

1 Introduction

Malay is a member of the Malayic subgroup of Austronesian, a language family which, it has been suggested, may have originated in Taiwan between 4000 and 3000 BCE before spreading to Sumatra and the Malay Peninsula between 1500 and 500 BCE (Andaya, 2001). The Malayic 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 spoken in Peninsular Malaysia, Borneo, Sumatra, and much of the rest of Indonesia (Adelaar, 2005).

Closely related varieties of Malay have national language status in Malaysia, Brunei Darussalam (henceforth Brunei), and Singapore, where it is called *Bahasa Melayu* ('the Malay language') (Clynes & Deterding, 2011), and in Indonesia, where it is termed *Bahasa Indonesia* (Soderberg & Olson, 2008). Some of the places where Malay is spoken are shown in Figure 1.

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), though the level of intelligibility is probably higher between varieties of the language in Malaysia, Singapore, and Brunei than with Bahasa Indonesia, partly because the lexicon of the latter has historically been substantially influenced by Dutch. Here, we will describe the pronunciation of Standard Malay, with the data for the acoustic analysis in Section 5 derived from the *baku* ('standard') variety that is promoted in Brunei and is spoken in formal situations by well-educated people there; but we acknowledge that, in reality, Standard Malay represents a range of varieties, with considerable differences in their pronunciation, and the analysis provided here cannot cover all the variation that exists in the varieties of Standard Malay spoken in Malaysia, Brunei, Singapore, and Indonesia. Further research should investigate in more depth how the pronunciation of these varieties differs.

After considering the status of Standard Malay, in Section 2 we review the existing research on its consonants, vowels, syllable structure, stress, rhythm, and intonation, and then in Section 3 we briefly consider some of the ways in which the pronunciation of other dialects of Malay differs from that of Standard Malay, though it is beyond the scope of this short overview to analyse all varieties or to assess why the differences between them occur. A more thorough coverage of phonological diversity in the Malay dialects can be found in Asmah (1991). In Section 4, we introduce some materials for obtaining spoken data for Malay, and then in Section 5 we provide an acoustic analysis of the pronunciation of the Standard Malay spoken in Brunei based on the recordings of two female and two male consultants who live in the country and are highly

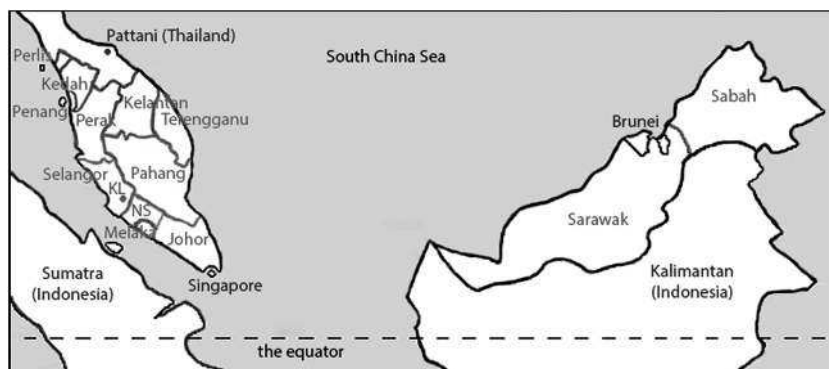


Figure 1 Map showing some of the places where Malay is spoken. KL = Kuala Lumpur (the capital of Malaysia); NS = Negeri Sembilan.

proficient in speaking the language. Finally, in Section 6 we offer suggestions for areas of future research on the phonetics of Malay.

1.1 Standard Malay

Some languages depend on an official organization to stipulate what is standard. So, for example, the Académie Française decides on the pronunciation of standard French. In contrast, other languages are more democratic, allowing standards to emerge, so lexicographers aim to reflect current usage rather than specify what is correct, and English is like this. For example, for the pronunciation of English, the *Longman Pronunciation Dictionary* is an authoritative resource that includes charts and statistics on the preferences of a large number of respondents to questionnaires; so for instance it reports that, in Britain, 55% of people pronounce *ate* as /et/ while 45% prefer /et/, with neither constituting the single correct pronunciation, and instead they represent alternatives (Wells, 2008, p. 54).

Malay follows the French model, not that of English. In Malaysia, one of the roles of the Dewan Bahasa dan Pustaka (DBP, ‘the Language and Literature Bureau’) is to determine what is correct, and in Brunei there is a similar organization, the Dewan Bahasa dan Pustaka Brunei (DBPB). Furthermore, there is a cross-national organization MABBIM (*Majlis Bahasa Brunei Indonesia Malaysia*, ‘Language Council of Brunei, Indonesia and Malaysia’), which was set up in November 1985 (Asmah, 2008, p. 73) and whose role is to try to derive a common standard for Malay in the region, though it has never considered pronunciation. MABBIM has focused on spelling and also deriving common technical terms, and it has achieved success in some areas; so, for

example, it has managed to achieve a common system of spelling for Malay and Indonesian (Asmah, 1967).

Let us consider how the top-down specification of standards affects one word: *erat* ('closely'). Most speakers pronounce it as /erat/, with /e/ (a front vowel, known in Malay as *e taling*) in the first syllable, and indeed, three out of four of our consultants pronounce it this way. However, the DBP insists that the correct pronunciation is /ərat/, with /ə/ (a central vowel, termed *e pepet*) (DBP, 2013), so this is stipulated to be the standard pronunciation even if few people actually use it.

Despite the efforts of the DBP and also MABBIM to establish a common standard, there continues to be considerable variation in Standard Malay. Indeed, Asmah (1971) states that there is no uniform standard variety of Malay. Indonesian is the most divergent variety in its lexis, partly due to the influence of languages such as Dutch and Javanese, while phonetically and phonologically there is also substantial variation in the Standard Malay spoken in Peninsular Malaysia (Clynes & Deterding, 2011). The Standard Malay spoken in Brunei seems to be in an intermediate position, in many ways similar to Indonesian in its pronunciation and grammar, but more like Peninsular varieties in its lexis (Poedjosoedarmo, 1996).

In Malaysia, there are basically two standard varieties, which can be termed the 'a-variety' and the 'schwa-variety' (Asmah, 1991, p. 23). They differ primarily in the realization of two features affecting the end of a word: in the a-variety, word-final orthographic <a> is pronounced as /a/ and also word-final orthographic <r> is retained, while in the schwa-variety, word-final <a> is usually pronounced as /ə/ and word-final <r> is omitted (Asmah, 1991, p. 2).

Here we describe the a-variety of Standard Malay that is promoted in Brunei. The a-variety is also spoken in the East Malaysian states of Sarawak and Sabah, and the northern Malay states of Kedah, Perlis, and Penang. Indonesian is also an a-variety. This differs from the schwa-variety that predominates in Peninsular Malaysian places such as Kuala Lumpur (KL), Johor, Melaka, and Perak, and also in Singapore (Asmah, 1991, p. 3). Yunus (1980) describes the schwa-variety; so, for example, he gives the pronunciation of *bila* ('when') as /bilə/ (p. 17), and he notes that *pasar* ('market') is generally pronounced as /pasa/ (p. 18). He further notes (p. 73), 'Many speakers, perhaps the majority of speakers in Malaya and Singapore, do not use [r] in word final position.' Teoh (1994) also describes the schwa-variety, focusing on his own dialect spoken in Johor. However, here we primarily focus on an a-variety of Standard Malay in which final <a> is /a/ in words such as *bila* /bila/, and /r/ is pronounced at the end of words such as *pasar* /pasar/.

2 Existing Research

This section will consider existing accounts of the consonants, vowels, syllable structure, stress, rhythm, and intonation of Malay. Each of these areas will be considered in more detail in Section 5, based on recordings of four consultants reading a short passage and also engaging in brief conversational interactions.

2.1 Consonants

Table 1 shows the consonants of Standard Malay. The inventory of 24 consonants included in Table 1 is the same as that listed in Clynes and Deterding (2011). The glottal stop /ʔ/ is shown in brackets, as its inclusion might be questioned (a topic to be discussed further in Section 2.1.3). The fricatives /f, v, z, ʃ, x/ are also in brackets, as they only occur in loan words, so they have marginal status in Malay. For Indonesian, Soderberg and Olson (2008) list the same 18 basic consonants but include only four marginal consonants, omitting /v/ and /x/, though the researchers note that their speaker actually pronounced *akhirnya* (‘finally’) as [axirpa], which raises questions about the exclusion of /x/.

2.1.1 Plosives

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 all speakers have a difference in place of articulation for /t/ and /d/. For Indonesian, Soderberg and Olson (2008) note that /t/ is dental, showing it as /t̪/, while /d/ is alveolar; but Fauzi (2018, p. 16) argues that /t/ is alveolar, and he contrasts it with the equivalent sound in Arabic, which is dental (p. 19). /k/ is velar in syllable onsets, but in the coda of a syllable, it is generally realized as a glottal stop [ʔ], though Asmah (1991, p. 7) notes that it may be [k] in some

Table 1 The consonants of Malay

	Labial	Alveolar / Dental	Post-alveolar / Palatal	Velar	Glottal
Plosive / Affricate	p b	t d	tʃ dʒ	k g	(ʔ)
Fricative	(f) (v)	s (z)	(ʃ)	(x)	h
Nasal	m	n	ɲ	ŋ	
Trill / Tap		r			
Approximant	w		j		
Lateral		l			

loanwords such as *bank*. Voiceless /p/ and /t/ are always unreleased in the coda of a syllable.

In the onset of a syllable, /p, t, k/ are normally unaspirated. However, in Brunei, some speakers, particularly radio broadcasters, have aspiration on initial /k/ (Clynes & Deterding, 2011), largely due to influence from English (Poedjosoedarmo, 1996), which is widely spoken in the country (McLellan, Noor Azam, & Deterding, 2016). The degree of aspiration for the syllable-initial voiceless plosives in the pronunciation of Standard Malay spoken in Brunei will be analysed acoustically in Section 5.1.

The voiced plosives /b, d, g/ do not occur in syllable codas in the native lexis, and when they are found in the codas of loan words, they are usually replaced with their voiceless counterparts (Teoh, 1994, p. 53), so *jawab* ('to answer'), a loan from Arabic, is generally pronounced as [dʒəwəp], and *wujud* ('to exist'), also a loan from Arabic, is [wudʒot].

2.1.2 Affricates

/tʃ/ and /dʒ/ are phonetic affricates, though phonemically they pattern with the plosives. They may have a lamino-alveolar realization with a 'noisy' release (possibly influenced by English) rather than the less affricated, post-alveolar realization typical of many Indonesian speakers (Clynes & Deterding, 2011). For Indonesian, Fauzi (2018, p. 17) similarly treats /tʃ/ and /dʒ/ as plosives (though he uses the symbols [C] and [J] for them).

The two affricates occur in initial and medial position, but they occur only in final position in loanwords such as *mac* /matʃ/ ('March') and *imej* /imedʒ/ ('image') (Asmah, 1991, p. 7).

2.1.3 Glottal Stop

The glottal stop has marginal status, and it is unclear whether it should be listed as a phoneme of Malay or not. It occurs as the realization of final /k/ (see Section 2.1.1), though the fact that [k] rather than a glottal stop occurs at the end of loanwords such as *bank* (Asmah, 1991, p. 7) suggests that the realization of word-final /k/ is variable. We might also note that, prior to the adoption of the common spelling system in Malaysia and Indonesia, the word-final glottal stop was shown as <ʔ> in both countries, which suggests that it was accorded phonemic status at the time.

In addition, the glottal stop can occur optionally at the start of morphemes with an initial vowel. Teoh (1994, p. 26) claims that a syllable onset is obligatory in Malay, so *angin* /aŋin/ is pronounced as [ʔəŋɪn] with an initial glottal stop; but that does not necessarily mean the glottal stop is a phoneme, as the word-initial glottal stop can be inserted by rule (Teoh, 1994, p. 59).

Word-medially, the glottal stop is also found between two vowels in two different contexts: in some Arabic loanwords like *saat* [səʔət̚] ('second'), the glottal stop occurs as the realization of the Arabic voiced pharyngeal fricative /ʕ/ (Yunus, 1980, p. 59); and the glottal stop can also occur intervocalically across a morpheme boundary, for example after certain prefixes such as *di-* (the passive prefix) as in *dianggap* /diʔŋgəp/ ('be considered') pronounced as [diʔŋgəp̚], and before the word-final *-i* locative suffix, as in *mengenai* /məŋənai/ ('about') (for which the root is *kena*) pronounced as [məŋənəʔi].

In summary, the glottal stop can occur in four situations: as the realization of final /k/; as an optional sound before a word-initial vowel, such as in *angin* [ʔŋɪn]; as a break that separates two vowels in words such as *saat* [səʔət̚] derived from Arabic; and between two vowels when a prefix ends with a vowel and the root has an initial vowel, as in *dianggap* [diʔŋgəp̚], or when the root ends with a vowel and a suffix has an initial vowel, as in *mengenai* [məŋənəʔi]. In all these four situations, the glottal stop may be derived by rule, either as realization of /k/ (Farid, 1980, p. 9) or by insertion (Farid, 1980, p. 50), so it is unclear if it should be regarded as a phoneme of Malay. Teoh (1994) asserts that the status of the glottal stop is '[o]ne of the outstanding issues in Malay phonology' (p. 58), especially as 'where one expects it to be manifested it is not, and where one expects it to be absent it shows up' (p. 59). Its phonemic status, and the contexts in which it occurs, are areas that might be investigated further in future studies of Malay phonology.

2.1.4 Nasals

There are four nasals in Malay: the bilabial nasal /m/, the alveolar nasal /n/, the palatal nasal /ɲ/, and the velar nasal /ŋ/. The velar nasal /ŋ/ is always indicated by <ng> in the spelling, even when it occurs before <k> and <g> such as in *angka* /aŋka/ ('number') and *panggil* /paŋgil/ ('call'). The palatal nasal occurs whenever there is <ny> in the spelling, such as in *nyanyi* /ɲani/ ('to sing'). It also occurs before /tʃ/ and /dʒ/ in words such as *ancam* /aŋtʃam/ ('threat') and *anjing* /aŋdʒiŋ/ ('dog') (Yunus, 1980, p. 77), in which case it is spelled as <n> rather than <ny>. All four nasals can occur in word-initial position, including /ɲ/ in words such as *nyawa* ('life') and /ŋ/ in words such as *ngeri* /ŋəri/ ('frightening'), and /m/, /n/, and /ŋ/ can all occur in word-final position, in words such as *macam* ('like'), *sabun* ('soap'), and *barang* ('thing'). /ɲ/ does not occur in word-final position, and it only occurs in syllable-final position before /tʃ/ and /dʒ/.

2.1.5 Fricatives

Of the fricatives, only /s/ and /h/ are primary consonants occurring in native words of Malay. Both may occur in onset and coda position: *satu* ('one') and