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English in Malaysia

Postcolonial and Beyond

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Contents

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The Monophthongs and Diphthongs of Malaysian English: An Instrumental Analysis

Introduction

Malaysian English (ME) not only comprises an array of sub-varieties (Gaudart 2000: 47) but is also spoken in a multitude of accents ranging from the less ethnically and geographically marked accents heard on national television news to a more Americanised accent of urban teenagers. It is also common to hear Malaysians switching from one accent to another whether as an identity marker or to accommodate or assimilate with speakers from different ethnic groups (Pillai 2008: 42). This is an interesting phenomenon because in many cases it is likely that the speakers are using an accent of a particular ethnic group, not necessarily their own, whilst speaking in English (or even in Malay) in lieu of an ethnic group's language. This is not done in a derogatory way, but rather to mark solidarity with that particular group. For example, a Malaysian of Tamil ethnicity may speak English with a Chinese accent when speaking to a fellow Malaysian Chinese shopkeeper. In fact, Malaysian Tamils may even use English with other Tamilians with a "Tamil" accent especially when they cannot speak Tamil, perhaps as a marker of in-group identity. In other words, the inability to use one's own ethnic or heritage language is in a way compensated by the use of an ethnically accented variety of English. This is not a surprising phenomenon given that linguistic markers are one of the easiest ways to shift in and out of our many identities (Schneider 2003: 240).

The use of English with a marked accent appears to be more prominent in the use of colloquial Malaysian English rather than in the more acrolectal variety. This is not unusual given that there is a ten-

dency for accents to become less marked in careful speech or in more formal contexts even in native varieties of English. Thus, whilst the many different accents in which ME is used make it a challenge to study the sounds of ME, the assumption that there will be less marked features in the more acrolectal variety can act as a platform for the study of the characteristics of ME pronunciation (Pillai et al. 2010: 160).

Previous Work on ME Pronunciation

Platt and Weber (1980: 170-173) were among the first to describe the sounds of ME. Platt and Weber (1980: 168-169) divided ME into two categories essentially based on whether speakers had been to English medium schools (Malaysian English Type I or ME I) or to Malay medium schools (Malaysian English Type II or ME II). Whilst ME I was considered to be the same as Singapore English (1980), ME II was seen as a second language variety with more marked linguistic features including that of pronunciation. In the ME II group, Platt and Weber (1980: 169) felt that the level of education of speakers did not affect the way they used English. Based on their study of forty Malays in the 18-36 age group who were all from Malay medium schools but with different levels of education, Platt and Weber (1980: 170) found that speakers who had more exposure to English displayed some differences in the way they used English compared to those with less exposure to English. These included speakers from the former Straits Settlements (Melaka and Penang), and those from Kuala Lumpur.

Based on an analysis of the English used by this group of ME II speakers, Platt and Weber (1980: 172) found the tendency to shorten long vowels, a phenomenon also reported by Baskaran (2004: 1039), Phoon and Maclagan (2009: 67) and Mohd Don (2000: 39). However, no mention is made of vowel quality by Platt and Weber, while Phoon and Maclagan (2009: 66) and Rajadurai (2006: 50) suggest that some

ME vowels have a different quality from equivalent vowels in the Received Pronunciation (RP) of British English. These include the vowel /ɑː/, such as in the word *start*, being produced further front and shorter as [a]. Baskaran (2004: 1039), however, says that this vowel is produced higher and is more centralised in the vowel space. Findings from Pillai et al. (2010: 165), which were based on an acoustic analysis of ME monophthong vowels, confirm this realisation. In other words, similar to Standard Southern British English (Deterding 1997: 50-51), ME /ɑː/ is more centralised and closer in quality to /ʌ/. Further, Pillai et al. (2010: 165) found that ME /ɔː/ is produced lower but more fronted than in Standard Southern British English (Deterding 1997: 52).

In relation to diphthongs, Platt and Weber (1980: 172-173) also report that their subjects had a tendency to produce some of them as monophthongs. They cite the example of the diphthong in words like *so, old and road*, which is produced similar in quality to a shortened version of RP *hawk* and *caught* (1980: 172). This is similar to what Phoon and Maclagan (2009: 67) found, where their subjects produced the /əʊ/ diphthong as [o]. However, while Phoon and Maclagan (2009: 67) report that their subjects produced [e] for /eɪ/ e.g. in a word like *spray*, Platt and Weber (1980: 173) found that a more open [ɛ] was produced in place of this diphthong. These differences could be due perceptual impressions by different researchers.

Returning to the point about different realisations of ME vowels found in previous studies, such findings may be a result of the different ethnic, educational and language backgrounds of the informants in these studies. For example, Platt and Weber's (1980: 169) respondents were Malays. On the other hand, Phoon and Maclagan (2009: 60) analysed the speech of five male and five female Chinese Malaysians who were 19 to 26 years old, studying in New Zealand, and were considered to be dominant and educated users of English. The varieties of ME examined in these studies clearly differ because of varying ethnic and educational backgrounds as well as language use and exposure. Nevertheless, there are still many similarities in the pronunciation features described in the two studies. This is despite them being almost 20 years apart, which implies that there are prevailing features of

ME pronunciation, which cut across ethnic and social groups, resulting in a recognisably Malaysian-accented English.

Besides vowels, other common features of pronunciation described are the use of syllable initial dental *th* sounds being substituted by /t/ and /d/ (e.g. in *three* and *mother* respectively), the deletion of the final consonant (particularly alveolar stops) in word final consonant clusters, such as in words like *just* and *behind* (Phoon and Maclagan 2009: 63-64; Platt and Weber 1980: 170-172). Other features of ME pronunciation described by Phoon and Maclagan (2009: 63-64) and by Baskaran (2004: 1041-1042) include the devoicing of final fricatives such as in the words *give* and *eyes* [gɪf] instead of [gɪv], [aɪs] instead of [aɪz]) and the glottalisation of final stops (e.g. in *that*). Phoon and Maclagan (2009: 64) also found instances of rhoticity among their respondents. Sporadic realisations of pre-vocalic *r* among young Malay speakers were also reported in Pillai, Manueli and Dumanig (2010: 80). However, the patterns of use are not consistent enough to conclude that Malaysian English is becoming rhotic. Whether rhoticity will be a common feature in Southeast Asian varieties of English like Malaysian and Singapore English depends on whether this feature eventually gains more prominence among younger speakers, becomes a marker of prestige, and subsequently spreads across the variety over time (Tan and Gupta 1992: 40).

One of the main problems with earlier descriptions of ME sounds is that they are mostly based on impressionistic analysis, and tend to provide a general description of the vowel inventory in ME based on perceived differences from RP, therefore, leaning towards a prescriptive rather than descriptive framework. The reliance on RP is understandable given Malaysia's historical ties with Britain, and British education. However, as put forth by Pillai *et al.* (2012, 196):

> Whether RP remains a realistic reference model [more than] fifty years after independence is another matter entirely, and it is something to be ascertained rather than simply assumed … Since many societies, as in Malaysia, have been using English for intra- and international communication since before independence, traditional "native speaker" models may no longer be appropriate.

In fact, the current trend in research on pronunciation of new varieties of English is to use native varieties like Standard British English (usually RP) as reference models rather than as a target. The tendency is to describe the features of the new variety in their current forms rather than to treat them as deviations from a particular native model.

Besides being largely based on impressionistic analysis, most of the descriptions of ME are derived from learner and mesolectal varieties of ME where the features of pronunciation may not be systematically consistent. This is in contrast to the English used by more fluent or dominant users of English where we can expect more stabilised forms. This is one of the major challenges of studying any variety of English, more so the ones typically placed in Kachru's outer circle of Englishes, where English is generally considered as a second language (L2) by virtue of its use, function and status (1985: 12-13). However, the countries placed in this circle differ considerably in terms of the extent to which English is used, and the type and levels of English used within a country and among the countries. In other words, "colonial Englishes, like native varieties of English, are not homogenous" (Kachru 1990: 10), and thus, most studies of these varieties of English are confined to a slice of the population, such as the educated, colloquial or learner English within that variety of English, and seldom take an inter-dialectal perspective. Even if they do, the linguistic variability described in outer circle varieties such as ME is usually limited to binary descriptions (e.g. educated versus non-educated, standard versus non-standard).

Schneider (2003: 238) proposes an alternative model to examine "new" varieties of English proposing an evolutionary approach that accounts for the linguistic variability in these varieties. Schneider's *Dynamic Five-Phase Model of the Evolution of New Englishes* (2003: 243) is based on the premise that all these varieties undergo similar processes in their evolutionary process beginning from the time that the colonial variety of English is transported to the country. This is the foundation phase (phase 1) that is then followed by exonormative stabilisation (phase 2), nativisation (phase 3), endonormative stabilisation (phase 4), and differentiation phases (phase 5). In the Malaysian context, the first phase can be traced to the British settlement of Penang in the 18th Century. The second phase emerged as the influence

of English spread along with English-medium education, increased missionary activities, and the growing need for English in the administrative and commercial sectors in the Straits Settlements (Pillai 2012: 573). Schneider (2003: 247) posits that the third phase, nativisation, can be linked to the declaration of Independence to then Malaya in 1957. Although Malay was accorded national language status (Article 152 of the Federal Constitution and the National Language Act 1963/196), at the early stages of the post-colonial period, English still had a strong grip on education and administration, and standard written and spoken British English was the prevailing norm. At the same time, a more locally flavoured English was developing and is captured in literary and creative works written in English (e.g. Killingley 1968: 185-205), and has also been described in previous research. However, by the early 1970s, Malay began replacing English as the medium of instruction in national schools and public universities. It can be hypothesized that with the decreasing use of English in more formal contexts, like administration and education, the use of the nativised or localised variety of English became more widespread, which would place ME at phase 3 of the model. At this phase, there will be variability in pronunciation as the features have yet to stabilise, and the emerging features of pronunciation are likely to be "transfer phenomena from the phonology of indigenous languages" (Schneider 2003: 248).

However, Gut (2007: 357) opines that phonological differences are not always due to first language (L1) transfer. She cites the case of the realisation of final consonant clusters in Singapore (phase 4) and Nigerian English (phase 3), where both varieties exhibited features that are different from Standard British English, but which cannot be attributed to a local language. The lack of L1 transfer was also reported in Pillai *et al.* (2010: 170) where the vowel qualities of the subjects did not appear to correspond to their L1.

Gut proposes the Norm Orientation Hypothesis to explain the phenomenon in Singapore and Nigerian English, whereby "a tacit endonormative norm is widely accepted" in Singapore "[w]hereas in Nigeria, teachers and students appear to transmit and speak the Standard English of native (British) speakers" (2007: 355). Rather than merely being a result of L1 transfer, Gut suggests that "new" features

of pronunciation undergo a developmental process and distinctive features will emerge over the years, with the rate of change linked to the attitude towards an exo- or endonormative norm. According to Gut, "[o]nly with the identification of the English-speaking community with their variety and a shift to an endonormative orientation … will distinct structures spread systematically in the phonology of the New English" (2007: 356). However, whether the spread of particular pronunciation feature is inevitable despite a lack of official orientation towards a local model, as is the case with ME, merits further investigation.

In Malaysia, for example, more than half a century after gaining independence from Great Britain, the term "Malaysian English" still tends to be equated with the non-standard colloquial form, ignoring the fact that especially where pronunciation is concerned, a recognisably "Malaysian" accent can be perceived even in acrolectal contexts. Thus far, there has been no concerted effort to establish an endonormative model for Standard Malaysian English pronunciation. Instead, British English norms are still being revered "so that our students will know how to pronounce English words as spoken by native speakers" (Jamin 2010, n.p.), despite the current global use of English:

> …as English becomes more widely used as a global language, it will become expected that speakers will signal their nationality, and other aspects of their identity, through English. Lack of a native-speaker accent will not be seen, therefore, as a sign of poor competence. (Graddol 2006: 117)

More distressing is that such reverence for native models is inconsistent with the way in which many ME users establish a local identity via English and take ownership of English as their own, be they L1 or dominant or L2 users of ME. However, this, as Schneider points out, requires a "psychological independence and the acceptance of a new, indigenous identity" (2003: 250), but due to the multilingual context of Malaysia, the geographical spread, and socio-politically related language issues, this is a complex ideal to achieve. Because of the dependence on exonormative standards, and the reduced functional use of English, Schneider suggests that English in Malaysia is current-

at phase 3, while neighbouring Singapore is placed at phase 4 (2003: 260-263).

However, there is no doubt that there are emerging, if not systematic features, of pronunciation in ME, and this chapter discusses the characteristics of ME monophthong and diphthongs based on an acoustic analysis of the vowels and discusses the findings in relation to Schneider's Dynamic model. Major trends in the way that a group of Malaysian speakers who use English as an L1 and produce monophthongs and diphthongs will be discussed. Comparisons to neighbouring varieties that share a colonial history, namely Singapore and Brunei English, will be made where appropriate.

Methodology

Informants and data

The data were taken from the Corpus of Spoken Malaysian English (COSME), which is currently being developed at the Faculty of Languages and Linguistics, University of Malaya. The data discussed in this chapter were extracted from recordings of 11 female Malaysian undergraduates who were pursuing a degree in Languages and Linguistics majoring in English Language. The selected informants were from different ethnic backgrounds, nine Chinese and two Indians, but they all indicated that they used English as their L1 in a questionnaire they were asked to complete prior to the recordings about their language use in a variety of contexts. All of them said that they spoke English at home from young (before primary school) and that they used English at home with their family members and communicated predominantly in English with their friends. However, it should be noted that a smattering of Malay and lexical items in the informants' heritage languages (e.g. Tamil or Chinese dialects) especially to refer to kinship terms and religious and cultural references, are present in the English that they use. English was the first language acquired by

the informants and it continues to be their dominant language despite all of them being fluent in two or more languages at the time of the study. The languages include Malay, as all of them went to Malay medium schools throughout their primary and secondary education, and thus, they would consider Malay to be their second language. The selection of informants who used English as a first language was motivated by the desire to examine vowels that were least affected by speakers who had other first languages such as Malay, Tamil or Cantonese. Based on their dominant use of English, their pre-university English results and their current area of study, the informants were deemed to be fluent speakers of English.

The data of the selected informants comprised words embedded with the target vowel in a CVC context to provide a constant phonetic environment and to make it easier to identify the vowels on a spectrogram. The informants were recorded in a quiet room using the Kay Elemetrics *Computerized Speech Lab (CSL) Model 4500*. For the monophthong vowels, the words were placed in a carrier frame to provide a more natural speaking context: *Please say CVC again*, where CVC consisted of the following words**:** *bid*, *bead*, *beg*, *bag*, *bug*, *bard*, *pod*, *board*, *put*, *boot* and *bird* (see Pillai et al. 2010: 162). The schwa was not examined as it only appears in unstressed syllables. There were 11 tokens of each target monophthong resulting in a total of 121 vowels for analysis. For the diphthongs, the same CVC context was used for the words *bayed*, *bide*, *Boyd*, *bode*, *bout*, *beard* except for *poor* and *bear* with a total of 88 tokens for analysis.

The choice of these bVd words provided a uniform phonetic environment and minimised co-articulatory effects on the vowel quality. It also made it easier to identify the vowel segment on the spectrogram. All the words were familiar to the subjects. As explained in Pillai and Salaemae (2012: 1148), there is no standard word list used to examine vowel quality with different researchers using different CVC contexts. Although six of the words have an *r* in the spelling, it was anticipated that the speakers would not produce the *r* since ME is considered as a non-rhotic variety. Previous studies have also shown that there is no consistent realisation of rhoticity in ME (e.g. Phoon and Maclagan 2009; Pillai, Manueli and Dumanig 2010; Rajadurai 2006).

Analysis

Praat (Version 5.2.06) was used to listen to the sound files and view the waveforms and spectrograms simultaneously (Boersma and Weenink 2010). Measurements of the monophthongs and diphthongs were entered using the TextGrid function in Praat (see Figure 1). For the monophthong vowels, the first and second formant frequencies (F1 and F2) were measured using the automatic linear predictive coding (LPC) tracker overlaid on a wide-band spectrogram in Praat. Measurements were taken at the midpoint of the vowels to avoid any co-articulatory effects of neighbouring sounds on the vowels (Adank, Smits, and van Hout 2004: 3). The first two formants are regarded as being important for the perception and recognition of vowels with F1 related to the close-open dimension, and F2 with the front-back dimension (Hayward 2000: 147). The average values were then converted in a Bark scale (Zwicker and Terhardt 1980) and plotted on a F1-F2 vowel chart based on the view that the scale "is thought to be a good approximation of the actual frequency analysis performed by the ear" (Kent and Read 2002: 115). The durations of the vowels were also measured in milliseconds from the beginning of voicing discernible on the spectrogram to the point before the cessation of periodicity before the final consonant in the word.

Measurements of durations allowed comparisons to be made between vowel pairs and to ascertain the extent to which vowel length contrast was being maintained between the pairs. However, it should be noted that in English, vowel contrast "is a complex of quality and quantity" (Cruttenden 1994: 92), and therefore, both quality and quantity contrast need to be taken into account when discussing English vowels. This is especially pertinent given that aspects of quality and quantity may operate differently for different vowel pairs. For example, in present day British English, the vowel pair /ʌ/-/ɑː/ do not display much quality contrast and therefore, length contrast may be more prominent as a compensatory factor (Deterding 1997: 50-51).

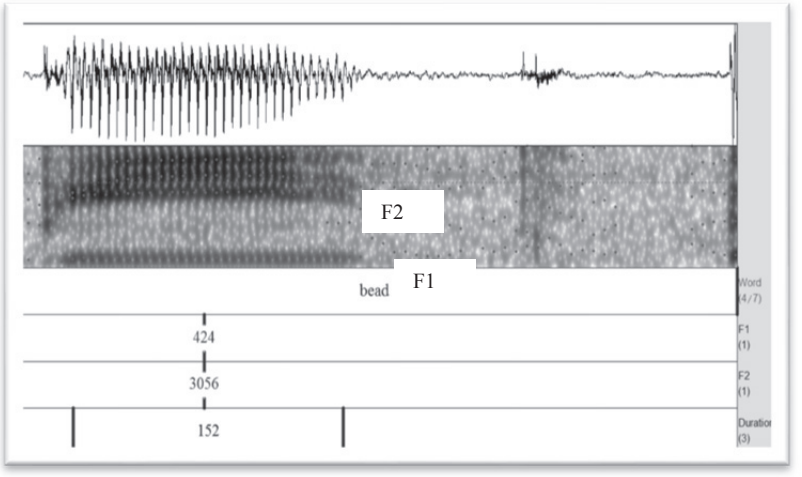

Figure 1. Waveform and spectrogram of *bead*.

Cruttenden states that "diphthongs are sequences ... which form a glide within one syllable" (1994: 119). This glide or movement made by the tongue from one target towards another can be discerned on a spectrogram as shown in Figure 2 (Fry 1979: 114). However, since ME diphthongs are described as having the tendency to be produced with less diphthongal movement than, for example, British English, we can expect the F1 and F2 on the spectrogram to remain relatively steady. One of the ways to measure diphthongal movement is by measuring the Rate of Change (ROC) using the following formula (Deterding 2000: 94-95):

$$F1_{end} - F1_{start}/\text{Duration (seconds)} = \text{ROC (Hz/second)}$$

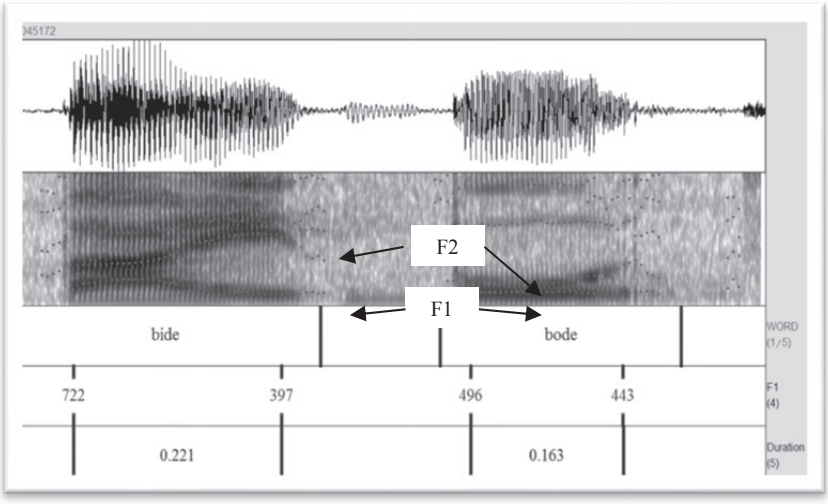

Figure 2. Waveform and spectrogram of the words *bide* and *bode*.

The ROC method was used to examine the diphthongs as it takes into consideration that the beginning and end points of the diphthongs are not necessarily the same as the vowel that symbolically describe them, remaining constant regardless of variation in at these points (Gay 1968: 1570). For all the diphthongs, except for /eə/, the rate of change (ROC) for the F1 of each individual diphthong and the average ROC of each diphthong were obtained. For the /eə/ diphthong, the ROC for both F1 and F2 were measured to capture a front to central movement since we can expect little movement in vowel height (Lee and Lim 2000: 103-104). The average ROC values provide a glimpse of the extent to which a vowel is produced as a diphthong. For the rising diphthongs found in the words *bayed*, *bide*, *Boyd*, *bode* and *bout* we can expect the F1 to decrease as the vowel gets higher, and thus, a negative ROC value can be anticipated. We can also expect a lower ROC value if the diphthong is produced more like a monophthong.

Findings

Monophthongs

The average F1 and F2 measurements of the vowels that were converted to Bark (see Table 1), were then plotted on F1-F2 chart as shown in Figure 3. As can be seen in Figure 3, /ɪ/-/iː/ and /e/-/æ/ and /ʌ/-/ɑː/ are produced close to each other, suggesting that these vowel pairs may be conflated. However, the back vowel pairs /ɒ/-/ɔː/ and /ʊ/-/uː/ are further apart. In addition, the vowel /ɒ/ also appears more fronted and closer to /ʌ/-/ɑː/ in the vowel quadrilateral, which suggests that it is produced similarly to these two vowels. Similarly, the extent to which this realisation of the vowel in the word *pod* is indicative of young Malaysian speakers having a more Americanised accent needs further examination, as the data used in this study does not sufficiently address this phenomenon.

Evidence of a more Americanised pronunciation may also manifest itself in the realisation of the post-vocalic *r* in the words *bird*, *board* and *bard*. In such cases, the F2 of the vowel may be lowered as an effect of rhoticity (Hayward 2000: 203; Trudgill 2004: 144). Therefore, we can expect the vowels to be less fronted than would be expected compared to equivalent vowels that are non-rhotacised. There was evidence of rhoticity in the production of *bird*, *board* and *bard*, but the realisation of the postvocalic *r* was only consistent for two of the speakers who produced the *r* in all three words. There were only three instances of the *r* produced in the word *bird,* while it was produced six out of 11 times for the words *board* and *bard*. Removing these data did not affect the location of the vowels in the vowel space, and thus, all the tokens of these vowels were included in the analysis. The unsystematic use of rhoticity could signal a developing pronunciation pattern in ME, which has yet to stabilise, lending support to the placement of ME in phase 3 of Schneider's model. The reason for this instability is that ME is traditionally non-rhotic having its roots in British English.

Vowels	*F1 (Hz)*	*F2 (Hz)*	*F1 (Bark)*	*F2 (Bark)*	*Duration (ms)*
ɪ	397	2535	3.82	14.59	99
iː	306	2716	2.97	15.01	173
E	806	2108	7.19	13.44	102
Æ	903	2048	7.87	13.26	119
ʌ	854	1461	7.53	11.02	130
ɑː	863	1336	7.59	10.42	183
ɒ	805	1193	7.18	9.66	126
ɔː	642	1032	5.92	8.71	173
ʊ	488	1277	4.63	10.12	82
uː	407	1068	3.91	8.94	105
ɜː	605	1616	5.62	11.70	188
Average	643	1672	5.84	11.53	

SD = Standard Deviation

Table 1. Average formant and durational values for Malaysian English.

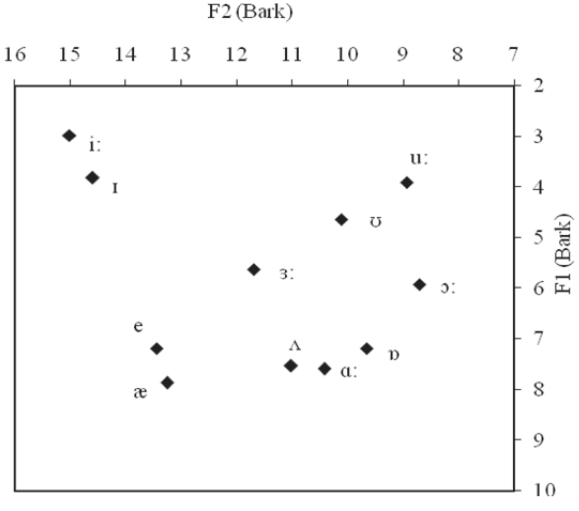

Figure 3. Monophthong vowels of Malaysian English.

Comparisons with published data from two neighbouring varieties, Singapore English (Deterding 2003: 16) and Brunei English (Sharbawi 2006: 253) were carried out to examine regional trends in pronunciation. Based on the calculation of the average distance of each vowel, except /ɜ:/ from the centroid using the Euclidean Distance (Deterding 1997, 53), it was found that ME vowels were the most peripheral or spread out among the three varieties, whilst Brunei English vowels occupied a more compact vowel space. However, a correlated samples t-test of the average distance from the centroid shows no significant difference between ME (2.72 Bark) and Singapore English (2.41 Bark): ($t = 2.39$, $df = 9$, n.s.), which is to be expected given the shared linguistic features of English between these two varieties. A significant difference between the average distances of the vowels from the centroid for Brunei (1.82 Bark) and ME ($t = 4.76$, $df = 9$, $p<0.01$) was found, thus, confirming that ME vowels were more spread out than in Brunei English. This result could be an effect of the different speaking contexts used in both studies. However, both the word list used in this study and the reading passage used in Sharbawi (2006: 249) can be regarded as careful speech. We would therefore expect the vowels to be produced more peripherally due to a more careful production of the target words, but this does not appear to be the case for Brunei English. Nevertheless, the different dispersions of the vowels in both varieties may actually be indicative of the differences between Brunei English pronunciation and ME, at least where vowels are concerned. It would be interesting to compare the vowels produced by East Malaysians (Sabah and Sarawak) with those of Brunei English because of their geographical proximity in future studies.

A comparison of vowel contrast between vowel pairs indicate that all three varieties share the tendency of merging /ɪ/-/i:/, /e/-/æ/ and /ʌ/-/ɑ:/which implies that a regional pattern in pronunciation may be developing among these new Englishes. However, ME appears to have a bigger contrast between /ɒ/-/ɔ:/ compared to Singapore and Brunei English. There is also a difference in the placement of /ʊ/-/u:/ in Brunei English, which are not only placed close to each other but are more fronted compared to ME and Singapore English, which also accounts for of Brunei English vowels being less peripheral.

In order to further examine the extent to which ME vowel pairs were contrasted, scatter plots for /ɪ/-/iː/, /e/-/æ/, /ʌ/-/ɑː/, /ɒ /-/ɔː/ and /ʊ/-/uː/ were generated. Figure 4 shows all the /ɪ/ and /iː/ vowels produced by the ME speakers, where although there are instances of overlaps between the two vowels, they are not as undifferentiated as may be expected. This could be due to the nature of the speaking context used in the current study, which is likely to have elicited more careful pronunciation of the target words compared to vowels extracted from spontaneous speech. As shown in this Figure as well, /iː/ is placed slightly higher and is more fronted than /ɪ/, but the contrast is not as obvious compared to Standard British English.

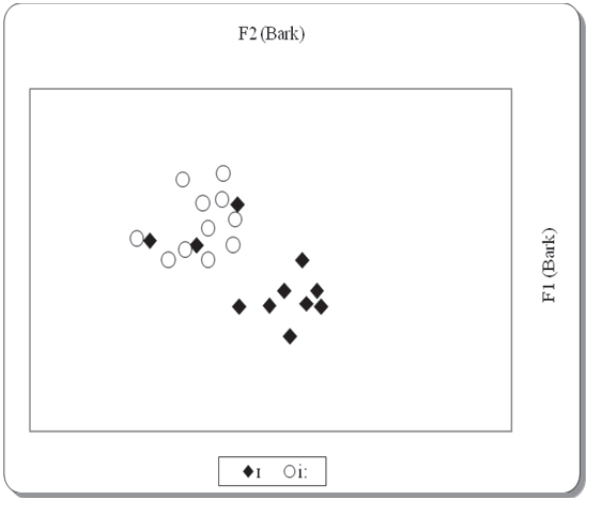

Figure 4. Scatter plot for ME /ɪ/ and /iː/.

The scatter plot for ME /e/ and /æ/ is shown in Figure 5, where it can be seen that there is a lack of categorical separation between the two vowels similar to previous descriptions of ME in the literature (Pillai et al. 2010, 166-167; Rajadurai 2006, 50). However, the overlaps are not as distinct as those reported for Singapore English (Deterding 2003, 6) and Brunei English (Sharbawi 2006, 360). Still, based on the formant values and the placement of these vowels in vowel chart, a

lowering of /e/ is noted, indicating that the vowel quality in the word *beg* is closer to /ɛ/ than /e/. However, other word contexts need to be examined in order to determine if there are two realisations of the DRESS vowel in ME similar to Singapore English (Deterding 2005, 194).

However, for /ʌ/ and /ɑː/, the scatter plot in Figure 6 shows that these two vowels are produced very close to each other, indicating that ME speakers tend to merge them, thus making words like *bud* and *bard*, and *cut* and *cart* sound alike and confirming auditory impressions of there being a merger of these two vowels (Baskaran 2004: 1039). The /ɑː/ vowel is essentially produced more fronted in the vowel space, bringing it closer to /ʌ/.

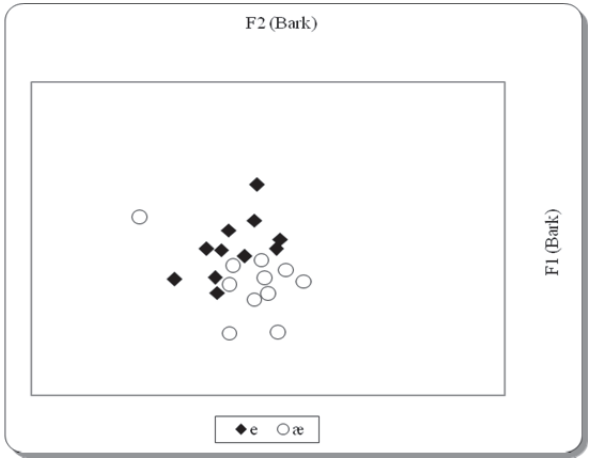

Figure 5. Scatter plot for ME /e/ and /æ/

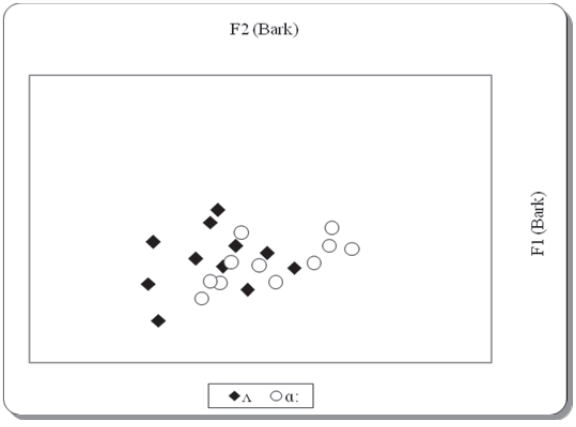

Figure 6. Scatter plot for ME /ʌ/ and /ɑ:/

Compared to the other vowel pairs, the back vowels, displayed less overlaps as can be seen in Figures 7 and 8. However, similar to Singapore and Brunei English, there is no distinct separation between each of the vowel pairs. Hence, words like *pod* and *poured*, and *pull* and *pool* are likely to be homophones in ME. There is also no indication of /ʊ/ and /u:/ being fronted as has been reported for current day standard forms of Southern British English (Fabricius 2007: 1477; Ferragne and Pellegrino 2010: 29; Hawkins and Midgley 2005: 191). Thus, it is possible that, at least, with these two monophthongs, ME may have retained a more retracted version of the vowels. In fact, the far back vowels have been found to be even further back in the vowel space for older speakers of ME (Pillai, Muthiah and Looi 2012: 60), and are similar to those found in older British speakers,while the younger speakers produced vowels which are unlike older or present day Standard British English ones. There is of course variability in the realisation of the back vowels, mostly due to the problems associated with measuring the formants of back vowels and the effect of lip rounding on the F2, and thus these results need to be treated with caution. However, the findings from this study suggests that the back vowels in ME have moved further front in the vowel space, but not as much as they have in present day British English, indicating an inter-

nal trend which does not approximate the exonormative variety, as is anticipated in phase 3 of Schneider's model.

Further, as shown in Figure 3, /ɒ/, /ʌ/ and /ɑ:/ are placed close to each other in the vowel space, which as mentioned earlier, may indicate that /ɒ/ may be approximating the other two vowels, and this warrants further investigation with a larger data set.

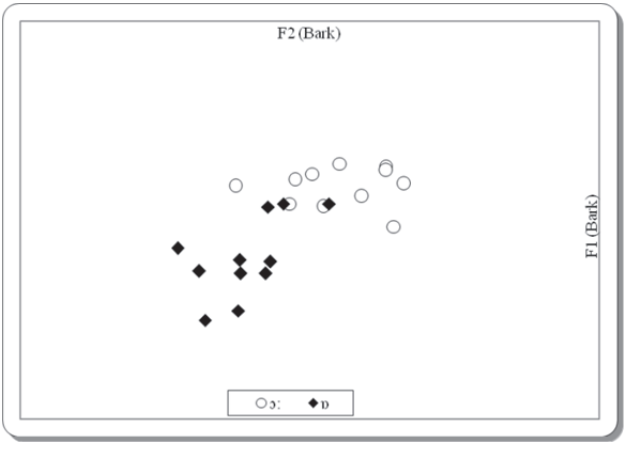

Figure 7. Scatter plot for ME /ɒ/ and /ɔ:/.

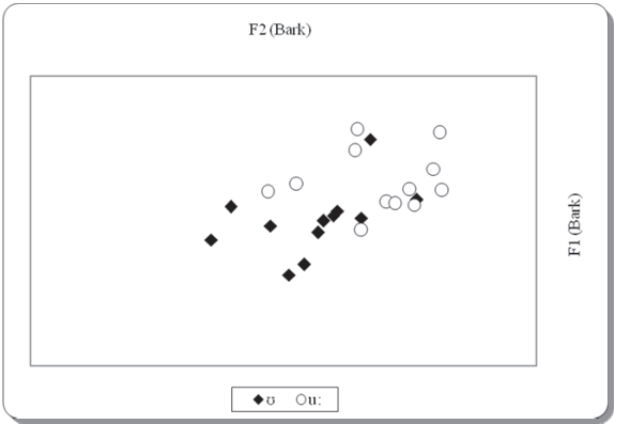

Figure 8. Scatter plot for ME /ʊ/ and /u:/

In relation to vowel length contrast, a comparison of the average durations of each vowel pair (see Figure 9) suggests that length contrast is maintained. However, these results need to be treated with caution because as Cox (2006: 26, 149) explains, 'the difference [in vowel length] is relative rather than absolute as contextual and prosodic factors affect the ultimate length of the vowel'. No statistical tests were carried out due to the small number of tokens but the difference in average durations and the short to long ratios in milliseconds for the vowel pairs were calculated and are as follows: /ɪ /-/iː/ (73, .58); /e/-/æ/ (18, .85); /ʌ /-/ ɑː/ (53, .71); / ɒ/- /ɔː/ (47, .73); /ʊ/-/uː/ (24, .77). Most of the pairs had similar ratios ranging from .71 to .77 milliseconds. However, the /e/-/æ/ pair had the highest ratio, suggesting that length is not discriminated between the vowel pair, which is to be expected since this pair is not typically contrasted for length in English. This pair is supposed to contrast for quality but as shown in Figure 3 and Figure 5, /e/-/æ/ lack contrast in ME, thus confirming the merger of this vowel pair in previous descriptions of ME by Pillai et al. (2010: 166) and Rajadurai (2006: 50). As for the other vowel pairs, the measurements suggest that there is length contrast between them, but a comparison with a more spontaneous speaking context would provide more evidence of the extent to which length contrast is maintained in ME. Further, a perception test can also provide more insights into whether the durational differences are long enough to be perceived by listeners given that there is an absence of quality contrast.

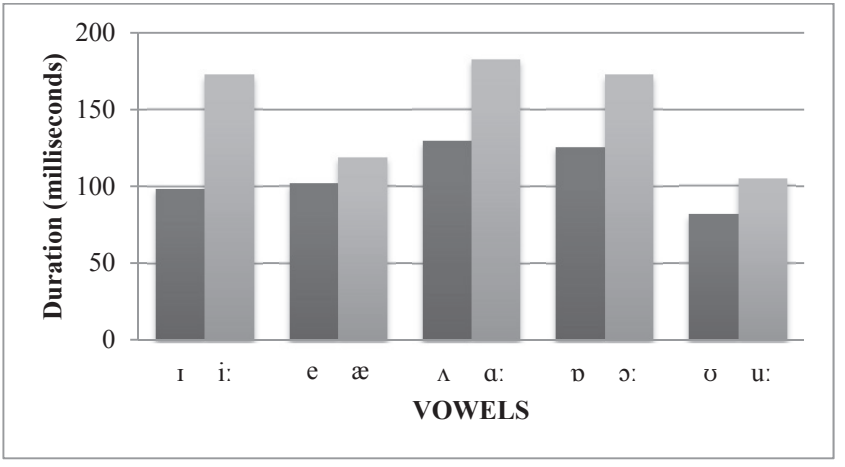

Figure 9. Vowel length discrimination in Malaysian English.

Diphthongs

As described in the methodology section, since we expect diphthongs to move from one target to another (Fry 1979: 79), we can expect the change in vowel quality to be visible on a spectrogram via the changing movement in the formants (compare Figures 1 and 2). Table 2 shows the average ROC values for the diphthongs.

Word	*Diphthong*	*Average ROC (Hz/second)*	*Word*	*Diphthong*	*Average ROC (Hz/second)*	
bayed	eɪ	-198	bout	aʊ	-301	
bide	aɪ	-1601	beard	ɪə	928	
Boyd	ɔɪ	-462	poor	ʊə	647	
bode	əʊ	-248	bear	eə	**F1**	**F2**
					128	-642

Table 2. Average Rate of Change (ROC) values for Malaysian English diphthongs.

The negative F1 ROC values indicate a rising trajectory, and thus, show a movement from a lower target, that is, /e/, /a/, /ɔ/ and /ə/ to a

higher one, /ɪ/ or /ʊ/. However, all the values except for /aɪ/, are low, ranging from -139 to -301 Hz/second. Only /aɪ/ has a relatively large value, suggesting that the other vowels have less diphthongal movement. Following Deterding, Wong and Kirkpatrick (2008: 165), the formant trajectories of these three diphthongs were plotted on an F1-F2 chart (see Figure 10) based on their F1 and F2 measurements taken at the onset and offset of these diphthongs. It can be seen that there is hardly any movement for the diphthongs /eɪ/ and /əʊ/, therefore, confirming previous descriptions of these diphthongs being produced as monophthongs (Baskaran 2004: 1040; Platt and Weber 1980: 172-173; Phoon and Maclagan 2009: 68; Rajadurai 2006: 50). Comparison with Singapore English /eɪ/ and /əʊ/ suggests that there is even less diphthongal movement for these two diphthongs in ME than in Singapore English and even less so when compared to British English (Deterding 2000: 97; Lee and Lim 2000: 102).

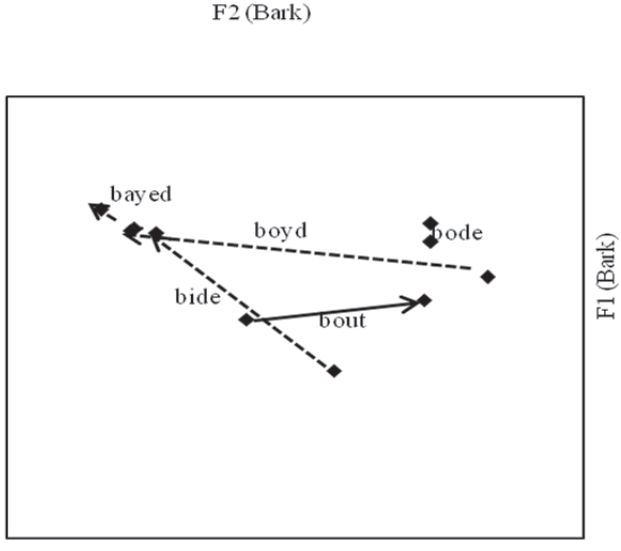

Figure 10. Formant trajectories for ME rising diphthongs.

The centering diphthongs all have positive F1 ROC values indicating that there was a downwards trajectory from a higher vowel, /ɪ/, /e/ or

/ʊ/ towards /ə/, with /ɪə/ showing the most diphthongal movement. As expected, the average F1 ROC value for /eə/ in the word *bear* was low since there is little centering movement. The average F2 ROC for /eə/ is also relatively low, suggesting very little diphthongal movement for the vowel. As presented in Figure 11, there is hardly any movement for this diphthong. The speakers tended to produce the diphthong closer to the monophthong /e/ but with more lengthening similar to that found in Phoon and Maclagan's study (2009: 173). The average length for the vowel in the word *bear* was 235 milliseconds compared to 102 milliseconds for the monophthong /e/ in the word *beg*.

The vowel in the word *poor* showed some diphthongal movement based on the F1 ROC value, and auditory examination confirms that unlike the trend in British English of replacing /ʊə/ with /ɔː/ (Wells 1982: 592), all the ME speakers produced the vowel akin to [pʊwə] with a possible splitting of the diphthong with the insertion of /w/ by some speakers. However, the results pertaining to the diphthong in this word warrant further investigation to ascertain if the realisation of this diphthong is unique to the word *poor*. The word *beard* also has a higher ROC compared to the other diphthongs in this study, but like *poor*, there appears to be an insertion of /j/ by some speakers.

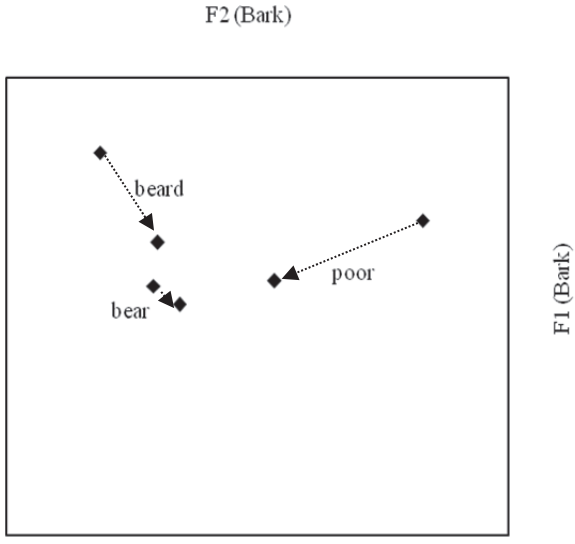

Figure 11. Formant trajectories for ME *beard*, *bear* and *poor*.

Discussion

The instrumental analysis of monophthongs and diphthongs in ME highlight the salient characteristics of these ME vowels. As discussed earlier in this chapter, because of their impressionistic nature, earlier studies tended to generalise about the shortening of long vowels and did not say much about vowel quality contrast apart from stating that ME vowels sound different from RP. The findings of the present study provide acoustic evidence for the differences that may have been perceived in these studies, in relation to vowel quality and placement of the monophthongs in the vowel quadrilateral. One example is the fronting of /ɑː/, placing it closer to /ʌ/ in the vowel quadrilateral. Further, the lack of contrast perceived as vowel shortening in previous studies may have signalled the beginnings of such a patterning in ME, and thus, it would be interesting to compare ME pronunciation over the last five decades to how this trend developed.

While it does appear that although length contrast is maintained to a certain extent, the lack of quality contrast between /ɪ/-/iː/, /e/-/æ/ and /ʌ/-/ɑː/ is a relatively stable feature in present day ME even among fluent speakers. The back vowels show more quality contrast, but the contrast is not as distinct compared to, for example, British English and thus, it is possible that this small quality contrast may not be perceived by listeners. The possible merger between these vowel pairs would reduce the vowel inventory for ME, as would the tendency to use monophthongs instead of the diphthongs found in words like *bay*, *bode* and *bear*. Although the substitution of a monophthong for the diphthong in *bear* is also a trend in British English, the diphthongs in the first two words confirm auditory impressions of earlier studies and thus, is another emerging feature of ME vowels. If these features of ME vowels are being consistently found among L1 and fluent speakers of ME, as seems to be the case, then it can be said that ME has not 'fossilized'at phase 3 as suggested by Schneider (2003: 261). Since these are features that are taking hold among ME speakers, they cannot be dismissed as learner errors either.

With Malay as an operational national language (unlike in Singapore), and with many other competing local languages, English in Malaysia has undergone a different strand of development compared to Singapore English. Analysis of colloquial or learner varieties of ME alone is not sufficient to determine the development of ME as features in ME as an L1 and the acrolectal variety also need to be taken into account. The latter is definitely not a replication of RP, and thus, is likely to display many of the characteristics found in this study. Similar to native varieties of English, we can expect to find differences across age groups, and such differences are likely to provide evidence for changes in the pronunciation of ME. Another factor that needs to be taken into account before relegating ME to phase 3 is that many ME speakers can glide in and out of colloquial and acrolectal varieties of ME, often changing their pronunciation as well. Thus, it may be the case that ME is actually in between phase 3 and 4, that is, there is still variability in some aspects of pronunciation, but others, such as the lack of quality contrast between some vowel pairs and the monophthongisation of some diphthongs are rather stable features among ME speakers. If these features are evident even among those who are flu-

ent in English and who use it as their dominant language (that is in the family and social domains), this will lend more support to the fact that these pronunciation features are systematic features in present day ME. If this is the case, it may be the case that these features have stabilised without there being an official acceptance of an endonormative pronunciation model. The changes in the features found in this study have probably taken place over the years, and over two to three generations, without the speakers realising that this shift from a more RP type of pronunciation has taken place over the last five decades.

Conclusion

The pronunciation features described in this chapter were derived from an analysis of the vowels produced by young Malaysian speakers who use English as a first language and who are fluent users of English. The analysis was also based on more careful speech, and yet particular features of ME monophthongs and diphthongs emerged, which implies that these features are part of the ME pronunciation system, whether speakers are being careful or otherwise, and previous descriptions based on learner varieties seem to support this. These changes are occurring despite the fact that there is no formal acceptance of "a new local norm, distinct from the norms of the original colonisers" (Schneider 2003: 250). Still, the outcry over the bringing in of native speaker teachers (see A report on the forum "To Go or Not to Go Native"), the numerous letters to the editors on claiming ownership of English, and the proliferation of creative works in English, suggest that ME is between the two phases but will develop differently from Singapore English due to differences in language and educational policies.

Further research into the phonetic and phonological features of ME will provide a better foundation to build a model of Standard ME pronunciation and support the treatment of ME as a valid variety of English that is inextricably linked to a local rather than an "English"

identity (Graddol 2006: 117), and eventually help to cut the linguistic colonial cord from British English.

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