ILLUSTRATIONS OF THE IPA

Standard Malay (Brunei)

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Malay (Bahasa Melayu) is a member of the Malayic subgroup of the Austronesian language family. This subgroup includes languages like Gayo in Sumatra (Eades & Hajek 2006), Minangkabau in Sumatra, and Iban in Borneo, as well as many local dialects of Malay found in Borneo, Sumatra, Peninsular Malaysia, and eastern Indonesia (Adelaar 2005).

Closely related varieties of Malay have national language status in Malaysia, Brunei, and Singapore, where it is referred to as Standard Malay (Bahasa Melayu Baku, Bahasa Baku), and in Indonesia, where it is called Indonesian (Bahasa Indonesia) (Soderberg & Olson 2008). There is a high degree of mutual intelligibility between all these standard varieties, which are said to derive from the Malay of Johor in Peninsular Malaysia (Steinhauer 2005).

Indonesian is the most divergent of these standard Malays in its lexis, due to extensive influence from languages like Dutch and Javanese, while phonetically and phonologically the most divergent are probably the varieties spoken in much of Peninsular Malaysia. The Standard Malay spoken in Brunei seems to be in an intermediary position, in many ways similar to Indonesian in its pronunciation and grammar, but more like Peninsular varieties in its lexis (Poedjosoedarmo 1996).

One important reason for variation is that, for most speakers, Standard Malay is a second language or dialect, existing in a diglossic relationship with a local variety. That local variety can be a distinct language, or it can be a local dialect of Malay which, as with Brunei Malay, can diverge greatly from Standard Malay in many respects.

The local varieties naturally differ quite substantially phonetically and phonologically from Standard Malay, and these differences influence the varieties of Standard Malay that are spoken in each place. In Malaysia this has given rise to two groups of standard varieties, which can be termed the 'a-varieties' and the 'schwa varieties', as they differ in the realisation of word-final orthographic (a) (pronounced as either /a/ or /ə/) in addition to a range of other features (Asmah Haji Omar 1977). Pronunciation of Indonesian also varies considerably depending on the first language of the speaker, as van Zanten (1986) and van Zanten, Goedemans & Pacilly (2003) have demonstrated.

In Brunei, the pronunciation of Standard Malay similarly reflects influences from Brunei Malay (Dialek Melayu Brunei), the dominant vernacular variety of Malay in the country. Brunei Malay differs markedly from Standard Malay in its phonology, grammar, and lexis (Clynes 2001, Dewan Bahasa dan Pustaka 2007), to the extent that some might regard

it as a separate language (Martin 1996). One major difference in the phonology involves the vowels: Brunei Malay has only three vowels, /i a u/, rather than the six vowels of Standard Malay, so for example *perang* /pəraŋ/ 'war' in Standard Malay is *parang* /paraŋ/ in Brunei Malay; and *orang* /oraŋ/ 'person' in Standard Malay is *urang* /uraŋ/ in Brunei Malay.

Variables such as age, gender, level of education, and profession naturally give rise to further sociolects in the Standard Malay of Brunei. Poedjosoedarmo (1996: 38) contrasts the formal speech of government officials, which she describes as having the 'staccato syllable-timed rhythm of Standard Indonesian', with the stress-timed speech of newsreaders. Still, the Standard Malay of all formal genres in Brunei shows the least divergence from other varieties of Standard Malay, while that used in less formal contexts (such as in the radio patter of disc jockeys, or the speech of teachers in classrooms) at times diverges quite radically.

Typically, communities in which Standard Malay is used are multilingual and multiglossic (Sneddon 2003). In Brunei, while Standard Malay dominates in the domains of education and administration, in informal contexts Brunei Malay is strongly preferred, often with a considerable amount of code-mixing. The overall mix is further complicated by influences from other Malay varieties, from TV, films, radio and the Internet, so that many Bruneians are at least passively multi-dialectal, often understanding even the informal registers of Indonesian and Malaysian films and TV dramas. Finally, in a country where education is bilingual in Standard Malay and English, with English dominating from the fourth year of primary school, English increasingly constitutes a rival code in high diglossic contexts and even, for some speakers, in low diglossic contexts. As a result, English has influenced the syntax, lexis, phonetics, and phonology of both Standard Malay in Brunei (Poedjsoedarmo 1996) and Brunei Malay (Maxwell 1990).

All these influences can be found in the recordings described here. The reader is a university tutor in Malay and also a part-time professional newsreader. She is aged 26 years and has been educated in both Brunei and England. The formal style she uses shows phonological influences from Peninsular Malaysia (e.g. the use of glottal stop) and also apparently from English (e.g. aspiration of voiceless plosives and the pronunciation of the affricates). However, the level of influence from Brunei Malay is surprisingly low. This no doubt reflects genre expectations on the part of the speaker – that she should use her best 'newscaster' style in the formal context of recording a written text.

Consonants

The chart shows the consonants of Standard Malay in Brunei. The inventory of consonants shown here is the same as that in Peninsular Standard Malay and also Indonesian (Soderberg & Olson 2008). Loan phonemes are shown in brackets.

						st-				Labial-
	Lal	oial	Alv	eolar	alve	olar*	Palatal	Velar	Glottal	velar
Plosive/Affricate	p	b	t	d	t∫	d3		k g	(?)	
Fricative	(f)	(v)	S	(z)	(J)			(x)	h	
Nasal		m		n		ŋ		ŋ		
Trill				r						
Approximant							j			W
Lateral				1						

^{*}The 'postalveolars' are in fact often also articulated in the alveolar region (see below).

n	paran	parang	'machete'	m	masih	masih	'still'
b	baran	barang	'thing'	n	nasi	nasi	'rice'
t	tua	tua	'old'	n	nanian	nyanyian	'song'
d	dua	dua	'two'	η	ηəri	ngeri	'horror'
k	kadʒi	kaji	'study'	Š	šari	sari	'essence'
g	gadzi	gaji	'wage'	h	hari	hari	'day'
tς	t∫ari	cari	'search'	i	bajaŋ	bayang	'shadow'
ď3	ďzari	jari	'finger'	W	bawaŋ	bawang	'onion'
r	rumah	rumah	'house'	1	laki	laki	'male'

The native consonants are illustrated in the following data:

Plosives and affricates

The plosives /p b/, /t d/ and /k g/ are voiceless/voiced pairs. In many varieties of Malay, /t/ is dental rather than alveolar, though not in Brunei. /k/ is velar in syllable onsets. In codas it has velar or uvular realisations, for example in the North Wind and the Sun recording terpaksa [tərpaksæ] 'forced' and memeluk [məməluq] 'hug'. (Realisation of final /k/ as [?] is also sometimes found, due to influence from Peninsular Malay or Indonesian.) Voiceless plosives are generally unreleased in syllable codas, for example word-finally in bilik [bilek] 'room', meniup [məniup] 'blow', or before a clitic, as in sekuatnya [skwat]na] 'as strongly as possible'.

As in other standard varieties, /p t k/ are normally unaspirated. However this speaker at times aspirates them quite markedly. This is a feature of the speech of broadcasters in Brunei (Poedjosoedarmo 1996), due no doubt to influence from English. It has not been reported for other registers in Brunei.

The voiced plosives do not occur in syllable codas in the native lexis, and are usually replaced with their voiceless counterparts in loanwords, for example, *menyebabkan* [mənəbapkhan] 'cause', where the root *sebab* [səbap] 'cause' is a loan from Arabic. The speaker nonetheless unexpectedly partially voices the final /t/ in two Arabic loanwords, *khidmat* [xıdmad] 'service' and *syarat* [farad] 'rule'.

/tʃ/ and /dʒ/ are phonetic affricates, though phonemically they pattern with the plosives. The speaker seems to give them a lamino-alveolar realisation, with a 'noisy' release (both possibly influenced by English), for example in jubah [dʒubah] 'coat' and memancarkan [məmantʃarkhan] 'shine' from the passage, rather than the less affricated, postalveolar realisation typical for example with many Indonesian speakers.

Glottal stop

The glottal stop has only marginal status. In addition to its possible occurrence as a realisation of /k/ (see above), it can occur optionally at the start of morphemes with an underlying initial vowel. It is also found variably in some Arabic loanwords like *saat* [sa?at] 'second'.

In formal styles, a glottal stop can occur non-distinctively intervocalically across a morpheme boundary, for example before the /i/ locative suffix, as in *mengenai* /məŋənai/ [məŋənɛ?i] 'about', or after certain prefixes, as in *seorang* /səoraŋ/ [sɒ?ɔraŋ] 'one-person' and *dianggap* /diaŋgap/ [di?aŋgap] 'be considered'. However, it is often not present, partly due to first language influence, as [?] does not occur in Brunei Malay, except utterance-finally, where underlyingly vowel-final words optionally occur with a final glottal stop (Poedjosoedarmo 1996).

Fricatives

The fricative /h/ may occur in both onsets and codas. In final position, it is sometimes not audible, as in the first instance of *lebih kuat* [lebi khwat] 'stronger' in the recording, though at other times it is quite clear, as in *mengalah* [mənalah] 'give in'.

In the consonant chart above, five fricatives are shown in brackets: /f v z \(\) x/. These occur only in loanwords, generally from Arabic or English:

f	faham	faham	'understand'	v	visa	visa	'visa'
\mathbf{z}	zakat	zakat	'tithe'	ſ	∫arat	syarat	'rule'
v	vidmat	khidmat	'service'	_	-	-	

The realisation of these consonants in loan words varies. In more formal registers such as the 'newscaster' register, they are generally given their standard values, as is the case with our speaker, though she realises the /x/ in *khidmat* as $[\chi]$. /x/ is often replaced by /h/ in syllable onsets, hence akhirnya /axirna \sim ahirna/ 'finally', [ahirna] in the reading passage, and by /k/ in codas akhbar /axbar \sim akbar/ 'newspaper'. Examples of some other replacements found in more basilectal pronunciations include:

f	pa(h)am	faham	'understand'	\mathbf{v}	bisa	visa	'visa'
Z	sakat, dzakat	zakat	'tithe'	S	sarat	svarat	'rule'

Sonorants

/r/ has both trill [r] and tap [r] realisations. In the recording, [r] occurs word-initially in rapat [rapat], and in codas in sinarnya [sinarna] 'its light' and at the end of bertengkar [bṛtəŋkʰar] 'fight', while [s] occurs intervocalically in *matahari* [matehari] 'sun' and as a syllable nucleus in tersebut [tṛsəbut] 'aforesaid'. It is possible that the trill and tap are in free variation, with [r] tending to occur in more emphatic pronunciations.

/l/ is always clear, as with both tokens of /l/ in *lalu* [lalu] 'then' in the recording. It is also clear in coda position, as in menanggalkan [mənanqalkhan] 'take off'.

Approximants /w/ and /j/ occur both in onsets (as in the consonant word list above) and in codas: pulau /pulaw/ 'island' and cukai /tsukaj/ 'tax'. (This analysis assumes there are no phonemic diphthongs in Malay; see below.) /u/ and /i/ are often reduced to [w] and [j] before a following vowel in allegro pronunciations, so *kuat* /kuat/ 'strong' can be [ku.at \sim kwat], and siapa /siapa / who' can be [si.apa \sim sjapa]. In the recording, the speaker uses these allegro forms.

Phonemic patterning

In terms of phonemic patterning, it is valuable to consider further how the consonant table is represented. Although the columns of the table above use the passive articulator, as is normal for the IPA, phonemically the consonants pattern primarily in terms of the active articulator, as follows:

				Dorsal/
	Labial	Apical	Laminal	Back
Plosive/Affricate	p b	t d	t∫ dʒ	k g
Fricative			S	h
Nasal	m	n	n	ŋ
Trill		r		
Approximant	W		j	
Lateral		1		

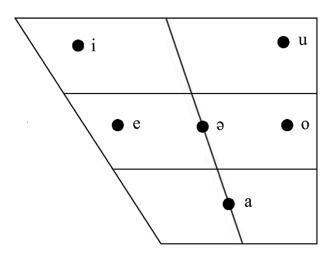
Evidence that these are the relevant natural classes comes from a variety of sources, including phonetics, phonotactics and morphophonemic alternations. Take for example the behaviour of *meN*-, the 'active voice' prefix, where the 'N' is realised as a nasal segment homorganic with the initial consonant of the root:

before labials $/m/$, $/p/$, $/b/$, meN - is [məm]:	məN+buat	[məmbuat]	'make'
before apicals $/n/$, $/t/$, $/d/$, meN - is [mən]:	məN+darat	[məndarat]	'land'
before laminals $t \int / d J / d J / s / meN$ - is [mən]:	meN+sewa	[mənewa]	'rent'
before dorsals $/k/$, $/g/$, $/h/$, meN - is [məŋ]:	məN+gali	[məŋgali]	'dig'
	məN+hantar	[məŋhantar]	'send'

An analysis that classifies /s/ as an 'alveolar' incorrectly predicts *meN+sewa* as *[mənewa] rather than the actual [mənewa] (the /s/ is deleted by a regular process). Furthermore, the phonetic overlap noted above, where the consonants shown in the 'postalveolar' column are often actually alveolar, becomes irrelevant once the primacy of the active articulator is recognised. Evidence from consonant harmony (Adelaar 1992), which limits co-occurrence of homorganic consonants in root morphemes, also works in terms of the active articulator categories, and not the passive categories.

Vowels

There are six vowel phonemes in Standard Malay: /i e a o u ə/. They can be represented as in the vowel quadrilateral below:



Some words illustrating the occurrence of these six vowels are:

/i/	bilik	bilik	'room'	/u/	buluh	buluh	'bamboo'
/e/	peraŋ	perang	'blonde'	/o/	oraŋ	orang	'person'
/ə/	pəraŋ	perang	'war'	/a/	marah	marah	'angry'

/i/ and /u/ both have centralised allophones that can be represented as [I] and [U] respectively in closed syllables, for example *titik* [titik] 'dot' and *duduk* [duduk] 'sit'. In Brunei Malay [I] and [U] may also occur in open final syllables, hence the reader's *bersetuju* [bṛstudʒu] 'agree' in the passage. Utterance-finally, high vowels often have mid or midlow realisations, perhaps conveying pragmatic information (Poedjosoedarmo 1996), as in *bilik* /bilik/ 'room' pronounced as [bilek]. This also reflects influence from the three-vowel system of Brunei Malay.

In Standard Malay spoken in Brunei, the vowels /i/ and /u/ contrast fully with /e/ and /o/ respectively only in penultimate syllables: bila /bila/ 'when', bela /bela/ 'defend'; and dua /dua/ 'two', doa /doa/ 'prayer'. In final closed syllables, /u/ and /i/ can also have mid or even low realisations, so burung /buruŋ/ 'bird' can be [buruŋ \sim buruŋ \sim buruŋ], and giling /giliŋ/ 'mill' can be [gilɪŋ \sim gileŋ \sim gileŋ]. The mid vowels /e/ and /o/ on the other hand never have high allophones, thus geleng /geleŋ/ 'shake (one's head)' is [geleŋ \sim gelɛŋ] but never *[gelɪŋ], and similarly borong /boroŋ/ 'buy in bulk' is never *[boruŋ].

The open vowel /a/ is generally a low central vowel. In our reader's 'newscaster' style, word-final /a/ sometimes has raised allophones, e.g. sehingga akhirnya [səhiŋge ahirne] 'until finally' and terpaksa [tərpakse] 'forced'. This raising is probably an influence from the prestigious schwa-variety of Malaysia. Antepenultimate /a/ is also commonly raised to [v] or [ə], but this time due to Brunei Malay influence: bersamaan [bərsema?an] '(occur) at same time', kawasan [kwwasan] 'region', balapan [bulapan] 'race track'.

/ə/ does not normally occur in final syllables in most varieties of Standard Malay, including that of Brunei. Where /ə/ occurs, it is not normally given prominence, and it is often elided. There are several examples of elision in the recording, such as *semakin* /səmakin/ [smɐkʰɪn ~ səmakʰɪn] 'the more' and *sekuatnya* /səkuatna/ [skwat¬na] 'as strongly as possible', and almost all occurrences of the *ber*- and *ter*- verbal prefixes, for example *bertiup* /bərtiup/ [bṛtiup¬] 'blow', and the first token of *tersebut* /tərsəbut/ [tṛsəbut] 'aforesaid'.

In the reading, there are two examples of central vowels assimilating when they are next to front or back vowels, even across an intervening [?]: seorang/səoran/[sɒʔɔran] 'one-person', and mengenai/məŋənai/[məŋənɛʔi] 'about'.

Note that in the orthography both /e/ and /ə/ are represented as ⟨e⟩, so in some cases the pronunciation of a word cannot be predicted from its spelling. In addition to *perang* as shown above, we find occasional homographs like *beri* which can be /beri/ 'berry' or /bəri/ 'give'.

Diphthonas?

Some analyses (e.g. Teoh 1988) suggest that there are three phonemic diphthongs in Malay: /ai/ (as in *cukai* 'tax'), /au/ (in *pulau* 'island'), and /oi/ (in *baloi* 'weight'). These only occur morpheme-finally, and only in disyllabic or trisyllabic morphemes. Other analyses (e.g. Asmah Haji Omar 1985, Zaharani Ahmad 1993) consider these morpheme-final sequences to be a monophthong followed by an approximant, thus *cukai* /tʃukaj/, *pulau* /pulaw/, and *baloi* /baloj/. The description presented here assumes the latter analysis. For a detailed discussion, see Clynes (1997).

Syllable structure

More than 90% of the native lexicon is based on disyllabic root morphemes, with small percentages of monosyllabic and trisyllabic roots (Adelaar 1992). However, with widespread prefixing and suffixing, many words of five or more syllables are found.

In the native lexis, syllable structure is C_1VC_2 , where both C_1 and C_2 are optional and C_1 can be any consonant (though /w/ and /j/ occur word-initially only in one or two morphemes). In morpheme-final syllables, C_2 can be any consonant except the laminals /t \int d₃ p/ or the voiced plosives. In non-final syllables in the native lexis, C_2 is usually either a nasal (homorganic with a following obstruent, except that /ŋ/ precedes /s/, as in *bangsa* /baŋsa/ 'ethnic group'), or /r/ before any consonant except /h/, /w/ or /j/, for example in *bersih* /bərsih/ 'clean', *terbang* /tərbaŋ/ 'fly', and *bernas* /bərnas/ 'fertile'. In loanwords, obstruents and other sonorants also appear in non-final C_2 positions: *akhbar* /axbar \sim akbar/ 'newspaper' (from Arabic), *saudara* /sawdara/ 'brother' (Sanskrit), *hairan* /hajran/ 'amazed' (Arabic). A wider range of consonant clusters occurs in the native lexis across morpheme boundaries before suffixes, as in *kuatkan* /kuatkan/ 'strengthen' and *sampaikan* /sampajkan/ 'deliver', where -*kan* is a verbal suffix. Initial clusters occur at the phonetic level only, as the

result of either optional ellipsis of /ə/, as in *bersetuju* /bərsətuju/ [bṛstudʒʊ] 'agree', or the optional reduction of /u/ to [w] or /i/ to [j] before a following vowel, as in *kuat* /kuat/ [kwat] 'strong' of *siapa* /siapa/ [sjapa] 'who'.

In the native lexis, any vowel except /ə/ can occur in morpheme-final syllables, while /ə/ predominates in antepenultimate syllables. Only /i/, /u/ and /a/ occur in final open syllables. Vowel sequences occur only across syllable boundaries, and there are vowel harmony rules within a morpheme (see below). /ə/ never occurs immediately before a following vowel; where /ə/ is penultimate, only /i/, /u/ or /a/ may occur in the final syllable.

A rule of vowel harmony applies morpheme-internally to the non-central vowel phonemes (/i u e o/). Where they occur in both the penultimate and final syllables, they must agree in height (but not necessarily in frontness); thus, we find *giling* /gilin/ 'mill' and *burung* /burun/ 'bird', and also words like *hidung* /hidun/ 'nose' and *boleh* /boleh/ 'can, may'. Sequences of high and mid non-central vowel phonemes do not occur in either order, thus the following do not occur: */hedun/, */bolih/, and (at the phonemic level) */hidon/, */gilen/ (Adelaar 1992).

Stress and intonation

There appears to be no inherent lexical stress in the Standard Malay of Brunei. This conclusion is in line with the findings of van Zanten et al. (2003) for Indonesian (as spoken by speakers of Javanese and Jakarta Malay), as well as Zuraidah Mohd Don, Knowles & Yong (2008) for schwa-variety Standard Malay of Peninsular Malaysia. Instead, various phrase-level intonation or accent patterns are found, generally giving a degree of prominence to phrase-final words.

Most commonly, a rise–fall pitch movement occurs across the penultimate and final syllables of a phrase (van Zanten et al. 2003, Zuraidah et al. 2008). Here, we will consider the prominence on words that occur at the end of phrases in the passage, as well as words in the reading lists. We find a rise–fall pitch movement on words such as *jubah* ['dʒubah] 'cloak' and *bersetuju* [bṛs'tudʒʊ] 'agree' (where ['] indicates the start of this rise–fall pitch movement). This can create an impression of penultimate word stress, something which is even more evident when words are uttered in isolation or in lists, and so constitute phonological phrases in their own right, as in items such as *barang* ['baraŋ] 'thing' and *tua* ['tua] 'old' in the recording of words illustrating the consonants above. In some cases, the penultimate vowel may be louder, while the final vowel is often lengthened, such as in *nasi* ['nasi:] 'rice' and *hari* ['hari:] 'day', a phenomenon also reported by Zuraidah et al. (2008).

There is one exception to the above pattern: the vowel/ə/is not normally given prominence, and where this vowel occurs in the penultimate syllable, the rise—fall pitch movement is usually confined to the phrase-final syllable. There are no examples of /ə/ in the penultimate syllable of a phrase-final word with a rise—fall pitch pattern in the reading of the passage, though, as mentioned above, there are several words with ellipsis of /ə/.

A different pitch movement, giving an impression of lexical stress on the final syllable of a word, is a rise at the end of a phrase, signalling perhaps that 'more is to come'. Examples from the passage include *kuat* ['khwat¹] 'strong', *bertiup* [bṛtiʊp¹] 'blow' and *jubahnya* [dʒubahˈnɐ] 'his cloak'. It is common to find well-formed alternative realisations of these words with penultimate prominence, *kuat* ['ku.at], *bertiup* [bṛti.ʊp] and *jubahnya* [dʒuˈbahɲɐ], and this variation is consistent with an absence of lexical stress in this variety. The occurrence of final prominence with a rising tone is also common in reading word lists, such as with *bilik* [biˈlek] 'room' and *perang* [peˈraŋ] 'blonde' in the recording of the list of vowels above.

Further investigation of phrase accent/intonation is needed in all varieties of Standard Malay.

Transcription of the recorded passage

Orthographic version of 'The North Wind and the Sun'

Ketika Angin Utara dan Matahari sedang bertengkar mengenai siapa yang lebih kuat, datang seorang pengembara yang memakai jubah. Keduanya bersetuju bahawa siapa yang berjaya menyebabkan pengembara tersebut menanggalkan jubahnya akan dianggap lebih kuat. Lalu Angin Utara pun meniup sekuatnya, namun semakin kuat angin bertiup semakin rapat pula pengembara tersebut memeluk jubahnya, sehingga akhirnya Angin Utara pun mengalah. Kemudian Matahari memancarkan sinarnya dan dengan segera pengembara tersebut menanggalkan jubahnya. Akhirnya Angin Utara terpaksa mengaku bahawa Matahari lebih kuat daripadanya.

Phonemic transcription

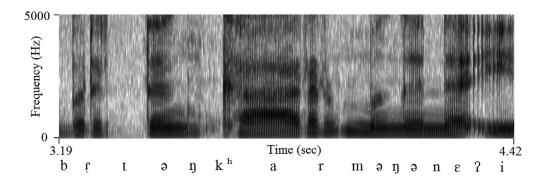
kətika anin utara dan matahari sədan bərtənkar mənənai siapa jan ləbih kuat || datan səoran pənəmbara jan məmakaj dzubah || kəduana bərsətudzu || bahawa siapa jan bərdzaja mənəbabkan pənəmbara tərsəbut || mənangalkan dzubahna || akan diangap lebih kuat || lalu anin utara pun məniup səkuatna || namun səmakin kuat anin bərtiup || səmakin rapat pula pənəmbara tərsəbut məməluk dzubahna || səhinga ahirna || anin utara pun mənalah || kəmudian matahari məmantsarkan sinarna || dan dənan səgəra || pənəmbara tərsəbut mənangalkan dzubahna || ahirna anin utara tərpaksa mənaku || bahawa matahari ləbih kuat daripadana

Phonetic transcription

The phonetic transcription of the passage is based on a recording of a 26-year-old female tutor in the Malay Language and Linguistics programme at Universiti Brunei Darussalam who also works as a part-time newsreader for Radio Television Brunei.

 $k^h \text{otik}^h \text{a anın utara dan matehari sədan brtənk}^h \text{ar } \text{/| mənəne?i sjapa jan lebi } k^h \text{wat}^{\text{|}} \text{/| datan so?oran phŏnŏmbara jan məmak}^h \text{aj dzubah } \text{|} k^h \text{oduane brstudzo} \text{|} \text{| bhawa sjapa jan brdzaja mənəbapk}^h \text{an pənəmbare trsəbut } \text{|} \text{| mənangalk}^h \text{an dzubahne } \text{|} \text{| akan di?angap ləbih k}^h \text{wat}^{\text{|}} \text{|} \text{| lalu: anın utara pun məniup}^{\text{|}} \text{skwat}^{\text{|}} \text{ne} \text{|} \text{| namun sŏmak}^h \text{in k}^h \text{wat}^{\text{|}} \text{anın brtiup}^{\text{|}} \text{|} \text{| smak}^h \text{in rapat}^{\text{|}} \text{p}^h \text{ule pənəmbare tərsəbut}^{\text{|}} \text{|} \text{| məməluq dzubahne} \text{|} \text{| səhinge ahirne} \text{|} \text{| anın utara p}^h \text{un mənalah} \text{|} \text{| k}^h \text{əmudjan matahari məmant} \text{|} \text{ark}^h \text{an sinarna:} \text{|} \text{| dan dənan səgra} \text{|} \text{| pənəmbara tərsəbut}^{\text{|}} \text{|} \text{| mənangalk}^h \text{an dzubahne:} \text{|} \text{| ahirna anın utara tərpakse mənak}^h \text{|} \text{|} \text{| behawe matehari} \text{|} \text{| ləbih k}^h \text{wat}^{\text{|}} \text{|} \text{|} \text{| daripadane:} \text{|}$

The spectrogram below, derived using Praat (Boersma & Weenink 2009), shows the sequence *bertengkar mengenai* 'argue about' from the recording. Note that the /k/ in *bertengkar* has aspiration, here measured at 47 ms, but the /t/ is unaspirated. Note, also, the glottal stop before the /i/ suffix in *mengenai*. The variable realisation of /r/ is also illustrated in the spectrogram: there is a single tap (transcribed as [r]) in the first syllable of *bertengkar* but a double tap (transcribed as a trill [r]) at the end of the word.



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References

Adelaar, K. Alexander. 1992. Proto Malayic: The reconstruction of its phonology and parts of its lexicon and morphology. Canberra: Pacific Linguistics.

Adelaar, K. Alexander. 2005. The Austronesian languages of South East Asia and Madagascar: A historical perspective. In Adelaar & Himmelmann (eds.), 1–41.

Adelaar, K. Alexander & Nikolaus Himmelmann (eds.). 2005. *The Austronesian languages of Asia and Madagascar*. London: Routledge.

Asmah Haji Omar. 1977. The phonological diversity of the Malay dialects. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Asmah Haji Omar. 1985. Susur galur Bahasa Melayu [Genealogy of Malay]. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Boersma, Paul & David Weenink. 2009. Praat: Doing phonetics by computer. http://www.fon.hum.uva.nl/praat/ (16 May 2009).

Clynes, Adrian. 1997. On the Proto-Austronesian 'diphthongs'. Oceanic Linguistics 36, 347-362.

Clynes, Adrian. 2001. Brunei Malay: An overview. *Occasional Papers in Language Studies* (Department of English Language and Applied Linguistics, University of Brunei Darussalam) 7, 11–44. Available at http://www.ubd.edu.bn/academic/faculty/FASS_V2.1/staff/papers/AC/Clynes-Brunei-Malay.pdf (20 March 2011).

Dewan Bahasa dan Pustaka. 2007. *Kamus Bahasa Melayu Brunei* [Dictionary of Brunei Malay], 2nd edn. Bandar Seri Begawan: Dewan Bahasa dan Pustaka.

Eades, Domenyk & John Hajek. 2006. Gayo. Journal of the International Phonetic Association 36, 107–115.

Martin, Peter. 1996. Brunei Malay and Bahasa Melayu: A sociolinguistic perspective. In Martin et al. (eds.), 27–36.

Martin, Peter, Conrad Ożóg & Gloria Poedjosoedarmo (eds.). 1996. Language use and language change in Brunei Darussalam. Athens, OH: Ohio University Center for International Studies.

Maxwell, Allen Richmond. 1990. Some suggestions about borrowing, retentions and cultural influences in Brunei Malay. Presented at the first biennial meeting of the Borneo Research Council, Kuching, 4–9 August.

Poedjosoedarmo, Gloria. 1996. Variation and change in the sound systems of Brunei dialects of Malay. In Martin et al. (eds.), 37–42.

Sneddon, James. 2003. Diglossia in Indonesian. Bijdragen tot de Taal-, Land- en Volkenkunde 159, 519–549.

- Soderberg, Craig D. & Kenneth S. Olson. 2008. Indonesian. *Journal of the International Phonetic Association* 38, 209–213.
- Steinhauer, Hein. 2005. Colonial history and language policy in insular Southeast Asia and Madagascar. In Adelaar & Himmelmann (eds.), 65–86.
- Teoh, Boon Seong. 1988. Aspects of Malay phonology revisited: A non-linear approach. Ph.D. dissertation, University of Illinois at Urbana–Champaign.
- van Zanten, Ellen. 1986. Allophonic variation in the production of Indonesian vowels. *Bijdragen tot de Taal-, Land- en Volkenkunde* 142, 427–446.
- van Zanten, Ellen, Rob Goedemans & Jos Pacilly. 2003. The status of word stress in Indonesian. In Jeroen van de Weijer, Vincent J. van Heuven & Harry van der Hulst (eds.), *The phonological spectrum*, vol. 2, 151–175. Amsterdam & Philadelphia: John Benjamins.
- Zaharani Ahmad. 1993. Fonologi generatif: Teori dan penerapan [Generative phonology: Theory and application]. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Zuraidah Mohd Don, Gerry Knowles & Janet Yong. 2008. How words can be misleading: A study of syllable timing and 'stress' in Malay. *The Linguistics Journal* 3(2). http://www.linguistics-journal.com/August_2008_zmd.php (22 June 2010).