

# Is Singapore English becoming American?

FINAL YEAR PROJECT

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“So do not fear, for I am with you; do not be dismayed, for I am your God.  
I will strengthen you and help you; I will uphold you with my righteous right hand.”

Isaiah 41:10

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# Table of Contents

Acknowledgements.....	i
Table of Contents.....	iii
List of Figures.....	iv
List of Tables.....	iv
Abstract.....	<b>Error! Bookmark not defined.</b>
Chapter 1: Introduction.....	1
1.1 Rationale of Study.....	1
1.2 American English.....	2
1.3 Singapore English.....	4
1.3.1 Consonants of Singapore English.....	5
1.3.2 Vowels of Singapore English.....	6
1.4 Hypothesis of Study.....	8
Chapter 2: Methodology.....	10
2.1 Participants.....	10
2.2 Design of Experiment.....	11
2.2.1 Consonants.....	11
2.2.2 Vowels.....	13
2.3 Materials and Procedures.....	13
2.4 Analysis.....	14
Chapter 3: Results.....	16
3.1 Results for American English Features.....	16
3.2 Individual Results.....	18
3.3 Results for American English Features by Phonetic Environment.....	20
3.4 Results for Reading Tasks.....	22
Chapter 4: Discussion and Conclusions.....	24
4.1 Result Conclusions.....	24
4.2 Implications and Future Research.....	26
References.....	29
Appendix A: Sentence Reading List.....	33
Appendix B: Passage Reading Task.....	35
Appendix C: Consent Form.....	36
Appendix D: Debrief Form.....	37
Appendix E: Participants Information.....	38

## List of Figures

Figure 1: Utterance of the word 'star' produced with post-vocalic /r/ .....	15
Figure 2: Utterance of the word 'butter' produced with taps.....	15
Figure 3: Comparison of American English Features between Age Groups.....	17
Figure 4: Comparison of American English Features by Individual for Young Adults.....	18
Figure 5: Comparison of American English Features by Individual for Older Adults.....	19
Figure 6: Comparison of Post-vocalic /r/ by Phonetic Environment for Young Adults.....	20
Figure 7: Comparison of Taps by Phonetic Environment for Young Adults .....	21
Figure 8: Comparison of American English Features by Method for All Age Groups.....	22

## List of Tables

Table 1: Target Words tested for Rhoticity .....	12
Table 2: Target Words tested for Taps .....	12
Table 3: Target Words tested for Vowels.....	13

# Chapter 1: Introduction

## *1.1 Rationale of Study*

Singapore's Emeritus Minister Mentor Mr Lee Kuan Yew has recently stated that one of Singapore and Singapore English's "challenges ahead" is to decide whether to adopt British English or American English, as he believes that adopting American English as a standard for Singapore English might be "inevitable" (Ramesh, 2011). In his speech, he used himself as an example of moving towards American English, remarking that he has been "consciously switching" between British and American English while using the computer (Leow, 2011). Mr Lee's example might be an accurate illustration of the current state of Singapore English, torn between the old influences of British English and the new impacts of American English. Mr Lee also said that American English would most likely "prevail" over other varieties of English in Singapore, given the increasing exposure of American English through America's dominating media and economy. As Singaporeans hear more and more of American English, it will be unavoidable that students are to be taught how to recognise and speak American English in the future (Ramesh, 2011). Ms Elizabeth Pang, the literacy development program director from the Ministry of Education agreed to Mr Lee's statement by acknowledging that it is "pragmatic" to accept the dominance of American English in the world today, as by adopting and teaching American English, Singaporean students will be using the English variety understood by the majority of the English speaking world, thus improving the communication competencies of Singaporeans (Leow, 2011). Mr Lee's speech has highlighted the on-going changes in Singapore English, with his observations on the powerful position of American English that might bring about changes on the local English variety.

Singapore English can thus be seen to be at a crossroad, with British English as its recognized standard and American English as a dominating influence. Given the current discussions regarding the impact of American English on Singapore English, this paper aims to carry out a close study on the pronunciation features of Singapore English to determine the position of Singapore English right now – is Singapore English still following the British English norm, or is it starting to adopt standard features of American English, as predicted by Mr Lee Kuan Yew? To study the change of Singapore English, predictably towards American English, this study will focus on the comparison of Singapore English spoken by young adults and older adults in Singapore. This is because when language is

changing in a society, the new innovations will occur increasingly in the speech of the younger people as compared to the older people (Holmes, 2008). Most of the previous studies on Singapore English have focused either on the in depth study of the speech of a single Singapore English speaker (Hung, 1996; Deterding, 2007), the comparisons between British English speakers and Singapore English speakers (Deterding, 1994; Deterding, 1996; Deterding, 2001), or the comparison of Singapore English across ethnic groups (Lim, 2004; Deterding, 2005). As these studies are mostly focused on a single individual or on the comparison between British English and Singapore English, the results found might be bias, and might not an adequate representative of the English spoken in Singapore. No past research has been made on the features of Singapore English from a synchronic perspective, comparing Singapore English across age groups. Hence, this paper aims to fill the research gap in this aspect through the comparison of Singapore English spoken by two generations. The purpose of this paper is to find out if American English features are present in Singapore English today, as mentioned previously most papers have compared Singapore English to British English; hence few papers have focused on this possible aspect of Singapore English. Through the comparison of two generational age groups, this paper aims to find out if there is a difference in the speech of the two age groups, indicating a shift in Singapore English towards American English.

## ***1.2 American English***

As mentioned earlier, Mr Lee Kuan Yew has acknowledged the dominance of American English and its future impact on Singapore (Ramesh, 2011). Evidently, the superior position and wide establishment of American English in the world today is highly recognized. In Kahane's (1992) article on American's English's transition to a prestige language today, he quotes John Adam's remarkable statement in 1780 that American English is "destined to be in the next and succeeding centuries, the language of the world." John Adam's statement proved to be prophetic, as Kirkpatrick (2007) echoes his claim that American English is "without doubt the most influential and powerful variety of English" in the world today. The rise of American popular culture, an extension of the country's political and economic influence in the world today has contributed greatly to the expansion of American English. The emergence of the Internet and American technologies has also enhanced the reach of American culture by providing a readily accessible platform for the world. The international reach of American mass media through news, movies, music and advertisements has also heightened the prestige of American culture. Kahane (1992) terms the rise of American English as an "old cycle," where a

dominant culture causes the forceful expansion of its language; and in return the growth of its language gives rise to the prestige of the dominant culture. Given the prestige of American culture today, the dominance of American English in the present world is apparent.

In recent years, the influence of American English on Singapore English has increased rapidly. According to Brown (1999), one main contributing factor is the frequent screening of American television programs on Singapore's English national channel during prime time, resulting in the increase of exposure on American media and thus American English. It is also noted that American pop music is more common in Singapore, if compared to British music (Brown, 1999). Saravanan and Poedjosoedarmo (1997) found evidence in their study on attitudes towards different English models, that young Singaporeans regard American English as less 'foreign' and more 'natural' as compared to British English. While it may be due to the young people's frequent exposure to American media, these positive attitudes toward American English might possibly result in young Singaporeans adopting American features in their speech. Ooi (2001) noted that American English is "unofficially competing" with the recognized British English norm due to the influx of American media in Singapore through movies, television and radio programmes.

Looking at the huge exposure of American media to the youth of Singapore today, it would not be surprising to find American features in the Singapore English spoken by the younger generation. In Deterding's (2007) recent study on Singapore English, he has pointed out occurrences of post-vocalic /r/ in the speech of his study's participant, which is a thirty four year old female Chinese undergraduate. Given that post-vocalic /r/ is a significant feature of American English, the occurrences of this feature in the speech of a Singaporean adult shows that there are certainly ongoing changes in Singapore English that is influenced by American English. The Ministry of Education in Singapore has also showed awareness of the change in the linguistic environment of Singapore, as they specifically stated in the recent English syllabus that students are to be taught the differences between American English and British English, especially in lexical differences (for example, between 'boot' and 'trunk') and spelling differences (for example, between 'judgment' and 'judgement') to ensure consistency in the learning of English in Singapore (English Language Syllabi, 2010). Therefore, there is obvious evidence of American English influencing Singapore English. This supports Mr Lee's statement on Singapore English's challenge with regards to adopting American English or British English in the future, given the many differences between these two external

varieties of English. However, as most of the studies on Singapore English have concentrated on the comparison between Singapore English and British English, these evidences have mostly been neglected. The next section will hence present the discussions that have been made so far on the relationship between Singapore English and British English.

### ***1.3 Singapore English***

Singapore English was founded with the establishment of English-medium education during the British colonial rule in Singapore, when British English was used as the standard medium of instruction in all schools. After Singapore's independence, Standard British English remained the recognized norm for English in Singapore. British English is known as an "official frame of reference" for Singapore English (Ooi, 2001). Standard British English is stated as the "exonormative standard" for teaching Standard English pronunciation held in Singapore (Saravanan & Gupta, 1997). In Goh's (1983) study on the attitudes towards varieties of English used in Singapore, Standard British English was chosen as the most highly regarded variety, and 84% of the participants acknowledged that Standard British English is the educated and standard variety of English recognized in Singapore. This shows that standard British English is the known norm widely accepted for Standard Singapore English.

Many studies have been carried out to describe the various features of Singapore English, and most of them have based their studies in reference to Standard British English as it is the recognized standard in Singapore (Deterding, 1994; Deterding, 1996; Deterding, 2001). However in the recent years, a number of studies have indicated that it is actually inappropriate to describe Singapore English based on a British English model due to the increasing differences between Singapore English and British English. In Deterding and Hvitfeldt's (1994) paper, pronunciation features of Singapore English were described with respect to British English with the differences between the two varieties of English highlighted, showing signs of Singapore English moving away from its norm. A similar stand is presented in many of Deterding's papers (1994, 1996, 2001, and 2005) on Singapore English. In the following sections, the characteristics of Standard Singapore English and its comparison to Standard British English that has been found in past research will be discussed, focusing on the segmental features relevant to the study carried out in this paper.



### **1.3.1 Consonants of Singapore English**

One of the most salient features of Singapore English is the tendency to replace dental fricatives (/θ/ and /ð/) with dental plosives (/t/ and /d/) in word initial positions. Hence, most words that are spelt with ‘th’ will be pronounced as ‘t’; for example, there would be no difference between the pronunciation of ‘three’ and ‘tree’ in Singapore English (Deterding and Hvitfeldt, 1994). The realization of dental fricatives and dental plosives are however, variable in the speech of educated speakers. This variability is also found in the occurrences of dental fricatives in the middle of words, such as /mʌdə/ or /mʌðə/ for the word ‘mother’. In word final positions, /f/ can also occur in place of dental fricatives, such as /bʌf/ in the word birth. The avoidance of dental fricatives is actually common in varieties of English, and can also be detected in the speech of English speakers in London and parts of Britain (Deterding, 2007). Hence, this feature can be said to bear similarities to the British English standard.

The next salient feature of Singapore English is the tendencies to simplify word final clusters, with the final consonants omitted (Deterding, 2007). This might be due to the syllable structure of Singapore English that allows only two to three consonants in the coda, as opposed to British English which allows four consonants in the coda such as /glimpst/ for ‘glimpsed’ (Hung, 1996). Final consonants that are usually omitted in the process of simplification for Singapore English are voiceless plosives, usually when they are preceded by another voiceless consonant, such as in the word ‘ask’. Deterding (2006) perceived that omissions of final consonants such as /t/ and /d/ are observed in British English as well, although the frequency of similar omissions in Singapore English is relatively higher (Deterding, 2007). A unique case of consonant clusters simplification in Singapore English observed by Deterding and Hvitfeldt (1994) is the neutralization of grammatical distinctions in words, for instance ‘cat’ and ‘cats’ would both be pronounced in the same way. It was noted that the omission of word final /s/ “rarely, if ever” occurs in British English (Deterding and Hvitfeldt, 1994). Hence, we can conclude that word cluster simplification might be a common feature between British English and Singapore English, while unique developments in this aspect of Singapore English as illustrated above has distinguished it from British English.

Pre-vocalic /r/ is a feature of Singapore English (Deterding, 2007), which is also similar to the realization of /r/ in British English, where /r/ only occurs before a vowel. Singapore English has been described as a non-rhotic variety due to the absence of post-vocalic /r/ generally (Low & Brown, 2005), similar to its British English standard. However, it has been noted that in the recent years there

has been occasional occurrences of post-vocalic /r/ that can be found in speakers of Singapore English. The presence of post-vocalic /r/ has been increasingly common among Singapore English speakers, especially among young Singaporeans who regard the use of post-vocalic /r/ as cool, perhaps due to the influence from Hollywood and American music (Deterding, 2007). Tan and Gupta (1992) have also found occurrences of post-vocalic /r/ in ‘young and high-prestige’ Singaporeans. While pre-vocalic /r/ is a common feature between Singapore English and British English, the emergence of post-vocalic /r/ in Singapore English can be seen as an indication of increasing influences from other varieties of English especially American English.

Several occurrences of alternation in the pronunciation of Singapore English have been investigated. It has been observed that glottal stops would often replace the single consonant if the consonant is found in the word final position (Deterding & Hvitfeldt, 1994). It is most often found in the occurrences of word final plosives such as in the words ‘hot’ and ‘luck’. Glottal stop insertions are also found in words that have word initial vowels such as in the words ‘egg’ and ‘out’, especially when a preceding word ends with a vowel (Hung, 1996). Devoicing has also been found to occur in word final consonants, such as /bilif/ for the word believe. This is unique to Singapore English as the consonants are completely devoiced, while word final consonants are usually partially devoiced in other varieties of English. These alternations are not found in British English, and can be regarded as unique features of Singapore English distinct from the British English norm.

### **1.3.2 Vowels of Singapore English**

Vowels are a distinctive feature of Singapore English crucial in differentiating it from other varieties. Hung (1996) noted that there are fewer vowel contrasts in Singapore English as compared to British English or American English. British English is known to have twelve monophthongs in its vowel set - five long vowels (/i:/, /ɑ:/, /ɔ:/, /u:/, /ɜ:/) and seven short vowels (/ɪ/, /e/, /æ/, /ʌ/, /ɒ/, /ʊ/, /ə/) (Roach, 1991). Singapore English has only eight monophthongs (/i/, /e/, /ɛ/, /u/, /o/, /ɔ/, /a/, /ə/) (Brown, 1988; Hung, 1996). It is also found that in Singapore English, there is no distinction in the quality and length of vowels, for example, the difference between the word ‘seat’ and ‘sit’ is neutralized in Singapore English, while it will be differentiated in British English (Deterding and Hvidfeldt, 1994). British English and Singapore English both have eight diphthongs in their vowel inventory (/eɪ/, /aɪ/, /ɔɪ/, /əʊ/, /aʊ/, /ɪə/, /eə/, /ʊə/), but two of these diphthongs (/eɪ/ and /əʊ/) tend to

be pronounced as long monophthongs (/e:/ and /o:/) instead in Singapore English. The distinctive realization of these two diphthongs as long monophthongs were further discussed in Deterding's (1996) paper on the measurement of diphthongs in Singapore English. By comparing Singapore English speakers and British English speakers, the measurement results show that Singapore English speakers do have lesser diphthongal movements in the pronunciation of this two diphthongs (/eɪ/ and /əʊ/) as compared to British English speakers, providing evidence for the pronunciation of /e:/ and /o:/ as /e:/ and /o:/ in Singapore English. From the vowels we can see that Singapore English is similar to British English in terms of most of its existing monophthongs and diphthongs, although there are some distinctive features with regards to the number of monophthongs and the quality of diphthongs that distinguishes the two varieties.

In a more recent study on the emergent vowels of Singapore English, Deterding (2005) has pointed out that as previous studies on Singapore English vowels has always been in reference to the British English model, some features of Singapore English might have been neglected. Deterding's (2005) study therefore presents a set of vowels that cannot be discussed or predicted in reference to the British English model, through the comparisons of words in Singapore English that seem to contain similar vowels. Through this study, it is found that the front vowel in egg is realized as /e/, while the front vowel in beg is realized as /ɛ/; and the back vowel in one is realized as /ʌ/ while the back vowel in won is realized as /ɑ/. Deterding (2005) points out that the realization of these vowels in these words is the "exact reverse" of the recent growing tendencies in British English where /ɑ/ is pronounced in one instead of won and vice versa. Similarly in the words poor and pure, the vowels are realized as /ʊə/ and /ɔ:/ respectively in Singapore English, and it is found to be the exact reverse of British English where /ʊə/ is retained after the occurrence of /j/, such as in the word pure. Evidences from this paper show that perhaps, Singapore English is moving away from its reference to British English as its norm, as the trends and changes in British English are not reflected in Singapore English.

## ***1.4 Hypothesis of Study***

From the review of past research on Singapore English and its relationships with British English and American English, it is evident that Singapore English has been predominantly influenced by British English, given the similarities in certain features such as pre-vocalic /r/ and the vowels sets (Deterding & Hvitfeldt, 1994). Also, most research done on Singapore English has been done in reference to British English, as British English has always been widely recognized as the standard to follow for speakers and educators of Singapore English (Deterding, 1994; Deterding, 1996; Deterding, 2005). By using British English as a reference, some features of Singapore English might have been overlooked in the investigation of Singapore English, as pointed out by Deterding (2005). Moreover, most results from previous studies have shown that the phonology of Singapore English has differed from British English (Deterding, 2001; Lim, 2004), and there has been recorded occurrences of American English features (e.g. post-vocalic /r/) in some studies (Tan and Gupta, 1992; Deterding, 2007). Hence, we can say that Mr Lee's point on the possibilities of adopting American English as a norm for Singapore English in the future (Ramesh, 2011) is valid, as Singapore English is evidently moving away from British English, featuring fewer characteristics of British English presently. However, it is questionable if Singapore English is currently ready to adopt American English as its new standard, as Singapore English is developed based on British English and has always regarded the British English variety as its standard. Few studies have been made on Singapore English with reference to American English; hence very little evidence has been collected on this aspect. It is thus difficult to determine whether American English will "prevail" in Singapore as the new standard, as suggested by Mr Lee (Leow, 2011).

Therefore, this study aims to study the pronunciation features of Singapore English with reference to American English, in order to find out if Singapore English is indeed moving towards American English. The three main features of American English that will be discussed in reference to the current trends of Singapore English is (i) the post-vocalic /r/, (ii) taps and (iii) vowels. Post-vocalic /r/ is known to be a salient feature of American English, and the increasing occurrences of post-vocalic /r/ in Singapore English have been highlighted by a few recent studies (Tan and Gupta, 1992; Deterding, 2007). In Tan and Gupta's (1992) study, the post-vocalic /r/ was recognized as a prestige feature for their study's participants, and they have noted that this phenomenon might be the beginnings of sound change in Singapore English. Hence, by investigating the presence of post-

vocalic /r/ in the participants studied in this paper, we would be able to validate if Tan and Gupta's (1992) claim on this on-going sound change is true, corresponding to Mr Lee's prediction. Taps are chosen as a main feature of this study as it is a unique characteristic of American English that differentiates it from other varieties of English (Kretzschmar, 2010). Although the occurrences of taps have yet to be recorded in the study of Singapore English, it is speculated that the presence of taps, if any, in the speech of the participants in this study might provide strong evidences to the changes happening in Singapore English, as it is a highly prominent feature of American English. Furthermore, it might be due to frequent comparisons with British English in the past papers that result in the lack of observance regarding the occurrence of taps in Singapore English speakers. Hence, this paper would fill this research gap through the focus on taps in this study of Singapore English. Lastly, vowels that are prominently distinct in American English in comparison to British English were chosen to be studied in this paper. As vowels are known to be characteristic in differentiating varieties of a language (Hung, 1996), it is important to investigate if changes in Singapore English are occurring in its vowel system, also notably because the vowels of Singapore English are known to bear similarities to the British English standard. Therefore, a shift in the vowel system of Singapore English towards American English would also be a strong indication of sound change.

Hence, the hypothesis that this paper proposes is that:

- i. Singapore English will exhibit some American English features such as post-vocalic /r/, taps and American English vowels.
- ii. In the comparison of the speech from two generational age groups, focusing on the features targeted in hypothesis (i), the younger adult speakers would show more American English features as compared to the older adult speakers, indicating the shift to American English.

## Chapter 2: Methodology

### *2.1 Participants*

There were a total of 10 native Singapore English female speakers in this study. Females were chosen over males, as females were found to be generally more aware of ‘socially evaluative’ linguistic features and are more careful with their way of speech (Wolfram, 1969; cited in Chambers, 1995: 102). 5 of these participants were young adults aged 18-25, and 5 of the participants were older adults aged above 40. The young adults were students from Nanyang Technological University, Singapore. They were chosen on the assumption that undergraduates are highly exposed to media influences and hence were most likely to display signs of language change in their speech. The young adult participants were also Linguistics majors hence they were expected to have good command of English. The older adult participants were recruited through word of mouth from undergraduates in Nanyang Technological University. They were all parents who had children undergoing tertiary education, and they had all personally been through secondary education and more. This ensured that all participants were from a comparable middle and above working class, as social status is known to have considerable impact on a person’s speech; and social status is highly related to education background (Labov, 2006). Speakers of two different age groups were chosen so that comparisons could be made between the Singapore English spoken by the younger and the older age group. The comparisons will allow us to see the extent of change Singapore English has been through at the present.

All participants were Singaporeans who have not lived in America for more than 3 months; hence they did not have substantial direct exposure to American English. All participants were of Chinese ethnicity, and were all English-Mandarin Chinese bilinguals. This is one of the controlled variables as this is a small qualitative study. Speakers from other ethnic groups might transfer features from their mother tongue and this may affect the results collected. An example observed is rhoticity in Tamil, which might cause the use of rhoticity in the English used by Indian speakers. To ensure that the participants were minimally affected by their language abilities in Mandarin Chinese, the speakers chosen spoke English dominantly in their households and in their daily lives.

## ***2.2 Design of Experiment***

The purpose of this study is to determine the current influence of Standard American English on Standard Singapore English. Due to the position of English as a lingua franca between different ethnic groups in Singapore, Singapore English has been under the influence of many varieties of language such as Malay and Hokkien throughout its developmental history (Brown, 1999). This situation has caused the emergence of diglossia in Singapore English, where there is a high variety known as Singapore Standard English and also a low variety known as Singapore Colloquial English. Singapore Standard English follows the norm, which is Standard British English, while Singapore Colloquial English is described as a vernacular contact variety used in casual situations (Gupta, 1994). In this study, we will be focusing on the development of Singapore Standard English, as it is the variety that is known to follow the British English norm. Therefore, all mentions of Singapore English in this paper refer to Singapore Standard English.

Given the variety of people and social groups that live in America today and its long history of development, it is expected and understandable that American English differs slightly from place to place. The Standard American English is an “institutional construct” used by “educated” Americans in formal settings. The Standard American English also holds collective distinctive features of American English that discriminates itself from British English and other varieties of Englishes, such as spelling, pronunciation, and lexical features (Kretzschmar, 2010), and we will be looking into some of the prominent pronunciation features known in Standard American English to determine the extent of influence of American English on Singapore English. Similarly, all mentions of American English in this paper refer to the Standard American English defined here.

### **2.2.1 Consonants**

Rhoticity is one of the most common and obvious feature that differentiates American English from British English, and in this case, Singapore English. A language is labelled rhotic when the consonant /r/ is pronounced before a consonant, or at the end of a word (Davies, 2005). Rhoticization is considered a norm in American English (Ladefoged, 2006). On the other hand, rhoticity in British English was lost completely in 1700s, except in some dialect varieties. Therefore, rhoticity was chosen as one of the features to be studied in the speech of the participants, as it a feature distinct in

American English and from British English. A word list was constructed for five different vowel environments, consisting of front, middle and back vowels, and rhoticity was tested at the end of a word and also before the presence of a consonant. The word list can be seen in Table 1. Two target words were chosen for each varying environment.

	/ɑ/	/iə/	/ɛ/	/ə/	/ɔ/
<b>V/r/</b>	Star	Hear	Hair	Fur	More
	Car	Beer	Rare	Sir	Core
<b>V/r/C</b>	Art	Cleared	Paired	Nerd	Court
	Guard	Beard	Cared	Curl	Bored

*Table 1: Target Words tested for Rhoticity*

The second pronunciation feature elicited for this study is taps in American English. Taps are commonly observed in many varieties of American English (Davies, 2005). According to Ladefoged (2006), a tap is produced as the tip of the tongue moves up to contact the roof of the mouth in the dental or alveolar region and then moves back to the floor of the mouth along the same path. Taps occur in the regular pronunciation of /t, d, n/ in the middle of words such as *latter*, *ladder*, *tanner* (Ladefoged, 2006) and it occurs after a stressed syllable and before an unstressed syllable (Herd, Jongman & Sereno 2010). Therefore, a word list was constructed for three of the consonants /t, d, n/ that produced taps, and they were varied for five different vowel environments, similar to the testing of rhoticity. The words were also chosen based on the rule that the consonants occur after a stressed syllable and before an unstressed syllable. The word list can be seen in Table 2, and similarly, two target words were chosen for each varying environment.

	/ɑ/	/i/	/ɛ/	/u/	/ɔ/
<b>/t/</b>	Butter	Litter	Letter	Scooter	Water
	Cutter	Bitter	Kettle	Suitor	Bottle
<b>/d/</b>	Budding	Needle	Ladder	Noodle	Bonding
	Cuddling	Reading	Paddle	Doodle	Boarding
<b>/n/</b>	Cunning	Winter	Tanner	Sooner	Warning
	Running	Printer	Manner	Communal	Mourning

*Table 2: Target Words tested for Taps*



### **2.2.2 Vowels**

There are a few significant vowels in American English that differentiates it from the Standard British English, and two of these vowels were picked for this study. The first is the rising of the /æ/ vowel to that of /e/ (Ladefoged, 2006) and the second is the lowering of the /ɔ/ vowel to that of /ɑ/ (Kretschmar, 2010). 5 words were chosen for each target vowel environment and can be seen in Table 3.

<b>æ &gt; e</b>	<b>ɔ &gt; ɑ</b>
Dance	Shot
Chance	Box
Glance	Spot
Advance	Hotdog
Enhance	Robot

*Table 3: Target Words tested for Vowels*

### ***2.3 Materials and Procedures***

The recording was done with a Marantz Professional PMD660 portable audio recorder, which was placed close to the participant during the recording. Recording sessions were carried out in a sound-proofed Linguistics laboratory for the undergraduates, and the recording sessions for the older adults were carried out in an enclosed room with minimum sound distractions.

As it is difficult to ensure that there are appropriate environments to elicit sufficient data through natural speech, a reading experiment was chosen instead. Two reading tasks were set up. The first task is the reading of a set of sentences formed from the target words and the second is the reading of a passage that contains the target words. Studies have shown that the amount of “phonological information” present can affect how normal the reading is in a context (Lee, 2009). Therefore, the second task was set up to obtain more natural and accurate results from the readings, in an attempt to substantiate the shortcomings of a non-natural reading task.

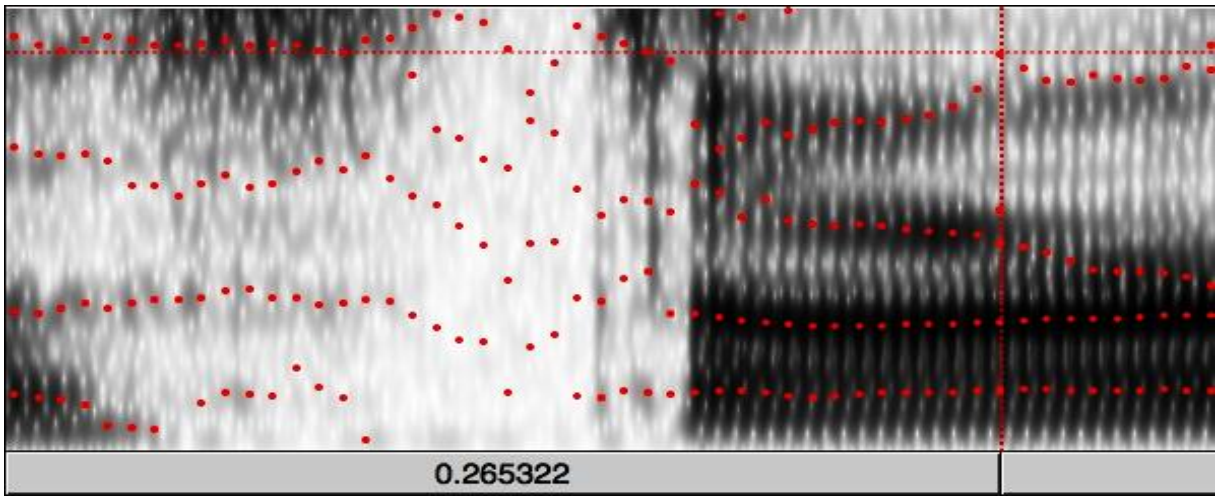
In the first task the participants were instructed to read a list of sentences that carried the target words in Table 1, Table 2 and Table 3. The sentences (see Appendix A) were constructed in a manner

that the target word was placed in the middle of the sentence, and the environment of every sentence around the target word was carefully kept neutral so that there no liaison effects could affect the pronunciation of the target word. Sentences were also controlled so that they were not too long, and extra effort was made to ensure that the sentences were not too mundane so as to keep the participant's reading constant. In the second task, the participants were instructed to read a passage (see Appendix B) consisting of all the target words. Similarly, the passage was constructed in an interesting manner to maintain the interest of the participant.

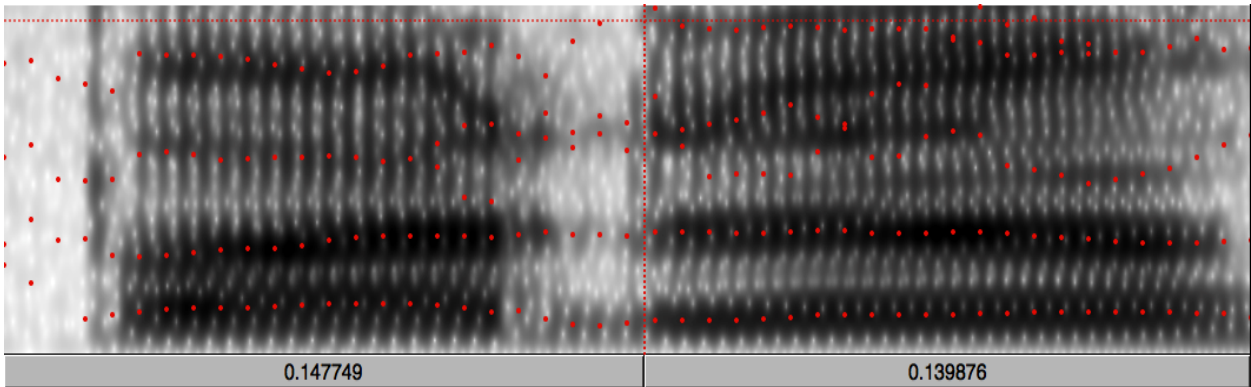
Participants were asked to sign a consent form (See Appendix C) before the recording was carried out. This was to ensure that the participants understood that their participation in this study is voluntary and will not involve any monetary returns for the participants. As the participants contributed to this study out of good will, the recording session was kept to 20 minutes and below. The participants filled in a background profile survey (for participants background information see Appendix E) before the start of the recording to ensure that they meet all the controlled requirements. A debrief slip (See Appendix D) was given to the participants at the end of the recording to ensure that the contents of the reading tasks were not discussed with other participants who have yet to be recorded.

## ***2.4 Analysis***

For each target word recorded, a binary analysis chart was drawn, indicating whether or not the target word was realized in the expected American English manner. For target words that achieved the expected realization, acoustic analysis was carried out using the software Praat to confirm the existence of the feature in the target word, especially for the post-vocalic /r/ and the taps. For example, post-vocalic /r/ is known for a dip in the F3. Figure 1 is an example where the post-vocalic /r/ is realized in the target word 'star', and the dip occurring in the F3 confirming the post-vocalic /r/ is marked by the vertical dotted line. On the other hand, the occurrence of taps can be confirmed by the small gap in F3 due to the swift movement of the tongue. Figure 2 is an example where the tap is realized in the target word 'butter', with the gap in F3 marked by the vertical dotted line. For vowels, auditory transcriptions were carried out for the target words that achieved expected realization, as there were very few results found for the vowels. This will be discussed further in the next section.



*Figure 1: Utterance of the word 'star' produced with post-vocalic /r/*



*Figure 2: Utterance of the word 'butter' produced with taps*

## Chapter 3: Results

From the results collected, it is observed that there are features of American English - post-vocalic /r/, taps and vowels - occurring in the speech of Singapore English for both the young adults and the older adults, but substantially more in the speech of the young adults as compared to the older adults.

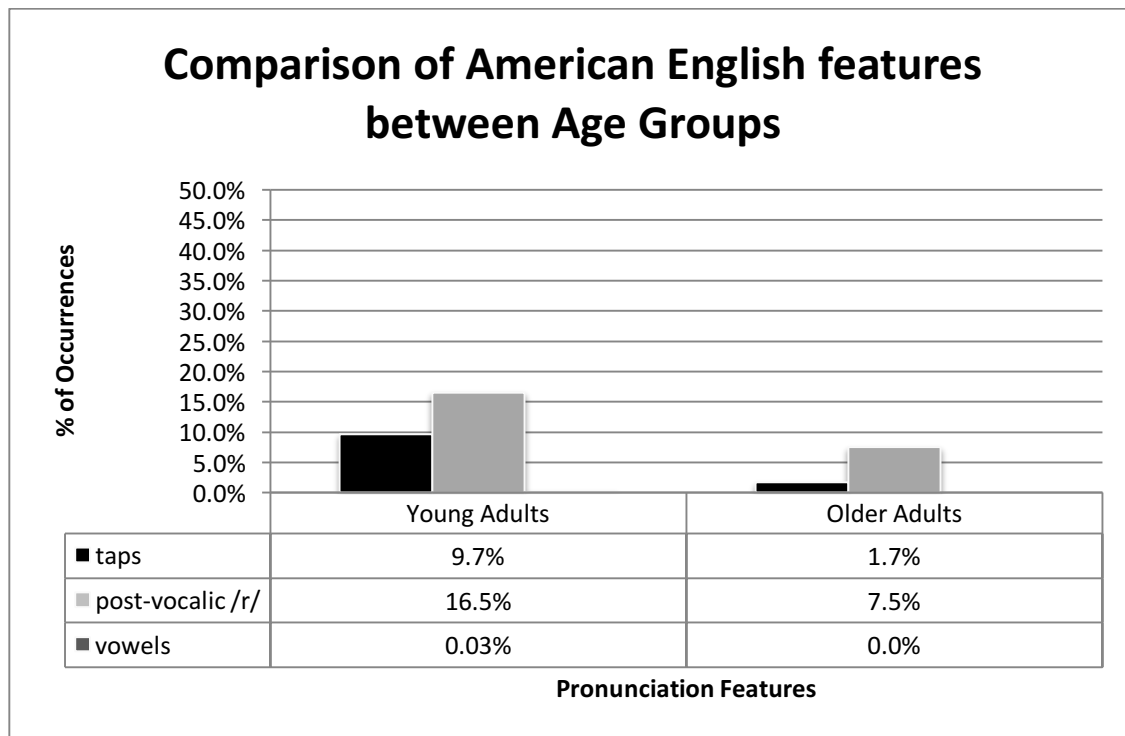
The results will be presented in the following manner; for all results presented, data collected from both the sentence reading task and the passage reading task were considered, unless otherwise stated.

- i. Results for the three American English features will be discussed and compared between the younger adults and older adults. T-tests were carried out to determine if there is a significant difference in the results between the two generational age groups.
- ii. Results for each speaker in both the younger adult age group and the older adult age group will be discussed.
- iii. Results for the American English features post-vocalic /r/ and taps will be discussed and compared according to the phonetic environment these features were realized. As the results for the vowels are negligible, the environment where it was realized will be discussed briefly in this section as well.
- iv. Lastly, results of the American English features for the sentence reading task and the passage reading task will be compared. Similarly, t-tests were carried out to determine if there is a significant difference in the results between the two reading tasks.

### *3.1 Results for American English Features*

From the results, it is observed that the percentage of occurrence for American English features in Singapore English in all participants is less than 15.0%. Post-vocalic /r/ is found to be the most salient American English feature present with the highest frequency of 12.0% across all participants, followed by taps which is relatively lower at only 5.7%. American English vowels were found to be very rarely realized at only 1.5% for all participants. The results found are consistent to previous findings of post-vocalic /r/ in Singapore English, and are also evidence of its increasing

occurrence presently in Singapore English. The presence of taps is also noteworthy, as taps are as previously described, highly salient features that only occur in American English, and hence its presence shows influence of American English in Singapore English.



*Figure 3: Comparison of American English Features between Age Groups*

In the results presented in Figure 3, we can see that the percentage of occurrences for each feature is similar for both age groups, with post-vocalic /r/ yielding the highest percentage of occurrences followed by taps and vowels. The young adults ( $M=0.11$ ,  $SD=0.31$ ) are found to have significantly more American English features in their speech as compared to the older adults ( $M=0.03$ ,  $SD=0.18$ ) at  $p<0.05$  ( $t(599)=5.24$ ,  $p=0.0000002$ ,  $N=600$ ), which is consistent with the hypotheses of this paper that there is a shift towards American English in younger Singapore English speakers. Looking specifically at each feature of study, the percentage of occurrences for taps in young adults ( $M=0.10$ ,  $SD=0.30$ ) is significantly higher than the older adults ( $M=0.02$ ,  $SD=0.13$ ) at  $p<0.05$  ( $t(299)=4.37$ ,  $p=0.00002$ ,  $N=300$ ). As mentioned earlier, taps is an uncommon feature of English, therefore it is expected that the older adults are less likely to have this feature in their speech. Similarly, in post-vocalic /r/, young adults ( $M=0.17$ ,  $SD=0.37$ ) have higher occurrences in their speech as compared to older adults ( $M=0.08$ ,  $SD=0.26$ ) at  $p<0.05$  ( $t(199)=2.83$ ,  $p=0.005$ ,  $N=200$ ). Occurrences of American English vowels were only found in the young adults, and the percentage is relatively low

at 0.03%. From these results, we can conclude that American English features are found in the speech of young adults far more than older adults, consistent to our prediction in hypothesis (ii).

### 3.2 Individual Results

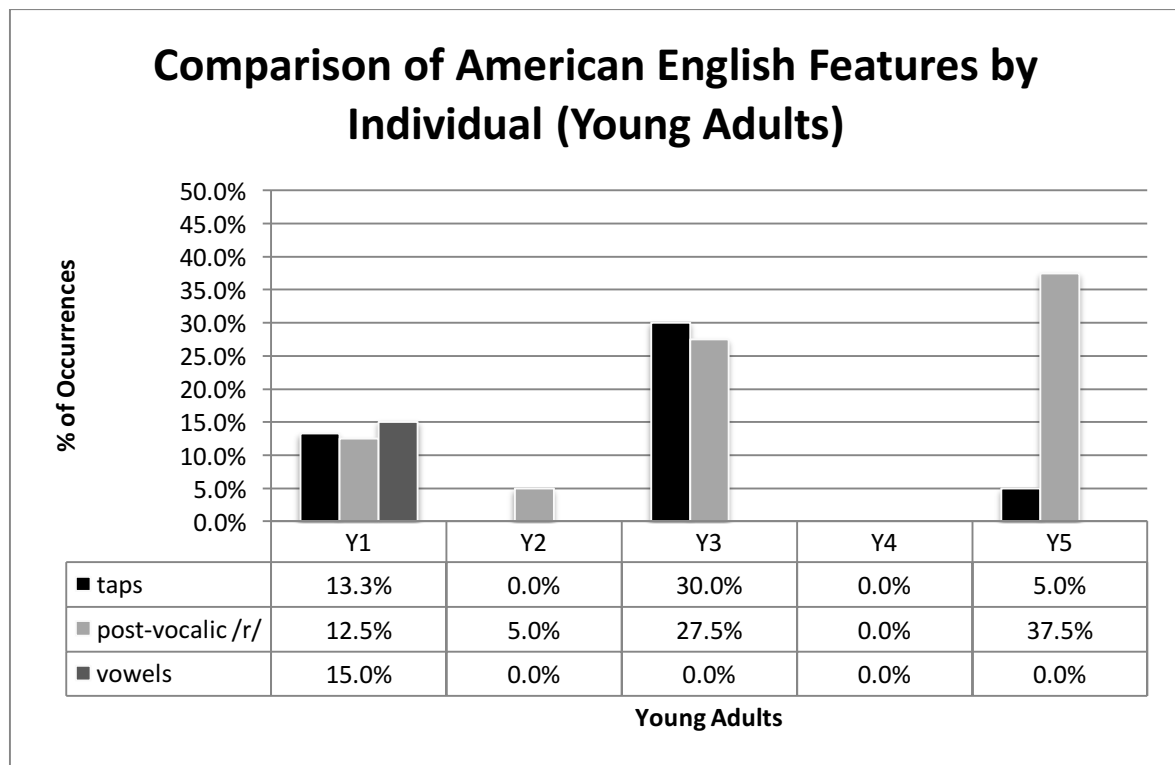
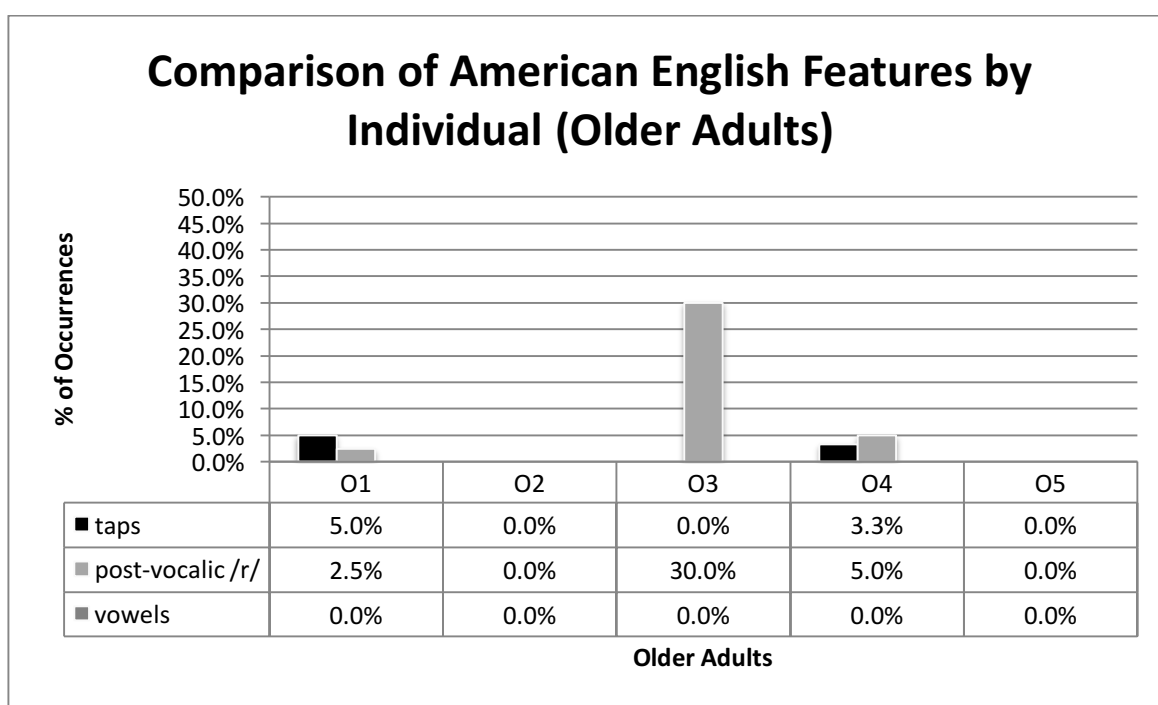


Figure 4: Comparison of American English Features by Individual for Young Adults

The detailed results for each individual in the two age groups are presented in Figure 4 and 5. In Figure 4, we can see that the American English features only occur in high frequency for three out of the five participants of the young adult age group. Post-vocalic /r/ is the only feature that is realized in all four of the participants that yielded results. The American vowels were only found in the speech of one participant, Y1. Y4 does not show any of the features studied in her speech, while Y2 only showed minimal post-vocalic /r/ (5%) in both reading tasks. It is interesting to note that all three participants who showed high occurrences of American English features had different results for each feature. For Y1, her highest occurring American English feature is the vowels at 15%, although she had comparable frequency of occurrences for taps and post-vocalic /r/ at 13.3% and 12.5%. Y1 is the only participant that showed occurrences for all the features studied in this paper, and the only participant who showed American English vowels in her speech. Both Y3 and Y5 showed high

frequency of post-vocalic /r/ in their speech with 27.5% and 37.5% respectively. However, Y3 is the only participant that showed high percentage of occurrences for taps with 30.0%, while Y5 had very low percentage of occurrences for taps at 5.0%. From the highly varied results that have been collected from the young adult participants, it is found that the realization of American English features in Singapore English is not constant. Therefore, we will continue to look at the environment of each of these occurrences in Figure 6 and 7, in the attempt to explain these inconsistencies. On the other hand, while these results show that there are indeed American English influences prevalent in Singapore English, its varied nature indicates that the change from British English to American English is slow and inconsistent, and it is not certain whether this change will continue to prevail in the near future.



*Figure 5: Comparison of American English Features by Individual for Older Adults*

In Figure 5, we can see that there are only results obtained for three out of the five older adult participants. American English vowels were not realized at all in all five older adults. From the three adults that showed American English features in their speech, O1 and O4 had significantly low frequency of occurrences for taps and post-vocalic /r/ at 5% and lower, hence proving that American English features is found less frequently in older adults. While O1 had more taps recorded in her speech, O4 had more post-vocalic /r/ recorded. O3 had the highest percentage of occurrences in all five participants, with 30% of post-vocalic /r/ recorded in her speech. It is important to note that the

results for the older adult age group were mostly contributed solely by O3, who had a high amount of post-vocalic /r/ in her speech. Hence, the post-vocalic /r/ might actually be an idiosyncratic feature in the speech of O3. The results found in the older adults are consistent with this paper’s hypothesis that the younger generation is moving towards adopting American English in their speech, while the older generation retains the British English norm hence showing less or none American English features.

### 3.3 Results for American English Features by Phonetic Environment

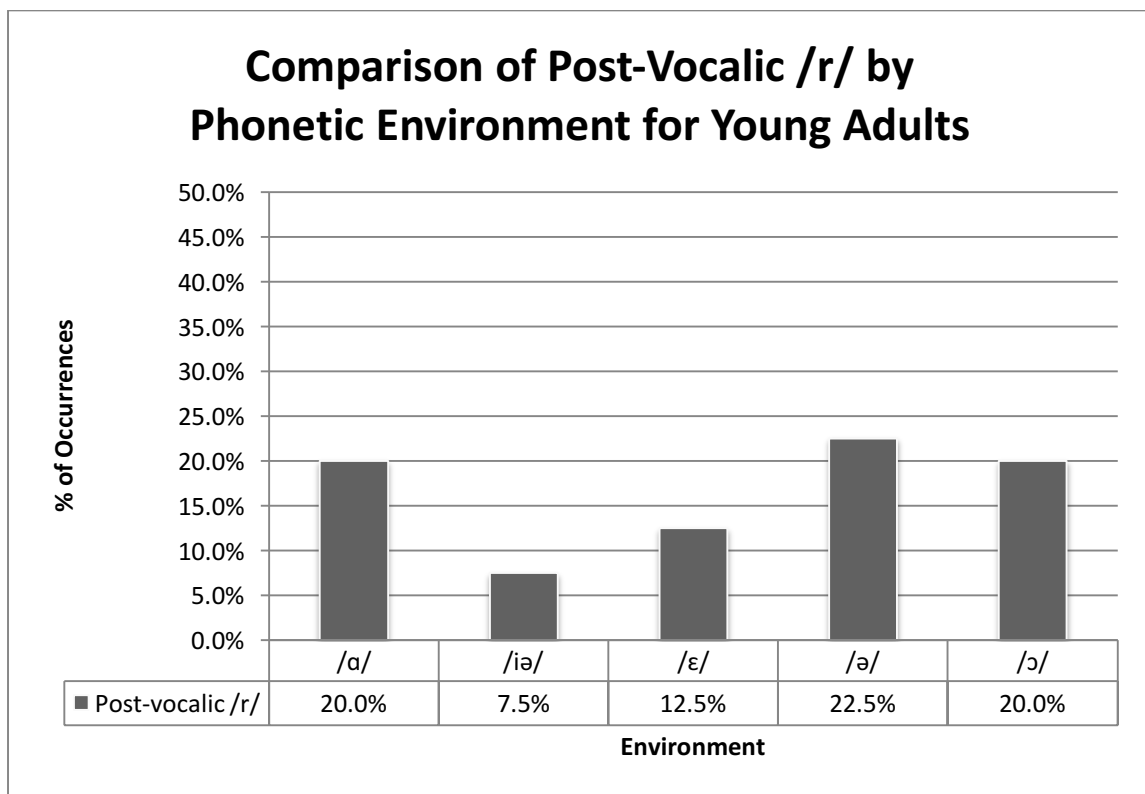
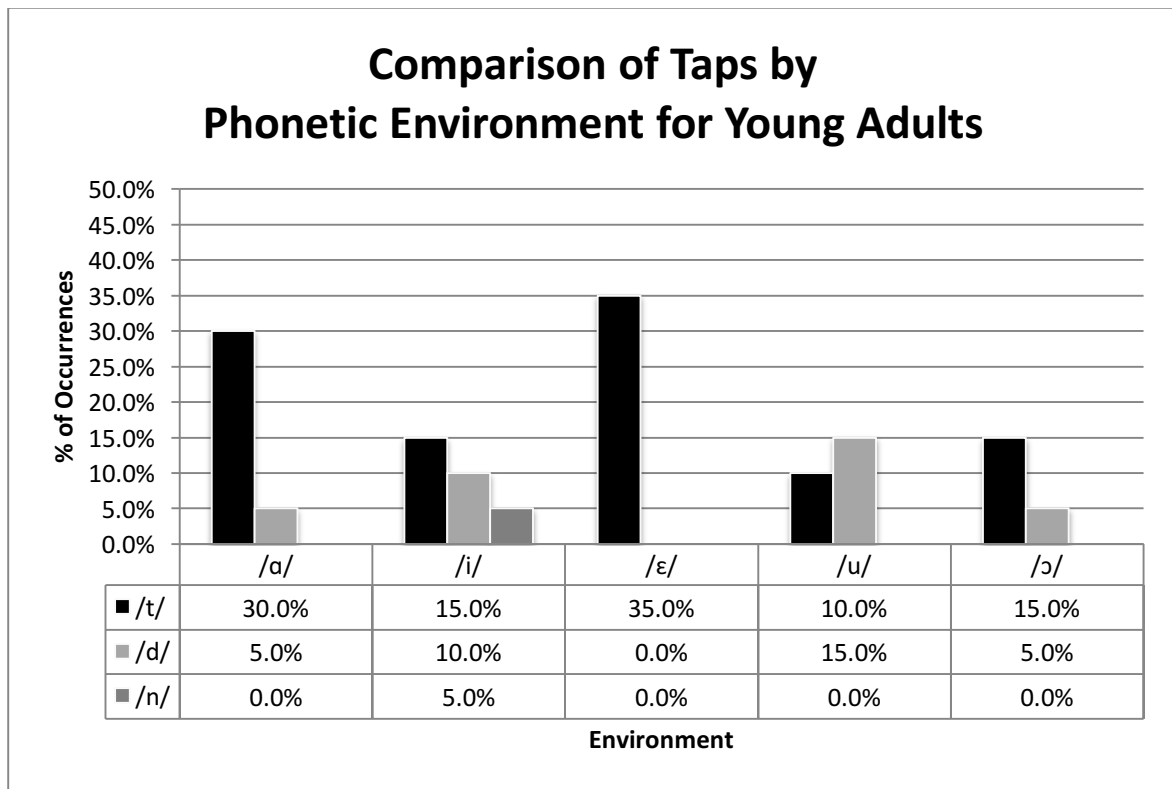


Figure 6: Comparison of Post-vocalic /r/ by Phonetic Environment for Young Adults

As post-vocalic /r/ is found to be the most frequently occurring feature among the young adult speakers, it is important to look at the environments where post-vocalic /r/ were realized, in order to determine if there is any relation between the occurrence of post-vocalic /r/ and the phonetic environment controlled and varied in the reading tasks. From the results mapped out in Figure 6, there does not seem to be an obvious trend or pattern that relates the environment and the results as post-vocalic /r/ is found in all five of the controlled environment. Post-vocalic /r/ was found to occur almost equally frequent when /r/ occurs in a word final position and before a consonant. Post-vocalic /r/



occurs most frequently with the middle central vowel (/ə/) at 22.5%, and more frequently with the lower back vowels (/ɑ/ and /ɔ/) at 20%. As there is no significant difference in percentage between the results of the middle central vowel and the lower back vowels, considering that the data set is relatively small and limited to only five speakers, no conclusive assumption can be made for post-vocalic /r/ in Singapore English in this study.



*Figure 7: Comparison of Taps by Phonetic Environment for Young Adults*

In Figure 7, the realization of taps in the speech of the young adult age group is presented according to the phonetic environment controlled. Taps were found to occur in all five of the phonetic environments that were controlled. Contrary to the results of post-vocalic /r/ shown in Figure 6, the low front vowel (/ɛ/) had the highest percentage of occurrences for taps across all three consonants (/t/, /d/, /n/), followed by the low back vowel (/ɑ/). The results found for each vowel environment varies with the consonant that is present in the testing, for example the low front vowel (/ɛ/) has the highest results in the realization of the /t/ tap while the high back vowel (/u/) has the highest results in the realization of the /d/ tap. Hence, given the small data set it is hard to prove that there are obvious relationships between the realization of taps and the phonetic environments. On the other hand, it is observed that taps occur more regularly and frequently in /t/ as occurrences are recorded for every

phonetic environment. Taps rarely occurs in /n/ and can only be seen with the high front vowel (/i/). Taps are also less realized in /d/, as it has less than 15% of occurrences for all phonetic environments. Hence, we can conclude that taps are mostly realized in /t/ if they occur in Singapore English.

As American English vowels were only found in the results of one participant, similar analysis for vowels were not carried out for all participants. In the results of the single participant that pronounced American English vowel, occurrences were found where /e/ was pronounced instead of /æ/, and no results were found where /a/ was pronounced instead of /ɔ/. Therefore the American English vowel /e/ can be predicted to be more commonly heard or found, perhaps in the future development of Singapore English towards American English, as few results were found in this study.

### 3.4 Results for Reading Tasks

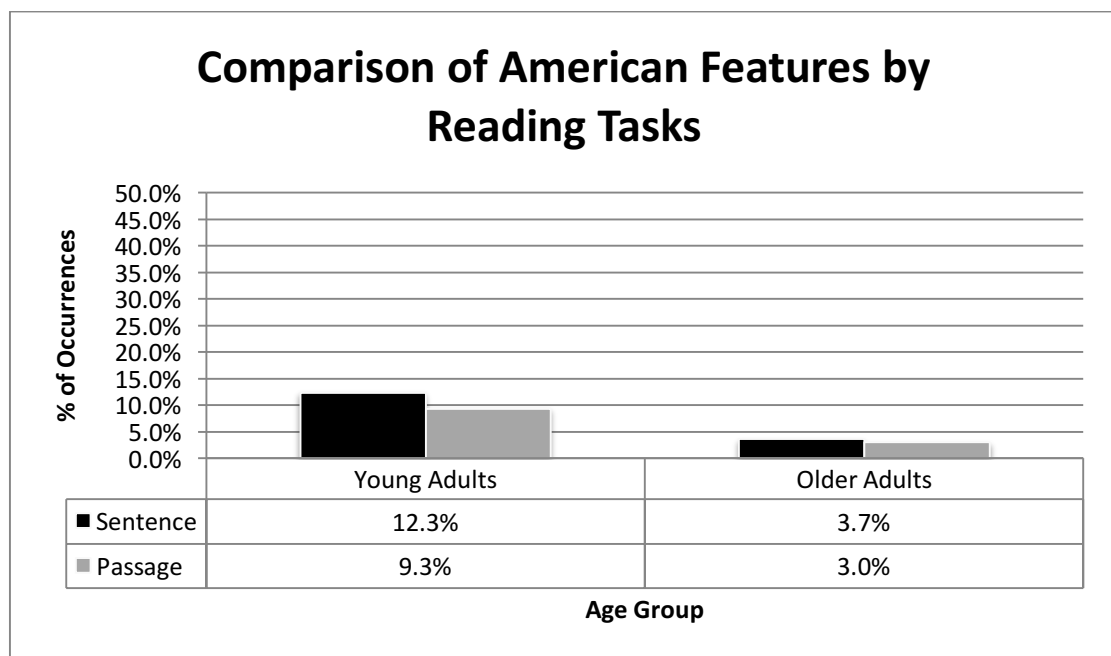


Figure 8: Comparison of American English Features by Method for All Age Groups

As two reading tasks were set up to ensure that the results collected were accurate, results for the two tasks were collated and compared. The rationale for having two reading tasks is that the passage reading task would elicit more natural and accurate results as compared to the sentence reading task, as it was mentioned in the previous chapter on methodology, that the amount of “phonological information” present can affect how normal the reading is in a context (Lee, 2009). Hence, it is expected that the sentence reading task would have higher frequency of results as compared to the

passage reading task due to careful reading. The results in Figure 9 showed that this assumption is true, as there is higher percentage of occurrence for the sentence reading task for both the young adult age group and the older adult age group, which shows that the difference in results might be due to careful reading in the sentence reading task. However the statistics show that the results from the sentence reading task ( $M=0.08$ ,  $SD=0.27$ ) is actually not significantly different from the passage reading task ( $M=0.06$ ,  $SD=0.24$ ) at  $p<0.05$  ( $t(599)=1.46$ ,  $p=0.15$ ,  $N=600$ ). Therefore, we understand that by embedding sentences into a passage in this study cannot help to elicit more natural results. As the results for both tasks were not significantly different, they were all taken into account in the analysis of results. However, both reading tasks showed results that were consistent to the hypotheses' claim. In the results of the reading task, the young adults ( $M=0.12$ ,  $SD=0.33$ ) had significantly higher results than the older adults ( $M=0.04$ ,  $SD=0.19$ ) at  $p<0.05$  ( $t(299)=4.02$ ,  $p=0.00007$ ,  $N=300$ ); likewise in the passage reading task, the young adults ( $M=0.09$ ,  $SD=0.29$ ) had significantly higher results than the older adults ( $M=0.03$ ,  $SD=0.17$ ) at  $p<0.05$  ( $t(299)=3.36$ ,  $p=0.0009$ ,  $N=300$ ).

## Chapter 4: Discussion and Conclusions

### *4.1 Discussion*

This paper started with the hypotheses that (i) Singapore English will exhibit some American English features such as post-vocalic /r/, taps and vowels; and that (ii) the younger adult participants would show more American English features as compared to the older adult participants, thus indicating a shift of Singapore English towards American English presently.

The results have shown that the hypotheses of this paper are shown to be true to a certain extent. In hypothesis (i), it was predicted that Singapore English will show some American English features, implying that Mr Lee's prediction on Singapore English moving towards American English is valid (Ramesh, 2011). From the results we can see that although there are significant percentages of American English features that were recorded in the study, it is only sufficient to prove that the occurrences of American English features in Singapore English is increasing and are becoming more regular in the speech of Singaporeans. This is because the frequency of realization for the American English features is approximately 2-12% for all features, which is relatively low. The results show that post-vocalic /r/ is increasingly common in Singapore English, as it has the highest record of results. There is also a significant percentage of taps recorded in this study, which has not been commonly identified in Singapore English previously. American English vowels are found to be almost non-existing in the participants of this study, as only one participant showed a few occurrences of the vowels. The results were also found to be inconsistent across participant, especially for the young adult age group, which was expected to show high occurrences of American English features. Only three out of the five participants showed comparatively high and regular realizations of American English, and one of the young adult participants did not show any American English features in both tasks, hence given the small number of participants the results shown have proven to be inconclusive. Moreover, the occurrences of the American English features vary across the controlled phonetic environments, showing that the realization of these features in Singapore English is unstable and irregular. A larger number of speakers and data would be needed to be able to provide conclusive evidences to the influence of American English on Singapore English. It is speculated that the irregular occurrences of American English features might be due to influences from the Singapore education system. Although American English and American media has a strong presence and

influence in Singapore, especially on the younger generation, the Singapore education system still reinforces that British English is the norm that is to be followed (English Language Syllabi, 2010). Therefore, though they might have picked up American English features from their exposure and frequent contact to American media, young adults in Singapore have been brought up learning Standard English that is largely based on British English. Therefore, from the results we can conclude that hypothesis (i) cannot be fully proven from this study, as Singapore English is showing some American English features but the percentage of occurrences from this small number of participants are too low to be conclusive. However, the presence of American English features in this result does show that Singapore English is no longer comparable to British English, as suggested by previous research papers on Singapore English (Lim, 2004; Deterding, 2005).

In hypothesis (ii), it was predicted that the younger adult speakers would show more American English features as compared to the older adult speakers, indicating the shift to American English. Comparing the results collected for both the young adult age group and the older adult age group, the statistics show that the young adult age group have significantly more American English features in their speech as compared to the older adult age group. It is surprising to find that some of the older adult participants display American English features as well. Although the few occurrences of post-vocalic /r/ and taps in the older adult participants might show that the influence of American English has been extensive enough to affect the older generation, the results were mostly contributed solely by one participant, thus showing that it is most probably exclusive to the speech habits of that one speaker. Therefore, this hypothesis was proven to be true as the results provided evidence that the younger adult participants had significantly more American English features. However, to prove that this phenomenon indicates a shift to American English, more data needs to be collected from a bigger pool of speakers, as the percentage of occurrences for American English features in the younger adults were not significantly high at less than 15%.

In conclusion, the results found through this study have proven that Mr Lee Kuan Yew's opinion on Singapore English is valid, that it is possible that Singapore English might move towards an American English norm, as the results show evidences in the speech of young adults in Singapore. However, looking at the percentage of occurrences recorded in this paper, the next question that we should ask is that to what extent Singapore English would adapt American English. Referring to past studies that have compared Singapore English to its norm British English, we can see that there have

always been differences between the two varieties. This is because Singapore English is unique with influences from a variety of languages and from speakers of different ethnic backgrounds. In Platt and Weber (1980), it was mentioned that Singapore English is ‘fast becoming a semi-native variety’, hence explaining the inappropriateness for Singapore English to be compared to any external varieties. Hence if Singapore were to follow American English as its norm in the future, it would be predicted that a similar situation will be prevail. Singapore English would continue to have distinct characteristics such as the realization of dental plosives in place of dental fricatives (Deterding and Hvitfeldt, 2004) even as some American English features such as post-vocalic /r/ might eventually be practiced in the speech of Singapore English.

#### ***4.2 Implications and Future Research***

The results of this study show that Singapore English can no longer be studied with sole reference to British English. This is because it is evident that Singapore English has moved away from its previous British English standard, and has displayed features of other varieties such as American English features as seen in this study. Given the development of Singapore English today, some papers have acknowledged the possibility of Singapore English as a new emerging standard (Deterding, 2005). As Singapore English is regarded as a new variety of English, it has been noted that they do not always fit well in frameworks of older varieties. Although Deterding (2005) has proposed that describing Singapore English with reference to a standard will result in ‘limited accuracy,’ this study’s reference to American English for Singapore English has certainly found significant results that were less acknowledged in the previous studies of Singapore English. The results of this study have yielded important evidence on the presence of American English features in Singapore English not previously presented due to usual comparisons with British English. The occurrences of taps in Singapore English were not recorded previously, and the substantial percentage of taps present in this study is a clear indication of Singapore English’s gradual adaption of American English features, as noted previously that taps are characteristically American and are not found in other varieties of English. Although American English vowels were not largely found in the results of all speakers, the realization of the vowels in one of the young adult participants shows possibilities of a shift in the pronunciation of Singapore English towards American English vowels. As there has been discussion on Singapore English emerging as a semi-native variety that is no longer comparable

to external varieties, future research may attempt to provide a thorough description of Singapore English without external references, viewing it as a new variety of English.

This study took a synchronic approach by comparing the data collected from two generational age groups, and the results show that there are on-going changes that are occurring in Singapore English, as there are differences in the speech of the older adults and the younger adults. Thus, this study's results would serve as a useful reference for future studies on Singapore English. In addition, given the significant record of American English features in this study, future research could also expand this study by recruiting more participants. It would be easier and more effective to look at results from a larger pool of data, as greater amount of information would help in substantiating the hypotheses. In consideration of carrying out this study on a bigger number of speakers, other variables could be controlled as well. Speakers of the opposite gender could be included; and speakers of other ethnic groups in Singapore could provide input so that we could explore if there is any relation between the use of American English features and ethnicity, as there has been evidence of difference found in the Singapore English spoken in different ethnic groups (Deterding, 2005). On the other hand, post-vocalic /r/ has been speculated to be a sociolinguistic variable and perhaps, a prestige marker in Singapore English (Tan and Gupta, 1992). Hence, if this speculation were to be extended to future similar studies, the social class of the speakers could be controlled to see if the manifestation of American English features in Singapore English is a change that is widely found in the speech of most young adults in Singapore, or if it is a social class indicator, similar to Labov's (2006) study on the social stratification of /r/ in New York City. As this study has provided evidence of American English present in Singapore English currently, future research could also look into the factors that are causing this change in Singapore English to happen. Investigating the language attitudes towards different varieties of English, the amount of exposure to media and media habits would help in substantiating this change in Singapore English. Also, other American English features, such as stress patterns (American English preserves its secondary stress (Kretzschmar, 2010)) and rhythm could be included as well to show the extent of influence American English has on Singapore English.

For this study, two reading tasks were designed to elicit results from the target words. The reading tasks were efficient as the environment of the target words could be controlled, and the data collected were definitely standard Singapore English. Although the second passage reading task was set up to compensate the probable inaccuracies of the first sentence reading task due to careful reading

(Lee, 2009), the results show that there were no significant difference in the results collected for the two tasks. Therefore, for future research it would be useful to design an experiment that can elicit data from similar target words through natural speech. There are many challenges in designing a natural environment experiment as it would be difficult to control the environment of the target words to ensure that there are no liaison effects or other factors that might affect the results, but the data collected from such an experimental design would probably be more representative of Singapore English's linguistic situation. In conclusion, this small qualitative study could serve as a reference for future studies, as there is much room for future research, as discussed in this section.



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## Appendix A: Sentence Reading List

1. The noodle spoke loudly.
2. Mary is our star worker.
3. The butter flew away.
4. Please dance with me.
5. Her car really stinks.
6. The art show was mind blowing.
7. That robot was dumb.
8. Too much mourning is not healthy.
9. You should guard your heart well.
10. Go hear the angels sing.
11. A can of beer could cool this storm.
12. Please enhance your poem.
13. Rabbit fur for sale.
14. The budding singer sneezed.
15. The scooter was asleep.
16. Please spot the difference.
17. He cleared the misunderstandings.
18. The cunning fox laughed.
19. Your reading is perfect.
20. Look out for the warning sign.
21. Some cuddling could cheer her up.
22. This is the advance yoga class.
23. The sooner you come, the faster we can eat.
24. We were more than friends.
25. The box is standing there.
26. The cake cutter smiled.
27. The kettle was squealing.
28. This is your last shot now.
29. Please litter near his feet.
30. His beard makes him outstanding.
31. It is my bad hair day.
32. She was running for her life.
33. It is rare to see a shooting star.
34. Tim's funny manner was amusing.
35. Blue cheese is always paired with wine.
36. Susan cared deeply for Greg.
37. This is Sir Camel.
38. The chance is yours.
39. The bonding session was good.
40. The court has decided.

41. Her glance killed me.
42. The nerd looks like you.
43. That curl defines Fanny.
44. The printer was alive.
45. You are the core of my heart.
46. The bored painter screamed.
47. It was a bitter journey.
48. A bigger needle can mend that hole.
49. His love letter was ugly.
50. This ladder leads to hell.
51. You painted the paddle maroon.
52. Kate is tanner than you.
53. Her suitor never gives up.
54. Her doodle pad made him cry.
55. Riding a train is a communal experience.
56. There is water for the elephants.
57. Your bottle is cold.
58. The boarding gate is far.
59. Go to the hotdog stand.
60. My winter was warm.

## Appendix B: Passage Reading Task

The star went into the car quickly. She needed to court her core suitor. His name was Sir Brian and he was running. She crashed into a box of litter and a hotdog stall's ladder. The suitor ran pass the warning sign into the water. He loved wake boarding but he could not swim. His beard and hair was ruined and he was very bitter. The star used her bottle and her needle to paddle towards him on the spot. However, a cunning strand of noodle saw the situation and called his budding noodles to advance on the suitor. The star immediately shot a glance at the security guard. The guard was a nerd reading an art magazine and he was too bored to move. The star jumped onto her scooter and cleared the noodles with her cutter. Sir Brian was very angry, and he told the star that he cared for her but now his fur means more to him. The star tried to type a letter and doodle for him, but her printer melted because winter was over. The star was sad, and she drank beer and butter for a month to enhance her sorrow. Her friends brought her to a rare communal occasion to stop her mourning. There she was paired to dance with a robot. The robot felt that the bonding between them was strong, so he took the chance to give her a cuddling in a warm manner. The star found him tanner than Sir Brian, but she liked his hair curl. The star moved on sooner than everyone expected. The robot was too glad that he did not hear the kettle go off.

## Appendix C: Consent Form

### NANYANG TECHNOLOGICAL UNIVERSITY Graduation Project Consent Form

Title of Project: Is Singapore English becoming American?

You have been invited to participate in a research study on the features of Singapore English. This study is being conducted by *Samantha Soon* from the Linguistics and Multilingual Studies department of Nanyang Technological University as part of her graduation project.

There are no known risks of you in participating in this research study. The entire study will take about 20 minutes.

The survey is anonymous. Do not write your name on the survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

Your participation in this study is voluntary. You may refuse to participate or withdraw from the study at any time without penalty. By completing this questionnaire, you are voluntarily agreeing to participate.

- I confirm that I have read and understood the information provided for the above study.
- I have had the opportunity to consider the information, ask questions and have had my questions answered satisfactorily.
- I agree to take part in the above research study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



## **Appendix D: Debrief Form**

**NANYANG TECHNOLOGICAL UNIVERSITY**  
**Graduation Project Debrief Slip**

1st September 2011

Title of Project: Singapore English: British or American?

Thank you for participating as a research participant in the present study regarding the features of Singapore English.

Again, we thank you for your participation in this study. If you know of any friends or acquaintances that are participating in this study, we request that you do not discuss any part of the study with them until after they have had the opportunity to participate. Prior knowledge of the questions asked during the study or discussions on the study can invalidate the results. We greatly appreciate your cooperation.

If you have any questions regarding this study, please feel free to ask the researcher at this time.

Thanks again for your participation.

## Appendix E: Participants Information

### *Younger Adults Participant*

	Y1	Y2	Y3	Y4	Y5
Age	22	22	20	19	20
Gender	Female	Female	Female	Female	Female
Nationality	Singaporean	Singaporean	Singaporean	Singaporean	Singaporean
Race	Chinese	Chinese	Chinese	Chinese	Chinese
School/ Course	NTU/ Linguistics	NTU/ Linguistics	NTU/ Linguistics	NTU/ Linguistics	NTU/ Linguistics
Languages spoken	English, Mandarin, Japanese, Korean	English, Mandarin, Hokkien	English, Mandarin	English, Mandarin	English, Mandarin, German, Thai
Primary language used at home	English	English, Mandarin, Hokkien	English	English	English
Primary language used in school	English	English	English	English	English
Primary language used with friends	English	English	English	English	English
Have you lived in anywhere else than 4 months?	Yes	Yes	No	No	No
If yes, where were you located?	Tokyo, Japan	Manchester, England	-	-	-
TV programs preferred	Japan, Korea, Taiwan	United States of America, United Kingdom	United States of America	Korean	United States of America

**Older Adults Participant**

	<b>O1</b>	<b>O2</b>	<b>O3</b>	<b>O4</b>	<b>O5</b>
Age	50	51	55	58	50
Gender	Female	Female	Female	Female	Female
Nationality	Singaporean	Singaporean	Singaporean	Singaporean	Singaporean
Race	Chinese	Chinese	Chinese	Chinese	Chinese
Occupation	Housewife	Housewife	Teacher	Housewife	Housewife
Languages spoken	English, Mandarin, Cantonese	English, Mandarin	English, Mandarin	English, Mandarin	English, Mandarin
Primary language used at home	English, Cantonese	English	English	English	English
Primary language used in school	-	-	-	-	-
Primary language used with friends	English	English	English	English	English
Have you lived in anywhere else (out of Singapore) for more than 4 months?	No	No	No	No	No
If yes, where were you located?	-	-	-	-	-
Which country's TV/entertainment programs do you prefer?	Hong Kong, United States of America	Korea, United States of America	Hong Kong	United States of America	Hong Kong, Korean