Multilingual Norms
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Chapter 8

Singing the same tune? Prosodic norming in bilingual Singaporeans

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Abstract

While intonation is an important feature of intelligibility and comprehension, it is an area that is relatively little studied in relation to norming, speech and language disorders. Research has shown that bilingual children often show specific speech and language features in their acquisition process, quite different from monolingual acquisition, and that non- or misunderstanding of these features can easily misinterpret them as disorders. It thus becomes important to understand the norm in bilingual language development. In multilingual populations like the one in Singapore, where multiple intonations interact, what is actually the norm? Based on recordings of 10 adult speakers, and using auditory analysis, this chapter looks at some distinct intonation patterns of the three main groups of English-speaking bilinguals in Singapore, namely English-Mandarin bilinguals, English-Malay bilinguals and English-Tamil bilinguals. The chapter argues that the distinctive English intonation patterns observed across the three bilingual groups are primarily due to transfer of intonational features from their other tongue. Norming, including prosodic norming, in multilingual contexts like Singapore's, must therefore consider the linguistic background of the speaker.

1. Introduction

Being an important feature of intelligibility and comprehension, intonation is nevertheless an area that is relatively little studied in relation to norming, speech and language disorders. There are a few reasons for this gap. One of the most obvious ones is that there is a lack of normative data for intonation. What is the "standard" or "normal" intonation? This makes it difficult to pin down intonation for testing purposes. In addition, even though it has been suggested that prosodic features, notably stress (McGregor and Leonard 1994) and intonation (Wells and Peppé 2003) hold cues for speech and language disorder in children, it is still widely held that prosody is one area that is least likely to be disrupted by language impairment, and that competence in prosody can be developed independently of other linguistic features (Wells, Peppé and Goulandris 2004). It has also been suggested by research on children's intonation (e.g. Local 1980;

Wells et al. 2004) that children's intonation gets progressively more complex to quickly become very close to the adult intonation variety to which the children are exposed. These studies indicate that intonation is the one feature that progresses more rapidly than other linguistic elements and the one that remains unchanged as the child moves into adulthood.

Few tests have been developed for assessing prosody, in particular intonation. Crystal's (1982) "Prosody Profile" (PROP), for example, remained for many years, and until recently, the only test available for assessing prosody. Many newer tests make use of normative data (see Hargrove and McGarr 1994 for a review of these tests), the latest being the revised "Profiling Elements of Prosodic Systems – Children" (PEPS-C test, Peppé and McCann 2003). However, tests that do make use of normative data are based on input from monolingual speakers of English, focused primarily on the pragmatic function of intonation.

In addition, depending on different multilingual contexts, bilingual children often show specific speech and language features in their acquisition process, quite different from monolingual acquisition. Holm and Dodd (1999) and Dodd, So and Li Wei (1996), working with English-Cantonese bilingual children, indicate that the phonological development of these bilingual children is different to that of monolingual children, suggesting that bilingual children use different phonological systems in their language acquisition process. As a result of exposure to a bilingual Cantonese-English environment, the development of speech patterns in these bilingual children will undoubtedly be different from that of a monolingual child. As Li Wei, Miller Dodd and Zhu (2005) suggest, a non- or misunderstanding of these features can easily lead to their misinterpretation as disorders. From this standpoint, this chapter argues that intonational features that are different from the prescribed "norm" should not be considered to be features of "disordered" speech. Rather, one needs to understand what the "norm" is in bilingual language development, drawing on the intonational targets to which bilingual children are naturally exposed. In multilingual populations like the one in Singapore, where multiple intonations can interact, what is actually the norm? The issue becomes magnified threefold when, as in Singapore, we are dealing not simply with a homogenous Singaporean population but with three distinct groups of bilinguals. Do Singaporeans then sing the same tune?

This chapter seeks therefore to look into prosodic norms in multilingual Singapore, highlighting that there will be intonational features that mark a bilingual speaker. Based on recordings of adult speakers, I look at some distinct intonation patterns of the three main groups of English-speaking bilinguals in Singapore, namely the English-Mandarin bilinguals, henceforth the ECB speakers, the English-Malay bilinguals (the EMB speakers) and the English-Tamil bilinguals (the ETB speakers). The chapter argues that the distinctive intonation patterns of English observed between these three groups of bilingual speakers are primarily due to transfer of intonational features from their other tongue. Norming, including prosodic norming, in the Singapore context as elsewhere, must therefore consider the linguistic background of the speaker.

2. The bilingual Singaporean home

One cannot talk about the bilingual Singaporean without explaining how their bilingualism comes about. The average bilingual Singaporean is a product of a State-engineered bilingual education programme, which Pakir (1991: 111-120) describes as "English-knowing" bilingualism.

Singapore consists primarily of three major ethnic groups – broadly classified as Chinese (76.8%), Malay (13.9%) and Indian (7.9%), according to the 2000 Singapore Census of Population (Singapore 2000 Census of Population 2001). These ethnic classifications have direct relevance to the languages a school-going child has to acquire. Corresponding to the three ethnic classifications is the "mother tongue" (MT) of each ethnic group. The MT is the "superordinate language" (Gupta 1998: 117) of one's official ethnic group, since the official languages Mandarin, Malay and Tamil are assigned to each of the official ethnic groups correspondingly. If one is ethnically classified as "Chinese", then one's MT is deemed to be Mandarin, the MT of a "Malay" is Malay and that of an "Indian" is Tamil (Gupta 1998: 117). The term "mother tongue" in Singapore thus does not necessarily reflect the linguistic reality, nor does it fulfil a linguistic notion of the "mother tongue" as defined by origin, competence, function and identification (Skutnabb-Kangas and Phillipson 1989: 452-453). Very often, especially for the Chinese and Indian speakers, the assigned MT is not their actual "mother tongue". Mandarin, for example, while not the mother tongue of a large majority of the Chinese population, is a State-imposed language meant to represent the Chinese community, owing to historical and political reasons. Similarly for the Indians, Tamil is the language chosen to represent the Indian community, though at best only half of the Indian population speak the language, for the sole purpose of providing a common link between the different Indian groups.

English and the MT are compulsory languages to be learnt in school. The rationale offered by the Singapore Government is that learning one's MT would give children "an anchor in their ethnic and cultural traditions" (Gopinathan 1998: 67), which is besides believed to act as cultural ballast, preserving one's Asian heritage, beliefs and traditions. Accordingly, all children have to take both English and their officially assigned MT as school subjects, for the first ten years of their formal education. Most Singaporeans born after 1965 are thus bilingual in English and their "designated" MTs. "Bilingualism", in the Singapore context, is therefore peculiarly defined as proficiency in English and in one

other official language of the country (Tay 1983: 176). According to the 2000 Singapore Census of Population (Singapore 2000 Census of Population 2001), 48.3% of the Chinese Singaporeans, 76.7% of the Malay population and 54.9% of the Indian population, notably those aged 15 and above, are bilinguals in English and their respective MTs, with a high majority of them using their MTs in the home environment.

Despite the fact that there are three distinct groups of bilinguals in Singapore, many researchers dealing with Singapore English prosody often do not control ethnic group as a variable. In addition, more often than not, the Chinese population is taken as the sample group for experimentation and analysis, because of its demographic majority. As Deterding and Poedjosoedarmo (2000: 1) point out, "it would [...] be extremely naïve to assume that young Singaporeans all sound alike when they speak English". It would not be surprising if young Singaporeans, while sharing phonetic features that characterise them as distinctively Singaporean, would also reveal unique phonetic features which mark them out as Chinese, Malay or Indian.

Lim (1996) was probably the first to look at ethnic differences in the prosody of Singapore Standard English (SSE). Using instrumental techniques, she found that the intonation patterns of SSE spoken by the different ethnic groups are different, the most significant difference being peak alignment, which refers to the sound segment receiving the highest pitch. This is in line with Tay's (1982: 61) observation that "it is intonation which sets apart Malay, Chinese and Indian varieties of Singapore English".

This chapter therefore seeks to move in the same direction to show that not only do English intonation patterns among the three groups of bilingual speakers differ, but that the difference is besides due to the transfer of intonational features from their other languages. While there have been studies looking at segmental features contributing to ethnic differentiation in Singapore (e.g. Anandi 1997; Sng 1986; Tay 1982), no study has so far questioned how and why intonational differences among the three groups of bilinguals come about. The questions that I am interested in answering here therefore are:

1) What are the unique melodies in the English of the three groups of bilingual speakers?
2) Can these unique melodies also be found in their respective MTs, namely, Mandarin, Malay and Tamil?

The purpose of this chapter is to identify unique melodies that are auditorily salient, i.e. melodies that can be perceived by even an untrained ear. To this end, data collection was deliberately designed to be simple and the method of analysis is solely auditory.

3. Data collection

The data collection process was designed to answer the research questions outlined in the previous section. Ten tertiary educated Singaporean males in their 20s made up the informant sample, consisting of 3 ECB speakers, 3 EMB speakers and 4 ETB speakers. Educational level was controlled for two reasons. First, because this is the group most likely to practise English-speaking bilingualism in their homes; and second, because presumably, if and when they have children, they will be using a fair amount of English and the MTs to them. None of the participants ever lived abroad and they all went through the Singapore education system, namely, the bilingual education system, as outlined in the section above. All the informants are proficient speakers of their respective MTs and English, and all use both languages with ease, whether in the home or the school/work environment.

Material consisted of 45 short sentences, both in English and the participants' respective MTs. The English sentences were designed to be simple one-clause sentences with no more than 10 syllables in each, in order to keep the sentences short. The primary reason for keeping the sentences short was to ensure comparability across languages, for it is more difficult to translate longer sentences. Besides, as the purpose of this test is to elicit very basic intonation patterns, short sentences would suffice. Though longer and more complex sentences may elicit more complex speech melodies, this is not the endeavour of this chapter. The sentences were also designed in such a way that they require no contextual information and are culturally, ethnically and emotionally neutral. Of the 45 utterances, 15 are statements, 15 are wh-questions and 15 are yes-no questions (see the Appendix for the list of sentences). All the sentences end in words with one, two or three syllables. Obstruents and voiceless segments were avoided in all sentence-final words as it is the voiced segments that carry the bulk of the suprasegmental load (Studdert-Kennedy, 1976: 270).

The sentences in the MT were translated from the English ones, equally controlled in terms of sentence type and length, and printed in their respective scripts. The translations were done by proficient bilingual Singaporean speakers of Mandarin, Malay and Tamil to ensure that there was consistency in the varieties of these languages used. The participants read the 45 short sentences in their respective MT, followed by the 45 sentences in English. While I acknowledge that reading is more unnatural compared to spontaneous speech, this was the only way to achieve comparability among the language patterns. To make up for this element of artificiality, I had casual conversations with each speaker before each recording session in an attempt to create a more relaxed environment.

I transcribed the utterances manually, using the "interlinear tonetic" transcription (Cruttenden 1997: xv) which looks like this:

The top and bottom horizontal lines represent the speaker's pitch range, and each dot corresponds to a syllable, with the larger dots indicating stressed syllables. The lines stemming out from the dots indicate pitch movements.

This transcription system was adopted because it allows for a narrow transcription of pitch movements. More importantly, it allows for a systematic comparison of intonation in the different languages, since its notations are adequate in representing almost all pitch movements. There are certainly other possibilities, among annotation systems or even machine-based transcriptions. Many of them are, however, unsuitable for this study. Machine-based transcription, in particular, would not work well. As mentioned earlier, the purpose of this chapter is to identify unique melodies that are auditorily salient, i.e. melodies that can be perceived by even an untrained ear. Machine-based transcriptions can only pick out broad intonational movements, missing out on small tonal movements which could well be the unique intonational features of a speaker.

Other manual transcription systems, the ToBI annotation system for example, are also unsuitable, as they require that fundamental information about stress be included in the transcription system. Stress in Singapore English, however, is a highly complex issue: one cannot assume stress placement, or even assume that stress exists at all, because its acoustic and perceptual properties need to be defined first. Issues of stress, acoustic correlates and perceptual cues of prominence will not be dealt with in this chapter. For a detailed study of stress in Singapore English, see Tan (2002, 2006). An annotation system that requires minimal prerequisites about other prosodic features, such as the interlinear tonetic transcription system, therefore makes it a suitable system to adopt. This system is theory-neutral and allows for the description and comparison of intonation patterns across speakers and languages without recourse to assumptions that a theory would require, thus making it particularly suitable for this study.

4. Tonal movements

Intonation is used to make distinctions between different grammatical constructions in English (Halliday 1967), for example, drawing distinctions between restrictive and non-restrictive relative clauses, highlighting phrase boundaries and so on. More frequently, intonation is seen as a pragmatic, attitudinal and interactional tool (Couper-Kuhlen 1986; Roach 2000; Wells 2006). Roach (2000) briefly summarises four basic tones in English to highlight certain attitudinal functions. For example, a falling tone indicates finality and definiteness; a rising

tone denotes questioning, listing, encouragement; a fall-rise is used to indicate doubt and uncertainty, and a rise-fall to show surprise.

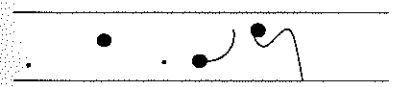
In this section, I present a few new tones found in the speech of each of the three groups of bilingual Singaporeans, as well as the tonal movements found in their utterances. I highlight the tones used in the English utterances and note how these tones may be explained or attributed to the speakers' respective MTs. Discussion will show how the current literature on the meanings of intonation (e.g. Roach 2000; Wells 2006) cannot be applied to or explain the intonation patterns found in these three groups of bilingual speakers.

In the examples below, dashes separate single words and boldface indicates the syllables affected by the tones under discussion.

4.1. The fall-rise-fall: a Malay tone

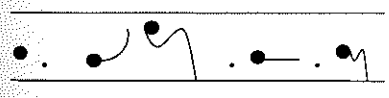
The fall-rise-fall tone is found uniquely in the EMB speakers. This tone has a tendency to occur on the last syllable of a two- or three- syllable word, especially in statements and wh-questions. Examples (1) and (2) show the fall-rise-fall on a two-syllable word, *lawyer*, and two three-syllable words, *remember* and *melody*, in statements as spoken by EMB speakers. Regardless of where the word stress occurs (other Englishes may have a different stress pattern in these words), the fall-rise-fall tonal movement affects only a word-final syllable, which, in addition to the syllable carrying the lexical stress, also becomes stressed.

(1)



You need a law- **yer.**

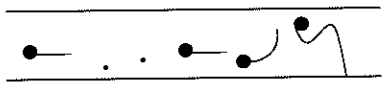
(2)



I re- mem- **ber** the me- lo- **dy.**

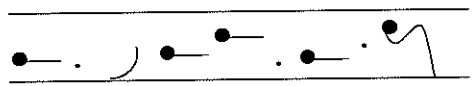
Examples (3) and (4) show the fall-rise-fall on a two-syllable word, *lemon*, and a three-syllable word, *engineer*, in a wh-question.

(3)



Why did you buy le- **mon**?

(4)

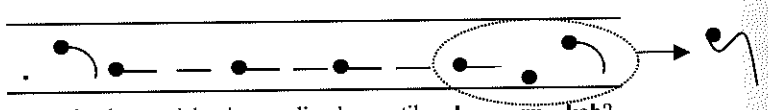


Why did you mar- ry an en- gi- **neer**?

Similarly to (1) and (2), the tone only falls on the word-final syllable, further reinforcing its use as a unique feature of intonation among EMB speakers.

Since this tone is unique to EMB speakers, one would expect to find it in Malay. However, the data show that this tone cannot be found on any single syllable in Malay utterances. Interestingly though, if one joins the tones occurring on different syllables in Malay, especially in sentence final positions, one can see how the fall-rise-fall tone is derived[1]. (5) is an example of a Malay statement.

(5)



A- wak hen- dak be - li ka- til **ba- rü kah**?

You want buy bed new TAG

'Do you want to buy a new bed?'

The current literature on Malay intonation (e.g. Halim 1981) says little, if anything, about this fall-rise-fall tone as a unique Malay tone. However, personal communication with a native speaker of Malay suggests that this tone is normally used as a hedge – a pragmatic device to lessen the force of the utterance – in the Singaporean variety of Malay. More extensive research in future can certainly be done to substantiate this claim.

4.2. Stretches of level tones: a Malay feature

Another interesting feature of the EMB speakers is their distinctive global curve for statements and wh-questions, as illustrated in Figure 1 below.

1 I would like to thank Lisa Lim for pointing this out.

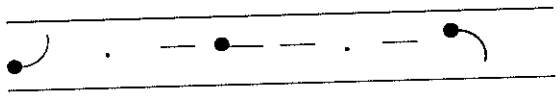
E.g.

	When	are you	buying	a new	bed?
	Where's	your	mother	go-	ing?
	Why	did you	marry an	en-gi-	neer?
Her	mo-	ther's			young
I'll	be go-	ing	in the	morn-	ing.
I re-	mem-	ber	the me-	lo-	dy.

Figure 1. Global curve for English statements and wh-questions of EMB speakers

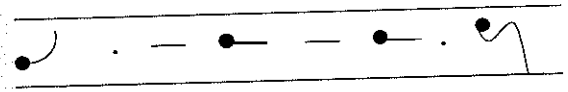
In the global curve, one observes that there are two distinct contours, one at the beginning and one at the end of the utterance. Between the two contours is a long stretch of little pitch movement. What is generally observed here is that for the EMB speakers, there is a tendency for this long medial stretch to be on the same tone, usually level, staying in a mid-high range. (6) and (7) show a more detailed illustration.

(6)



When **are you buy- ing a new** bed?

(7)



When **did you mail your grand-mo-** ther?

As shown in (6) and (7), only the sentence-initial and sentence-final syllables carry tonal contours. For the other syllables, the tones remain level, consistently at the same pitch range.

This same pattern is in fact a feature that can be traced to Malay. For all utterances types, there is a whole stretch of level tones between the initial and terminal contours. (8), (9) and (10) show the intonation pattern of a Malay statement, a wh-question and a yes-no question, respectively.

(8)

Sa- ya ***a- kan be- li ro- ti se-*** *ka- rang.*
I will buy bread now
'I will buy the bread now.'

(9)

Bi- la ***a- wak ki- rim su- rat ke- pada ne- nek*** *a- wak?*
When you send letter to grandmother you
'When did you send the letter to your grandmother?'

(10)

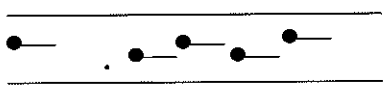
A- wak ***su- dah hen- dak pu-*** *lang kah?*
You already want go home TAG
'Are you going home already?'

One can conclude therefore that this same pattern, seen in the English of the EMB speakers, is indeed a result of transfer from Malay.

4.3. The wh-element

In Englishes such as British or American varieties, the wh-element is typically unstressed. No tonal contours occur on it, as it typically constitutes the pre-head which precedes the tone-carrying nucleus. We observe that this is not the case in the English spoken by all three groups of speakers. The ECB and ETB speakers have a mid to high level tone on their wh-element, and the EMB speakers have a rising tone. Interestingly, for all three groups of speakers, the wh-elements are stressed. (11) and (12) show the level tones on the wh-element for ECB and ETB speakers, respectively.

(11)



ECB speaker

Where's your mo- ther go- ing?

(12)

ETB speaker

Who's buy- ing the bread?

Utterance (13) shows the rising tone on the wh-element for an EMB speaker.

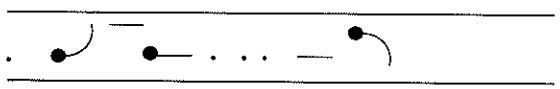
(13)

EMB speaker

When are you buy- ing a new bed?

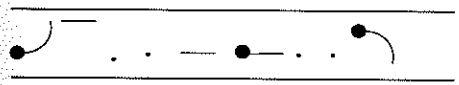
As expected, the counterpart of the wh-element in Malay also carries a rising tone. Example (9) earlier showed the rising tone on *bila* ('when'). Examples (14), (15) and (16) show the rising tone in other wh-elements, *mana* ('where'), *siapa* ('who') and *kenapa* ('why') in Malay, respectively.

(14)



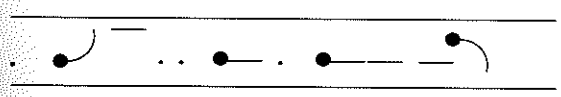
Ke ***ma- na*** *e- mak awak per- gi?*
To where mother you go
'Where is your mother going?'

(15)



Sia- pa yang a- kan be- li ro- ti?
Who which will buy bread
'Who will buy the bread?'

(16)



Ke- na- pa *awak pin- jam pa- yung i- tu?*
Why you borrow umbrella the
'Why did you borrow the umbrella?'

Once again, this is another piece of evidence to show how intonational transfer can take place. In the case of the EMB speakers, Malay intonational features

have coloured the intonation patterns of the English they speak. While these features may not be the norm for other varieties of English, or even for the other two groups of bilingual speakers in this study, they are certainly the norm for this group of bilingual speakers.

4.4. The rise-fall tone: a Tamil tone

The rise-fall tone, as Roach (2000) suggests, is used in English to indicate surprise. The rise-fall tone, however, appears consistently in three-syllable words among ETB speakers, most notably in statements and wh-questions. It is thus unlikely that all the Indian informants in this study are expressing surprise, especially since the sentences do not have content that would elicit "surprise". This rise-fall tone, like the fall-rise-fall tone in the EMB speakers, also tends to fall on the final syllable of three-syllable words but, for ETB speakers, the tone has a tendency to fall only on three-syllable words in utterance-final positions. (17), (18) and (19) show the rise-fall in three-syllable words, *melody*, *engineer* and *umbrella*.

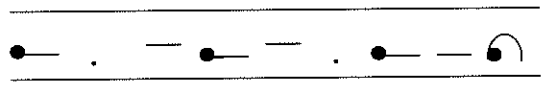
(17)

I re- mem- ber the me- lo- **dy**.

(18)

Why did you mar- ry an en- gi- **neer**?

(19)



Why did you bor- row the um- brel- **la**?

In Tamil, the rise-fall is also found in sentence-final positions. Interestingly, this tone occurs across all utterance types in Tamil, not just statements and wh-questions. Example (20) shows the rise-fall in a statement, (21) shows it in a wh-question, and (22) in a yes-no question in Tamil. A point to note though is that unlike the English examples in (17), (18) and (19), the final syllable with the rise-fall in Tamil is not necessarily stressed. The reason why it becomes stressed in the English utterances is something that needs to be explored further.

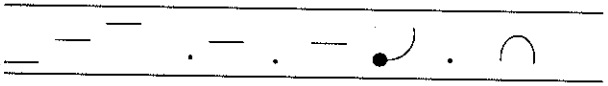
(20)

Naa ro- tti- ye i- ppo waaŋ- ga poo- re.
I bread now buy going
'I am going to buy the bread now.'

(21)

Nii en el- lu- mi- chee waaŋ- gi- nai?
You why lemon buy
'Why do you want to buy the lemon?'

(22)



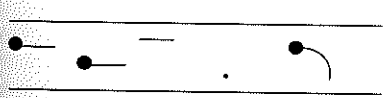
U- na- kku o- ru wak- kil tee- ve- yaa?
You one lawyer need TAG
'Do you need a lawyer?'

Given the predominance of the rise-fall tone in sentence-final position of all Tamil utterances, it is not surprising to find it among the ETB speakers too.

4.4. Upstep-progressions: a Tamil feature

If one looks at the two- and three-syllable words, *remember*, *marry* and *borrow* in examples (17), (18) and (19), respectively, one can see that there is a consistent upstep-progression of level tones, which does not occur utterance-finally. Further, if we recall the previous discussion about the use of rise-falls among ETB speakers, three-syllable words in utterance-final position receive a rise-fall on the word-final syllable. Conversely, the rise-fall only occurs utterance-finally, and not utterance-internally. The following examples, in addition to the examples discussed earlier, show more instances of this upstep-progression among ETB speakers, most notably *buying* in (23) and *remember* in (24).

(23)



Who's **buy- ing** the bread?

(24)

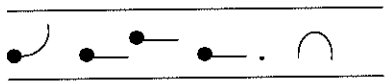
Do you **re- mem- ber** the me- lo- dy?

Utterances (23) and (24) are also interesting in that they reinforce two observations. Firstly, the rise-fall tone on the utterance-final syllable only occurs when the utterance ends with a three-syllable word. This explains why bread in (23) does not receive a rise-fall tone, despite being utterance final. Secondly, the rise-fall tone on the utterance-final syllable only occurs for statements and wh-questions. This explains why (24) has a final rising tone, not a rise-fall, although it fulfils the condition of having a three-syllable word in utterance-final position.

Obviously, this shows that, for the ETB speakers, there is a complex relationship between the number of syllables in a word, the position of this word in an utterance and the sentence type – each having its own patterns and rules.

The earlier Tamil examples (20), (21) and (22) also show some instances of the upstep-progression of level tones – *rottiye* ('bread') in (20), *ellumichee* ('lemon') in (21) and *unakku* ('you') in (22). This upstep-progression is a consistent feature of Tamil and can be seen in virtually all utterance-internal polysyllabic words. (25) and (26) show more examples of upstep-progression of level tones in Tamil.

(25)

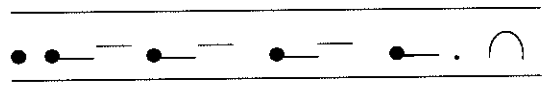


Yaar ***ro- tti*** *waaŋ- ga- raa?*

Who bread buying

'Who is buying the bread?'

(26)



Nii ***ye- ppo pu- ttu ka- ttil*** *waaŋ- ga- raa?*

you when new bed buying?

'When are you buying a new bed?'

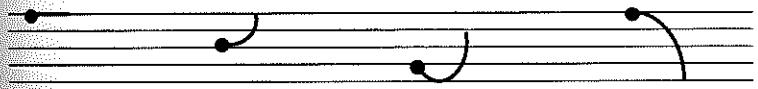
The upstepping (or downstepping) of level tones is not found in many languages, except in the phonological features of downstep tones in African tone languages like Urhobo and the rare upstep tones in Zulu (Schuh 1978), which

makes the ETB speakers' upstep progressions in both English and Tamil, neither of which are tone languages, unexpected, interesting and unusual.

4.6. Mandarin tones

A caveat is necessary before presenting a description of the tones in Mandarin, as the Mandarin spoken in Singapore is different from Standard Beijing Mandarin, and thus exhibits some tonal variations compared to Beijing Mandarin (Shen 1990).

The literature on Chinese tones (e.g. Chao 1933; Cruttenden 1997; Ladefoged 2006) distinguishes between four tones in Mandarin. In Ladefoged's (2006) representation, Standard Beijing Mandarin has four tones, the "high level" (55)[2], "high rising" (35), "low falling rising" (214) and "high falling" (51). The tones of Standard Beijing Mandarin, using interlinear tonetic transcription, can be represented as in Figure 2:



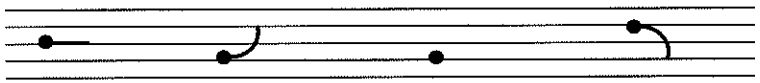
Tone 1	Tone 2	Tone 3	Tone 4
high level	high rising	low falling rising	high falling
(55)	(35)	(214)	(51)
E.g. *ma1*[3]	E.g. *ma2*	E.g. *ma3*	E.g. *ma4*
'mother'	'numb'	'horse'	'scold'

Figure 2. Interlinear tonetic representation of Standard Beijing Mandarin tones

There are also four tones in the Mandarin spoken in Singapore, but their tonal range and movements are different from the Beijing variety. Tone 1 in Singapore Mandarin is a mid level (33), not a high level (55). Tone 2 in Singapore Mandarin is also a rising tone, but starts lower and ends lower compared to the Beijing variety – it is a 24 instead of a 35. Tone 3 in Singapore Mandarin is not a low falling rising. It is a static low-2 tone. Tone 4, instead of starting at a high of 5 and ending at the bottom of the range at 1, does not have such a sharp fall in Singapore Mandarin, starting at 4 and ending at 2. Figure 3 below shows the four tones in Singapore Mandarin.

2 The numbers represent pitch levels, from 5 (highest) to 1 (lowest).

3 In pinyin, a number following a syllable indicates the lexical tone affecting that syllable. So *ma1* represents the syllable *ma* with Tone 1.

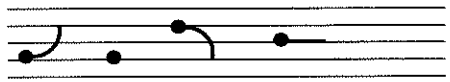


Tone 1	Tone 2	Tone 3	Tone 4
mid level	rising	low	falling
(33)	(24)	(2)	(42)
E.g. *ma1*	E.g. *ma2*	E.g. *ma3*	E.g. *ma4*
'mother'	'numb'	'horse'	'scold'

Figure 3. Interlinear tonetic representation of Singapore Mandarin tones

(27) and (28) are examples of the Mandarin spoken by the ECB speakers, showing the use of all four tones. (27) is a wh-question and (28) a yes-no question.

(27)



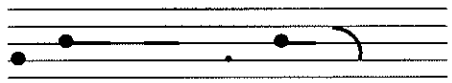
shui2 mai3 mian4 bao1
who buy bread?
'Who is buying the bread?'

(28)

ni3 xu1 yao4 yu2 san3 ma1
you need umbrella TAG
'Do you need the umbrella?'

What is noticeable in the English spoken by the ECB speakers, is that it also has only four basic tones, and these are the same four tones found in Singapore Mandarin. I am by no means saying that Singapore English is a tone language, for tone languages create lexical differences by the use of different tones. The tones in the English of the ECB speakers are not used to create lexical differences, but it is interesting that the speakers use these four tones as the bedrock of their intonational melodic structure. Though the level and the low tones are variable in terms of pitch, the rises and falls are of the same magnitude as in Mandarin, staying within the same range. This can be better exemplified in examples (29) and (30) below.

(29)



I'll lend you the mo- ney.

(30)

Will you be hav- ing din- ner?

What this shows, therefore, is how bilingual speakers of a tone language unconsciously take along the tonal system of the tone language and import it into the intonation system of their other, non-tone, language. While this transfer may not make a difference in terms of comprehension of the meanings conveyed by the intonation of the ECB speakers, the distinctive four-tone system creates a unique tune, which only this group of speakers will have.

5. Implications: prosodic norms

The notions of "norm" and "standard" are not limited to syntactic, lexical or phonological forms, they are also relevant to prosodic structures. As highlighted in the findings so far, the prosody of Singapore English, particularly among bilingual communities of Singapore English speakers, has distinct patterns which not only can be predicted, but are also markers of their ethnic identity, with roots that can be traced back to their other tongues. Prosody, therefore, while having always been the neglected cousin of syntax, lexicon and phonology, should decidedly be better valued in terms of its importance in clinical and teaching assessment, as it is undoubtedly an important aspect of linguistic structure.

Using one language or a particular language variety to determine a norm across the board could lead to misunderstanding or misinterpretation of meaning. In bilingual speakers, especially in the Singapore context where two languages are simultaneously acquired and used by the majority of Singaporeans, the situation becomes more complex as one then has to consider the influence and transfer of features from one language to another. If education practitioners and speech pathologists make use of "standard" assessment tools which are based on exonormative language standards, e.g. British or American English, or on monolingual speakers' standards, then such assessment tools become incapable of accounting for and assessing the intonational abilities of bilingual speakers in Singapore. Assessment tools which do not account for regional/ethnic variations can only provide unfair evaluations and assessments of

speakers who do not conform to those "norms", which may lead to a perception of these speakers as "disordered" when no such disorder exists.

The use of stress, for example, would have created problems. Exonormative monolingual standards would predict wh-words to be unstressed with no intonational contours. In all three groups of speakers in this study, the wh-word not only receives stress, but also exhibits intonational contours. Similarly, for many words in the dataset, the stress placement would not have been predictable by "standard" English stress rules. Failure to see actual uses as a characteristic or the *norm* of these speakers will create false perceptions that these speakers do not know how to place stress, or have placed stress wrongly.

The presence of unique tones is another area that would create problems for practitioners who may follow a prescribed norm. The EMB speakers, for example, have distinctly Malay tonal patterns unique to them. The fall-rise-fall tone found in their English utterances cannot be found in other varieties of English, or even in the other groups of bilingual speakers in this study. Similarly, their long stretches of level tones between the sentence-initial and sentence final pitch protrusions are not seen in other varieties of Singapore English. Both of these features would have been considered odd, or against the norm, if normative data were to draw on other varieties of English such as British or American. The nuances or melody of EMB intonation would risk being interpreted as erroneous and in need of correction. Without understanding that these unique tonal melodies are flavours of Malay, they may also be dismissed, at best, as sounding "weird".

The ETB speakers exhibit a consistent rise-fall in sentence-final syllables – a feature which would be interpreted by British or American English speakers as a marker of surprise. For the ETB speakers however, this is merely a tonal characteristic from Tamil that has coloured their intonation patterns, and has no attitudinal function. Their upstep progression of level tones, with similarities that can only be seen in some African tone languages, is a melody that has its traces from the Tamil that they also speak.

The ECB speakers, the only group of speakers who have competence in a tone language, Mandarin, create speech melodies in English that are based almost entirely on the four distinct tones that they use in their tone language.

What this study therefore shows is that these three groups of bilingual speakers use English in different ways, and beyond that, that these differences can be traced back directly to the other languages they speak. This would in fact mean that there will be as many Englishes in Singapore (or anywhere else, for that matter) as there are bilingual groups, and the situation will possibly get more complex with multilingual speakers, especially children who grow up with more than two languages. Any teaching or clinical assessment tool entrenched in exonormative "standards", that ignores or neglects the possibility of such transference and mixing of linguistic features in bi-/multilingual speakers, will undoubtedly lose sight of the deeper issue of the linguistic structures of bi-/multilingual speech, especially in multilingual contexts. One interesting question which can certainly be further studied is how these bilingual speakers, in this multilingual context, with all their differences in intonation and presumably different nuances in terms of intent and meaning, can understand one another without serious miscommunications. One is inclined to think that the interaction between these three different groups of speakers, cross-culturally, in this context, must surely employ other linguistic devices which have different parameters pegged on different communicative uses and interlocutors. While this issue is beyond the scope of this study, it again bears evidence to how bilingual norms cannot be understood from any other perspective than a bilingual one, and that these norms can only be ascertained by observing actual bilingual use.

While this study is not meant to provide a comprehensive normative dataset for purposes of testing, it is hoped that the data here will provide a glimpse of the different intonation patterns found in different groups of bilingual speakers, and that, should a norm be set, these norms do take all these differences into account, including the other languages of any given speaker. It is also hoped that this study can serve to show and create an awareness, not just to language pathologists and educationists, but to anyone dealing with multilinguals, that prosodic melodies differ between groups of speakers of different linguistic repertoires, and that different people do sing different tunes.

Appendix

Test sentences

1) My mother's angry.
2) Where will you be going tomorrow?
3) Are you going home already?
4) The wedding dinner's grand.
5) Who's buying the bread?
6) Do you know the baby's name?
7) I'm now in Mongolia.
8) Will you be having dinner?
9) Where's your mother going?
10) My brother owns a bar.
11) Do you need an umbrella?
12) Why did you buy lime?
13) Her mother's young.
14) Are you buying a new bed?
15) When did your brother marry?
16) I remember the melody.
17) Do you know that Mary won?
18) When are you buying a new bed?

19) I'll be going in the morning.
20) Do you need a lawyer?
21) Why are you angry?
22) I'll borrow your umbrella.
23) Do you remember the melody?
24) How old are you?
25) I'll buy the bread now.
26) When are you going to Mongolia?
27) Do you need a bag?
28) I'll lend you the money.
29) When did you mail your grandmother?
30) Are you an engineer?
31) My bag's in the drawer.
32) Are you angry?
33) Why did you borrow the umbrella?
34) My brother's an engineer.
35) Why did you buy lemon?
36) Are you going now?
37) My brother's nine already.
38) Why did you marry an engineer?
39) Will you be there in the morning?
40) You need a lawyer.
41) Why do you need a bag?
42) Will you be in Mongolia?
43) My dog's brown.
44) Why do you need a lawyer?
45) Will you lend her money?

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Chapter 9

Norms for pronunciation of English in Singapore

David Deterding

Abstract

Traditionally, the standard for pronunciation of spoken English that was the target in Singapore was RP British English. However, in multilingual societies such as Singapore, where English has long been used in many official domains, reference to an external monolingual norm for the pronunciation of English is no longer necessarily appropriate. Inevitably, the English that is spoken exhibits some influences from the other languages that are used in these places, and some of these features of pronunciation may actually enhance intelligibility in international contexts.

Based on analysis of recordings of nineteen young female trainee teachers in Singapore, this chapter considers the following features: pronunciation of the TH sound at the start of words such as *thought* and *threaten*; whether the final [t] is pronounced at the end of words such as *fist* and *feast*; the quality of the front vowels in *feast, fist, shep(herd), next* and *plan*; the vowel occurring in function words such as *of* and *as* and the first syllable of *concern*; and rhythm. In many cases, the pronunciation of these trainee teachers reflects a direct influence from the phonology of Malay as well as from various dialects of Chinese.

Consideration is given to the effect on intelligibility of the style of pronunciation that is found, and it is suggested that some features, especially the avoidance of reduced vowels in function words and the resulting syllable-based rhythm, seems to be becoming the norm in a wide range of New Varieties of English that are emerging around the world and may serve to enhance intelligibility for many listeners.

1. Introduction

Traditionally, the standard for pronunciation of English that was the target in Singapore was RP British English. However, in a multilingual society such as Singapore where English has long been institutionalised as an official language (Kachru 2006: 14), where there are three other official languages (Mandarin, Malay, and Tamil), and where virtually everyone is proficient in at least one other language in addition to English, reference to an external monolingual norm for the pronunciation of English is no longer necessarily appropriate.