Introduction

Malaysian English (MalE) is often referred to as Manglish although it is more of an umbrella term under which many sub-varieties of MalE can be subsumed (Gaudart 1997; Morais 2001). MalE is considered as a second language variety, an outer circle variety or a New English and as such a variety, it is no surprise that it “is significantly different in its linguistic features in the aspects of syntax, morphology and phonology” (Phoon and Maclagan 2009, 59). MalE is in fact a complex language, which is used by Malaysians of different ethnic groups, professions and socio-economic and geographic backgrounds, with different levels of proficiency (Pillai, Mohd. Don, Knowles and Tang forthcoming). Due to the varied backgrounds of English users in Malaysia, MalE is coloured by different accents. Preliminary observation also suggests that MalE pronunciation is increasingly being influenced by AmE with some evidence of post-vocalic r being pronounced and the LOT vowel being unrounded among young Malay speakers (Pillai, Manuela, and Dumanig 2009).

Current descriptions of MalE pronunciation tend to be based on colloquial MalE, which will have more marked features, and MalE pronunciation also tends to be placed together with Singapore English (SingE). The descriptions of MalE pronunciation also tend to be impressionistic in nature. To address the need to have a more systematic description of Standard MalE, a Corpus of Spoken Malaysian English (COSME) is currently being developed. While data collection is still ongoing for COSME, acoustic analysis has been carried out on the vowels produced by Malaysian speakers of different ethnic and age groups. This paper discusses the characteristics of the four rounded back vowels produced by the speakers based on their acoustic properties. Particular focus will be given on the back vowels, as these have been found to be different among different varieties of English. In particular, the presentation will address the following questions: (1) What are the acoustic characteristics of the rounded back vowels in MalE? (2) To what extent are there differences in the back vowels produced by different age and ethnic groups? (3) How do the back vowels in MalE compare with other varieties of English?

Literature Review

Previous studies on MalE vowels have shown there is a lack of contrast between traditionally paired vowels which can be connected with the tendency to shorten long vowels resulting in word pairs such as pot and port, and cot and caught being pronounced as homophones in MalE (Mohd. Don 1997, 39). Similar findings were reported by Pillai et al. (forthcoming) and Wan Ahmad (2005) based on instrumental analysis of MalE vowels. Both these studies highlight the fact that the lack of contrast is not just because of durational shortening of long vowels as suggested by many impressionistic studies but also because of a lack of quality contrast. Based on measurements of the first and second formant frequency (F1 and F2), and vowel
length of MalE vowels, the quality of related vowels were contrasted. Pillai et al (ibid.) found that there tended to be a lack of quality contrast between the front and central vowels while the back vowels displayed more contrast as they did in Philippine English (Pillai et al. 2009). Thus, when the vowels were plotted on a vowel chart, the back vowels were further apart than the rest of the pairs. Scatter plots of these vowels also showed less overlaps between the back vowels.

A lack contrast between particular vowel pairs in neighbouring varieties of English have also been found. Deterding (2003, 6-7) found that the front vowel pairs and the LOT and THOUGHT vowels were much closer in SingE than in British English (BritE). However, he noted that the high back vowels in SingE were placed further back than in BritE. Haji Sharbawi (2006) also found a similar lack of contrast in the vowels of Brunei English (BrunEng). Her findings showed that the FOOT and GOOSE vowels were produced more front compared to SingE. This is similar to findings on Hong Kong English, who also report a possible merger of the LOT and THOUGHT vowels (Deterding et al 2008). The fronting of the GOOSE vowels has been found among British speakers (Hawkins and Midgley 2005). Thus, it appears that there is a particular trend of fronting particular English back vowels, and this study looks at the rounded back vowels in MalE.

Methods

The data comprises two sets of data from COSME. The first set of data comprised recordings from by 47 female Malaysian undergraduates from different ethnic backgrounds. The selected students were all English language majors who could be assumed to be proficient in English. The second set of data consisted of 6 female Malaysian English speakers from Taiping, Perak, Malaysia, with an average age of 65 years. According to all the profiles of these respondents, they all speak English as their dominant language. The target vowels were embedded in a CVC context (where C = a stop consonant) and placed in a carrier sentence: Please say CVC again.

PRAAT version 5.1.07 (Boersma and Weenik 2009), was used to listen and transcribe the data, measure and annotate the first and second formant of the vowels and also the vowel durations. The Formant Frequency Model was used to measure the four rounded back vowels based on the assumption that “…the frequencies of F1 and F2 [the first and second formants] relative to one another are thought to provide the human speech perception system with the cues necessary for the recognition of individual vowel qualities” (Watt and Tillotson 2001, 275). F1 is correlated inversely with vowel height whereas the second formant or F2 has a direct relationship with vowel fronting. The F1 and F2 frequencies (Hz) of the vowels were measured using the automatic Linear Predictive Coding (LPC) in PRAAT.

Findings and Conclusions

Table 1 presents the F1 and F2 measurements and durations of the rounded back vowels for the two sets of MalE data while Figure 1 shows the vowels on a vowel chart, where it can be seen that the Taiping vowels lie further back in the vowel space. The THOUGHT vowel in the undergraduate data for is similar to the same vowel reported in Pillai, Mohd. Don and Knowles (forthcoming), which was produced by a group of English language lecturers with an average age of 45 years. The retracted back vowels produced by the older Taiping respondents could be a manifestation of colonial English, as the realization of these back vowels are similar.
to those found in older British speakers (e.g. Hawkins and Midgley 2005). However, compared to the vowels of younger BritE speakers (ibid.) where there is evidence of fronting of particularly the FOOT and GOOSE vowels, we find that the vowels produced by the Taiping speakers were the most retracted.

Table 1. Measurements for Rounded Back Vowels

<table>
<thead>
<tr>
<th></th>
<th>LOT F1</th>
<th>LOT F2</th>
<th>THOUGHT F1</th>
<th>THOUGHT F2</th>
<th>FOOT F1</th>
<th>FOOT F2</th>
<th>GOOSE F1</th>
<th>GOOSE F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male female UG</td>
<td>806</td>
<td>1200</td>
<td>641</td>
<td>1021</td>
<td>472</td>
<td>1237</td>
<td>410</td>
<td>1026</td>
</tr>
<tr>
<td>Male female Taiping</td>
<td>630</td>
<td>806</td>
<td>520</td>
<td>852</td>
<td>386</td>
<td>897</td>
<td>385</td>
<td>719</td>
</tr>
</tbody>
</table>

Figure 1 Rounded Back Vowels in MalE

In terms of vowel contrast, the back vowels of the female undergraduates appeared to show more contrast. Correlated samples t-test showed a significant difference in the average F1 and F2 between the pairs of lower (t(46)=11.54, p< 0.01; t(46)=11.16, p< 0.01), and higher back vowels (t(46)= 5.5, p< 0.01; t(46)=10.23, p< 0.01). However, for the Taiping data, correlated samples t-test showed that there was no significant difference in the average of F1 and F2 between the lower pair (t(10)=3.87, p>0.001; t(10)=3.56, p>0.001). Similarly, there was no significant difference in the average of F1 and F2 between the higher back vowels in the Taiping data (t(11)=0.06, p>0.001; t(11)=5.74, p>0.001). This is surprising, as we would expect the older speakers, having had more influence from British English, to show more contrast.

However, when it came to length contrast, the differences between the mean durations of the higher vowel pair were statistically significant (t(46)=7.79 <0.01) but not for the lower ones (t(46)=3.4, p> 0.01), which displayed more contrast in terms of vowel quality. For the Taiping data, the difference between the average durations for both vowel pairs was not significant.

A comparison among three ethnic groups among the undergraduate data suggests that the four rounded back vowels are produced quite similarly to each other (see Figure 2), with no significant differences found in the average of F1 and F2 or durations among the three groups.
As reported in Pillai et al. (forthcoming), in comparison with BrunE (Haji Sharbawi 2006) and SingE (Deterding 2003), the LOT and THought vowel showed more contrast in the undergraduate data. A comparison of the F1 values among the two sets of MalE data, BrunE, and SingE indicates that the Taiping vowels are produced the most back while the Brunei ones are more fronted. Contemporary SingE and MalE appear to be similarly placed. BrunE also appears to have a merger of the two pairs of back vowels. The observable trend is that current varieties of regional Englishes appear to display a possible fronting of the rounded back vowels, a phenomenon which has been observed in BritE as well. The surprising finding in this data is the lack of contrast between the vowel pairs among the Taiping speakers who seemed to have maintained some semblance of an older variety of British English for their rounded back vowels by producing them more back, but at the same time display the typical lack of vowel contrast found in Malaysian English and regional varieties of English. However, further research into the production of back vowels among Malaysians should look at the degree of lip rounding to ascertain its effects on vowel quality. The preliminary finding suggest that the four rounded back vowels in MalE as used by younger speakers (45 years and below) tend to show more vowel contrast compared to other vowel pairs but are also more fronted in the vowel space than those produced by older MalE speakers.

References


