singaporeans except for honesty.

The results were also analysed across gender because it has been found to affect the attitudes of listeners. However, the SSE speaker was rated similarly by both males and females. Although the statistics were not statistically significant, it was seen that females tended to rate SCE lower than the male respondents.

### Discussion

The authors argue that the study suggested that the “ambivalence” towards SCE expressed in previous studies may have been amplified over time. Furthermore, the results shown by the non-Singaporeans indicated that the foreign students do not stigmatise SCE more as compared to Singaporean students do themselves. The attitudes towards SCE by Singaporeans did not follow the established trends set by other languages, as the solidarity traits ranked lower than the standard variety. A reason proposed for the absence of a high solidarity rating for SCE could be that the matched guise technique measures overt prestige, while anecdotal observations measure covert prestige. Hence, participants could be rating the role of the language in a public domain rather than evaluating their own personal beliefs and expressing positive orientation towards the variety. Another explanation the authors proposed was the “Speak Good English Movement” launched by the Singaporean government, which has been successful in helping shape public attitude towards SCE. The campaign has been consistent in imparting the idea that SCE would cripple the international image of Singapore as a modern, economically advanced and sophisticated nation.

### Implications

The authors argue that it is too early to predict the future of SCE, and the study has been a good insight into how most Singaporeans are defining and forming their core identities. The survival of SCE is dependent on how integral it is as a factor in a Singaporean’s identity.

Like Flaitz (1994), Cavallaro and Ng’s (2009) piece is also a study of language attitudes. What makes them different is that while Flaitz looked at the attitudes of French speakers towards two external Englishes, British and American, Cavallaro and Ng’s study is primarily one that focuses on Singaporeans’ attitudes towards two different variants of SgE, the standard and colloquial varieties. The other distinct difference is the way both studies make use of the questionnaires. Cavallaro and Ng added a matched guise stimulus to the questionnaire to elicit attitudes towards the two varieties in question.

This study can be said to be one of the first in using the matched guise technique to study language attitudes of Englishes in Singapore. Originality aside, it also presents a method of measuring attitudes that is less sensitive to “reflection and social desirability biases” (Cargile, Howard, Ryan, & Bradac, 1994, p. 213) than those studies that elicit responses without stimulus in a questionnaire, like that of Flaitz (1994). The key feature of the matched guise test is that it uses one speaker to produce all the speech samples. In the study of accents, for example, it is typical then to have a speaker who can successfully mimic a small

number of different accents. Studies using the matched guise technique are, therefore, limited by the number of accents or varieties that can be studied as it is not possible to find a single stimulus speaker who can speak a large number of dialects or accents. The second important feature of the matched guise technique is to have the speech samples differ only in accent or variety, and not in content, structure, or form. Studies on accents use the matched guise technique with much success, therefore, as the stimulus sentence can be of a fixed form, with exactly the same grammatical and lexical content, differing only in the accent. In the spirit of the matched guise technique, Cavallaro and Ng's study made use of one single female speaker to produce both the SSE guise and the SCE guise. They also scripted the guise and had the speaker read off a script as an attempt to control the content of the guises. In spite of their best efforts, however, both guises can be said to be vastly different in terms of its lexical and grammatical structures, as can be seen from the excerpts extracted from Cavallaro and Ng (2009, p. 148):

*Excerpt 1. SSE*

Saturday morning I tend to get up later than usual. When I wake up I generally like to lie in bed and listen to the radio for a while. I listen for about half an hour or so. Then I get up and it's time for my first cup of coffee. After the coffee I make my breakfast.

*Excerpt 2. SCE*

Okay, what I do on Saturday morning ah. Saturday morning hor, can sleep until very late lor. If the night before go and chiong ah, wah, of course sleep until shiok already then wake up men. Wake up already go and eat breakfast lor, the normal thing lah.

It is quite apparent that Excerpt 2 is structurally and grammatically very different from what can be seen in Excerpt 1. Tan (2017) argued that it is not a helpful exercise to think about SCE as a kind of English. Herein lies the question: Is the matched guise technique a suitable one to be used to elicit attitudes for two different languages whose forms, structures, and functions are so different?

There are also some other limitations to this study. For one, there was only one guise used, and this guise was produced by a female speaker who was an academic in the same university. To what extent is this guise representative of speakers of both SSE and SCE? Following that is the participant pool. While it is necessary to control the demographics of the participant pool, the relatively small sample size (75 Singaporean respondents) and the fact that they were all university students, make it difficult for the conclusions to be generalisable to a larger Singaporean community. These limitations have also been acknowledged by the authors, and Cavallaro, Ng, & Seilhamer (2014) was another similar study to address some of the shortcomings of this 2009 study.



**Study box 7.3**

Matsuura, H., Chiba, R., & Fujieda, M. (1999). Intelligibility and comprehensibility of American and Irish Englishes in Japan. *World Englishes*, 18(1), 49–62.

**Background**

Studies that analyse factors affecting native speaker perception of nonnative Englishes often cite intelligibility and comprehensibility as the factors most often employed in investigating native listeners' evaluations. However, the authors argue that these terms have loose definitions and the methods measuring these factors vary and that familiarity to accents is a possible factor that can affect listeners' judgement.

**Research questions**

1. Does familiarity with different English accents affect intelligibility and comprehensibility?
2. How do Japanese university students judge the intelligibility and comprehensibility of familiar (American English) and unfamiliar (Irish English) English.

**Method**

Six speech samples of two varieties of English were prepared for the verbal guise. They were produced by three American and three Irish speakers who were teachers at the university. Speakers were asked to produce self-introduction speeches, and it was assumed that self-introductory speeches would include fairly simple sentence structures, and no particular prior knowledge would be required on the side of the listeners. Irish English was chosen to be the unfamiliar English variety to Japanese students because English native speakers predominant in Japan were either of North American or British varieties.

The recordings were then extracted such that each sample was of equal duration (about one minute) and ranged from 148 to 240 words. The samples included topics such as the speakers' background, hobbies, family, teaching, and travelling experiences. These guises were then played to a total of 106 Japanese college students from three Japanese universities, accompanied by a questionnaire.

To address RQ #1, which is to test for the intelligibility of American and Irish English, the participants were asked to do a dictation task, and the intelligibility of both Englishes was measured by the participants' dictation score. Each dictation task included ten blanks, with both content and function words missing. An additional five multiple choice questions were

asked as a comprehension check to assess the listeners' understanding of the recordings.

Participants were also asked to provide subjective judgement on a 7-point Likert scale. The questionnaire asked listeners about their subjective judgements of each speech sample regarding accent, speed, clarity, intonation, fluency, grammar, and vocabulary.

To address RQ #2, as a test for familiarity, participants were required to fill out a language background self-report that assessed their information on the variety of English spoken and amount of spoken English to which the listeners have been exposed. TOEFL scores of the participants were also reported.

### **Results**

The dictation scores and perceived comprehensibility ratings correlated significantly for only three speakers. Hence, the authors argued that the only factor that would affect the comprehensibility and dictation scores was familiarity with the English variety.

The relationship between participants' intelligibility scores, perceived comprehensibility ratings, and duration of exposure to spoken English were analysed. The analyses showed that the average dictation score of the higher exposure group was 37.88 and that of the lower exposure group was 39.19, which was surprising. Further analyses, however, showed that the participants with more exposure and familiarity to Irish English demonstrated a higher perceived comprehensibility score, rather than a dictation score. The effect of TOEFL scores to the dictation scores were also highly significant, though their perceived comprehensibility scores correlated with only three out of the six speakers. It was also found that accent, speed, and grammar/vocabulary were found to correlate with listeners' perceived comprehensibility at a significant level.

### **Discussion**

These results suggest that students who indicated higher ratings of perceived comprehensibility did not always demonstrate a better understanding of the speech. The participants' dictation scores and their subjective comprehensibility ratings did not necessarily have a close relationship and did not share a correlation. In fact, the listeners' familiarity with the English variety and English in general affected their subjective judgement as well. Those with more English exposure felt that they could comprehend the recordings better than the group with less exposure, but this was not the case for intelligibility.

English proficiency also seemed to be the most influential in dictation scores, with results showing significant correlation with TOEFL scores. It is likely that exposure to English and English varieties may affect their

confidence in English listening, though their comprehensibility may not necessarily indicate the extent to which they understand the messages. The clear and significant correlation between the perceived comprehensibility ratings were in fact prosodic features such as clarity, intonation, fluency, and pauses. These suggest that participants were likely to consider these suprasegmental features when they were given English recordings to which to listen.

### **Implications**

The authors argue that for the Japanese students to avoid developing the idea that an American variety is the “standard” English and the only target to which they want to listen, they should be exposed to different varieties of English and be encouraged to improve their confidence in listening to and speaking different Englishes. It was observed in the present study that the inclusion of speakers of different varieties of English in Japanese English education may promote impartial judgement of different varieties of spoken English.

Matsuura, Chiba, and Fujieda (1999) made use of a questionnaire accompanied by a verbal guise. The verbal guise is different from the matched guise employed by Cavallaro and Ng (2009) as different speakers speaking different content are used to make up the speech stimuli. It is interesting that the verbal guise was used in this study, as the comparison was between two different accents of the same language: American and Irish English. It would have been possible to do a matched guise study here if the authors were able to locate a speaker who was capable of both accents. Even if it were not possible, the stimuli could also have been controlled such that the guises had exactly the same content. This would have greatly enhanced the correlation between the accent and intelligibility and comprehensibility.

To test for intelligibility, participants were given a questionnaire that had a dictation task, and the intelligibility of both Englishes was measured by the participants' dictation score. Each dictation task included ten blanks with both content and function words missing. Intelligibility here seemed to be measured by the ability to get these ten words, which might well be guessed correctly given the right context and concordance patterns of the utterances. The test here seems inadequate to capture the full extent of how intelligible the speech stimuli were. And because the verbal guise was used, the intelligibility of the chosen words might well be due to the individual speakers' choice of vocabulary or voice characteristics and not the accent associated with their variety of English. There was, however, little information provided by the authors to indicate how the intelligibility test was designed and how the decision was made to choose those “test” words.

To test for comprehensibility, an additional five multiple choice questions were asked in the questionnaire to assess the listeners' understanding of the recordings.

The results showed that the participants did well for comprehensibility as compared to intelligibility. However, as the authors pointed out, the content of the speech stimuli was restricted to the six speakers giving a self-introduction. The context was very much restricted, and given that all the speakers were doing the same thing, there was little to prevent the participants from comprehending the same message being repeated six times.

The authors concluded that familiarity and exposure to different varieties of English was the key factor affecting the listeners' judgements of English. The test for familiarity was based on the participants' self-report that assessed their information on the variety of English spoken and amount of spoken English to which the listeners had been exposed. One of the major pitfalls of questionnaires and surveys is the overreliance on self-reporting. To what extent can one trust the participant to give an accurate self-report on their exposure and use of English? Given that the students were all Japanese college students who were presumably learning English in some form or other, they may feel the need to exaggerate their actual exposure and use of English because they thought they were expected to, or they thought it might make them feel better to do so. Some might even believe their own case simply because they have misjudged their situation. Self-reporting, though often used in questionnaires, is not entirely objective and reliable. To use responses of self-reporting to build the main argument of the research, therefore, makes it difficult to access the validity of the claims made.

#### Study box 7.4

Tan, Y. Y. (2015). "Native" and "non-native" perception of stress in Singapore English. *World Englishes*, 34(3), 355–369.

#### Background

Many scholars have noted how SgE exhibits different stress placement patterns as compared to British or American English. Much work has also been done to suggest that such deviations of stress placement patterns from the traditional "native" norms create problems for intelligibility. This study is concerned with the way stress in SgE is perceived by speakers of different Englishes, comparing specifically two groups of participants: the speakers of SgE and the speakers of British, American, and Australian Englishes (the traditional Inner Circle English speakers).

#### Research questions

1. How is stress in SgE perceived by speakers of different Englishes, specifically between speakers of SgE and the Inner Circle English speakers (the United States, the United Kingdom, and Australia)?
2. What causes this difference in stress perception?

### Method

RQ #1 was addressed by carrying out a questionnaire with a perception test. This test consisted of 50 polysyllabic English words taken from an existing corpus of Standard Singapore English spontaneous speech. The aim of the perception test was to determine if different speakers of English perceived stress on different syllables. This will be described in more detail later to give more emphasis to the methodology.

The test stimuli, consisting of 50 polysyllabic words, were extracted from the speech produced by 20 different speakers of the corpus. All 20 speakers were female, ethnically Chinese, and spoke at least one other Chinese language. Of the 50 polysyllabic words in the stimuli, 30 are bi-syllabic words and 20 have three or more syllables.

RQ #2 was addressed by carrying out an acoustic analysis of the 50 polysyllabic words used in the stimuli. The aim of which was to ascertain if different acoustic parameters trigger different perceptions in different speakers. The fundamental frequency (F0), amplitude and duration, were measured for two syllables of each polysyllabic word, as these are the acoustic properties of stress.

The perception test questionnaire was in two parts: the first part required participants to answer basic biographical information such as gender, age, and ethnic group. In addition to that, and of particular importance to this study, participants were asked to provide information about their (1) country of residence, (2) nationality, and (3) the languages they spoke. This is so that the data collected could be collated and analysed according to speakers of different locales and linguistic backgrounds. The second part of the questionnaire is the perception test. Each test word was accompanied by its corresponding sound file. For each polysyllabic word, participants were asked to listen to the sound file and then indicate the syllable they felt sounded “prominent”. Participants had the option to indicate more than one prominent syllable in each word. Each test word was provided orthographically and was broken up into syllables in each instance. The questionnaire with the accompanying sound files was uploaded to an online survey website.

The web link was made available for a month, and a total of 182 participants responded to the questionnaire. The respondents were primarily from the author’s network of academics and students from universities in Singapore, America, and Australia. Responses from the 80 SgE speakers, 25 American English speakers, 22 British English speakers, and 23 Australian English speakers were taken for analysis. The British, American, and Australian responses were grouped together as they belong to the Inner Circle English speakers.

### Results

To answer RQ #1, in terms of the differences in the perception of stress, the major difference between these two groups of speakers occurred in

the identification of the prominent syllable(s) within polysyllabic words. While there are some words where everyone hears stress on the same syllables, there was a large number of polysyllabic words where the non-Singaporean (N-SG) participants and Singaporean (SG) participants perceived stress differently. Three broad patterns emerged from this analysis, which have been grouped as Type 1, Type 2, and Type 3 words, respectively:

1. Type 1 words: For 33 of the 50 test words, SG participants perceived stress on the final syllable, while the N-SG participants perceived it on a non-final syllable;
2. Type 2 words: For 10 of the 50 test words, both the SG participants and N-SG participants perceived stress on the same syllable, regardless of the position of the syllable; and
3. Type 3 words: For 7 of the 50 test words, the N-SG participants perceived stress on a non-final syllable, while the SG participants perceived stress on the final as well as non-final syllables.

It can be said that for most, if not all of the 50 test words in the perception test stimuli, it appears that the N-SG respondents heard stress in words with the stress patterns as expected in their variety of English. In contrast, SG participants tended to hear final stress in most words, even when this breaks the rules of the Standard English stress rules. The apparent “anomalies” we find in the SG participants’ judgements in Type 2 and Type 3 words need to be further explained, which led to RQ #2.

To answer RQ #2, acoustic measurements on the 50 test words were done to provide an explanation for how different acoustic parameters can trigger the differences in perception in these three types of words for the SG participants. The acoustic measurements showed that N-SG respondents perceived stress according to the rules of Standard English stress placement, regardless of the acoustic properties of the syllables. However, SG respondents perceived stress in syllables that are longer, which means that duration acts as a trigger for stress for SG participants. In cases in which there are no clear durational differences in syllables (as in Type 3 words), this is where SG respondents are unclear as to where stress is located, which reflects the split in results.

### **Discussion**

The results show that SgE respondents, showing a much more varied account in terms of where they deem the stressed syllables are, while seemingly unsystematic, in fact based on the acoustic evidence that revealed that the syllables marked as stressed are the ones that are in fact longer syllabically. In other words, duration is the trigger for stress for this group of speakers. Being traditionally labelled as “nonnative” speakers belonging to the Outer Circle, SgE respondents show a sensitivity to their own variety

of English that no other speakers have. The results, therefore, suggest that speakers of different linguistic backgrounds carry with them their native perceptions. These different linguistic backgrounds could lead speakers to have vastly different perceptions based on an identical data set. This is especially crucial for researchers working on WE. Nonnative SgE speakers who might invariably use their own “nonnative” perceptions on stress or prosody are coloured by their own perceived judgements, which are unlikely to be in line with what the language can really reveal.

### **Implications**

Stress perception does seem to be a source of unintelligibility given the large volume of research showing how “unintelligible” some “nonnative” Englishes are. The crux of this problem, as these numerous past works have exhibited, is that questions of intelligibility have too often been taken from the point of view of the so-called native speakers. Intelligibility depends fundamentally on being sensitive to the different norms that different varieties of English employ. Hearing stress differently should be taken simply as a difference, and not a problem.

Tan’s (2015) phonetics research focuses on stress perception. This kind of phonetics research that involves perception tests is often done behind closed doors in a quiet laboratory environment, one on one or in small groups, and participants are equipped with sensitive headphones. However, Tan (2015) made use of a tool typically used for sociolinguistic research and applied it to phonetics research. She went even further and, specifically, she made use of a questionnaire embedded with sound files and administered it online. Tan (2015) is the only work of this kind employing this methodology found in WE thus far. While opening up new possibilities for crossing methodologies in WE research, as one will see in the following, this also raises some methodological concerns.

As this study spanned four countries, multiple cities, and hundreds of participants, it would not have been possible (not at least without huge financial and time commitment) if this were not administered online. However, this also introduced some element of unreliability in terms of responses received. As the researcher was not present at the same space and time as the participants, one could only trust that the participants were truly the person they reported to be, with the reported linguistic and personal backgrounds.

The questionnaire, though with simple instructions, required participants to identify prominent syllables, and they were given the option to indicate multiple syllables if they so preferred. And given that each participant was left to complete the survey in his/her own time, there was no chance for clarification with the researcher in cases in which individuals may not understand what was being asked. It could well be possible that participants had different ideas of what “prominence” meant. There was, therefore, a chance that the task may have been misread or misinterpreted.

The perception task in this study consisted of 50 sound files of words taken from an existing corpus of spontaneous speech. Were the sound files of good enough quality for this kind of perception task? And because this questionnaire was administered online, there was also no control over where and how the participants completed the perception task. How many times did they click on each sound file, and how carefully did they listen to each token? One can assume that the conscientious participant who listened to each token 20 times would respond quite differently compared to the participant who listened to each token once and went by a gut reaction. Did the participants do the questionnaire in a quiet room with good speakers on their computer, in the library with headphones on, or did they complete it in a noisy café? There is no doubt that the physical environment the participant was in would have an impact on the way the stimuli were heard. This, unfortunately, was not something that the researcher had any control over. In fact, the problem could even be more basic. Were all the participants equally technologically competent? As the questionnaire was being administered online, some participants who may not be as technologically savvy may have ended up giving responses that were not reflective of their actual perception, but rather are responses of technological trials and errors.

## Conclusion

In the preceding section, I presented four studies that have made use of questionnaires in WE research. Flaitz's (1994) study on language attitudes made use of a questionnaire without additional stimuli. I compared Flaitz's to Cavallaro and Ng's (2009) study, also on language attitudes, but made use of a questionnaire accompanied by matched guise stimuli. Matsuura, Chiba, and Fujieda's (1999) work on the intelligibility and comprehensibility of Englishes, however, made use of a questionnaire with verbal guise stimuli. The final study, Tan (2015), was an experimental phonetic study looking at the perception of stress in SgE, showing how questionnaires and surveys can be utilised beyond the conventional sociolinguistic issues and topics.

In each of the four studies described, it is apparent that the methodological tool employed presented issues that made the study less than perfect, but what they have done is to show how future studies can be improved if some of these pitfalls can be avoided or, at the very least, controlled. All the four studies described previously have some shortcomings in one of the following areas, namely: *participants*, *items*, *technology*, and *stimuli* (PITS). To sum up, and to end this chapter, I present the four areas: PITS. Within each area, there are three key questions that researchers may want to consider when doing research using questionnaires and surveys.

1. Participants: Who are they?  
How many do I need?  
How do I get them?



2. Items: What are the items in my questionnaire asking?  
How many self-reporting items do I have?  
How do I correlate these items to my research questions?
3. Technology: Should I administer my questionnaire online?  
How do I enable an online survey?  
Do my participants have the technological tools to complete the questionnaire?
4. Stimuli: Does my questionnaire require additional stimuli?  
Should the stimuli be matched guise or verbal guise?  
What will the stimuli do in answering my research questions?

### Suggestions for further reading

There are many volumes and resources available providing information on the use of questionnaires and surveys. To gain practical tips and considerations for designing and administering questionnaires and surveys, there are a few volumes that are particularly useful. While some of these volumes are written for sociolinguistic research in general, or for other specific research agenda, the processes and methodological concerns can certainly be applied and adapted to WE research.

Mallinson, C., Childs, B., & Van Herk, G. (Eds.). (2013). *Data collection in sociolinguistics: Methods and applications*. New York, NY: Routledge.

In Mallinson, Childs, and Van Herk's (2013) volume entitled *Data Collection in Sociolinguistics: Methods and Applications*, there are several useful chapters that deal with surveys and questionnaires. In particular, Boberg (2013) has a useful article on the methodological considerations of the writing of questionnaires in sociolinguistic research. Campbell-Kibler (2013) also has a short vignette outlining how language attitude surveys are carried out. The volume also has other contributions detailing technological and cultural challenges involved in the administration of surveys.

Holmes, J., & Hazen, K. (Eds.). (2013). *Research methods in sociolinguistics: A practical guide*. Malden, MA: Wiley-Blackwell.

Holmes and Hazen (2013), entitled *Research Methods in Sociolinguistics: A Practical Guide*, is a helpful resource for researchers looking for practical pointers both in writing and carrying out surveys and questionnaires. Schlee (2013), in particular, provides a step-by-step instructional guide from developing the questionnaire, to writing questions in the questionnaire. He also gives pointers on how to structure the questionnaire, pilot test the questionnaire, administer the questionnaire, and finally, how to process and evaluate the questionnaire.

Krug, M., & Schläuter, J. (2013). *Research methods in language variation and change*. Cambridge: Cambridge University Press.

In Krug and Schläuter's (2013) volume dedicated to research on language variation and change, entitled *Research Methods in Language Variation and Change*, Krug and Sell (2013) have a chapter that details the use of interviews, questionnaires, and surveys in eliciting data for analysis in the area of language variation and change. This volume is also particularly useful for readers who would like to understand how to perform analyses on these data, as there is a section providing information on the statistical tools and techniques to be employed.

Gillham, B. (2007). *Developing a questionnaire* (2nd ed.). London: Continuum.

Gillham's (2007) book, *Developing a Questionnaire*, is one dedicated entirely to questionnaires. It provides a blow-by-blow account of the types of questions in the questionnaire, to the analysis of the results. It gives pointers to researchers on how to display the results and how to present the findings in the final write-up. It also has a few chapters laying out the practicalities of questionnaire administration, from whom to approach, how to get the questionnaire out, and how to get them back.

Brown, J. D. (2001). *Using surveys in language programs*. Cambridge: Cambridge University Press.

Similar to Gillham's book is Brown's (2001) book, entitled *Using Surveys in Language Programs*. It is a comprehensive but practical overview of how to develop and implement effective surveys and questionnaires in the area of language teaching, specifically in the ESL and EFL contexts. It is aimed more at students new to research, but the tips offered on the design and implementation of questionnaires can be applied to researchers at any stage, working in any area.

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