

Code-switching in Brunei: Evidence from the Map Task

Siti Faahirah Binti Haji Rozaimée

Universiti Brunei Darussalam

Abstract

This paper investigates code-switching between speakers of English and Malay in Brunei Darussalam. Data was collected from 40 female undergraduates at UBD using new versions of the map task. 20 participants completed the map task in English and 20 did it in Malay. A total of 281 instances of code-switching were found, 238 into English during the Malay recordings and 43 into Malay during the English recordings. A perceptual test was conducted to see if listeners could determine the main language of the recording for code-switched utterances. It was found that the respondents guessed the language based on the number of words in each language, so for example listeners thought an utterance was in Malay when more words were in Malay than English.

Introduction

Code-switching is a change from one language to another within a conversation (Richards & Schmidt, 2002). Intra-sentential code-switching occurs within a sentence or clause, while inter-sentential code-switching occurs at the sentence or clause level. However, this distinction is often hard to maintain, as the notion of a ‘sentence’ is not clear in conversational speech.

In Brunei, it is the norm for people to switch between English and Malay (Deterding & Salbrina, 2013; McLellan, 2010). Code-switching most often occurs in an informal situation, particularly between friends, but it also sometimes happens in government offices. Even though Malay is the language generally used when dealing with the government, a meeting that involves the presence of foreign participants will sometimes commence in Malay and slowly switch to English (Ozóg, 1996, p. 179).

This paper will analyse code-switching by undergraduates using new versions of the map task that are suitable for generating both English and Malay interactions.

The Matrix Language Frame (MLF)

The Matrix Language Frame (MLF) model suggests that, in code-switching, one can always identify a matrix language, the language carrying the foundation of an utterance, while the other language is the embedded language (Myers-Scotton, 2009, p. 337). For example, when Malay speakers have a conversation in Malay and use a few words of English, Malay is the matrix language while English is the embedded language. One important feature of the MLF model is differentiating the morpheme types, as it is assumed that functional morphemes are in the matrix language, and generally only content words such as nouns and verbs are in the embedded language.

As an example of code-switching in Brunei, McLellan (2010, p. 428) gives the use of the Brunei Malay noun phrase *duit ketani* (‘our money’) inserted into a stretch of English. Here English is assumed to be the matrix language while Malay is the

embedded language, though we might note that *duit ketani* has Malay word order, with the noun *duit* at the front.

Another category that McLellan (2010) discusses is the occurrence of single nouns. For example, a single Malay noun may be inserted into a stretch of English, and he gives (1) as an example.

- (1) So *rakyat* could make formal complain (McLellan, 2010, p. 430)
citizens

Note that (1) lacks morphological markers required by English syntax, such as an article before ‘formal complain(t)’, suggesting that the insertion of the single Malay noun may have influenced the syntax of the sentence. So maybe the distinction between matrix and embedded language is not always clear.

Another example, shown in (2), illustrates the use of a Malay demonstrative *atu* in a noun phrase with Malay word order, that is head followed by modifier, as well as the adversative passive *kana*, although most of the sentence is English.

- (2) ...ex minister *atu kana* remove from office due to his housing scheme
this PASS (McLellan, 2009)

In example (2), both *atu* and *kana* are function words. Does this mean that Malay is the matrix language? However, ‘from’ and ‘to’ are also function words.

In Brunei and Malaysia, one common feature of code-switching is the use of English first person pronouns (Ozóg, 1996, p. 173). One reason for this is to avoid choosing between the formal Malay first person pronoun *saya* and the informal *aku*. For example, some people might say ‘I *pergi*’, where *pergi* means ‘go’. One might assume that the matrix language of this utterance is Malay given that the verb is in Malay. However, with just two words, it is hard to be certain.

One further problem is that, even in cases in which English words occur in a Malay conversation, so we might assume that Malay is the matrix language, there may be islands of English in the conversation. Similarly there may be islands of Malay in an English conversation. The current research investigates the occurrence of English words in Malay conversations and also Malay words in English conversations, but the assumption that the primary language of a conversation determines the matrix language may be flawed, because of possible islands of the other language.

The map task in research

The map task (Brown, Anderson, Shillcock & Yule, 1984) is a standard way of eliciting data that includes questions. The following description of the map task is based on Brown (1998, p. 181). Two participants are involved and each has a different map. One participant is the Leader and the other is the Follower. The Leader’s map has a route shown, but the Follower’s does not. The task of the Leader is to describe the route so that the Follower can draw it on their map. Some of landmarks on the two maps are different. This encourages the two participants to communicate by asking questions, as the Follower requires information from the Leader, and the Leader sometimes needs to ask the Follower about some things. One version of the map task, from Slovak (2007), is shown in Figure 1.

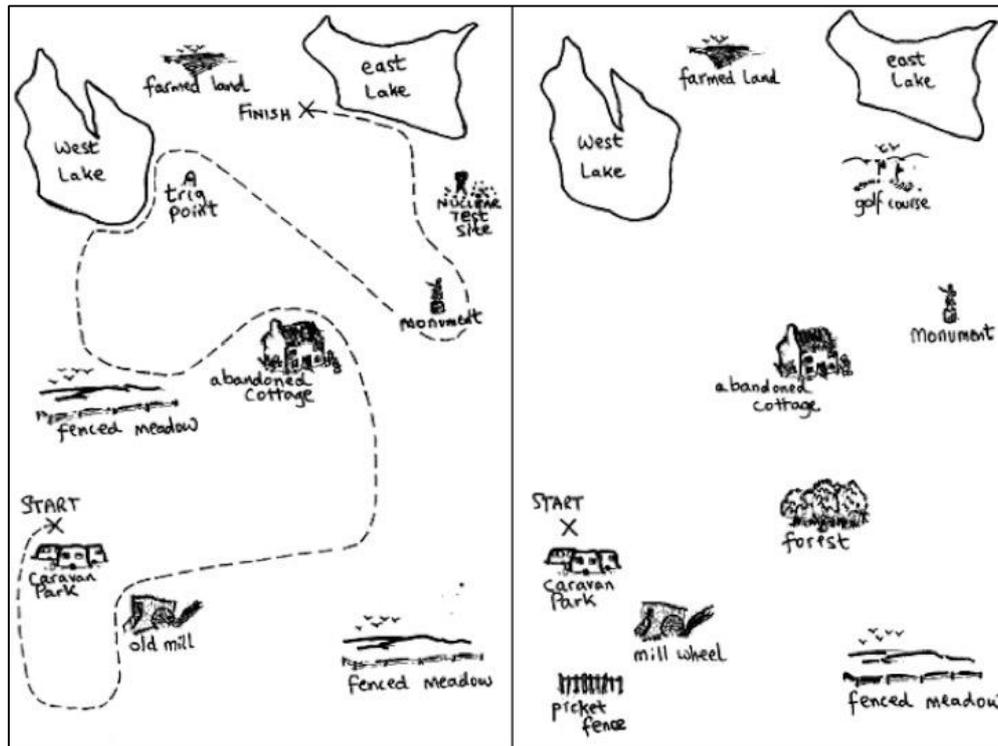


Figure 1 Maps used by Slovak (2007). The Leader's map is on the left, while the Follower's map is on the right.

Anderson et al. (1991) have built the Human Communication Research Centre (HCRC) map task corpus by collecting 128 two-person conversations. The map task has thus been used to provide natural and unrestricted conversations, enabling researchers to study various aspects of speech. For example Forsyth, Clarke and Lam (2008) have looked into familiarity between the speakers and their role in conversations, and they also investigated word timings using the map task corpus.

Mat Nayan and Setter (2011) investigated the intonation patterns of Malay speakers of English using a map task. They reported four features: stress in polysyllabic words can be variable even when the words are close to each other; stress tends to be on the last element in noun compounds; there is a high occurrence of rising intonation; and rising intonation often occurs on the second syllable for the item 'and then' at the start of an utterance.

Gut and Pillai (2014) also used a map task to collect data about the intonation of various question types by ten Malay speakers of English and also ten speakers of Malay. They used the maps from Slovak (2007) already shown in Figure 1, while the Malay equivalents are shown in Figure 2.

The landmarks in these Malay versions of the maps used by Gut and Pillai (2014) are direct equivalents of the English landmarks. It was found that, in the English spoken in Malaysia, wh- questions tend to have a falling tone while yes-no questions tend to have a rising tone. The results from their study will be compared with the data from the current study.

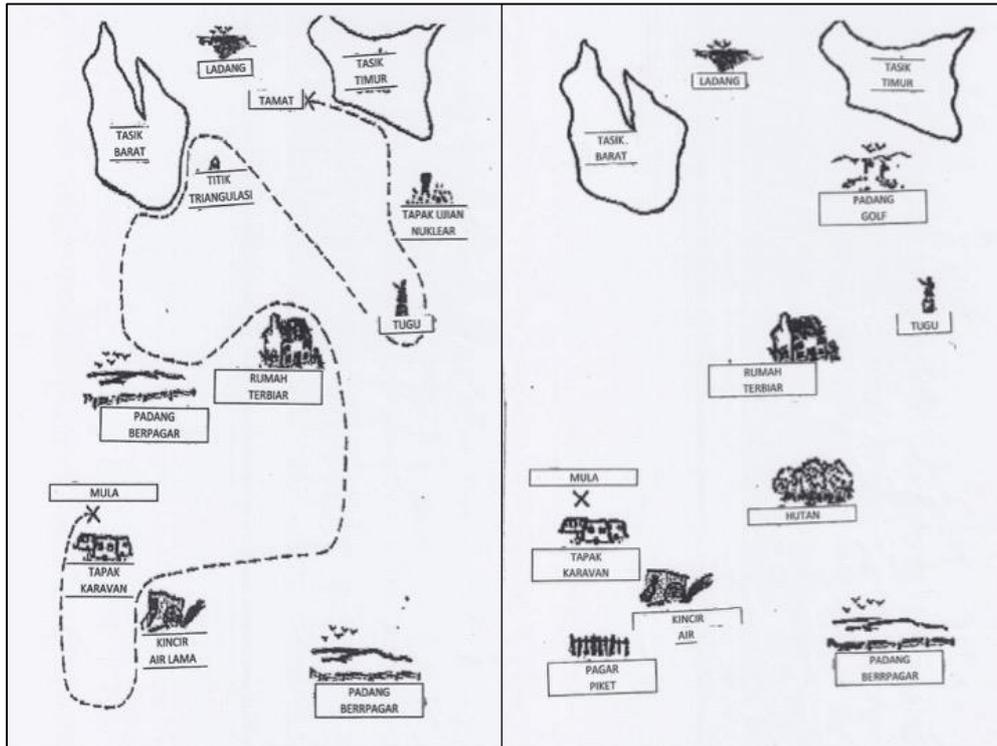


Figure 2 Maps used by Gut and Pillai (2014).

Faahirah (2014) used the same English and Malay versions of the map task as Gut and Pillai (2014) but reported that some of the landmarks in the Malay map task are unsuitable because the speakers had difficulty pronouncing them. For example, some speakers stumbled over *Titik Triangulasi* ('Trig Point'), as they did not know the word *Triangulasi*. In addition, there are rather a lot of words from English in the Malay: *Golf*, *Karavan*, *Piket* and *Nuklear*, and it is uncertain what effect this might have on the Malay intonation. Furthermore, it might artificially encourage code-switching into English. Because of these problems with the translated map task, in the current study a revised map task was created only using common words in both English and Malay.

The revised map task avoids words translated from English and words that the speakers cannot pronounce. The maps use similar designs as those in Slovak (2007), but some of the landmarks are changed to make them more suitable in the local context. The English maps are shown in Figure 3 and the Malay maps are in Figure 4. The Malay words and the English words are translations of each other, but neither version can be considered primary. The only word that is similar in both versions is *Mango/Mangga*, and this is actually a word that probably originates from Malayalam and was adopted into English via Portuguese (Upward & Davidson, 2011, p. 259). All the words were carefully chosen to ensure they are common words in both English and Malay.

- Mango Tree / *Pokok Mangga* instead of Caravan Park / *Tapak Karavan*.
- Longhouse / *Rumah Panjang* instead of Picket Fence / *Pagar Piket*
- Waterfall / *Air Terjun* instead of Old Mill / *Kincir Air*
- New Bridge / *Jambatan Baru* instead of Trig Point / *Titik Triangulasi*
- Hill / *Bukit* instead of Nuclear Test Site / *Tapak Ujian Nuklear*
- Football Field / *Padang Bola Sepak* instead of Golf course / *Padang Golf*

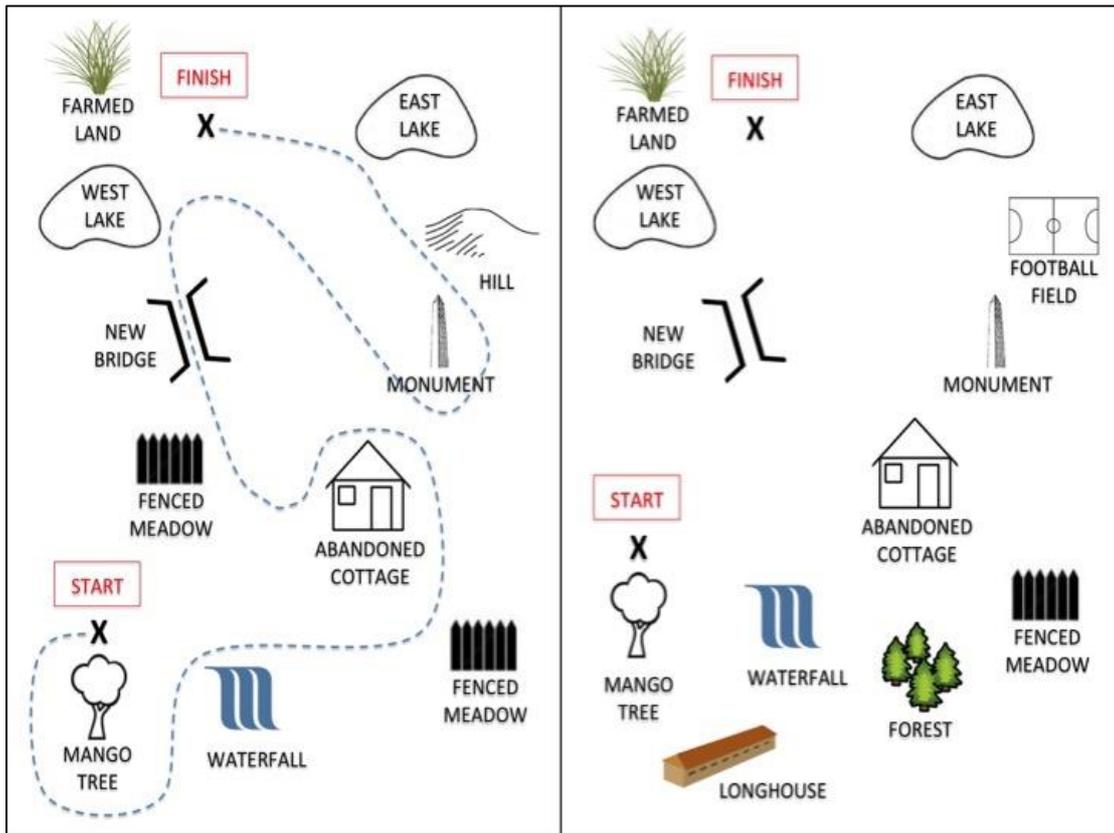


Figure 3. English map for the Leader and Follower

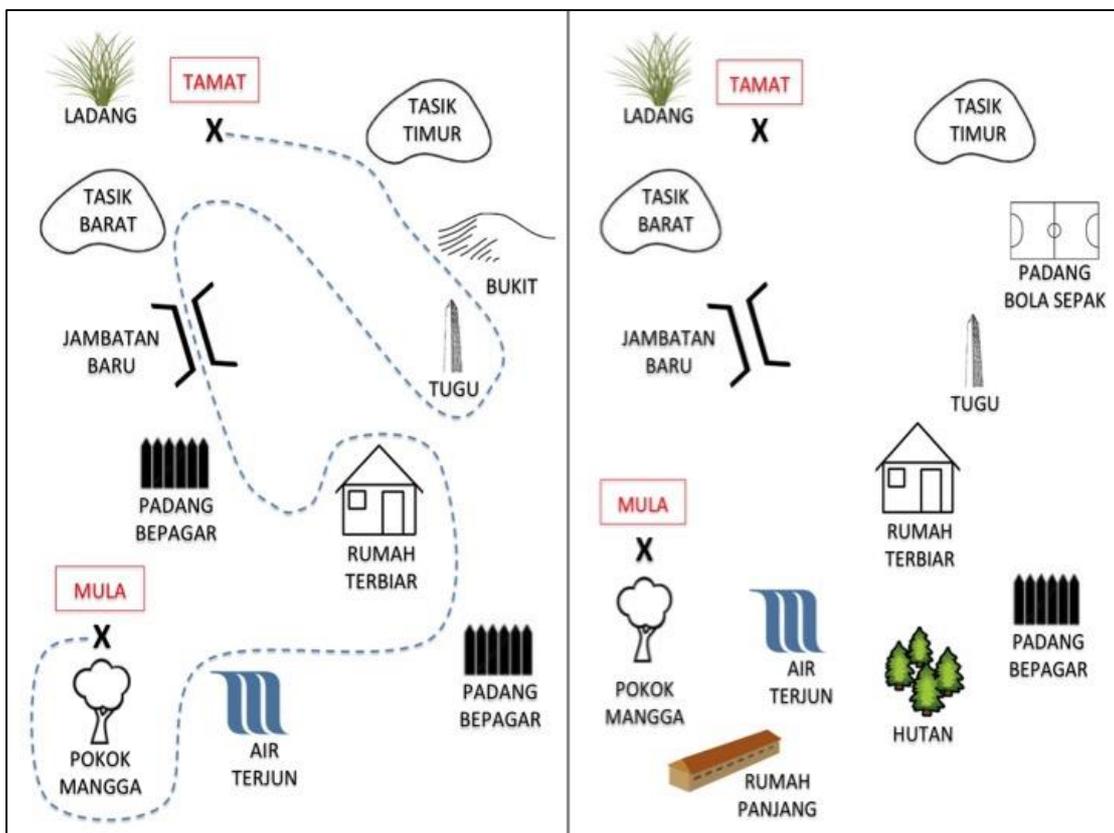


Figure 4. Malay map for the Leader and Follower

Apart from these changes, the location of the landmarks and the route on the Leader's map are the same as in the maps in Slovak (2007). In this study, the landmarks are capitalized, with the Malay landmarks in italics.

In addition to the presence or absence of a route, the maps differ in that each map has some landmarks that the other does not have. For example, the Leader's map has Hill / *Bukit* while the Follower's map has Football Field / *Padang Bola Sepak*. In addition, the Follower has Forest / *Hutan* and also Longhouse / *Rumah Panjang*, but the Leader does not have these, and the leader has two Fenced Meadows / *Padang Bepagar*, but the Follower only has one. This causes the participants to ask questions to each other.

Data

Forty ethnically Malay female speakers were recorded in an office at Universiti Brunei Darussalam (UBD). They were aged between 21 and 42 and all were full-time undergraduates at UBD. Twenty-six participants were students of English-medium majors such as English Language and Linguistics, Energy Studies and Management, while the rest were students of Malay-medium majors such as Malay Language and Linguistics and Brunei Studies.

Thirty-four participants gave Brunei Malay as their first language. The rest reported that they spoke other languages as their first language. Two participants each stated Kedayan and Tutong as their first language while one participant each reported that their first language was Dusun, English and Standard Malay.

The participants were paired up to do the map task. As is usual with the map task, they were seated opposite each other and they were not allowed to see each other's map. The distance between them was approximately five meters. Their conversations were recorded on a Zoom Handy Recorder H4n and saved in .wav format.

Analysis

Code-switching in this study only considers English and Malay. In one recording, the adjacency pair, 'assalamualaikum' and 'walaikumsalam' are not included in the results as they are from Arabic.

(3) EF2: okay assalamualaikum (.) where are you? (E2:00)

peace be upon you

('Okay. Peace be upon you. Where are you?')

EL2: walaikumsalam *aku* (.) i am at the (.) Monument right now

peace be upon you too

('Peace be upon you too. I am at the Monument right now.')

Another phrase that is not included was 'alhamdulillah' in (4), as it is also from Arabic.

(4) ... alhamdulillah *jua inda banyak simpang* straight *saja jalannya* (EL6:127)

praise be to God too no many corner just road-POSS

('Okay, praise be to God, there is not many corner and just go straight.')

Recording	Time (sec)	No. of words	Instances of code-switching
E1	322	918	1
E2	263	543	1
E3	307	838	1
E4	176	546	0
E5	578	1468	30
E6	385	896	8
E7	151	397	0
E8	119	260	0
E9	123	291	0
E10	282	689	2
Average	271	685	4.3

Table 1. The duration and number of words in each of the English recordings

Recording	Time (sec)	No. of words	Instances of Code-switching
M1	305	781	21
M2	332	755	77
M3	258	612	16
M4	178	462	39
M5	312	815	17
M6	425	1113	16
M7	315	747	0
M8	191	425	8
M9	145	388	23
M10	305	463	21
Average	277	656	23.8

Table 2. The duration and number of words in each of the Malay recordings

Code-switching can involve a single word or a phrase in an utterance. The instances are divided into four categories: one word, two words, three words and more than three words, and the totals for each category are shown in Tables 3 and 4.

Recording	One word	Two words	Three words	More than three words
E1	1	0	0	0
E2	1	0	0	0
E3	1	0	0	0
E5	3	5	9	13
E6	1	2	1	4
E10	1	1	0	0
Total	8	8	10	17

Table 3. Number of tokens for each category of code-switching in English recordings

Recording	One word	Two words	Three words	More than three words
M1	17	3	1	0
M2	31	19	7	20
M3	9	2	1	4
M4	13	10	4	12
M5	11	4	0	2
M6	14	1	1	0
M8	5	3	0	0
M9	19	3	1	0
M10	17	3	1	0
Total	136	48	16	38

Table 4. Number of tokens for each category of code-switching in Malay recordings

Use of Malay in English

In the English conversations, there are 13 code-switching instances involving complete Malay sentences and 30 involve a word or phrase of Malay in a sentence. An example of a code-switch with a complete sentence (with the exception of the landmark in English) is in (9) and an example with a single word is in (10):

(9) *kenapakan kamu mau ke* Farmed Land *ani jauh jauh* (EF5:306)
 whyPART you want to this far far
 ('Why do you want to go this far to Farmed Land?')

(10) can you find *ada* Bridge (EL6:145)
 have
 ('Can you find a Bridge?')

The instances of code-switching in the English recordings were classified based on the categories shown in Table 5. The numbers add up to more than 43 as some instances of code-switching involved separate categories.

Categories	Tokens
Verb phrase	27
Verb	9
Adjective phrase	6
Adjective	2
Adverb	2
Pronoun	2
Demonstrative	1
Question Particle	1

Table 5. Categories of code-switching tokens in English recordings

The most common category is verb phrase. The most frequently used verbs are *jalan* ('go') with six instances and *lintas* ('pass') with three instances. (11) and (12) show examples of *jalan* and (13) shows an example of *lintas*.

(11) uh so *jalan saja* uh continue *macam ada* a bit cornering (EL6:135)
 go just like have
 (Just go and continue. There's a little cornering.)

(12) after you *jalan atu* and you saw Monument (EL5:419)
 go that
 ('After you go, you will see a Monument.')

(13) *lintas* pass to that East Lake do not cross (EL5:558)
 pass
 ('Pass by the East Lake and do not cross.')

Four of the verbs are auxiliary verbs, *kan*, which is a short form of *akan* ('will') (as in (5) above). However, *kan* can also be a question tag, as in (14). (14) also illustrates the use of a Malay pronoun in an English recording

(14) *kau di* New Bridge *kan ni* (EL5:375)
 you at TAG PART
 ('You're at the New Bridge now right?')

Note that this is the inverse of the tendency to use English pronouns in Malay as discussed above. Possibly the use of an informal Malay pronoun carries a tone of informality.

Similarly, in (15), EL2 uses the informal first-person pronoun *aku* in an English recording. Selection of pronouns is determined by contextual factors (Clynes, 2014). Since this is an informal conversation, the speakers prefer to use informal forms of address *aku* and *kau* in Malay.

(15) Waalaikumsalam *aku* (.) i am at the (.) Monument right now (EL2:8)
 peace be upon you too I
 ('Peace be upon you too. I'm at the Monument right now.')

Use of English in Malay

Table 6 shows the categories of tokens in code-switching instances in the Malay recordings.

Categories	Tokens
Conjunction	44
Adverbial phrase	38
Verb phrase	36
Noun phrase	13
Prepositional Phrase	11
Adverbs	7
Adjective	3
Adjective phrase	1

Table 6. Categories of code-switching tokens in the Malay recordings

The most common conjunction is ‘and then’ with 34 instances. This occurs most frequently by the Leaders, as it is used to continue explaining the directions to the Followers, such as in (16).

- (16) and then *jalan saja* (.) *lepas atu ada Ladang di dapan* (EL2:312)
 go just after that have Farmed Land at front
 (‘And then just go after that you have Farmed Land in front.’)

The most common adverb is ‘straight’ (instead of *lurus* or *terus*) as in (17). There are thirty-six instances of ‘straight’ in the Malay conversations.

- (17) *au ampir jalan saja* straight *nampak kau Ladang dan aku* (ML6:404)
 yes near go just see you Farmed Land and me
 (‘Yes, it’s just near so just go straight and you will see the Farmed Land and me.’)

‘Straight’ is also sometimes used as a verb as in (18). Perhaps this is a shorter version of ‘go straight’.

- (18) *Kalau kau* straight *saja ke atas ada tu Rumah Terbiar* (ML4:62)
 if you just to up have that House Abandoned
 (‘If you just go straight up, there is the Abandoned Cottage.’)

It seems directions are often preferred in English. Speakers doing the Malay map task often use ‘right’ and ‘left’ instead of *kanan* and *kiri*, as in (19). There are nine tokens of *right* and five of *left*:

- (19) you mean *Bukit tu atas Tugu* or what left or right (MF4:133)
 Hill that up Monument
 (‘You mean the Hill is on top of Monument or left or right?’)

One of the speakers mentioned ‘abandoned’ from ‘Abandoned Cottage’ in the Malay map task instead of *terbiar* from *Rumah Terbiar*, as shown in (20). It is interesting that the English word is preferred to its Malay equivalent, even though *Terbiar* occurs on the map. Moreover, English word order is used, with the modifier before the noun.

- (20) ((laughter)) abandoned *lah Rumah itu* (ML10:65)
 PART house that
 ('That house is abandoned.')

Table 7 shows some of the most frequently used English discourse expressions that occurred in the Malay conversations.

English expressions	Tokens
Okay	97
Yes	17
No	9
Alright	3
Yeah	2
Thank you	1

Table 7. Categories of English discourse expressions

In Malay, there are 44 code-switches involving complete sentences and 194 instances involving single words or phrases in a sentence. However, the majority of the complete sentences involve one word for example 'yes', 'okay' and 'alright'. Words such as 'yes' and 'okay' might be regarded as backchannels used to show that the participant is following what the other speaker is saying. In (21), ML5 tells MF5 to go somewhere and MF3 acknowledges by saying 'okay'.

- (21) ML5: ... *ah nampak kau rumah kosong yang Rumah Terbiar itu*
 PART see you house empty that house abandoned that
 ('After that, you walk straight and you see an Abandoned House?')
- MF5: *ah okay sana* (MF:100)
 PART there
 ('Okay there.')

Another interesting feature is the combination of English verbs and Malay prefixes, something which is common for English verbs in Malay. It occurs with 'mengexplain' in (22), 'mendriving' in (23) and 'mencheck' in (24). This also occurs in the online texts studied by McLellan (2005, p. 126), for example 'mentest' and 'berlabel'.

- (22) *karang tah karang ku mengexplain kau (.) ke Tugu itu* (ML6:106)
 later PART later I explain you to Monument that
 ('I'll explain to you how to get to the Monument later.')
- (23) *batah kita (.) sibuk tah kita mendriving tu ah inda nampak* (MF1:229)
 long you busy PART you driving that PART no see
 ('You have been driving for a long time that you cannot see it.')
- (24) *aku mencheck balik di mana (.) ah Tugu* (MF1:172)
 I check going at where PART Monument
 ('I will check again where the Monument is.')

In these three instances, we can see that *meN-* prefix follows the usual rules for the pronunciation of this morpheme: before a vowel in *mengexplain* it is [mən], but before [d] in *mendriving* or [tʃ] in *mencheck* it is [n] (Clynes & Deterding, 2011).

Perception test for code-switched utterances

The frequent occurrence of code-switching raises a question about what the intonation of the code-mixed utterance is. Does an island of English in Malay adopt Malay intonation? It is therefore interesting to see if listeners can detect the underlying language in instances of code-switching.

A perception test was carried out in a first-year English-medium linguistics class at UBD. Thirty-one ethnically Malay undergraduates participated in this test. Eight utterances were each played twice. After hearing each utterance, the participants were asked to write either 'E' or 'M' on the answer sheet, indicating whether they thought the utterance occurred in an English or Malay conversation (see the Appendix). The eight sentences were as follows:

- (1) *kau di New Bridge kan ni* (EL5:375)
you at TAG PART
(‘You are at New Bridge right?’)
- (2) *so you di mana sudah* (ML2:253)
at where already
(‘So you are where already?’)
- (3) *mana you* (ML2:259)
where
(‘Where are you?’)
- (4) *jalan saja ah continue macam ada a bit cornering* (EL6:133)
go just PART like have
(‘Just go and continue until there’s a bit cornering.’)
- (5) *i guess sana Mulanya kan there’s an X there* (MF2:11)
there StartPOSS TAG
(‘I guess that’s the start there’s an X there.’)
- (6) *kenapakan kamu mau ke Farmed Land ani jauh jauh* (EF5:306)
why-PART you want to this far far
(‘Why do you want to go this far to Farmed Land?’)
- (7) *you should be here right now lima minit ago* (ML3:3)
five minutes
(‘You should be here right now five minutes ago.’)
- (8) *ah masih arah Rumah Panjang ah on my way to Hutan* (MF4:29)
PART still at House Long PART Forest
(‘Still at Longhouse on my way to Forest.’)

Results from the perception experiment

Table 8 shows the results for correct perceptions for these utterances including code-switching by the 31 Malay listeners. A ‘correct’ perception here means the listeners accurately identified whether the utterance occurred in an English or Malay recording. One problem here is that, as mentioned above, because of islands of usage, it is not clear what the matrix language is for an utterance that is mostly English in a Malay recording, or mostly Malay in an English recording. For example, if an utterance is mostly in English, presumably English is the matrix language at that point in the recording, even if the maps are entirely in Malay and the recording is supposed to be in Malay. Nevertheless, we will see if the listeners could detect the underlying language.

Overall, the listeners guessed the underlying language correctly in 41.9% of the cases, which is worse than if they had guessed randomly. Utterances 2, 3 and 8 show a high number of correct perceptions. Utterance 6 showed no correct perceptions, as all the listeners heard it as Malay even though it actually occurred in an English recording.

Utterance number	Speaker	Language	Correct	Incorrect
1	EL5	English	4	27
2	ML2	Malay	31	0
3	ML2	Malay	28	3
4	EL6	English	11	20
5	MF2	Malay	8	23
6	EF5	English	0	31
7	ML3	Malay	2	29
8	MF4	Malay	20	11
Average			13.0	18.0

Table 8. Distribution of respondent’s perception in code-mixed utterances.

Some utterances that showed a high number of correct perceptions are shown below. In both 2 and 8, the majority of the words are Malay, so it is not surprising that most listeners heard the utterances as Malay.

2. So you *di mana sudah* (M2:253)
 at where already
 (‘So where are you now?’)

8. *ah masih arah Rumah Panjang ah* on my way to Hutan (M4:29)
 PART still towards House Long PART Forest
 (‘I’m still near the Longhouse on my way to the Forest’)

In utterance 3, there is one word of Malay and one word of English. However, the English word is a pronoun, and use of English pronouns in Malay is common. There are eleven instances of pronoun ‘you’ in the Malay conversations.

3. *mana* you (M2:259)
 where
 (‘Where are you?’)

The utterance that showed no correct perceptions by the participants is sentence 6.

6. *Kenapakan kamu mau ke Farmed Land ani jauh jauh* (E5:306)
 Why you want to this far far
 ('Why do you want to go this far to Farmed Land?')

It is hardly surprising that the listeners heard 6 as Malay, given that all the words are Malay apart from the landmark Farmed Land.

It seems therefore, that the respondents determined the language based on the number of words in each language, and they guessed the utterances were in Malay when there were more words in Malay than English. There is no evidence, therefore, that they could detect the main language of the conversation from the intonation.

Conclusion

The revised map task provides an excellent basis for obtaining English and Malay materials, and the study has investigated instances of code-switching between English and Malay. The data confirms that code-switching is common, but it is more common in Malay conversations than English ones.

Listeners determine the matrix language on the basis of the number of words, so there is no evidence that the intonation of the main language of a conversation carries over when there is code-switching. Indeed, it is hard to know what the matrix language is for many utterance, as the main language of a conversation may not be the matrix language in islands of the code-switched language.

References

- Anderson, A. H., Bader, M., Bard, E. G., Boyle, E. H., Doherty, G. M., Garrod, S. C., Isard, S. D., Kowtko, J. C., McAllister, J. M., Miller, J., Sotillo, C. F., Thompson, H. S. & Weinert, R. (1991). The HCRC map task corpus. *Language and Speech*, 34(4), 351–366.
- Brown, G. (1998). Context creation in discourse understanding. In K. Malmkjær & J. Williams (Eds.), *Context in language learning and language understanding* (pp. 171–192). Cambridge: Cambridge University Press.
- Brown, G., Anderson, A. H., Shillcock, R., & Yule, G. (1984). *Teaching talk*. Cambridge: Cambridge University Press.
- Clynes, A. (2014). Brunei Malay: An overview. In P. Sercombe, M. Boutin & A. Clynes (eds.), *Advances in research on linguistic and cultural practices in Borneo* (pp. 153–200). Phillips, ME: Borneo Research Council.
- Clynes, A., & Deterding, D. (2011). Standard Malay (Brunei). *Journal of International Phonetic Association*, 41(2), 259–268
- Deterding D., & Salbrina, S. (2013). *Brunei English: A new variety in multilingual society*. Dordrecht: Springer.
- Faahirah Binti Haji Rozaimie, S. (2014). The intonation of questions in Brunei. *Southeast Asia: A Multidisciplinary Journal*, 4, 23–28.
- Forsyth, R., Clarke, D., & Lam, P. (2008). Timelines, talk and transcription: A chronometric approach to simultaneous speech. *International Journal of Corpus Linguistics*, 13(2), 225–250.

- Gut, U., & Pillai, S. (2014). The question intonation of Malay speakers of English. In E. Delais-Roussarie, M. Avanzi & S. Herment (Eds.), *Prosody and languages in contact: L2 acquisition, attrition, languages in multilingual situations* (pp. 51–70). Berlin: Springer.
- Mat Nayan, N. F., & Setter, J. (2011) The Intonation patterns of Malay speakers of English: A discourse intonation approach. *The 17th International Congress of Phonetic Sciences (ICPhS XVII)*, 17–21 August 2011, Hong Kong.
- McLellan, J. (2009). When two grammars coincide: Malay-English code-switching in public on-line discussion forum texts. *International Sociological Association RC25 Newsletter*, 5. <<http://www.crisaps.org/newsletter/summer2009/index.htm>>
- McLellan, J. (2010). Mixed codes and varieties of English. In T. A. Kirkpatrick (Ed.), *Routledge handbook of World Englishes* (pp. 425–441). London: Routledge.
- Myers-Scotton, C. (1993). *Duelling languages*. Oxford: Oxford University Press.
- Myers-Scotton, C., & Jake, J. L. (2009). A universal model of code-switching and bilingual language processing and production. In B. Bullock, & A. J. Toribio (Eds.), *The Cambridge handbook of linguistic code-switching* (pp. 336–357). Cambridge: Cambridge University Press.
- Ozóg, A. C. K. (1996). Code switching in Peninsular Malaysia and Brunei Darussalam: A study in contrasting linguistic strategies. In P. Martin, Ozóg & G. Poedjoesoedarmo (Eds.), *Language Use and Language Change in Brunei Darussalam* (pp.173-188). Athens, Ohio: Ohio Center for International Studies.
- Richards, J. C., & Schmidt, R. (2002). *Dictionary of language teaching and applied linguistics*. London: Longman.
- Slovak, P. (2007). Effect of videoconferencing environments on perception of communication. *Cyberpsychology Journal of Physiology Research on Cyberspace*, 1(1), article 8. Retrieved 10 October 2014 from: <<http://www.cyberpsychology.eu/view.php?cisloclanku=2007072901&article=8>>
- Upward, C., & Davidson, G. (2011). *The History of English Spelling*. Malden, MA: Wiley-Blackwell.

Appendix - Response Sheet

Ethnicity: _____

Identifying the Language in the Recording

You will hear 8 utterances by different speakers. Please try to identify whether each is in an English (E) or Malay (M) conversation:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Thank you