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## “How many c(R)s do you have?” A Look into Postvocalic /r/ in Singapore English

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Singapore English (SgE) is, thus far, not known to be a rhotic variety of English, having its roots in standard British English (BrE). However, recent studies have shown evidence of rhoticity in SgE, and this has been attributed to the widespread influence of the American media, especially on local youth. This study questions the factors affecting rhoticity among young, female Singaporeans. It looks at rhoticity in SgE by considering speakers who have attended a particular group of schools with a strong tradition of English language proficiency. Rhoticity is investigated through a reading task and a Diapix task, and it is found that within this group a small number of individuals do exhibit some limited rhoticity, but that most of them seem to prefer a more local speech style. The use of rhoticity and American English (AmE) evidenced here is nonetheless interesting, perhaps taking on a more specific function in this group—one of achieving particular conversational goals and of establishing commonality among a group who share an affinity with American culture.

## 1 Introduction

This study looks at the incidence and patterning of postvocalic /r/ in the speech of a group of young, female speakers of Singapore English (SgE). SgE is accepted to be non-rhotic, where rhoticity refers to the realisation of /r/ after a vowel, such as in words like *car* and *storm*. Owing to its British colonial past, SgE developed from standard British English (BrE)—a non-rhotic variety.

However, recent studies have shown evidence of postvocalic /r/ in SgE, and this is commonly attributed to the pervasiveness of the American media in Singapore (Tan and Gupta 1992, Tan 2012, Tan 2016). Postvocalic /r/ is a feature distinctly associated with American English (AmE) and its similar occurrence in various other Asian Englishes, such as Brunei English (BrunE) and Hong Kong English (HkE), is often also seen as resulting from widespread exposure to the American media (Sharbawi and Deterding 2010, Hansen Edwards 2016). Nonetheless, while this feature is ubiquitous in the American media and hence in Singaporean society, its occurrence in SgE appears to be socially stratified, such that particular groups of speakers seem more likely to use it than others, namely, younger speakers and female speakers (Tan and Gupta 1992).

The present study takes a closer look at young, female speakers of SgE, studying their rhoticity in various contexts. Previous work (Tan and Gupta 1992, Poedjosoedarmo 2000) indicates that this demographic would be the most likely to feature postvocalic /r/, thus facilitating the investigation of the following research questions:

- (1) Is rhoticity prevalent in the speech of young, educated female speakers from a specific group of schools, as has been suggested by Tan and Gupta (1992)?
- (2) What factors predict the likelihood of individuals in this group featuring postvocalic /r/ in their speech?
- (3) If these speakers are rhotic, what are the effects of factors such as register and following phonetic environment on their /r/ use?

## 2 Literature Review

### 2.1 Evidence of Rhoticity in Asian Englishes

Since the incidence of rhoticity in SgE is a recent phenomenon, with the earliest evidence in Tan and Gupta (1992), research in this area is thus far rather impoverished. Nonetheless, evidence of rhoticity exists in other Southeast Asian varieties of English, among which are HkE and Malaysian English (Hansen Edwards 2016, Pillai 2015).

Sharbawi and Deterding (2010) considered rhoticity in speakers of both SgE and BrunE, all of whom were ethnically Malay. Using a reading passage, they found that more BrunE speakers featured rhoticity in their speech compared to SgE speakers. The researchers highlighted L2 interference from Brunei Malay as a possible explanation for this, given the rhotic nature of this indigenous variety. Nonetheless, the influence of the American media was not discounted. BrunE was likened to HkE, suggesting that the stage of development of both these varieties make them more susceptible to external linguistic norms compared to Singapore, which is in a stage of endonormative stabilisation (Schneider 2003, Gut 2007, Rubdy et al. 2008), wherein local linguistic norms are gradually being accepted (Schneider 2003).

## 2.2 Singaporean Attitudes towards American English

AmE (typically of a standard, non-regional variety) has a pervasive presence in Singapore (Poedjosoedarmo 2000), featuring extensively on local and American television channels, as well as radio stations, in the form of shows and commonly also in advertising. These, along with American programmes on Netflix and YouTube, are readily available to and regularly consumed by young Singaporeans. In fact, it is not just the foreign media that use AmE: Starr (2016) mentions local deejay Jean Danker as an example of a “U.S. English hybrid style” of SgE. However, this exposure does not, perhaps, mean that young SgE speakers will necessarily incorporate AmE features into their speech.

Eu’s (2004) acoustic study of a number of AmE features in SgE was accompanied by a survey of young people’s attitudes towards Singaporean speakers producing AmE accents. A modified matched guise technique was employed involving 4 speakers—2 Singaporean speakers speaking with AmE accents as well as 1 speaker of AmE and 1 BrE speaker. Generally, participants in Eu’s (2004) study responded most favourably towards the AmE speaker, calling the accent “refined”, “intelligent”, and easy to understand. By contrast, attitudes towards locals speaking with an AmE accent were viewed negatively, with many expressing the opinion that the accent sounded “put on” and “pretentious”. This suggests that while perceptions of Americans speaking AmE might be positive among Singaporeans, these SgE speakers may not themselves desire to produce AmE features for fear that they might be perceived less favourably by their peers. These responses may imply that AmE features like rhoticity will only be adopted to a limited extent or by a limited number of speakers of SgE.

## 2.3 Rhoticity in Singapore English

One of the earliest studies considering postvocalic /r/ solely in SgE was by Tan and Gupta (1992). Participants were interviewed before attempting a reading passage and a word list task. Postvocalic /r/ was most prevalent in the most formal context, the word list, and least prevalent in the least formal context, the interview. The careful speech style of the word list task evidenced the “functional” use of non-prevocalic /r/ as a feature that “disambiguates words which would otherwise be homophones” (Tan and Gupta 1992:149), such as *paw* and *pour*. While this is noteworthy, it is not necessarily the case that such /r/ use would then also feature in other rhotic contexts, unless a similar element of homophony or ambiguity is present. Hence, there is reason to consider other motivators for this variation in /r/ use.

To this end, given that the incidence of postvocalic /r/ increased with the formality of the speech context, it was suggested that this feature might be a prestige marker. Tan and Gupta (1992) posited that this explained why it was more frequently attested among the female participants, who are known to feature more prestigious variants in their speech (Trudgill 1974:94).

Postvocalic /r/ was also more frequently attested among younger participants, in all contexts. Tan and Gupta proposed that it is likely to be more concentrated among groups of youths from specific schools—in particular, “children from convent schools and prestigious government schools” (1992:145). Also, respondents sharing a close relationship (usually classmates here) had almost identical levels of rhoticity.

Tan and Gupta’s (1992) study also included a discussion of linking /r/ and intrusive /r/, i.e., “where /r/ is produced at prevocalic morpheme boundaries, for example, *ca/r/-alarm* or *ma-/r/-and pa*”, respectively (Hay and Sudbury 2005). Evidence of linking /r/ was found here among speakers with high production rates of postvocalic /r/, albeit to a small extent. This suggests that linking /r/ is not a common feature in SgE.

A later study by Tan (2012) looked at the correlation between a group of female SgE speakers’ socioeconomic status and level of education, and their use of postvocalic /r/, linking /r/, and intrusive /r/. The results showed that speakers with higher socioeconomic status and education level featured higher levels of postvocalic /r/ in the elicited sentences. This reinforces Tan and Gupta’s (1992) assessment of postvocalic /r/ as a prestige feature. Linking /r/ in Tan (2012) is negligible, and there is some use of intrusive /r/ among speakers with lower socioeconomic status, which is attributed to hypercorrection.

Tan (2012) also used an attitude study to investigate the attitudes of 50 local undergraduates towards postvocalic /r/ and intrusive /r/. A perception test was carried out wherein participants listened to 12 utterances, 4 of which contained postvocalic /r/, 4 intrusive /r/, and 4 with neither. Higher production rates of postvocalic /r/ seem to correlate with positive attitudes towards this feature, whereas the fact that intrusive /r/ was produced at lower rates, and frequently among the lower social classes, was seen to correlate with more negative attitudes towards it. Utterances lacking either /r/ were rated the highest in terms of naturalness, perhaps supporting Eu’s (2004) findings that locals tend to consider Singaporeans speaking with an AmE inauthentic. Utterances containing postvocalic /r/ were rated the highest in terms of likeability, intelligence, and perceived education level, whereas the use of intrusive /r/ was associated with foreignness and a lack of education. It became evident that there is a “match between production and perception” (Tan 2012:12) of these different types of /r/ and that the status of postvocalic /r/ as a prestige feature is not just encoded in its use by SgE speakers but also reinforced by their attitudes towards it.

Poedjosoedarmo (2000) also studied the occurrence of postvocalic /r/, and two other AmE features, in the speech of 326 Singaporean teachers-in-training given a word list task and reading passage. Instances of postvocalic /r/, the substitution of /ɑ:/ with /æ/, as well as the intervocalic flapped /t/ were studied. Chinese speakers realised postvocalic /r/ more frequently than speakers from the other ethnic groups. This was sometimes but not always attributed to /r/ and /l/ confusion, where /l/ occurring postvocally was sometimes also realised as /r/. This is common among speakers of other Asian Englishes, such as Japanese English (Ingvalson et al. 2012) and SgE speakers of lower socioeconomic classes (Tan 2012). All three features were used more frequently by female speakers, paralleling the findings of Tan and Gupta (1992). Specifically with regard to postvocalic /r/, there seemed to be a possibility of spelling pronunciation, or the tendency to “base their pronunciation more on spelling” (Deterding and Mohamad 2016:89); hence, /r/ production could have been boosted by participants producing /r/ where an orthographical <r> was present. However, it is difficult to attribute all variability in /r/ use to spelling pronunciation, given that there is little reason to believe that speakers of one ethnic group would employ spelling pronunciation more than those of another.

A more recent study by Tan (2016) considers the correlation between the variables of age and race, and the realisation of similar American phonological features by speakers of SgE. The two age groups studied were 40 and above, and 20 to 25; the races considered were Chinese, Malay, and Indian. Among the features studied—postvocalic /r/, intervocalic taps, and the use of [æ] for [ɑ:]—postvocalic /r/ showed the most notable variation. The ethnically Chinese speakers again showed the highest overall percentage of postvocalic /r/ realisation. Tan (2016) suggested that this ruled out interference from the speakers’ mother tongue languages as a source of rhoticity in this group, since the speakers of Malay—a language that is rhotic in some dialects—would perhaps have been more likely to be rhotic. This also adds weight to assertions of the prestige status of postvocalic /r/, where Tan suggests that “Chinese Sg[E] speakers are more prestige-conscious than the Malay and Indian speakers” (2016:134). Tan (2016) concludes that such linguistic changes as the adoption of rhoticity are to be expected in a New English like SgE, which seems to be gaining native speakers, while reconciling the competing influences of native speaker models of English. This provides an interesting elaboration on the way in which endonormative stabilisation is occurring in SgE, suggesting that the confident use of local norms is also met with the selection and internalisation of features from other native speaker varieties due to forces of globalisation.

Starr (2016) investigated low back vowels and their interaction with postvocalic /r/ in SgE. Starr studied 34 female SgE speakers using a word list, reading passage, and interview. SgE is understood to have a total merger of the COT-CAUGHT-COURT sets (Wells 1982), although more educated speakers were said to avoid the SgE realisation in favour of more RP-like variants. Her findings for postvocalic /r/ realisation echoed those of Tan and Gupta (1992), where the highest incidence was in the word list context and the lowest in the interview. Speakers with over 50% rhoticity were found only among the youngest age group. Further, there appeared to be an interaction between age and register, where high levels of rhoticity among the youngest age group were mostly found within the word list task. However, frequency of American media consumption was found not to be a predictor of rhoticity here.

Starr et al. (2016) also categorised the participants as “cosmopolitan”—having a global outlook—or “heartlanders” with a more Singaporean identity and worldview. Rhoticity was found to have been introduced by the cosmopolitans; however, this change was not accompanied by AmE-like vowel qualities in COURT words, as one might expect if these speakers were adopting AmE norms. Furthermore, it appeared that the heartlanders were leading a change away from RP-like vowel realisations towards the merged variant typical of SgE speech. These findings highlight a preference for local norms, implying also that rhoticity in SgE might not be an imitation of AmE but instead an independent phenomenon contributing to a new careful speech style with a Singaporean character.

### 3 Methodology

#### 3.1 Speakers

Given that the incidence of postvocalic /r/ is not currently a widespread phenomenon in SgE, this study sought to investigate the group of speakers who would be most likely to produce this feature. For this purpose, 16 female speakers, aged 18 to 25, were selected, all of whom had completed some form of tertiary education at the time of the study (see Appendix A for an overview of participant acronyms). Speakers were chosen on the basis of Tan and Gupta’s (1992:145) prediction that “children from convent schools and prestigious government schools are particularly likely to use [postvocalic /r/]”.

Of the 16 speakers, 13 pursued their secondary school education at one of 11 Convent of the Holy Infant Jesus (CHIJ) schools, a prominent group of schools, known to be among Singapore’s earliest English-medium schools (Roman Catholic Archdiocese of Singapore 2017). These schools carry on a strong tradition of English language proficiency and excellence, and popular opinion regarding the girls from these schools also often

acknowledges their competence in the English language, associating them with “[a] near impeccable command of English” (j! 2015). The other 3 speakers also attended prominent government institutions.

Of the 16 speakers, 3 (TJE, SC, and AT) were attending universities in the United Kingdom (in Reading, England, and in Edinburgh, Scotland) at the time of the study, but this was not thought to have greatly influenced their tendency to produce postvocalic /r/, given that these areas are known to be relatively non-rhotic (Trudgill 1984, Stuart-Smith et al. 2014) and that the speakers mostly came into contact with non-rhotic speakers in their university environments (although this assumption will be revisited). All but one of the speakers are fully ethnically Chinese, but they all learnt Mandarin as their L2. The speakers in this study use predominantly English in their daily lives and at home.

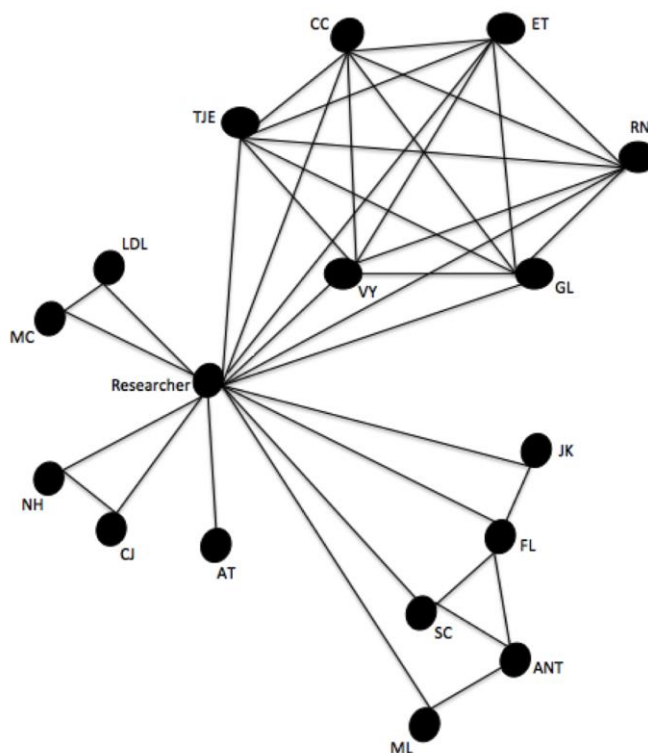


Figure 1: Social network map of speaker sample.

Some of the speakers selected attended the same schools and are part of the same “social network” (Milroy 1980). Figure 1 shows the rough social network mapping of this sample of speakers in relation to the researcher, who attended the same school as some of the girls. There are a number of clusters of individuals with strong ties, suggesting that linguistic norms would be similar for the members of each cluster (Milroy 1980).

### 3.2 Experimental Design

Previous studies of postvocalic /r/ in Singapore English have relied heavily on word lists and reading tasks. While these tasks ensure the definitive elicitation of /r/ tokens, they also create the possibility that postvocalic /r/ is more likely to be produced because of the orthographical representation of these words (Poedjosoedarmo 2000). The present study aims to address this issue as well as to gather more informal speech by employing a Diapix task (van Engen et al. 2010, Baker and Hazan 2011), in addition to a reading passage.

The Diapix task involved a “spot-the-difference” activity undertaken in pairs, where participants were given similar pictures and tasked with identifying eight differences between their pictures in their conversation (see Appendix B). The participants were paired with other familiar participants so that they would be more likely to produce natural and spontaneous speech. Each set of pictures was designed to prompt the use of specific words containing potential environments for postvocalic /r/. The vowels preceding postvocalic /r/ in these target words were also considered, such that similar numbers of words were included to elicit postvocalic /r/ following each of the various vowels. Although some text was incorporated into the pictures, the informal speech context was expected to reduce the possible effect of orthography and other effects of reading passages such as changes in intonation.

A pilot study was first conducted (with speakers SC and AT), after which minimal edits were made to the pictures. The researcher was present to oversee the recording process. She was a 22-year-old Singaporean

female, familiar to the speakers, and with a similar socioeconomic and educational background; these attributes helped control the potential effects on their speech style.

This study also made use of a modified version of the reading passage used in Tan and Gupta's (1992) study (see Appendix C). The passage included 65 target words containing potential environments for postvocalic /r/. Different types of rhotic environments in these target words were also incorporated to ensure a balanced representation of /r/ contexts. The reading task was done after the Diapix task to avoid a priming effect in case the more careful speech style elicited higher levels of postvocalic /r/. Participants attempted the reading task individually.

### 3.3 Coding

All recordings were taken using a Zoom H2n Handy Recorder and the participants each wore a lapel Audio-Technica ATR3350 lavalier microphone. The recordings taken were then analysed and coded auditorily for every potential instance of postvocalic /r/ and whether or not /r/ was realised in these contexts. This was represented as "1" or "0". The envelope of variation included any production of /r/ occurring after a vowel but not word-initially or intervocally. Linking /r/ contexts were also included, since the extent to which /r/ is realised in these contexts in SgE is unclear (Tan and Gupta 1992, Tan 2012), and it is certainly not categorically realised in the way that linking /r/ is in non-rhotic L1 varieties.

The data were fully coded twice, by two different researchers,<sup>1</sup> yielding an inter-rater reliability of 95.3%. Where they differed, the raters discussed the token and agreed on a value. The two tasks yielded a total of 2402 potential instances of postvocalic /r/. The tokens were also coded for register, distinguished by the contexts of the Diapix task (casual speech) and the reading passage (careful speech). Coding was also done for six linguistic variables, which were selected based on previous work on postvocalic /r/ in native speaker varieties (Nagy and Irwin 2010). The following linguistic variables were coded for:

- (1) grammatical status of the words (*content or function*)
- (2) vowel preceding the rhotic context
- (3) segment following the rhotic context
- (4) type of boundary following the rhotic context (*morpheme, word, phrase, or sentence*)
- (5) stress status of the syllable containing the rhotic context (*stressed or unstressed*)
- (6) close proximity of any other instance of /r/ (*within two syllables of the instance in question*)

### 3.4 Survey

A post-task survey eliciting information about the speakers' personal lives and interests, media consumption, and attitudes towards various English accents, including AmE, was also carried out to gain more understanding of the speakers' individual profiles.

## 4 Results

Postvocalic /r/ production was studied here in relation to individual variation and register as well as to a number of linguistic variables. A mixed model logistic regression was used to analyse the data, and the Rbrul (Johnson 2009) results are presented in Table 1. This section presents the most noteworthy results.

**Table 1:** One-level analysis of response (rhoticity)

Predictor/ <i>p</i> -value	Factor	Tokens	r/r+0	Centred factor weight
Psg.Pic (5e-09)	pic	1366	0.183	0.662
	psg	1036	0.085	0.338
GrammaticalStatus (0.49)	f	482	0.145	0.530
	c	1920	0.140	0.470
FollowingV.Pause (9.55e-07)	v	271	0.199	0.655
	p	470	0.202	0.522
	c	1661	0.114	0.326
StressOnRSyllable (1.22e-05)	s	1763	0.138	0.633
	ns	639	0.149	0.367

<sup>1</sup> Special thanks are due to Laura Thomas for helping in the coding process.

#### 4.1 Rhoticity and Register

In this study, variation in register is illustrated by a difference between postvocalic /r/ realisation in the Diapix task (casual speech context) and the reading passage (careful speech context). The two are represented as “pic” and “psg” in Table 1.

Based on Table 1, a similar number of tokens were available in both registers. However, a higher percentage of postvocalic /r/ realisation was found in the Diapix task (18%) compared to the reading passage task (8%). This is contrary to findings in the literature, wherein postvocalic /r/ was found to be produced less in more casual speech contexts (Tan and Gupta 1992, Poedjosoedarmo 2000). The difference in production rates varying with formality was significant ( $p$ -value < 0.01), suggesting that for this group of speakers, rhoticity is predictable by the register of the speech context, albeit not in an expected way.

While most of the speakers produced fewer instances of postvocalic /r/ in the reading passage, Speaker TJE appears to be an exception to this norm, producing consistently high levels of postvocalic /r/ across both contexts.

#### 4.2 Rhoticity and Following Phonetic Environment

The segments following postvocalic /r/ were coded for as being either a consonant “c”, pause “p”, or a vowel “v”. Instances of a following vowel were taken to be linking /r/ contexts. Most tokens fall into the category of a following consonant, whereas the smallest number of tokens was found in linking /r/ contexts.

The results also showed that there are higher production rates of postvocalic /r/ at phrase boundaries (20%) compared to contexts followed by consonants (11%). This may be attributed to various phonetic phenomena that take place at these boundaries, such as final lengthening or stress (Streeter 1978). Many phrase boundaries were also found after hesitation fillers, such as “or”, which were stressed and drawn out in the speech of both the more rhotic and less rhotic speakers. Linking /r/ had a production rate of 20%, a similar rate to following pause environments, which is somewhat higher than expected but not near-categorical in the way that it would be in non-rhotic L1 varieties. The differences here were significant ( $p$ -value < 0.01).

#### 4.3 Rhoticity and Speaker

The speakers produced similar numbers of tokens with potential environments of postvocalic /r/, as shown by the totals in Table 1. The results reveal that the production of postvocalic /r/ varies on the level of the individual, with very uneven distribution.

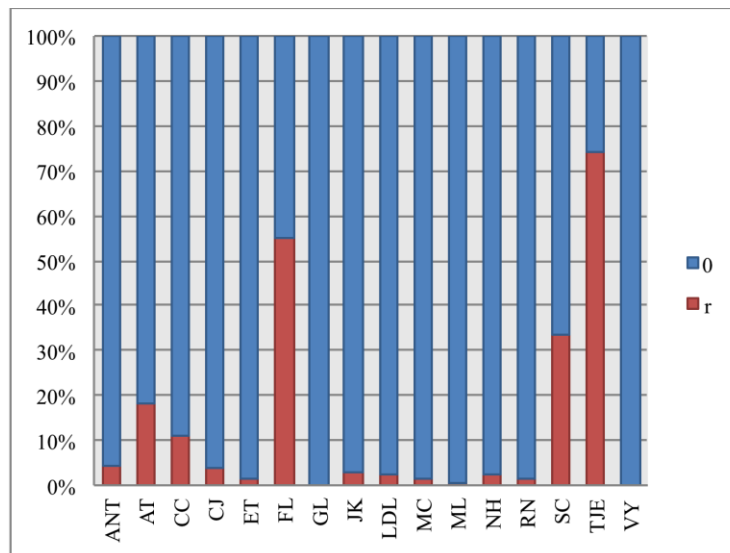


Figure 2: Postvocalic-/r/ production rates by speaker.

Figure 2 displays the percentage of postvocalic /r/ realisation across the speakers. These results show markedly higher levels of overall postvocalic /r/ realisation among 3 speakers, FL, SC, and TJE, 2 of whom produced postvocalic /r/ over 50% of the time (FL had a production rate of 55% and TJE had one of 74%). SC’s 34% production rate is also relatively high compared to the average result of 14% for the whole group of speakers. Most of the other speakers produced few instances of postvocalic /r/, with production rates between 0–4%.

The results of the survey (Table 2) could provide more insight here. Firstly, where most of the speakers claimed to identify most strongly with Singapore as a geographical location, SC and TJE expressed a greater affinity to the U.S. These speakers were also 2 of the 3 who regarded the U.S. as a place where they would be most open to working. Speaker FL was one of two to choose Europe, while a number of others chose the U.K. or preferred to remain in Singapore.

**Table 2:** Responses to survey section on hobbies and interests

	Do you see yourself taking up a career posting outside of Singapore?	If yes, where?	Which geographical location would you say you identify with the most?
NK	Y	Europe	SG
CC	Y	U.K.	SG
RN	N	NA	SG
GL	N	NA	SG
VY	Y	US	SG
AT	N	NA	SG
ANT	Y	SEA	SG
MC	N	NA	SG
SC	Y	U.S.	U.S.
JK	Y	Europe	SG
FL	Y	Europe	SG
ET	Y	SEA	SG
TJE	Y	U.S.	U.S.
CJ	Y	U.K.	SG
LDL	Y	U.K.	SG
ML	N	NA	SG

In selecting varieties appropriate in contexts with varying audiences, all the speakers agreed on SgE among family, and most of them thought the same for interactions with friends. However, when speaking with friends, SC and TJE said they might code-switch between SgE and AmE. Further, in an informal conversation between TJE and some of the less rhotic speakers from the same social network, she claimed that the use of an AmE speech style indexed by postvocalic /r/ was more “proper” and made her feel like she was “speaking better”. Speaker FL, however, selected SgE. Nonetheless, most of the speakers confirmed that they did change their accents in differing contexts. Many of them claimed to adopt AmE or BrE in more careful speech contexts, such as class presentations, or for the sake of better intelligibility when speaking to foreigners. Solidarity was also a consideration, with some like Speaker GL saying that she did not want to sound “snobby” or “stupid” by speaking AmE or BrE to more familiar individuals, somewhat echoing the findings of Eu’s (2004) attitude study. Significantly though, most of the non-rhotic speakers selected BrE as their preferred formal variety, whereas SC and TJE selected AmE.

In a casual conversation, a number of the less rhotic speakers said that they would adopt an American accent when “trying to be funny” and would likely emphasise particular segments, “especially the rrr”. For example, Speaker ET produces postvocalic /r/ in “four” in Excerpt 1 in a playfully antagonistic response to RN’s assumption that there were “three cars”.

Excerpt 1: Adopting AmE for humour

RN: and like, three cars[r]?

ET: I have four[r]

RN: [laughter]

The identification of a difference in the Diapix task by ET appears to be expressed and perhaps marked salient by a style shift to AmE. The speaker seems to channel the prototypical American “valley girl” type of character in a humorous way, incorporating also the rising intonation commonly associated with this speech style. The effect of this is laughter on the part of her interlocutor.

“Speaker” was treated as a random effect in the mixed logistic regression model. The greater tendency for TJE, FL, and SC to produce postvocalic /r/ was illustrated by positive intercept values in the model. These speakers also had high intercept values, the highest being TJE, followed by FL and SC. Speakers AT and CC



also had positive intercept values, but these were lower than those of the rhotic speakers. The relative non-rhoticity of the other speakers was evidenced by their mostly negative intercept values, with the exception of CJ and ANT, who had very low positive intercept values.

The positive intercept values of AT and CC also pointed to notably high levels of /r/ realisation. Having been paired with SC and TJE, respectively, AT and CC showed evidence of accommodation to their partners' speech styles. For example, in Excerpt 2, AT produces postvocalic /r/ in “floor” shortly after SC does so in the same word.

Excerpt 2: Speech accommodation between SC and AT

SC: under that what colour is the, floor[r] of the, under the awning?

AT: the floor[r] is grey

In Excerpt 3, CC also shows evidence of echoing TJE in producing postvocalic /r/. She appears to display some awareness of this in a somewhat self-conscious correction in her speech.

Excerpt 3: Speech accommodation between TJE and CC

TJE: we've spotted two differences right?

CC: three, three so far, the sign, the boy girl and the jewellery store[r], jewellery store[0]

TJE: oh, yeah

CC: yeah, and then we have the toy store[r], next to that

Here, CC's rhotic utterance of “store” in “jewellery store” is followed almost immediately by a repetition of this word without the /r/, with non-rhoticity continuing into her next turn.

#### 4.4 Rhoticity and Lexis

The mixed effects model showed a relatively gradual distribution of the intercepts of the various lexical items uttered by the speakers. Looking at the more notably rhotic words *where* and *there* (both in the SQUARE lexical set), these were often found to occur in linking /r/ contexts; hence, /r/ was often produced here even by the less rhotic speakers. The *where*-tokens occurred mostly in the careful context of the reading task, whereas *there* often featured in phrases like “there is...”, used in the Diapix task to identify entities in the picture. The START lexical set also featured a relatively high postvocalic /r/ production rate of 14%, following the NORTH and SQUARE lexical sets (15% and 20%, respectively). Further research may shed light on how meaningful this factor is as a predictor of rhoticity.

Many words from the list were read off signs or other text in the Diapix task. These include the most noteworthy, *care*, as well as *bar* and *Karl's*. On closer inspection of *bar*, it was found that all 5 rhotic instances were uttered in contexts with a following pause, where postvocalic /r/ is likely to occur. Hence, the rhoticity here is not necessarily a result of an orthographical *r*. It is also noteworthy that only 2 of 5 instances were uttered by one of the considerably rhotic speakers: this seems to support the finding that a following pause is a predictor of rhoticity in this demographic.

The word “care” was also noteworthy in the exchange between the less rhotic speakers CJ and NH in Excerpt 4. CJ first produces the /r/ in “care” in a brief style shift to AmE, evidenced by the distinct use of AmE intonation. Interestingly, NH then replies with similar AmE intonation and phonology, also producing /r/ in “care” as she gives an affirmative response.

Excerpt 4: Use of rhoticity and AmE intonation

CJ: and the lady's carrying a blue shopping bag that says “Oceans Facial Care[r]”

...

NH: oh, mine's carrying “Oceans Facial Care[r]” too

A similar AmE interlude was also observed in Speaker ANT's production of the text “Fresh Water Pearls”, where “pearls” was realised with an /r/. Additionally, the /t/ expected in “water” here was realised with a distinctly American intervocalic tap, supporting the belief that ANT is adopting an AmE style in this context. Such AmE interludes were common among the less rhotic speakers in the Diapix task and were not restricted to the read text.

## 5 Analysis and Discussion

### 5.1 Individual Variation

This paper has looked at postvocalic /r/ production in a group of young, female speakers of SgE from a specific educational background, hypothesising that these speakers were leading a change towards rhoticity in SgE. The results have shown that these speakers are generally not rhotic, given that a majority of this group have an overall postvocalic /r/ production rate of under 5%. Nonetheless, it is possible for particular individuals to be “rhotic”, as exemplified by notably higher rates of rhoticity among the 3 speakers TJE, FL, and SC.

TJE has been shown to feature the highest and most consistent postvocalic /r/ usage here. In the survey, she claimed to identify most strongly with the U.S., which perhaps explains her extensive rhoticity. She also expressed her belief that the use of an AmE speech style was more “proper”, although the less rhotic speakers claimed to style-switch to AmE more “for sarcasm or humour”; they would not use it when being “serious”.

While it does seem that TJE has more positive attitudes towards AmE and American culture, the fact that she studied in the U.K. is also worth considering. While this might not explain her rhoticity, given that most BrE dialects are non-rhotic, it might explain her prioritising the need to be understood or taken more seriously: her use of AmE could reflect her linguistic insecurity in SgE, causing her to select an exonormative standard which she believes to be more understandable and perceived more positively in this Western cultural context. This is again evidenced by her response to the survey, wherein she admitted to changing her speech style based on the ethnicity of her friends.

Speakers FL and SC were also rhotic in both contexts, though they were notably less rhotic in the reading passage. Although they were not paired together in the Diapix task, these two speakers belonged to the same “peer group” (Tan and Gupta 1992:146) in their 2 years in junior college and were hence considered members of the same social network. A casual remark from SC indicated that while she does identify with American pop culture, her speech style was also greatly influenced by FL during their time in school together, where they mutually reinforced the periodic use of AmE. This supports Tan and Gupta’s (1992) claim regarding peer group influence on postvocalic /r/ use and on speech style more generally.

However, SC and FL do not perhaps represent a straightforward case of speech accommodation, especially considering that they continue to be relatively rhotic despite not maintaining the same close contact. FL continues to favour an American exonormative standard, while SC was one of two in the survey to claim the U.S. to be the geographical location she most identified with. Hence, the convergent patterning of postvocalic /r/ use for these two speakers may be reflective of a consensus of positive attitudes towards AmE, which is likely to have been mutually reinforced during their time in school.

### 5.2 Register

Postvocalic /r/ has often been identified as a prestige feature in SgE, occurring in previous studies in more formal or careful speech, purportedly owing to an association with refinement or standardness (Tan and Gupta 1992, Poedjosoedarmo 2000). However, the present data have revealed higher production rates of this feature in the more casual speech context of the Diapix task than in the Reading Passage for most speakers.

In the Diapix task, FL and SC may have produced high levels of rhoticity because they regarded AmE as their default casual register, which may have been influenced by their interactions in school. Speaker TJE might have had high levels of rhoticity because she perceived a necessity for clear explanation and expression in the task and hence adopted AmE phonology as she believed this would help her to be better understood. On the other hand, the less rhotic speakers seemed to feature rhoticity when uttering words found on textual signboards in the picture. This text was often produced in conjunction with AmE intonation patterns and an overall AmE speech style. While one might suggest that it is the careful, read speech and potentially also the spelling pronunciation that caused these higher rhoticity rates, the apparent style-switch to AmE suggests that this might not be the case—at least not for all these instances. Further, it appeared that this was not restricted to the read text. There were also instances of style-switching to AmE that did not involve rhoticity, hence suggesting that the use of these AmE phonological features are not likely to be tied to the spelling.

As mentioned in Section 4.3, a number of the less rhotic speakers mentioned that they would adopt an American accent or AmE phonology for the sake of humour (refer to the analysis of Excerpt 1). The intermittent use of such interludes seems to evoke humour in a self-conscious way, involving the adoption of an AmE “persona” as frequently featured in the media, possibly to achieve discourse coherence but also to reinforce the informality and casualness of the interaction.

Another factor that might have triggered higher levels of postvocalic /r/ use is the association of consumerism and advertising in Singapore with the U.S. and AmE. This is especially evident in the set of pictures that features a shopping centre with a number of shops and advertisements. Returning to the examples of “Oceans Facial Care” as well as “Fresh Water Pearls” mentioned in 4.4, the use of an AmE style in these

cases could echo the presentational advertising style often featured in the media. Hence, the adoption of rhoticity as part of an AmE style of media persona may perhaps be seen as a self-conscious imitation of the formal, presentational speech style commonly used in American television advertisements, also contributing to a humorous and light-hearted conversational mood.

In the reading passage task, a frequent comment among the speakers was that this was “like oral [examinations]”, making reference to the mandatory standardised testing that they all went through in secondary school. Interestingly, it was BrE that most Singapore schools encouraged their students to aspire towards at this time (Zhou 2011). The selection of BrE as a default formal register is also reinforced by their survey responses, wherein many judged this variety to be most appropriate in the context of class presentations. This explains the relatively lower levels of postvocalic /r/ production here.

## 6 Conclusion

This paper found that in the speech of the group of young, female speakers of SgE studied here, postvocalic /r/ is produced only by certain individuals. Postvocalic /r/ seems to be largely associated with an indexicalised Americanness, one that is leveraged differently by more and less rhotic speakers. The speakers in this study appear to be aware of these associations and seem to adopt postvocalic /r/ and AmE phonology in a conscious and deliberate way, either to align themselves with an idealised Western identity or a set of shared attitudes towards AmE within a particular social network.

While existing work has observed higher rates of postvocalic /r/ in more careful speech contexts, both more and less rhotic speakers showed a different pattern here from these previous studies, featuring more rhoticity in the more casual context of the Diapix task. The co-occurrence of other AmE phonology led to the suggestion that rhoticity and AmE may provide a means of conveying humour or sarcasm—one that is available to both the more and less rhotic speakers in this group and hence presents itself as a point of commonality between speakers in this demographic. The more formal context of the reading task seemed instead to be associated with BrE for these speakers.

Nevertheless, while this group, who are largely from “convent schools and prestigious government schools” (Tan and Gupta 1992:145), may be speakers who likely have access to postvocalic /r/, they are perhaps not the ones who use it most extensively—at least not all of them. It appears, instead, that a majority of this group adopt a more localised, non-rhotic speech style, though switching to AmE intermittently in casual interactions. Therefore, AmE may be said to achieve a similar sense of commonality as Colloquial Singapore English and other local dialects used casually, though drawing on a Western, exonormative standard. The indexicalised Americanness achieved by the use of postvocalic /r/ here is reflective of a shared cultural affinity with this Western culture, albeit one that does not compromise the more local identities enacted by this group.

In this vein, it would be worth investigating the use of postvocalic /r/ by SgE speakers in conversation with other SgE speakers, expanding the scope to include different genders and educational backgrounds to gain further insight into the variation in the use of postvocalic /r/ of this group of educated speakers, and shedding light also on the inclusion of rhoticity in standard SgE more generally.

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**Appendix A****Participant Pairings**

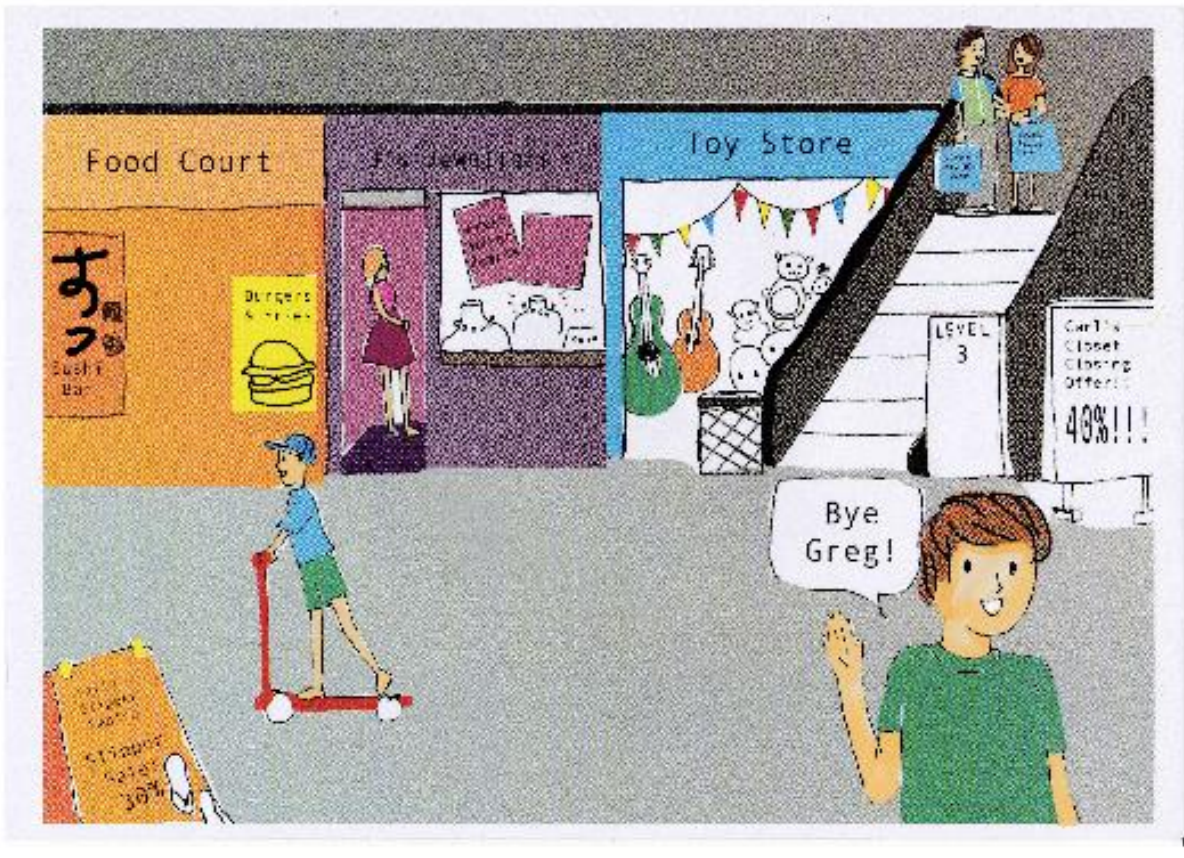
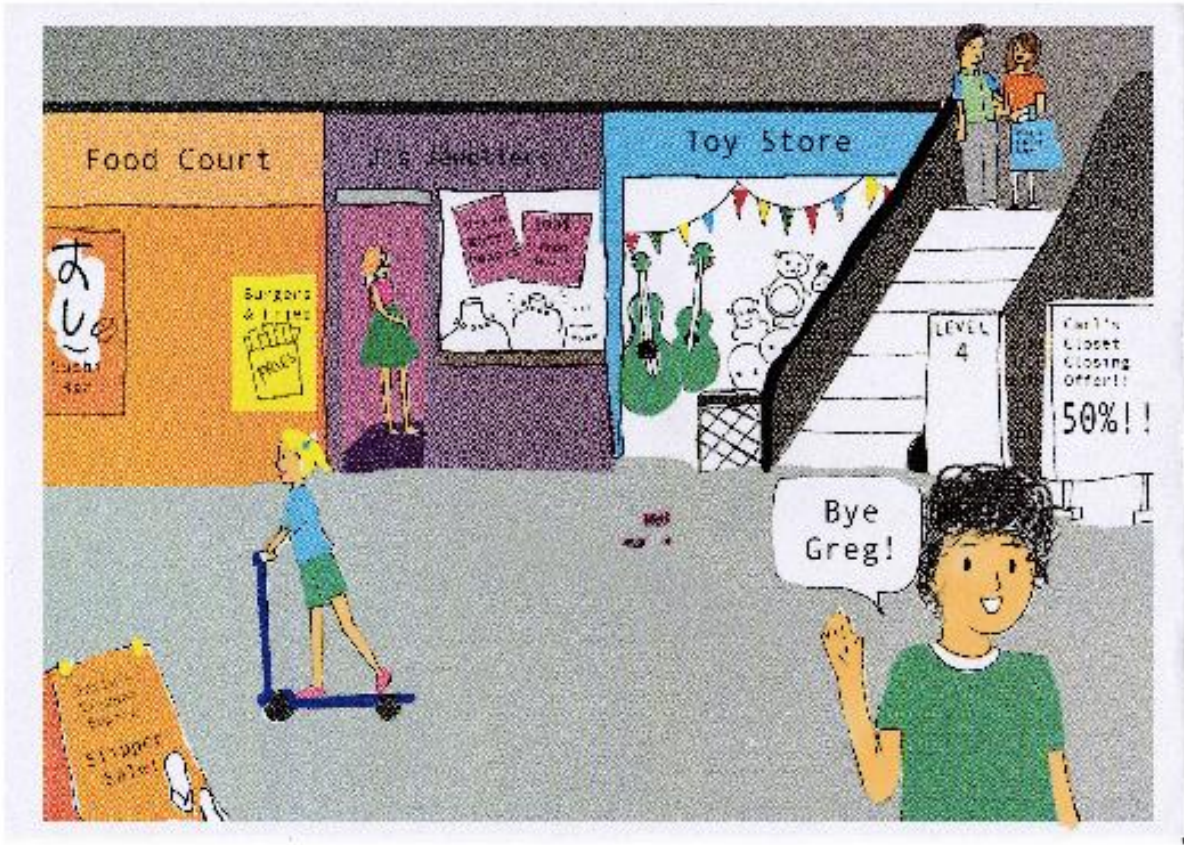
Speaker SC	Speaker AT
Speaker TJE	Speaker CC
Speaker FL	Speaker JK
Speaker ANT	Speaker ML
Speaker CJ	Speaker NH
Speaker ET	Speaker RN
Speaker LDL	Speaker MC
Speaker GL	Speaker VY

Appendix B

Picture Sets for Diapix Task







## Appendix C

### Reading Passage

A **number** of days ago, my friend Charles and I observed a **rather** amusing scene in the outdoor carpark of the condominium **where** I live. A parking attendant was talking to a security guard when he saw a young woman and three children get into a car. The car had been parked by a large garden where some renovation works were being carried out.

The security guard recognised the **four** of them as Bert's wife, Veronica, and their three daughters, who had just returned from a short holiday in Perth. Just as they were pulling out of the parking lot, he noticed that the car had a flat **tyre** and so he began to gesture wildly to them, calling out “Veronica! Veronica!”, to warn **her** about it. But it was too late. He had just reached the gate of the carpark when he saw her turn out onto the main road.

However, after turning out of the carpark, the woman stopped the car by the side of the road, got out of the car and began to examine the flat tyre. The children stayed in the car, playing with their toy dolls and styling their hair. **After** a while, a car stopped behind them and the **driver** offered to help the woman. He rolled up his shirt sleeves and changed the tyre for her.

When he had finished and gone, she drove her car back into the carpark, got out with the girls and returned home. “Fancy coming up with such a trick!” I exclaimed. Charles and I looked at each **other** in disbelief.