

The Pronunciation of Kedayan

Siti Faahirah Binti Haji Rozaimée and David Deterding

Universiti Brunei Darussalam

Abstract

This paper describes the pronunciation of Kedayan, a minority indigenous language spoken in Brunei Darussalam that is closely related to Brunei Malay. Kedayan has 17 consonants and 3 vowels. One distinct feature of Kedayan, marking it as quite different from varieties of Malay such as Standard Malay and Brunei Malay, is the absence of /r/. However, the informant whose speech is analysed here does sometimes pronounce words with a medial [r], suggesting she may be influenced by the pronunciation of Malay.

Introduction

Kedayan (ISO code 'kxd'), also sometimes spelt Kadayan, is an Austronesian language spoken by the Kedayan people who live in the north of Borneo. Dewan Bahasa dan Pustaka Brunei [DBPB] (2006, p. xi) suggests that there about 30,000 speakers of Kedayan in Brunei Darussalam (henceforth Brunei) where traditionally they were the land-dwelling farmers, while Brunei Malays were more often fishermen (Martin & Poedjosoedarmo, 1996, p. 6). Quoting the President of the Kedayan Cultural Association in Sabah, Soderberg (2014) claims that there are a further 30,000 Kedayans in western Sabah and 30,000 more in eastern Sarawak.

Martin and Poedjosoedarmo (1996, p. 5) note that Kedayan is one of the three dialects of Malay spoken in Brunei, the other two being Brunei Malay and Kampong Ayer (otherwise known as Balandih). According to Nothofer (1991), Kedayan shares 94% lexical cognates with Brunei Malay (which he calls 'BSB', after Bandar Seri Begawan, the capital of Brunei) and 95% with Kampong Ayer, while it is a little more distant from Standard Malay with 80% lexical cognates, and it is quite different from Dusun, another Austronesian language spoken in Brunei (Gardiner, Deterding & Yabit, 2019) with just 43% lexical cognates. These figures are shown in Table 1, confirming that Brunei Malay, Kampong Ayer and Kedayan are all closely related and they are all three reasonably similar to Standard Malay, but they are more distantly related to Dusun.

	Standard Malay	Brunei Malay	Kampong Ayer	Dusun
Kedayan	80	94	95	43
Standard Malay		84	82	40
Brunei Malay			94	41
Kampong Ayer				42

Table 1. Lexical cognates (%) between languages in Brunei (from Nothofer, 1991, p. 158)

Noor Azam and Siti Ajeerah (2016) estimate that, on a scale of 1 to 6, Kedayan in Brunei has a 'vitality rating' of 2, which means it is endangered. Indeed, of the indigenous languages spoken in Brunei, they assert that only Brunei Malay is healthy. Noor Azam (2012) notes that all the minority indigenous languages of Brunei are being squeezed out by Malay and English,

and he likens their predicament to children being neglected by their duelling aunties. In fact, this threat to Kedayan is not a new phenomenon. Nearly fifty years ago, Brown (1970) observed that there was an on-going process of the minority ethnic groups in Brunei decreasing in numbers “through the movement of their members to classification as Malays” (p. 4), and he noted that the Kedayans exemplified this process (p. 5).

In contrast with the six vowels of Standard Malay /i, e, a, o, u, ə/ (Clynes & Deterding, 2011), Kedayan has just three vowels, /i, a, u/, which makes it similar to Brunei Malay (Deterding & Ishamina, 2017) and also Kampong Ayer (Martin & Poedjosoedarmo, 1996, p. 8).

One distinct phonological feature of Kedayan Malay, in contrast with varieties such as Brunei Malay and Standard Malay, is the absence of /r/. Where /r/ occurs in initial position in Standard Malay, the equivalent word in Kedayan begins with a vowel, so *rambut* (‘hair’) in Standard Malay is *ambut* in Kedayan, and *rumah* (‘house’) is *umah* (DBPB, 2006, pp. 296 & 301). In medial position, /r/ is similarly omitted, so Standard Malay *orang* (‘person’) is *uang* [u^waŋ] in Kedayan, and *merah* (‘red’) is *miah* [mi^hah] (DBPB, 2006, pp. 278 & 270). For /r/ in final position, a long vowel occurs, so Standard Malay *besar* (‘large’) is *basa* which is pronounced as [basa:] with a lengthened final vowel (DBPB, 2006, p. 188).

The spelling of words in Kedayan shown in this paper is according to how they are shown in the Kedayan dictionary (DBPB, 2006), even though this leads to a lack of clarity between some distinctions, as discussed below.

Informant

The recording of The North Wind and the Sun passage and also the word lists is by a 54-year-old female who works as a technical supervisor in a local telecommunications company. She was selected because her first language is Kedayan, and she speaks it with family. She is also competent in Brunei Malay and English.

Consonants

There are 17 consonant phonemes in Kedayan as shown in Table 2. This is the same as the classification offered by Soderberg (2014), except that he shows /t/ as dental (and thus uses the symbol /t̪/) while /d/ is shown as alveolar. While this may be phonetically accurate, there is no evidence that the pronunciation of /t/ is any different in Kedayan from Standard Malay and Brunei Malay, for which which it is often classified with the same place of articulation as /d/ (Clynes & Deterding, 2011; Deterding & Ishamina, 2017). Further research is needed to determine how many Kedayan speakers use dental articulation of /t/, the extent to which there is a consistent distinction in the place of articulation of /t/ and /d/, and how much difference there is in the production of /t/ between Kedayan, Standard Malay and Brunei Malay.

	Bilabial	Dental/ Alveolar	Post- Alveolar	Palatal	Velar	Glottal
Plosive	p b	t d			k g	
Affricate			tʃ dʒ			
Fricative		s				h
Nasal		m	n	ɲ	ŋ	
Approximant		w		j		
Lateral			l			

Table 2. Consonant phonemes of Kedayan

The consonants are illustrated in the following word list, in which the words in italics are the orthographic versions listed in the Kedayan dictionary (DBPB, 2006). They are all common words of Kedayan. (The same words are used in Soderberg, 2014.) The pronunciation in the IPA column shows how the informant produced these words, reflecting some variability. For example, the word-final /k/ in *naik* is realised as [ʔ], but in *sipak* and *licak*, it is [k].

Word	IPA	Meaning	Word	IPA	Meaning
/p/ pisang	[pisaŋ]	‘banana’	/m/ malam	[malam]	‘night’
/b/ bunga	[buŋaʔ]	‘flower’	/n/ naik	[naʔiʔ]	‘to climb’
/t/ tanah	[ʔanaɦ]	‘earth’	/ɲ/ nyasah	[ɲasaɦ]	‘to wash’
/d/ daun	[da ^w un]	‘leaf’	/ŋ/ angin	[aŋin]	‘wind’
/k/ kilat	[kilaɦ]	‘lightning’	/w/ kawan	[kawaɦ]	‘friend’
/g/ guuh	[guuh]	‘thunder’	/j/ kayu	[kaɟuʔ]	‘wood’
/tʃ/ cium	[tʃi ^u um]	‘to kiss’	/l/ licak	[liɦʔak]	‘slippery’
/dʒ/ jalan batis	[dʒalaɦ batis]	‘to walk’			
/s/ sipak	[sipaɦ]	‘to kick’			
/h/ hutan	[ɦutaɦ]	‘forest’			

Presence of /r/?

As discussed above, a defining characteristic of Kedayan is the absence of /r/, in contrast with the Standard Malay spoken in Brunei which has a clear /r/ in initial, medial and final positions (Clynes & Deterding, 2011) and Brunei Malay in which /r/ is usually either tapped [ɾ] or trilled [r] (Deterding & Ishamina, 2017). Indeed, the other indigenous languages of Brunei also all have some kind of /r/, including Dusun in which it is pronounced as a voiced velar fricative [ɣ] (Gardiner et al, 2019). Table 3 shows how DBPB (2011) lists *roti* (‘bread’), *baris* (‘line’) and *acar* (‘pickles’) in the seven indigenous languages of Brunei. Note that only Kedayan has no consonant at the start of *uti*, in the middle of *bais*, and in final position in *aca*.

Standard Malay	Brunei Malay	Tutong	Belait	Murut	Kedayan	Dusun	Bisaya
roti	ruti [rutiʔ]	ruti [ɣutiʔ]	ruti [ruti]	ruti [rutiʔ]	uti [utiʔ]	ruti [ɣutiʔ]	roti [ɣotiʔ]
baris	baris [baris]	baris [baɣis]	baris [baris]	baris [baris]	bais [bais]	baris [baɣis]	baris [baɣis]
acar	acar [atʃar]	acar [atʃaɣ]	acar [atʃar]	acar [atʃar]	aca [atʃa:]	asar [asaɣ]	asar [asaɣ]

Table 3. The pronunciation of *roti* (‘bread’), *baris* (‘line’), and *acar* (‘pickles’) in the seven indigenous languages of Brunei (DBPB, 2011, pp. 243, 22 & 1).

However, in fact the pronunciation of the informant is variable. While the third token of *pangambaa* (‘traveller’) in her reading of The North Wind and the Sun passage is [paŋambaa], as illustrated in Figure 1, the first and fourth tokens of the word both have a tapped [ɾ], as illustrated in Figure 2, while the second token has an approximant [ɹ].

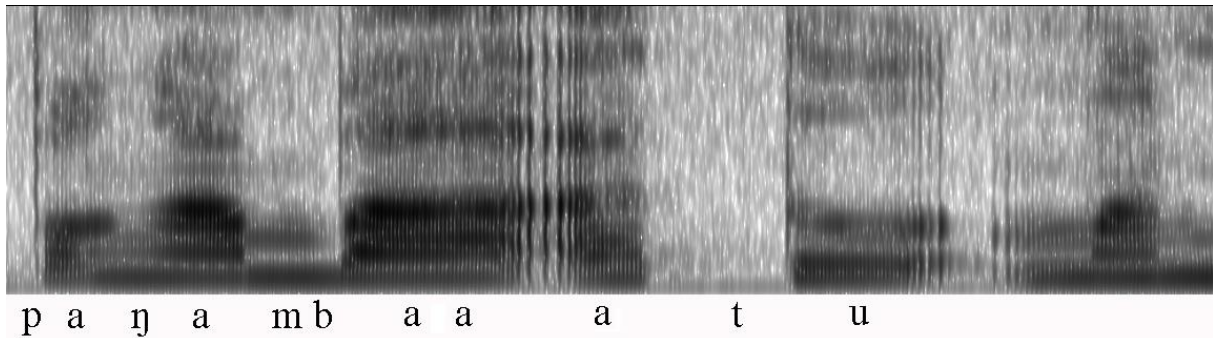


Figure 1. A spectrogram of 1.3 seconds of speech, showing *pangambaa atu* ('that traveller') in which there is no /r/ sound in *pangambaa*.

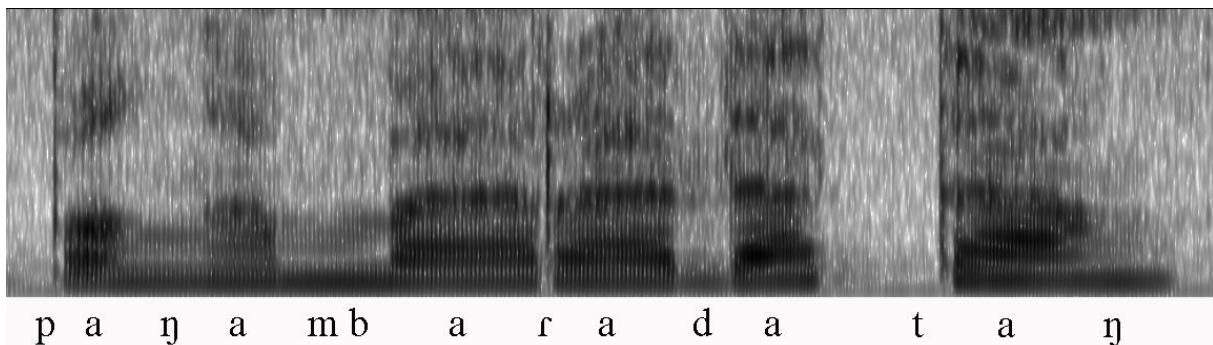


Figure 2. A spectrogram of 1.3 seconds of speech, showing *pangambaa datang* ('traveller arrived'), in which there is a tapped [r] sound in *pangambaa*, probably influenced by the Standard Malay *pengambara*.

While this might be explained by the fact that *pangambaa* is a word borrowed from the Standard Malay *pengambara* (and the word is not in fact listed in DBPB, 2006), so perhaps it sometimes maintains the /r/ from Standard Malay, variability extends to other words. While all three tokens of *utaa* ('north') are pronounced as [utaa], with the expected absence of /r/ (c.f. Standard Malay *utara*), as illustrated in Figure 3, in contrast the informant unexpectedly pronounces *dai* ('from') as [dari] with a medial tapped [r], as illustrated in Figure 4.

It seems, then, that the pronunciation of even common words such as *dai* ('from') may be influenced by Malay, and it is uncertain how widespread pure traditional Kedayan is in modern-day Brunei.

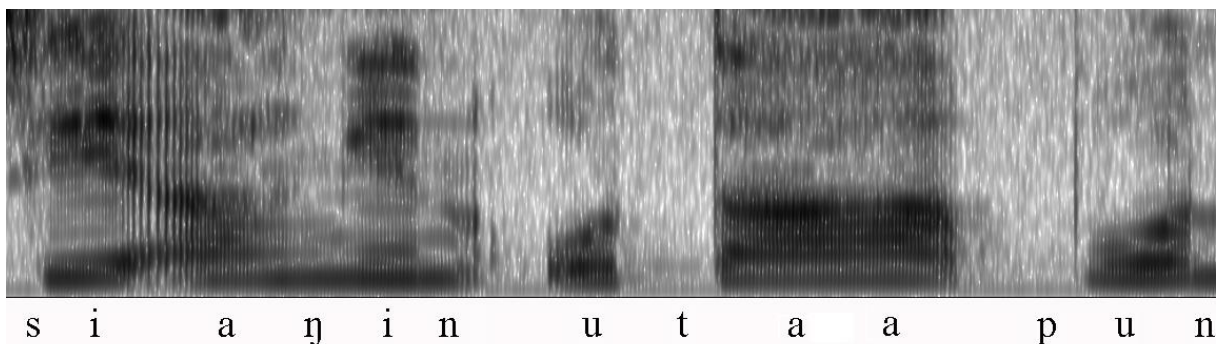


Figure 3. A spectrogram of 1.3 seconds of speech, showing *si angin utaa pun* ('the north wind, in contrast') in which *utaa* ('north') has no /r/, as expected.

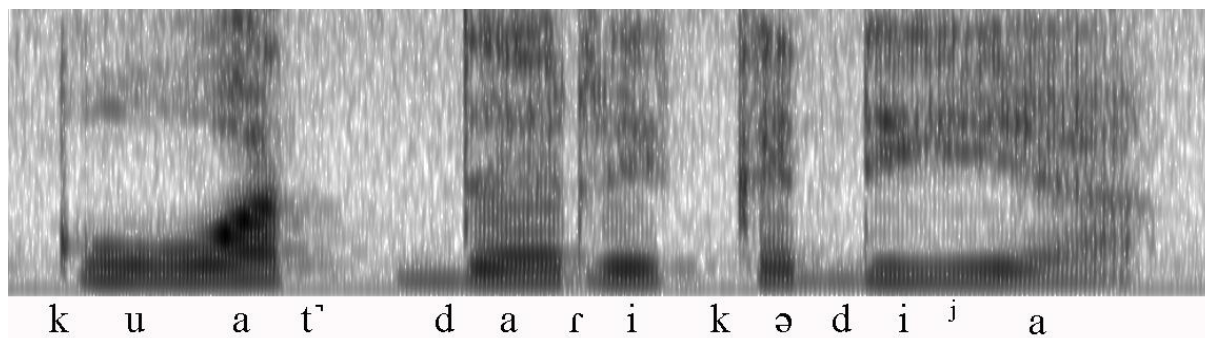


Figure 4. A spectrogram of 1.3 seconds of speech, showing the final phrase in the passage, *kuat dai kadia* ('stronger of the two'), in which *dai* ('from') has an unexpected tapped [r], probably influenced by the Standard Malay equivalent *dari*.

Vowels

There are three vowels of Kedayan in Kedayan, /i, a, u/. Their basic quality is shown in the vowel quadrilateral in Figure 5.

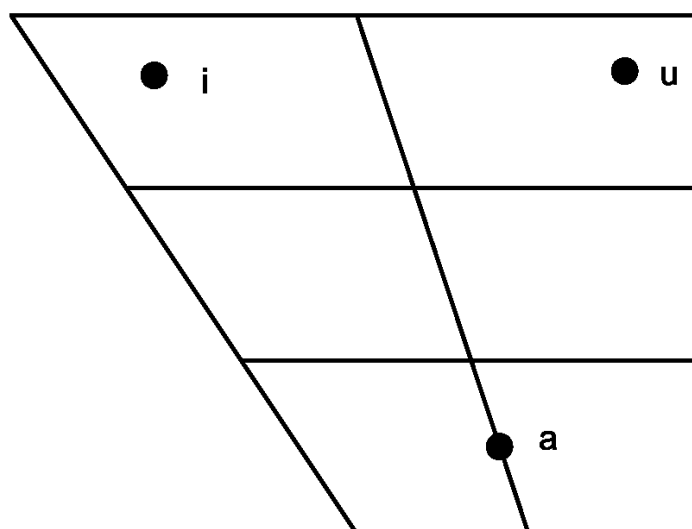


Figure 5. The three vowels of Kedayan.

Illustrative words for the three vowels are shown in the following word list:

	Word	IPA	Meaning
/i/	bintang	[bintaŋ]	'star'
/a/	tahun	[tahun]	'year'
/u/	bukit	[bukitʔ]	'hill'

In fact, when listening to these words, it is clear that there is considerable variation in the pronunciation of /a/, with a back vowel [ɑ] in the second syllable of *bintang* (influenced by the following velar consonant), but a much more front vowel [a] in *tahun*.

An F1/F2 plot of all the vowels in *The North Wind and the Sun* passage is shown in Figure 6. The first two formants were measured using Praat (Boersma & Weenink, 2016), and ellipses have been drawn to enclose about 68% of the tokens using the vowel-plotting utilities developed by McCloy (2012). As can be seen, there is substantial variation in the realisation of each of these vowels, especially /a/, but as there are just three vowels occupying the vowel space, there is almost no overlap between them.

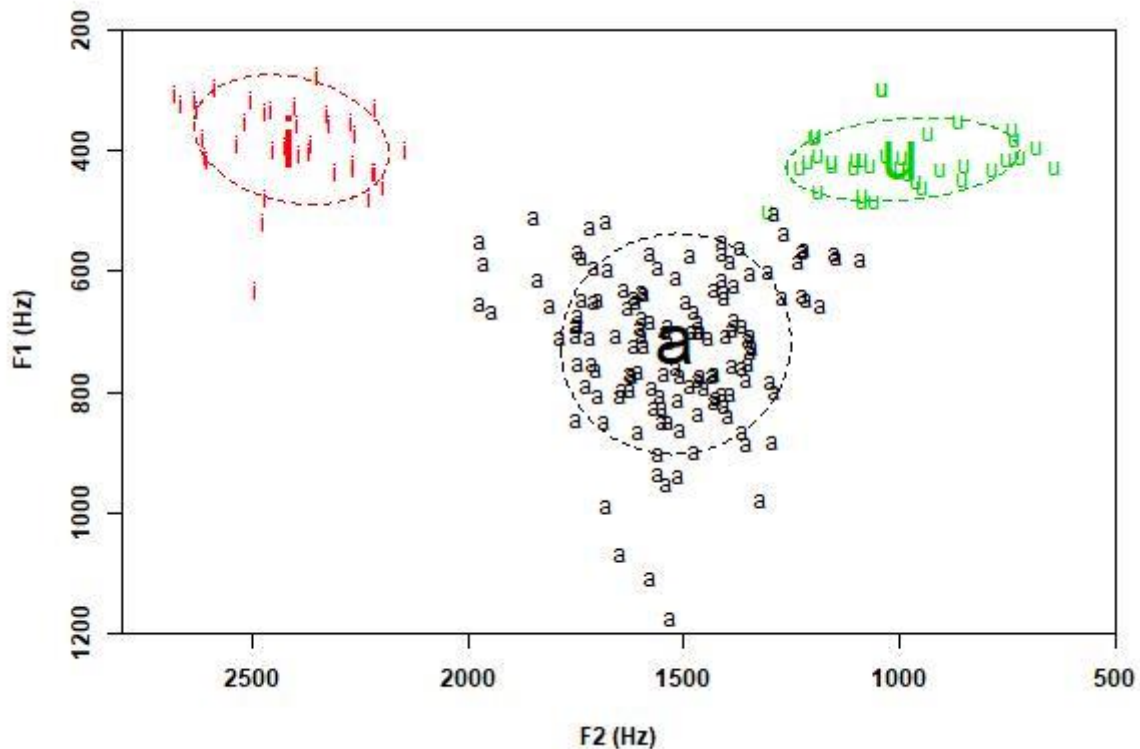


Figure 6. Acoustic quality of all the vowels from The North Wind and the Sun passage.

According to DBPB (2006), there is a three-way length contrast in final vowels, depending on whether the word has /r/ in Standard Malay. In *masa* [masaʔ] ('time'), for which the Standard Malay *masa* has no /r/, the final /a/ is short; in *basa* [basa:] ('large'), for which the Standard Malay *besar* has a final /r/, the second vowel is longer; and in *utaa* [utaa] ('north'), in which Standard Malay *utara* has an intervocalic /r/, the final vowels represent two syllables, and the word might phonemically be shown as [uta:]. Unfortunately, the orthography adopted by DBPB (2006) does not distinguish between the first and second of these, so *banda* [bandaʔ] ('goods') (Standard Malay *benda*) and *banda* [banda:] ('town') (Standard Malay *bandar*) are written identically, even though the first has a short final vowel while the second has a longer final vowel. In the phonemic transcription of The North Wind and the Sun passage, monosyllabic long final /a/ is shown as /a:/, so *bana* [bana:] ('true') is shown phonemically as /bana:/, and we distinguish between /a/, /a:/ and /aa/.

The vowels /e, ə, o/ of Standard Malay are generally pronounced as /i, a, u/ respectively, so Standard Malay *sewa* [sewa] ('rent') is *siwa* [siwaʔ], Standard Malay *beli* [bəli] ('buy') is *bali* [baliʔ], and Standard Malay *boleh* ('can') is *bulih*.

Diphthongs?

Words such as *pantai* ('beach') and *pulau* ('island') can have a final diphthong. However, just as with Standard Malay (Clynes & Deterding, 2011) and Brunei Malay (Deterding & Ishamina, 2017) this diphthong can only occur in word-final position, so it should be treated phonemically as a monophthong followed by a glide, /aj/ or /aw/. Unfortunately, the orthography in DBPB (2006) makes no distinction between a word-final diphthong and two separate vowels, so the spelling of *pantai* [pantaj] and *hai* [həi] ('day') both end with 'ai', even though the realisation of this final vowel is distinct, being a single syllable in *pantai* but two syllables in *hai*. In the phonemic transcription below, we show them as /aj/ (one syllable) versus /ai/ (two syllables). In The North Wind and the Sun passage, we can note a distinction

between /aj/ in *sampai* ('until'), in which the /aj/ is a single syllable, and /ai/ in *matahai* ('sun'), in which the /ai/ is two syllables.

Syllable structure

The syllable structure of Kedayan is (C)V(C), with an obligatory vowel preceded and followed by an optional consonant. Some words such as *kuat* ('strong') that phonemically have two syllables /ku.at/ may be produced phonetically as [kwat]. In the recorded passage, the informant varies between bisyllabic [ku^wat] and monosyllabic [kwat] for this word.

Transcription of the recorded passage

Orthographic version of 'The North Wind and the Sun'

Masa si Angin Utaa sama si Matahai batangka pasal siapa yang lagi kuat, ada tia uang pangambaa datang. Basia satuju siapa yang dapat mananggalkan jubah pangambaa atu, iatah yang paling kuat. Si Angin Utaa pun maniap sakuat-kuatnya, tapi makin kuat ia maniap, makin tah pulang pangambaa atu mamigang bana-bana jubahnya. Si Angin Utaa pun mangalah. Uдах atu, si Matahai lagi mamanca kuat-kuat sampai pangambaa atu inda tahan taus ia buka jubahnya. Jadi si Angin Utaa pun paksa ngakun si Matahai lagi kuat dai kadia.

Phonemic transcription

masa si anjin utaa sama si matahai batangka: pasal siapa jang lagi kuat ada tia uang pangambaa datang basia satuju siapa jang dapat mananggalkan dzubah pangambaa atu iatah jang paling kuat si anjin utaa pun maniap sakuatkuatna tapi makin kuat ia maniap makin tah pulang pangambaa atu mamigan bana: bana: dzubahna si anjin utaa pun mangalah udah atu si matahai lagi mamantja: kuat kuat sampaj pangambaa atu inda tahan taus ia buka dzubahna dzadi si anjin utaa pun paksa ngakun si matahai lagi kuat dai kadia

Phonetic transcription

masa si anjin utaa sama sti matahai batangka: ʔ | pasal siapa jang lagi ku^wat ʔ || adə tia u^wan pangambara datang ʔ || basiə ʔ satuju siapa jang dapat mananggalkan dzubah pangambara atu ʔ | iatah jang paling kwat^ʔ ʔ || si anjin utaa pun maniap sakwatkwatna ʔ || tapi ʔ makin ku^wat ʔ ia maniap ʔ | makin tah pulang pangambaa atu ʔ mamigan bana: bana: dzubahna ʔ || si anjin utaa pun mangalah ʔ || udah atu ʔ | si matahai lagi mamantja: ʔ | kwat kwat ʔ | sampaj pangambara atu inda tahan ʔ | ta^wus ia buka dzubahna ʔ || dzadi ʔ | si anjin utaa pun paksa ngakun si matahai lagi kuat^ʔ dari kədiə ʔ

In this recording:

- In line 1, *si* ('the') in *Si Matahari* ('the Sun') is pronounced with a [t] after the initial [s], and this appears to be a slip of the tongue.
- In line 2, *mananggalkan* ('to take off') appears to have no [g] after the velar nasal, so it is transcribed as [manaŋalkan].

References

- Boersma, P., & Weenink, D. (2016). Praat: Doing phonetics by computer (version 6.0.21). <http://www.praat.org>
- Brown, D. E. (1970). *Brunei: The structure and history of a Bornean Malay Sultanate*. Brunei: Brunei Museum.
- Clynes, A., & Deterding, D. (2011). Standard Malay (Brunei). *Journal of the International Phonetic Association*, 41(2), 259–268.
- DBPB (2006). *Kamus: Kedayan-Melayu, Melayu-Kedayan* [Kedayan-Malay, Malay-Kedayan Dictionary]. Berakas: Dewan Bahasa dan Pustaka Brunei.
- DBPB (2011). *Daftar leksikal 7 dialek Brunei Darussalam* [Lexical List of the 7 Dialects of Brunei Darussalam]. Berakas: Dewan Bahasa dan Pustaka Brunei.
- Deterding, D., & Ishamina Athirah (2017). Brunei Malay. *Journal of the International Phonetic Association*, 47(1), 99–108.
- Gardiner, A. I., Deterding, D., & Yabit Alas (2019). The pronunciation of Dusun. *South East Asia: A Multidisciplinary Journal*, 19, 14–21.
- Martin, P., & Poedjosoedarmo, P. (1996). An overview of the language situation in Brunei Darussalam. In P. Martin, C. Ozog & G. Poedjosoedarmo (Eds.), *Language use and language change in Brunei Darussalam* (pp. 1–23). Athens OH: Ohio University Center for International Studies.
- McCloy, Daniel R. 2012. Vowel normalization and plotting with the phonR package. Technical Reports of the UW Linguistic Phonetics Laboratory #2012-01.
- Noor Azam Haji-Othman (2012). Is it always English? 'Duelling aunties' in Brunei Darussalam. In V. Rapataham & P. Bunce (Eds.), *English language as hydra: Its impact on non-English language cultures* (pp. 175–190). Clevedon, UK: Multilingual Matters.
- Noor Azam Haji-Othman & Siti Ajeerah Najib (2016). The status of indigenous languages in Brunei. In Noor Azam Haji-Othman, J. McLellan & D. Deterding (Eds.), *The use and status of language in Brunei Darussalam: A kingdom of unexpected linguistic diversity* (pp. 9–16). Singapore: Springer.
- Nothofer, B. (1991). The languages of Brunei Darussalam. In H. Steinhauer (ed.), *Papers in Pacific linguistics* (pp. 151–176). Canberra: Australian National University.
- Soderberg, C. D. (2014). Kedayan. *Journal of the International Phonetic Association*, 44(2), 201–205.