

## **Ternate Malay: grammar and texts**

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## 2 Phonology

This chapter concerns the sound system of Ternate Malay. In § 2.1 the vowels are described and in § 2.2 the consonants, followed by a list of minimal and nearminimal pairs of the vowels and consonants in § 2.3 and § 2.4. The next paragraph, § 2.5, concerns the word stress while in § 2.6 the word structure, and in § 2.7 the syllable structure are discussed.

#### 2.1 Vowels

The vowel system of Ternate Malay consists of five vowel phonemes and five diphthongs The five vowels are:

	Front	Back
High	i	u
Mid	e	О
Low		a

The five diphthongs are /ai/, /ae/, /ao/, /oi/, and /ei/.

/a/ is realized as an open low back unrounded vowel [a] in open and closed syllables.

/abis/	[ˈabis]	'finished'
/ada/	[ˈada]	'be present'
/gantoŋ/	[ˈgantəŋ]	'hang'
/ilaŋ/	[ˈilaŋ]	'lost; disappear'

/e/ can be realized as [e],  $[\epsilon]$  or [I].

In word-final position /e/ is realized as a close high unrounded front vowel [1].

/bale/	[ˈbalɪ]	'turn around; reverse'
/bole/	[ˈbolɪ]	'may; be permitted'
/gate/	[ˈgatɪ]	'hook; cling to s.o./s.t.'
/gode/	[ˈgodɪ]	'big (of a person); obese
/kage/	[ˈkagɪ]	'startled'
/kore/	[ˈkorɪ]	'scrape'
/pake/	[ˈpakɪ]	'use'
/paŋge/	[ˈpaŋgɪ]	'call'
/pante/	['pantɪ]	'beach'
/polote/	[po'lot1]	'explode'

When [1] occurs in final position vowel harmony takes place so that the preceding /e/ whether in closed or open syllables is also realized as [1]. Some examples are the following.

/bebe/	[ˈbɪbɪ]	'duck'
/nene/	[ˈnɪnɪ]	'grandmother'
/pece/	['pɪcɪ]	'mud; sludge'
/pende/	[ˈpɪndɪ]	'short'
/sebe/	[ˈsɪbɪ]	'father'

In closed syllables /e/ is realized as an open mid unrounded front vowel [ɛ], except when an [ɪ] occurs in the following syllable and vowel harmony takes places, for instance in /pende/ which is realized as ['pɪndɪ].

/benteŋ/	[ˈbɛntɛŋ]	'fortress'
/dokter/	[ˈdək <sup>-</sup> tɛr]	'doctor; physician'
/kabel/	[ˈkabɛl]	'cable'
/mo'del/	[moˈdɛl]	'same; similar to'
/obeŋ/	[ˈɔbɛŋ]	'screwdriver'

Before the low variants  $[\epsilon, \mathfrak{d}]$  of the midvowels, the preceding /e/ in open syllables is also realized as  $[\epsilon]$ . Examples are:

/nener/	[ˈnɛnɛr]	'small fish used as fish bait'
/beres/	[ˈbɛrɛs]	'in order'
/mesel/	[ˈmɛsɛl]	'(concrete) floor'
/rekeŋ/	[ˈrɛkɛŋ]	'count'
/leper/	[ˈlɛpɛr]	'spoon'
/ekor/	[ˈɛkɔr]	'tail'
/peot/	['pɛɔt¯; 'pɛjɔt¯]	'dented'

In other non-final open syllables /e/ is realized as a close mid unrounded front vowel [e]:

/hela/	['hela]	'pull; haul'
/kadera/	[ka'dera]	'chair'
/lebar/	[ˈlebar]	'broad; wide; extensive'
/lego/	['lego]	'throw down'
/mera/	['mera]	'red'

A non-phonemic transitional glide [j] may appear when /e/ is followed by a back vowel.

/bagea/	[baˈgea; baˈgeja]	'k.o. biscuit; cookie'
/bageaŋ/	[baˈgeaŋ; baˈgejaŋ]	'division'
/pakeaŋ/	[paˈkeaŋ; paˈkejaŋ]	'clothes'
/peot/	[pɛət¯; pɛˈjət¯]	'dented'

/i/ is realized as a close high unrounded front vowel [i] in open and closed syllables:

	e	1
/gigi/	[ˈgigi]	'tooth; bite'
/gila/	[ˈgila]	'crazy'
/tiŋgi/	[ˈtiŋgi]	'high'
/siŋga/	[ˈsiŋga]	'stop by; visit'
/sopir/	['sopir]	'chauffeur; driver'
/spit/	[spit <sup>-</sup> ]	'high speed motorboat'

A non-phonemic transitional glide [j] may appear when /i/ is followed by a back vowel:

/biar/	[ˈbiar; ˈbijar]	'although'
/dia/	[ˈdia; ˈdija]	'he; she; it'
/duriaŋ/	[duˈriaŋ; duˈrijaŋ]	'durian'
/cioŋ/	[ˈciɔŋ; ˈcijɔŋ]	'kiss; sniff'
/kios/	[ˈkiəs; ˈkijəs]	'kiosk; stand'
/serius/	[seri'us; 'seri'jus']	'serious'
/tiup/	['tiup <sup>-</sup> ; 'tijup <sup>-</sup> ]	'blow'

/u/ is realized as a closed high rounded back vowel [u] in open and closed syllables:

		[]F
/untuŋ/	[ˈuntuŋ]	'profit'
/urus/	['urus]	'take care for'
/utu/	['utu]	'complete'
/buku/	[ˈbuku]	'book'

/bulu/ ['bulu] 'bamboo; feathers'
/gunuŋ/ ['gunuŋ] 'mountain'
/hidup/ ['hidup<sup>-</sup>] 'live; life'

/busu/ ['busu] 'putrid; rotten; bad'

/sambuŋ/ ['sambuŋ] 'connect' /kuŋci/ ['kuɲci] 'key; lock'

A non-phonemic transitional glide [w] may appear when /u/ is followed by the low back vowel /a/.

/sabua/ [sa'bua; sa'buwa] 'hut, tem	nporary shelter'

/suar/ ['suar; 'suwar] 'sweat'
/jual/ ['jual; 'juwal] 'sell'
/kuat/ ['kuat-; 'kuwat-] 'strong'
/luar/ ['luwar] 'outside'

/o/ is realized as an open mid unrounded back vowel [o] in open syllables, except when it is followed by an [ɔ] in the following syllable.

/poloso/	[po'loso]	'squeeze'
/obat/	['obat <sup>-</sup> ]	'medicine'
/obeŋ/	[ˈɔbɛŋ]	'screwdriver'
/oraŋ/	[ˈoraŋ]	'person'

/oto/	['oto]	'car'
/loban/	[ˈlobaŋ]	'hole'

/model/ [mo'dɛl] 'shape; similar' /ŋoni/ ['ŋoni] 'you (plural)'

When [5] occurs in the final syllable vowel harmony takes place so that the preceding /o/ in open syllables is also realized as [5].

'bowl'
'not yet'
'deep'

/poton/ ['pɔtəŋ] 'cut (off); slice'
/tofor/ ['təfər] 'shallow'
/jobot/ ['jɔbət<sup>-</sup>] 'swollen'

In closed syllables /o/ is realized as an open mid rounded back [5]<sup>5</sup>:

 /dokter/
 [dokter]
 'doctor'

 /ron/
 [ron]
 'around'

 /stop/
 [stop<sup>-</sup>]
 'stop; halt'

 /ton/
 [ton]
 'barrel'

/ancor/ ['ancor] 'shattered, destroyed' /banon/ ['banon] 'wake up; get up'

/doŋ/ [dəŋ] 'they'

A non-phonemic transitional glide [w] may appear when /o/ is followed by the back vowel /a/:

```
/goa/ ['goa; 'gowa] 'cave'
```

/loas/ ['loas; 'lowas] 'spacious; wide'
/roas/ ['roas; 'rowas] 'segment'

/loa-loa/ ['loaloa; 'lowalowa] 'without accompaniments'

### 2.1.1 Diphthongs

/ai/ is in open as well as closed syllables realized as  $[a^i]$ . /tai/  $[ta^i]$  'feces'

 /mai/
 [mai]
 'mother'

 /rai/
 [rai]
 'guess'

 /pait/
 [pait-]
 'bitter'

 /mulai/
 [mulai]
 'begin'

<sup>&</sup>lt;sup>5</sup>In Dutch loanwords, however, /o/ in closed syllable may be realized as [o], for instance /om/ [om] 'uncle' (< Du. *oom* [o:m] 'uncle'); /strom/ [strom] 'electricity' (< Du. *stroom* [stro:m] 'electricity', and /strop/ [strop-] 'syrup' (< Du. *stroop* [stro:p] 'syrup'). The realization of [o] in these cases may be considered an allophone of /o/, occurring in monosyllabic (loan)words.

/ae/ in open as well as closed syllables is realized as [ae]:

/bae/	[ba <sup>e</sup> ]	'good'
/nae/	[na <sup>e</sup> ]	'go up; ascend'
/maŋael/	[maŋa <sup>e</sup> l]	'to fish'
/aer/	[a <sup>e</sup> r]	'water; liquid'
/kaeŋ/	[ka <sup>e</sup> ŋ]	'cloth; sarong'
/laeŋ/	[la <sup>e</sup> ŋ]	'different'
/maeŋ/	[ma <sup>e</sup> ŋ]	'play'
The /ao/ in open as w	vell as closed syllables can be	e realized as [a°, a <sup>u</sup> , a <sup>w</sup> ].
/ <del>j</del> ao/	[ɟaº; ɟaʰ; ɟaʰ]	'far'
/lao/	[la°; la <sup>u</sup> ; la <sup>w</sup> ]	'sea'
/mao/	[ma°; ma <sup>u</sup> ; ma <sup>w</sup> ]	'want'
/parao/	[paˈraº; paˈraʰ; paˈraʷ]	'proa'
/pulao/	[ˈpulaº; ˈpulaʰ; ˈpulaʷ]	'island'
/aos/	[a°s; a"s; a"s]	'thirsty'
/taoŋ/	[taºŋ; taʰŋ; taʷŋ]	'year'
/daoŋ/	[daºŋ; daʰŋ; daʷŋ]	'leaf'
/oi/ is realized as [o <sup>i</sup> ]		
/koi/	[ko <sup>i</sup> ]	'bed'
/coi/	[co <sup>i</sup> ]	'steamed'
/doi/	[do <sup>i</sup> ]	'money'
/ei/ is realized as [e <sup>i</sup> ]	or [ey] and occurs mainly in	words of non-Malay origin.
/sei/	[se <sup>i</sup> ]	'side' $(< Du. zij(de))$
/frei/	[fre <sup>i</sup> ]	'off' (< Du. vrij)
/avefai/	[assufai]	'anarrari' ( a Em a anarrari)

## 2.2 Consonants

/surfei/

Ternate Malay has eighteen consonants and two semivowels.

[surfe<sup>i</sup>]

Place of articulation	Labial	Alveolar	Palatal	Velar	Glottal
Voiceless Stop	p	t	c	k	3
Voiced Stop	b	d	j	90	
Nasal	m	n	ŋ	ŋ	
Fricative	f	s			h
Lateral approximant		1			
Trill		r			
Semivowel	W		j		

'survey' (< Eng. survey)

In this chapter the palatals and the velar nasal are written with IPA symbols. In other chapters the palatal stop  $[\mathfrak{z}]$  is written as " $\mathfrak{z}$ ", the palatal nasal  $[\mathfrak{p}]$  as " $\mathfrak{n}$ ", the palatal semivowel  $[\mathfrak{z}]$  as " $\mathfrak{y}$ ", while the velar nasal  $[\mathfrak{p}]$  is written as " $\mathfrak{n}$ g".

#### 2.2.1 Stops

#### 2.2.1.1 Voiceless stops

The voiceless stops /p, t, k/ appear in word-initial and medial position. Examples of some voiceless stops in syllable-final position are discussed in § 2.2.1.2.

/p/ is realized as [p] in word-initial and medial position.

/palaka/	[paˈlaka]	'upside down'
/pigi/	[ˈpigi]	ʻgo'
/parao/	[paˈrao]	'boat'
/lapar/	[ˈlapar]	'hunger; hungry'
/apaŋ/	[ˈapaŋ]	'k.o. cake'

/t/ is realized as a voiceless alveolar [t] in word-initial and medial position:

/tabako/	[taˈbako]	'tobacco'
/tabal/	[taˈbal]	'thick'
/tako/	[ˈtako]	'afraid; frightened'
/mati/	[ˈmati]	'die; dead'
/putar/	[ˈputar]	'revolve, turn around'
/puti/	[ˈputi]	'white'
/putus/	[ˈputus]	'broken; loose'
/roti/	[ˈroti]	'bread'

/c/ is realized as a voiceless palatal stop [c] and occurs only in initial and medial position. It does not occur word-finally.

```
/colo/ ['colo] 'dip'
/carita/ [ca'rita] 'story; tell a story'
/pece/ ['pɪcɪ] 'mud; sludge'
/panciŋ/ ['panciŋ] 'fish; provoke'
```

/k/ is realized as a voiceless velar stop [k] in word-initial and medial position:

	1 .	
/kabel/	[ˈkabɛl]	'cable'
/kacili/	[kaˈcili]	'small; little'
/kadera/	[kaˈdera]	'chair'
/ika/	[ˈika]	'tie, bind'
/makaŋ/	[ˈmakaŋ]	'eat'

#### 2.2.1.2 Neutralization of voice

There is no voice opposition in stops in word-final position. All stops in this position are realized as voiceless unreleased stops and no examples have been found to show a /b/–/p/ distinction. Some words from Arabic origin may have a voiced stop origi-

nally, but in Malay these sounds are all realized as voiceless unreleased stops. Other words may have been created on the base of words with a voiced stop, but when the position changes, the realization also changes. In the compound *brigade mobil* 'mobile brigade', the /b/ in *mobil* is realized as a voiced bilabial stop [b]. When used in the acronym *brimob* 'mobile brigade', the word-final position of /b/ changes its realization into a voiceless unreleased bilabial stop [p<sup>-</sup>].

/p/ and /b/ are realized as a unreleased voiceless bilabial stop [p<sup>-</sup>]:

/garap/	[gaˈrap¯]	'funny'
/sadap/	[sa'dap <sup>-</sup> ]	'tasty, delicious'
/tetap/	[te'tap <sup>-</sup> ]	'permanent; fixed'
/lap/	[lap <sup>-</sup> ]	'wipe; slap'
/brimob/	[briməp¯]	'mobile brigade'
/wa <del>j</del> ib/	[waɟip¯]	'obligatory'

/t/ and /d/ in final position are realized as a unreleased voiceless alveolar stop [t<sup>-</sup>]. In the word *abadi* 'eternal' the /d/ is realized as a voiced dental stop [d]. In the word *abad* 'century', which comes from the same root, /d/ occurs in word-final position and is realized as a voiceless unreleased stop [t<sup>-</sup>].

/camat/	['camat <sup>-</sup> ]	'subdistrict head'
/gawat/	[ˈgawat <sup>-</sup> ]	'urgent; critical'
/hebat/	['hebat <sup>-</sup> ]	'tremendous, fantastic'
/ketat/	[ke'tat <sup>-</sup> ]	'tight; strict; precise'
/abad/	[ˈabat¯]	'century'

/k/ in syllable-final position is realized as a unreleased voiceless velar stop  $[k^-]$ . There are only a few words with word-final /g/, i.e. *caleg* 'legislative candidate, an acronym for *calon legislative* 'legislative candidate'. The final /g/ is realized as an unreleased voiceless velar stop  $[k^-]$ .

/cek/	[cɛk <sup>-</sup> ]	'check'
/cok/	[cok <sup>-</sup> ]	'electrical plug'
/kontak/	[ˈkəntak <sup>-</sup> ]	'socket'
/waktu/	[ˈwak <sup>-</sup> tu]	'time'
/caleg/	[ˈcalɛk¯]	'legislative candidate'

#### 2.2.1.3 Glottal stop

The glottal stop [?] has only a marginal function. When a base with an initial vowel is preceded by the prefixes, amongst others, /ba+/, /baku+/, and /ta+/, a glottal stop /?/ appears between the two vowels. The glottal stop also occurs in words consisting of a base ending in a final vowel and followed by a suffix that has an initial vowel. The two examples given here are words adopted from Indonesian: *perbedaan* 'difference' and *keadaan* 'situation'. The word *perbedaan* consists of the base *beda* and the circumfix *per-* + -an and *keadaan* consists of the base ada and the circumfix *ke-* + -an. Note that between the prefix *ke-* and the base ada a glottal stop is realized.

/ba+uni/	[baˈʔuni]	'watch'
/ba+injaŋ/	[baˈʔiɲjaŋ]	'step on'
/baku+aŋka/	[baku'?aŋka]	'lift up together'
/ta+ure/	[ta'?urɪ]	'tousled (of hair)'
/per+beda+an/	[perbe'da?an] <sup>6</sup>	'difference'
/ke+ada+an/	[keʔaˈdaʔan]	'situation'

A phonemic glottal stop appears occasionally between two identical vowels and between /o/ followed by /a/ and /a/ followed by /e/. It should be noted that these words have a non-Malay origin.

/sa?at/	['sa?at <sup>-</sup> ]	'moment'
/ma?af/	[ma'?af]	'pardon; forgive'
/do?a/	[doˈʔa]	'prayer'
/so?al/	[ˈsoʔal]	'problem; matter'
/da?era/	[daˈʔera]	'region; district'
/la?ef/	[la'?ɛf]	'demented; forgetful'

#### 2.2.1.4 Voiced stops

The voiced stops /b, d, j, g/ occur only in initial and medial position. Voiced stops in word-final position are discussed in § 2.2.1.2.

/b/ is realized as a voiced bilabial stop [b]:

/baŋka/	[ˈbaŋka]	'swollen'
/bodito/	[bo'dito]	'accident; have an accident'
/mabo/	[ˈmabo]	'drunken'
/raba/	[ˈraba]	'grope; touch'

/d/ is realized as a voiced alveolar stop [d]:

 /dolon/
 ['dolon]
 'deep'

 /dusu/
 ['dusu]
 'chase'

 /bodo/
 ['bodo]
 'stupid'

 /tadi/
 ['tadi]
 'a while ago'

/ɟ/ is realized as a voiced palatal stop [ɟ]:

/ <del>j</del> aŋ/	[ <del>j</del> aŋ]	'don't'
/ <del>J</del> uga/	[ˈɟuga]	'also'
/ <del>J</del> ual/	[ˈɟual; ˈɟuwal]	'sell'
/bi <del>j</del> i/	[ˈbiɟi]	'seed; kernel'
/la <del>j</del> u/	[ˈlaɟu]	'fast'

<sup>&</sup>lt;sup>6</sup> It seems that in this example the stress falls on the penultimate syllable, while generally affixation does not influence the stress pattern. This may be an indication that this word is not considered to be a multi-morphemic word. Affixation with per-+-an is not a productive process in Ternate Malay. Something similar is found in keadaan which consists of ada and the circumfix ke-+-an.

/g/ is realized as voiced velar stop [g], which occurs in initial and medial position:

/gode/ ['godi] 'big (of a person); obese'

/guraka/ [guˈraka] 'ginger'
/lego/ [ˈlego] 'throw down'
/bagus/ [ˈbagus] 'nice; beautiful'

#### 2.2.2 Fricatives

/f/ is realized as a labio-dental fricative [f], which occurs in initial, medial, and final position:

/fuma/ ['fuma] 'stupid' 'lie' /foja/ ['foja] /fufu/ ['fufu] 'to smoke' /ofu/ ['ofu] '(honey) bee' /tofor/ 'shallow' ['təfər] 'pardon; forgive' /ma?af/ [ma'?af] /la?ef/ [la'?ef] 'demented; forgetful'

/s/ is realized as a alveolar fricative [s], which occurs in initial, medial and final position:

/soma/ ['soma] 'k.o. fishing net' /sugili/ [su'gili] 'k.o. eel' /sisa/ ['sisa] 'remain' /pasar/ 'market' ['pasar] 'hard; tough' /kar'as/ [ka'ras] /lap'as/ [la'pas] 'loose'

/h/ is realized as a glottal fricative [h], which occurs in initial and medial position:

/hariŋaŋ/ [ha'riŋaŋ] 'light, not heavy'
/hoba/ ['hoba] 'glimpse'
/haga/ ['haga] 'stare at'
/pohoŋ/ ['pohoŋ] 'tree'
/gohu/ ['gohu] 'k.o. dish'

#### 2.2.3 Nasals

/m/ is realized as a voiced bilabial nasal [m] and occurs in all positions.

/molo/ ['molo] 'dive; swim under water'

/milu/ ['milu] 'corn'

/simore/ [si'morɪ] 'happy; pleased; glad' /sama/ ['sama] 'same; similar'

/tanam/ ['tanam] 'plant' /siram/ ['siram] 'pour'

/n/ is realized as a voiced alveolar nasal [n] and occurs in all positions.

/nener/ ['nener] 'small fish used as fish bait'

/napas/ ['napas] 'breath' /nana/ ['nana] 'pus'

/panada/	[pa'nada]	'rice croquette with fish'
/lawaŋ/	[ˈlawaŋ]	'opponent; oppose'
/taŋaŋ/	[ˈtaŋaŋ]	'hand'

In many cases final /m/ or /n/ may be replaced by the velar nasal /n/, resulting in doublets. Some examples in which /m/ and /n/ alternate with /n/ are:

doublets. Som	ie examples i	III W	mich /m/ and /m/ and	ernate with /ij/ are.
/anam/	['anam]	~	['anaŋ]	'six'
/itam/	[ˈitam]	~	['itaŋ]	'black'
/kirim/	[ˈkirim]	~	[ˈkiriŋ]	'send s.o.'
/kolam/	[ˈkolam]	~	[ˈkolaŋ]	'(swimming) pool'
/macam/	['macam]	~	[ˈmacaŋ]	'variety; similar'
/malam/	[ˈmalam]	~	[ˈmalaŋ]	'night'
/minom/	[mcnim']	~	[ˈminəŋ]	'drink'
/hariŋan/	[haˈriŋan]	~	[haˈriŋaŋ]	'light, not heavy'
/ɟaŋan/	[ˈɟaŋan]	~	[ˈ <del>ʒ</del> aŋaŋ]	'don't'
/nilon/	[ˈnilən]	~	[ˈniləŋ]	'nylon string for fishing'
/tahan/	[ˈtahan]	~	[ˈtahaŋ]	'resist; hold'
/turun/	['turun]	~	[ˈturuŋ]	'go down'

However, non-Malay words such as words from Dutch and English origin do not have doublets.

/do'rom/	[dəˈrəm]	'(oil) drum'
/om/	[om]	'uncle'
/ka'ram/	[kaˈram]	'cramped'
/strom/	[strom]	'electricity'
/ron/	[ncn]	'around'
/ <del>j</del> eri'gen/	[ɟɛriˈgɛn]	'jerry can'

In a few cases replacing final /m/ or /n/ with /n/ results in a change in meaning. These words do not have doublets.

```
[jam]
/jam/
                       'hour',
                                                   [ɟaŋ]
                                                               'don't'
                                       /<del>j</del>aŋ/
/macan/
          ['macan]
                       'tiger',
                                                               'variety; similar'
                                 but
                                       /macan/
                                                   ['macan]
/sen/
           [sen]
                       'cent',
                                 but
                                      /sɛŋ/
                                                   [sɛŋ]
                                                               'zinc'
```

/p/ is realized as a voiced palatal nasal [p] and occurs in initial and medial position.

```
/pata/ ['pata] 'clear; obvious; evident'
/pawa/ ['pawa] 'life; soul'
/popoke/ [po'poki] 'grumble'
/bopa/ ['bopa] 'lump, swelling'
```

/ŋ/ is realized voiced velar nasal [ $\eta$ ], which occurs in all positions.

[ˈŋana]	'you (singular)
[ˈŋoni]	'you
[guˈraŋo]	'shark'
[ˈtoraŋ]	'we'
	[ˈŋoni] [guˈraŋo]

## 2.2.4 Lateral approximant

/l/ is realized as a lateral approximant [1] and occurs in initial, medial, and final position.

/lego/	[ˈlego]	'throw down'
/lalar/	[ˈlalar]	'fly'
/giˈli/	[giˈli]	'tickle'
/bantal/	[ˈbantal]	'pillow'
/ta'bal/	[ta'bal]	'thick'

#### 2.2.5 Trill

/r/ is realized as alveolar trill [r] and occurs in initial, medial, and final position.

/rambu/	[ˈrambu]	'hair'
/reno/	[ˈreno]	'gnaw; nibble'
/tarada/	[taˈrada]	'not'
/biru/	[ˈbiru]	'blue'
/leper/	[ˈlɛpɛr]	'spoon'
/basar/	[baˈsar]	'large; big'

## 2.2.6 Semivowels

The semivowel /w/ is realized as [w] and occurs in initial and medial position.

/woka/	[ˈwoka]	'k.o. palm tree'	
/sawan/	[ˈsawan]	'hurry'	

The semivowel /j/ is realized as [j] and occurs in initial and medial position.

/jakis/	[ˈjakis]	'monkey'
/jobot/	[ˈjɔbɔt¯]	'swollen'
/foja/	[ˈfoja]	'lie'
/kaju/	[ˈkaju]	'wood'

/mojaŋ/ ['mojaŋ] 'great-grandparent'

## 2.3 Minimal and near minimal pairs of vowels

ibu/ 'mother'	/abu/ 'dust; ash'
kita/ '1SG'	/kata/ 'word'
milu/ 'corn'	/malu/ 'shy; ashamed'
kaki/ 'foot, leg'	/kaka/ 'older sibling'
	kita/ '1SG' milu/ 'corn'

/i/ – /e/: /ba+kira/ 'to leave' /ba+kera/ 'treatment after

childbirth'
/pili/ 'sort' /pele/ 'separate'
/bibi/ 'form of address' /bebe/ 'duck'
/panti/ 'home; asylum' /pante/ 'beach'

/i/ – /u/:	/itu/ 'that' /bisa/ 'may; can; poison' /lipa/ 'fold; crease' /sisa/ 'remain' /tinju/ 'to box; fight'	/utu/ 'complete' /busa/ 'foam; spume' /lupa/ 'forget' /susa/ 'trouble; bother' /tunju/ 'show'
/i/ – /o/:	/kita/ '1SG' /besi/ 'iron' /kali/ 'time' /tari/ '(traditional) dance'	/kota/ 'town; city' /beso/ 'tomorrow' /kalo/ 'if; when' /taro/ 'put'
/e/ – /a/:	/mera/ 'red' /seka/ 'rub; wipe' /cobe/ 'mortar' /pele/ 'separate; divide off' /leper/ 'spoon'	/mara/ 'angry' /saka/ 'put in' /coba/ 'try' /pala/ 'nutmeg' /lapar/ 'hunger; hungry'
/e/ – /o/:	/den/ 'and; with' /feto/ 'grumble' /seno/ 'nervous' /tela/ 'brick' /cek/ 'check' /renda/ 'lace'	/don/ 'they' /foto/ 'photo' /sono/ 'sleep' /tola/ 'push' /cok/ 'electrical plug' /ronda/ 'make a tour/trip'
/e/ – /u/:	/seka/ 'rub; wipe' /tete/ 'grandfather' /sebe/ 'father' /tetu/ 'peck'	/suka/ 'be fond of; enjoy' /tetu/ 'peck' /subu/ 'dawn; daybreak' /tutu/ 'shut; cover up/over'
/a/ – /u/:	/arus/ 'stream' /karuŋ/ 'sack' /malu/ 'shy; ashamed' /mara/ 'angry' /tasa/ 'bald' /kaka/ 'older sibling' /rampa—rampa/ 'seasoning'	/urus/ 'take care for' /kuruŋ/ 'cage; imprison' /mulu/ 'mouth' /mura/ 'cheap' /tusa/ 'cat' /kuku/ 'nail' /rumpu-rumpu/ 'litter'
/a/ – /o/:	/araŋ/ 'coal' /bakar/ 'burn; bake' /pas/ 'exact; punctual' /taŋka/ 'catch' /tano/ 'glance; glimpse' /tana/ 'land'	/oraŋ/ 'person' /bokor/ 'bowl; wash basin' /pos/ 'post' /toŋka/ 'pole; support' /tono/ 'soak' /tono/ 'soak'

/u/ - /o//oto/ 'car' /utu/ 'complete' /budo/ 'albino' /bodo/ 'stupid'

> /tutu/ 'shut; cover up/over' /totu/ 'great-grandparent'

/mulu/ 'mouth' /molo/ 'dive' /susu/ 'milk; breast' /soso/ 'penetrate'

## 2.4 Minimal and near-minimal pairs of consonants

/ta'lan/ 'swallow' /p/ - /t/: /pa'lan/ 'slow' /tas/ 'bag' /pas/ 'exact; punctual' /papa/ 'father' /pata/ 'broken' /sapu/ 'broom; sweep' /satu/ 'one' /ga'rap/ 'funny' /ba'rat/ 'heavy'

/te'tap/ 'permanent' /ke'tat/ 'tight; strict' /p/ - /k/:

/pa/ 'to, for'

/kala/ 'defeated' /pala/ 'nutmeg' /papa/ 'father' /paka/ 'slap' /la'pas/ 'free; loose' /la'kas/ 'fast' /lupa/ 'forget' /luka/ 'wound'

/p/ - /b/: /peda/ 'machete' /beda/ 'difference'

/pisa/ 'separate' /bisa/ 'may; can; poison' /bulu/ 'bamboo; feathers' /pulu/ 'ten'

/ka/ 'to'

/apa/ 'what' /aba/ 'father' /rupa/ 'form; shape' /ruba/ 'change' /sompon/ 'carry on shoulder' /sombon/ 'arrogant' /tampa/ 'place' /tamba/ 'add'

/t/ - /k/: /tali/ 'rope' /kali/ 'river; time'

> /ton/ 'barrel' /kon/ 'then' /tore/ 'crispy' /kore/ 'scrape' /tua/ 'old' /kua/ 'sauce' /buta/ 'blind' /buka/ 'open' /kata/ 'word' /kaka/ 'older sibling' /pata/ 'broken' /paka/ 'slap' /puti/ 'white' /puki/ 'vulva' /sake/ 'ill' /sate/ 'satay' /cet/ 'paint' /cek/ 'check'

> /spit/ 'high-speed motorboat' /spik/ 'speak (foreign

> > language)'

/t/ - /d/: /diri/ 'self' /(ana) tiri/ 'step(child)'

/tola/ 'push' /dola/ 'chase' /dusu/ 'chase' /tusu/ 'stab; sting'

/t/ – /e/:	/tamat/ 'graduate' /tamu/ 'guest' /kata/ 'word' /mataŋ/ 'cooked' /pete/ 'pick'	/camat/ 'subdistrict head' /camu/ 'chew' /kaca/ 'glass; mirror' /macan/ 'like; similar' /pece/ 'mud; sludge'
/k/ – /g/:	/kawat/ 'wire' /kaja/ 'rich, similar' /kaka/ 'older sibling' /baŋka/ 'swollen' /taŋka/ 'catch'	/gawat/ 'urgent; critical' /gaja/ 'style' /gaga/ 'strong; beautiful' /baŋga/ 'proud' /taŋga/ 'ladder; staircase'
/b/ – /d/:	/bapa/ 'father; mister' /bara/ 'coal; ember' /beso/ 'tomorrow' /buka/ 'open' /buku/ 'book' /bulu/ 'bamboo; body hair' /busu/ 'putrid; rotten; bad' /sa'bab/ 'because' /suba/ 'greet respectfully'	/dapa/ 'get' /dara/ 'blood; land' /deso/ 'snare; trap' /duka/ 'sorrow' /duku/ 'k.o. fruit' /dulu/ 'before; past' /dusu/ 'chase' /sa'dap/ 'tasty, delicious' /suda/ 'already'
/b/ – /g/:	/baraŋ/ 'thing, material' /baru/ 'new' /bibi/ 'form of address' /gaba/ 'midrib of sago leaf'	/garan/ 'salt' /garu/ 'scratch' /gigi/ 'tooth; bite' /gaga/ 'stylish; strong'
/m/ – /n/:	/mana/ 'where' /masi/ 'still; yet' /sama/ 'same; similar'	/nana/ 'pus' /nasi/ 'cooked rice' /sana/ 'there'
/m/ – /ŋ/:	/mana/ 'where' /jam/ 'hour'	/ŋana/ 'you (singular)' /ɟaŋ/ 'don't'
/m/ –/ɲ/:	/mata/ 'eye'	/nata/ 'clear; obvious
/n/ – /ŋ/:	/nana/ 'pus' /macan/ 'tiger' /sen/ 'cent'	/ŋana/ 'you (singular)' /macaŋ/ 'variety; similar /seŋ/ 'zinc'
/n/ – /n/:	/tana/ 'land'	/tapa/ 'ask'
/ŋ/ – /ɲ/:	/teŋa/ 'middle'	/taṇa/ 'ask'

#### 2.5 Word stress

Stress in Ternate Malay generally falls on the penultimate syllable, but there are a number of polysyllabic words where the stress falls on the final syllable.

/bisa/	[ˈbisa]	'may; can; poison'
/gonofu/	[go'nofu]	'coir, dried coconut fibres'
/gunuŋ/	[ˈgunuŋ]	'mountain'
/kita/	[ˈkita]	'1SG'
/tarada/	[taˈrada]	'not'
/totofore/	[toto'for1]	'shiver'

In a number of cases stress is placed on the final syllable. Some examples are given here.

/ba'naŋ/	[baˈnaŋ]	'thread'
/bo'loŋ/	[bəˈləŋ]	'not yet'
/ca'pat/	[ca'pat <sup>-</sup> ]	'fast'
/giˈli/	[gi'li]	'tickle'
/kaˈras/	[kaˈras]	'hard; tough'
/ke'tat/	[ke'tat <sup>-</sup> ]	'tight; strict; precise'
/laˈkas/	[laˈkas]	'fast'
/la'la/	[laˈla]	'tired'
/paˈlaŋ/	[paˈlaŋ]	'slow'
/sa'dap/	[sa'dap <sup>-</sup> ]	'tasty; delicious'
/ta'bal/	[taˈbal]	'thick'
/tam'bus/	[tam'bus]	'get through'

In some cases the position of stress is meaning distinguishing:

/'aŋka/	[ˈʔaŋka] 'lift up'	/aŋˈka/	[ʔaŋˈka]'k.o. cake'
/ba'gara/	[ba'gara] 'tease s.o.'	/baga'ra/	[baga'ra] 'move'
/'barat/	['barat <sup>-</sup> ] 'west'	/ba'rat/	[ba'rat <sup>-</sup> ] 'heavy'
/ˈkiriŋ/	['kiriŋ] 'send'	/kiˈriŋ/	[kiˈriŋ] 'dry'
/'pasaŋ/	['pasaŋ] 'turn on'	/paˈsaŋ/	[pa'saŋ] 'order'
/'boloŋ/	[ˈbɔlɔŋ] 'hole'	/boˈloŋ/	[bɔˈlɔŋ] 'not yet'

<sup>&</sup>lt;sup>7</sup> This could historically be explained by the fact that these words are related to words in other Malay varieties which have a schwa in the penultimate syllable. In these words, stress falls on the following (final) syllable, and Ternate Malay, which does not have a schwa, seems to have adopted this stress pattern. However, there are exceptions, all but one with a closed penultimate syllable ending nasal, where in Ternate Malay the words have penultimate stress for instance /manta/ 'raw, unripe'; /'tampa/ 'place'; /'lombo/ 'soft, weak'; /'konto/ 'fart'; /'baŋka/ ['baŋka] 'swollen'; /'anam/ ['anam] 'six'; /'ampa/ ['ampa] 'four'. In words from Arabic (which also occur in other Malay varieties) and Dutch origin, stress may also fall on the final syllable, for instance /du'ɲa/ [du'na] 'world' (Ml. dunia); i'blis [i'blis] 'devil' (Ml. iblis); /do'?a/ [do'?a] 'prayer' (Ml. doa); /ma'?af/ [ma'?af] 'pardon; forgive' (Ml. maaf); /la?ef/ [la'?ef] 'demented; forgetful' (Ml. laif 'weak'); /ga'rap/ [ga'rap-] 'funny' (< Du. grap 'joke'); /ka'ram/ [ka'ram] 'cramped' (< Du. kramp 'cramp'), /mo'del/ [mo'del] 'same; similar' (< Du. model 'type').

In multi-morphemic words containing a prefix word stress remains on the stressed syllable of the base. When the base *cet* 'paint' is prefixed with *ba*-, the stress remains on the last syllable. A similar phenomenon happens when *gara* 'move' which has final stress is prefixed with *ba*-. Prefixation with *pang*- and *ba*- are productive morphological processes in Ternate Malay.

/ba-cet/	[baˈcɛt¯]	'paint'
/ba-ron/	[baˈrɔn]	'go around'
/paŋ-ga'rap/	[paŋgaˈrap¯]	'clown; funny person'
/ba-ga'ra/	[bagaˈra]	'move'

Stress will only be indicated when it does not fall on the penultimate syllable.

## 2.6 Syllable structure

The syllable structure of Ternate Malay is (C)(C)(C)(C)(C)(C).

Syllables with an empty onset may occur in all positions of the word. Mono-syllabic words without an onset are *es* 'ice' and *om* 'uncle'. The first syllable of *ini* 'this', *uru* 'massage', and *ofu* '(honey) bee' are syllables with an empty onset. Syllables with an empty onset are also found in the last syllable of *goa* 'cave', *kuat* 'strong', and *hiu* 'shark'.

```
/es/
             'ice'
             'uncle'
/om/
/a-sam/
             'sour'
/i-ni/
             'this'
             'massage'
/u-ru/
/o-fu/
             '(honey) bee'
/go-a/
             'cave'
             'strong'
/ku-at/
/hi-u/
             'shark'
```

All consonants occur in the onset of a syllable. Examples are the onset of the first syllable of each word.

```
'nail'
            /pa-ku/
p
            /ta-ŋan
                                           'hand'
            /ca-lon/
                                           'candidate'
c
                                           'horse'
k
            /ku-da/
b
            /bu-ta/
                                           'blind'
d
            /da-ging/
                                           'meat'
            /ji-wa/
                                           'soul'
ŧ
            /ga-ris/
                                           'line'
g
            /mu-ka/
                                           'face, front'
m
            /ne-ne/
                                           'grandmother'
n
                                           '2 SG'
            /na-na/
ŋ
            /pa-mu/
                                           'mosquito'
n
```

```
f
                                            'stupid'
             /fu-ma/
             /sapu/
                                            'broom'
S
                                            'price'
h
            /har-ga/
             /ra-jin/
                                            'diligent'
r
                                            'song'
1
             /la-gu/
             /wa-run/
                                            'stall'
w
             /ja-kis/
                                            'monkey'
j
```

A consonant sequence at the onset is limited to not more than three consonants. The third consonant can only be either a lateral approximant /l/ or a trill /r/. Consonant sequences at the beginning of words may be the result of a process in which the number of syllables in words containing two or more syllables is reduced (see below). Only consonant clusters consisting of voiced obstruents followed by a lateral approximant /l/ or a trill /r/ may occur in the onset. No examples of consonant sequences consisting of nasals together with another consonant in the onset of a syllable have been found. Consonant clusters in the onset of a syllable in Ternate Malay consist of an obstruent [– sonorant] followed by a sound which is [+ sonorant]. Plosives cannot be followed by a nasal.

pl	/pla-fon/	'ceiling'
	/plaŋ-plaŋ/	'slowly'
pr	/pren-ta/	'command'
рj	/pja-ra/	'bring up'
tr	/traŋ/	'bright'
tl	/tla-lu/	'very'
cl	/cla-na/	'trousers'
cr	/cri-ta/	'story'
kr	/kri-bo/	'curly hair'
bl	/bla-ŋaŋ/	'wok'
br	/bra-pa/	'how much
bj	/bja-sa/	'common'
bw	/bwa-ja/	'crocodile'
gl	/glap/	'dark'
gr	/gropa/	'grouper'
fl	/fluŋ-ku/	'fist'
sr	/sri-ka-ja/	'k.o. fruit'
sl	/slalu/	'always'
sm	/smu-a/	'all'
sw	/swa-ra/	'voice'

The fricative /s/ does not only occur in sequences with sonorants, but may also occur in sequences with voiceless plosives.

```
st /ste-ŋa/ [steŋa] 'half'
sp /spaŋ-gal/ [spaŋgal] 'part'
sk /ska-kar/ [skakar] 'stingy'
```

In words of Dutch origin, the a consonant sequence of the three consonants /str/ may occur in the onset, like in *strom* 'electricity' (< Du. *stroom*). Three other examples are:

```
str /strep/ [strep-] 'stripe' (< Du. streep)

/stri-ka/ [strika] '(flat) iron' (< Du. strijken)

/strop/ [strop-] 'syrup' (< Du. stroop)
```

All the voiceless consonants (sonorants and voiceless obstruents) may occur in the coda of a syllable. The /c/, /ʒ/, and /h/ do not occur in the coda of a syllable. The [h] only incidentally occurs in the coda of a syllable in words such as *ahtret* [ahtret] 'move backwards' and *ahli* [ah'li] 'expert', which are both non-Malay words originated from Dutch and Arabic respectively. The following consonants may occur in the coda.

/p/	/sa-dap/	'delicious'
/t/	/de-kat/	'close'
/k/	/tem-bak/	'shoot
/m/	/a-yam/	'chicken'
/n/	/a-man/	'secure'
/ŋ/	/o-raŋ/	'person'
/n/	/kiŋ-ciŋ/	'urinate'
/f/	/ma-af/	'pardon; forgive'
/s/	/ba-gus/	'beautiful'
/r/	/ba-sar/	ʻbig'
/1/	/ma-hal/	'expensive'

Consonant sequences in the coda do not occur, except for a few examples with two consonants in the coda, and a single example of a word with three consonants in the coda. The examples contain /ks/ and /rps/ in the coda and have a non-Malay origin.

```
/ks/ /teks/ 'text' (< Du. tekst)
/kom-pleks/ '(housing) complex' (< Du. complex)
/rps/ /korps/ 'corps' (< Du. corps)
```

Consonant sequences in medial position consist generally of a plosive preceded by a homorganic nasal: /mp/, /mb/, /nt/, /nd/, /nc/, /nɟ/, /ng/. No examples have been found of consonant sequences with nasals /NC/ in the onset; the syllable boundary in these words falls between the two consonants. Some examples are:

```
/tam-pa/
/mp/
                                               'place'
/mb/
              /gam-bar/
                                               'picture'
/nt/
              /kin-tal/
                                               'lot'
/nd/
              /din-ding/
                                               'wall'
              /kun-ci/
                                               'lock'
/nc/
              /jan-ji/
                                               'promise'
/n_{1}/
                                               'circle'
/\eta k/
              /lin-kar/
              /pin-gir/
                                               'side'
/ŋg/
```

Other consonant sequences in medial position are less common and restricted to words of non-Malay origin, for example from Arabic (Ar.), Chinese (Chin.), Sanskrit (Skt.), Portuguese (Port.) or Dutch (Du.). Some examples are:

```
/nap-su/ [nap-su]
                                              'desire' (Ar.)
/ps/
/ts/
            /fet-sin/ [fetsin]
                                              'MSG, monosodium glutamate' (Chin.)
/tr/
            /pu-tri/ [putri]
                                              'princess' (Skt.)
/kt/
            /wak-tu/ [wak-tu]
                                              'time' (Ar.)
/ks/
            /sik-sa/ [sik-sa]
                                              'torture' (Skt.)
/bt/
            /sab-tu/ [sap-tu]
                                              'Saturday' (Ar.)
/gr/
            /ma-grib/ [ma'grip<sup>-</sup>]
                                              'sunset' (Ar.)
                                              'sultan' (Ar.)
/lt/
            /sul-tan/ [sultan]
                                              'soldier' (Port.)
/ld/
            /sol-da-do/ [soldado]
/rp/
            /kar-pus/ [kar'pus]
                                              'hood' (Port./Du.)
            /kar-tas/ [kar'tas]
                                              'paper' (Ar.)
/rt/
/rs/
            /per-sen/ [per'sen]
                                              'percentage' (Du.)
/rl/
            /per-lu/ [per'lu]
                                              'necessary' (Ar.)
/s<sub>1</sub>/
            /mis-jid/ [mis'jit<sup>-</sup>]
                                              'mosque' (Ar.)
```

The prefix *kas*- adds a causative meaning aspect to the verb it is attached to. When the base begins with a vowel, a glottal stop [?] precedes the base and result in a /s?/ sequence.

```
/u/ kas- uru 'massage' [kas?uru]
/i/ kas- iŋa 'remember [kas?iŋa]
/o/ kas- ofor 'pass to' [kas?ofor]
/a/ kas- aŋka 'lift' [kas?aŋka]
/e/ kas- erat 'tight' [kas?erat-]
```

When the base begins with a consonant, the prefixation with *kas*– results in the following consonant sequences.

```
/sp/
           kas-pulan 'go home'
                                         [kaspulan]
/sb/
           kas-bafoya 'lie'
                                         [kasbafoya]
/st/
           kas-tunjun 'point at'
                                         [kastunjun]
/sd/
           kas-denar 'hear'
                                         [kasdenar]
/sk/
           kas-kaluar 'go out'
                                          [kaskaluwar]
/sg/
           kas-gara 'tease'
                                          [kasgara]
/sc/
           kas-cebo 'clean oneself'
                                          [kascebo]
/s<del>j</del>/
           kas- jaton 'fall'
                                         [kasjaton]
/sf/
           kas-fufu 'to smoke'
                                         [kasfufu]
/ss/
           kas-suru 'order'
                                         [kasuru]
/s1/
           kas-lari 'run'
                                          [kaslari]
/sr/
           kas-rubu 'collapse'
                                          [kasrubu]
/sm/
           kas- mason 'enter'
                                          [kasmasən]
/sn/
           kas-nae 'go up'
                                          [kasnae]
```

Some other lexical items that contain a consonant sequence are those with a fossilized prefix *bar*-. This process of prefixation is not productive in Ternate Malay. Two examples are given here:

```
/rm/ bar- + maeŋ 'play' [barmaeŋ]
/rd/ bar- + dosa 'sin' [bardosa]
```

Only a few examples are found with consonant sequences with three consonants in word-medial position. These words have a non-Malay origin. The word *kontrak* 'contract' is originally from Dutch, while *mantri* 'medical assistant' and *istri* 'wife' have their origins in Sanskrit.

```
/ntr/ /kontrak/ 'contract' (Du.)

/mantri/ 'medical assistant' (Skt.)

/str/ /istri/ 'wife' (Skt.)
```

#### 2.7 Word structure

The smallest structure of a content word found in Ternate Malay is a monosyllabic word with a VC structure. These are *es* 'ice' and *om* 'uncle', two words originally from Dutch and adopted into the language (and other Malay varieties in the region). These words could thus be ignored and one could state that the smallest structure of a native content word of Ternate Malay is: CVCV. The words have most commonly a trochaic metrical foot.

```
/ma-ta/ 'eye'
/ki-ta/ '1SG'
/to-re/ 'crispy'
/bu-lu/ 'bamboo'
```

There are a number of words that only consists of one syllable, CV(C). These words are mainly function words and consist of, amongst others, prepositions (/di/, /pa/, /ka/), conjunctions (/la/, /deŋ/, /koŋ/), shortened pronouns (/de/, /doŋ/, /toŋ/) and epithets (/ci/, /ya/). These and some other examples are the following:

```
/ci/
                     epithet for female person
/de/
                     '3SG' (short form of dia '3SG')
/den/
                     'with, and'
/di/
/don/
                     '3PL' (short form of third person dorang 'they')
                     'to'
/ka/
/kon/
                      'and then'
                      'and then'
/la/
/mu/
                      'want' (short form of mau 'want')
/ni/
                     'this' (short form of ini 'this')
/pa/
                      'go' (short form of pigi 'go')
/pi/
                     'COMP' (short form of sudah 'COMP')
/511/
```

/toŋ/	'IPL' (short form of first person torang 'we')
/tu/	'that' (short form of itu 'that')
/• /	

/ja/ epithet for older woman (short for yaya 'mother')

Other monosyllabic	words may	have the followin	g shapes:
VVC	10001	[20°C]	'thingtor'

VVC	/aos/	[?a°s]	'thirsty'
	/aer/	[ʔa <sup>e</sup> r]	'water'
CVV	/bae/	[ba <sup>e</sup> ]	'good'
	/tao/	[ta <sup>o</sup> ]	'know'
	/lao/	[la <sup>o</sup> ]	'sea'
		. ,	
CVC	/kos/	[kos]	'T-shirt'
	/cap/	[cap <sup>-</sup> ]	'seal'
	/cet/	[cet <sup>-</sup> ]	'paint'
CVCC	/teks/	[tɛks]	'text'
CCCVC	/strep/	[strep <sup>-</sup> ]	'stripe'
	/strom/	[strom]	'electricity'
	/strop/	[strop <sup>-</sup> ]	'syrup'
	, sucp.	[swop]	s)1up
Words of two syllal	bles occur in vari	ous shapes:	
V-CV	/ana/	[?ana]	'child'
	/itu/	[?itu]	'that'
	/oto/	[?oto]	'car'
V-CVC	/ular/	[?ular]	'snake'
	/umur/	[?umur]	'age'
	/ikaŋ/	[?ikaŋ]	'fish'
VC-CV	/aŋka/	[ʔaŋka]	'lift up'
	/ampa/	[ʔampa]	'four'
VC-CVC	/untuŋ/	[?untuŋ]	'profit'
	/ancor/	[?ancor]	'destroyed'
	/ember/	[?ember]	'bucket'
	, cilioci,	remoer	Sacher
CV-V	/tua/	[tuwa]	'old'
	/goa/	[gowa]	'cave'
	/hiu/	[hiju]	'shark'
CV-VC	/kuat/	[kuwat <sup>-</sup> ]	'strong'
	/niat/	[nijat <sup>-</sup> ]	'intention'
	/loas/	[lowas]	'wide'
	/1003/	[10 W do]	WIGC

CV-CV	/kata/ /tiga/ /muka/	[kata] [tiga] [muka]	'word' 'three' 'face; front'
CV-CVC	/bokor/ /taŋaŋ/ /putus/	[bəkər] [taŋaŋ] [putus]	'bowl' 'hand, arm' 'break'
CV-CCV	/putri/	[putri]	'princess'
CCCV-CV	/strika/	[strika]	'(flat) iron'
CVC-CV	/baŋka/ /pintu/ /lombo/	[baŋka] [pintu] [ləmbə]	'swollen' 'door' 'soft'
CVC-CVC	/boŋkar/ /buŋkus/ /dindiŋ/ /guntiŋ/	[boŋkar] [buŋkus] [dindiŋ] [guntiŋ]	'take apart' 'pack' 'wall' 'scissors'
CVC-CCV	/mantri/	[mantri]	'medical assistant'
Words of three sylla V-CCV-CV	ibles also occur /istana/ /istila/ /astaga/	in various shapes: [?istana] [?istila] [?astaga]	'palace' 'term' 'gosh'
	/istana/ /istila/	[?istana] [?istila]	'term'
V-CCV-CV	/istana/ /istila/ /astaga/	[?istana] [?istila] [?astaga]	'term' 'gosh'
V-CCV-CVC	/istana/ /istila/ /astaga/ /alamat/ /antara/ /antero/	[?istana] [?istila] [?astaga] [?alamat <sup>-</sup> ] [?antara] [?antero]	'term' 'gosh'  'address'  'between' 'entire'
V-CCV-CV V-CV-CVC VC-CV-CV	/istana/ /istila/ /astaga/ /alamat/ /antara/ /antero/ /umpama/ /sadiki/ /guraka/ /bagini/	[?istana] [?istila] [?astaga] [?alamat¯] [?antara] [?antero] [?umpama] [sadiki] [guraka] [bagini]	'term' 'gosh'  'address'  'between' 'entire' 'example'  'a little' 'ginger' 'like this'

	/ <del>j</del> erigen/ /kerikil/	[ɟɛrigɛn] [kerikil]	'jerry can' 'gravel'		
CV-V-CV	/kiapa/ /buaya/	[kijapa] [buwaja]	'why' 'crocodile'		
	/piara/ /puasa/	[pijara] [puwasa]	'bring up' 'fasting'		
CV-V-CVC	/kiamat/	[kijamat <sup>-</sup> ]	'disaster'		
CV-VC-CV	/suaŋgi/ /taʔaŋka/	[suwaŋgi] [taʔaŋka]	'nocturnal spirit' 'lifted up'		
CV-CVC-CV	/parenta/ /petiɲɟu/ /taluɲɟu/	[parenta] [petijnɟu] [talunɟu]	'command' 'boxer' 'index finger'		
CVC-CV-CV	/cemburu/ /gargaɟi/ /ɟandela/ /sambiki/	[cemburu] [gargaɟi] [ɟandela] [sambiki]	'jealous' 'saw' 'window' 'pumpkin'		
A few examples of quadrisyllabic words are:					
V-CV-CV	/apalagi/ /ekonomi/	[ʔapalagi] [ʔekonomi]	'moreover' 'economy'		
CV-CV-CV-CV	/halifuru/ /bagimana/ /parabola/	[halifuru] [bagimana] [parabola]	'unsophisticated' 'how' 'dish antenna'		
CV- CV-VC-CV	/keluarga/	[keluwarga]	'family'		

#### 2.7.1 Vowel deletion

It is not uncommon for words of more than two syllables to be reduced and become two syllabic words. Only when the onset of the second syllable has a liquid, may the vowel of the first syllable be omitted, resulting in a consonant sequence in the onset of the first syllable of the word. This only occurs with an unstressed syllable, otherwise the vowel cannot be deleted. The word *bólong* 'perforate' cannot become \*blong or gáris 'line' cannot become \*gris. The resulting consonant sequences can only consist of a stop or a fricative followed by a lateral /l/ or /r/. No examples have been found of consonant sequences of a voiced alveolar stop /d/ and a voiced palatal stop /ֈ/ followed by a liquid. Some examples are:

bl	balákaŋ	>	blakaŋ	'back, behind'
	bolóŋ	>	bloŋ	'not yet'
tl	talapás	>	tlapas	'loose'

tr	turús	>	trus	'continue'
kl	kalúar	>	kluar	'go out'
gr	gorópa	>	gropa	'grouper'

As is described above, when /u/ is followed by /a/, a transitional glide [w] may occur between the two vowels (see § 2.1). When in three-syllabic words /u/ is followed by a stressed vowel the glide may occur while the /u/ is omitted (the only examples found are with a stressed /a/):

```
/suangi/ [su'wangi] > ['swangi] 'nocturnal spirit'
/suara/ [su'wara] > ['swara] 'voice'
/buaya/ [bu'waja] > ['bwaja] 'crocodile'
```

A similar process is noted when /i/ is followed by an /a/. When in three-syllabic words /u/ is followed by a stressed vowel the glide occurs while the /i/ is omitted (the only examples found are with a stressed /a/).

/biasa/	[biˈjasa]	>	[ˈbjasa]	'common; accustomed'
/kiamat/	[kiˈjamat¯]	>	[ˈkjamat¯]	'disaster; misfortune'
/kiapa/	[kiˈjapa]	>	[ˈkjapa]	'why; what's the matter'
/piara/	[piˈjara]	>	[ˈpjara]	'bring up; raise; look after'

#### 2.7.2 Assimilation

Consonant sequences in medial position may consist of a nasal followed by a plosive consonant. The nasal in these sequences are homorganic to the following plosive. A few examples of words containing such consonant sequences are:

	1	2	1
/mp/	/lempeŋ/	[lɛ <b>mp</b> ɛŋ]	'slab'
/mb/	/pombo/	[pə <b>mb</b> o]	'pigeon'
/nt/	/panta/	[pa <b>nt</b> a]	'buttocks'
/nd/	/tanda/	[ta <b>nd</b> a]	'sign'
/nc/	/ancor/	[?a <b>ɲc</b> ər]	'destroyed'
/n <del>]</del> /	/pan <del>j</del> ang/	[pa <b>ŋɟ</b> aŋ]	'long'
/ŋk/	/baŋka/	[ba <b>ŋk</b> a]	'swollen'
/ŋg/	/maŋga/	[ma <b>ŋg</b> a]	'mango'

A process of assimilation occurs when new words are formed by the prefixation of /paŋ/ to a base. When the base begins with an initial plosive /b/, /p/, /d/, /t/, /ɟ/, /c/, /g/ or /k/ the nasal of the prefix /paŋ/ assimilates to the following stop and becomes a nasal homorganic to the following consonant.

With bases beginning with /b/ or /p/ the prefix is realized as [pam]. With bases beginning with /d/ or /t/, the prefix is realized as [pan], while the prefix is realized as [pap] when the base begins with /c/ or / $\frac{1}{3}$ /. Finally, when a base starts with /g/ or /k/ the prefix is realized as [pan].

```
/b/, /p/ /paŋ-/ → [pam-]

/d/, /t/ /paŋ-/ → [pan-]

/ɟ/, /c/ /paŋ-/ → [paŋ-]

/g/, /k/ /paŋ-/ → [paŋ-]
```

A few examples of this process are the following. The result of prefixation of the word *pele* 'screen off' with *paŋ*- is *pampele* [pampele] 'screen'. When *bodo* 'foolish' is prefixed with *paŋ*-, it becomes *pambodo* [pambodo] 'fool', while a word beginning with /d/ such as *diam* 'quiet' results in *pandiam* [pandiam] 'silent person' when it is prefixed with *paŋ*-. Note that this word could also be realized as [pandiaŋ], because in some words the final /m/ or /n/ may become a velar nasal /ŋ/.

When the base starts with /c/ or /ɟ/ the prefix paN- is realized as [pan]. Examples are pancuri [pancuri] 'thief' of which the base is curi 'steal' and panjaga [panjaga] 'guard' of which the base is jaga 'guard'. The velar nasal /ŋ/ of the prefix paŋ- does not undergo any changes when it is prefixed to a base beginning with /k/ or /g/, because it is already homorganic to these two consonants. When kotor 'dirty' is prefixed with paŋ- the result is pangkotor [paŋkətər] 'dirty person' and when garap 'funny' is prefixed with paŋ-, the result is panggarap [paŋga'rap-] 'comic'.

```
/pele/
              'screen off'
                               /panpele/
                                               [pampele]
                                                                    'screen'
/bodo/
              'stupid'
                                                                    'fool'
                               /paŋbodo/
                                               [pambodo]
/terek/
             'tease'
                               /panterek/
                                                                    'teaser'
                                               [panterek<sup>-</sup>]
/diam/
              'quiet'
                               /pandiam/
                                               [pandijam]
                                                                    'silent person'
              'dirty'
                                                                    'dirty person'
/kotor/
                               /paŋkotor/
                                               [pankətər]
/garap/
             'funny'
                               /panga'rap/
                                               [pangarap<sup>-</sup>]
                                                                    'comic'
/curi/
                                                                    'thief'
              'steal'
                               /pancuri/
                                               [pancuri]
                                                                    'guard'
/jaga/
              'guard'
                               /paŋɨaga/
                                               [panjaga]
```

When prefix  $pa\eta$ - is attached to a base that begins with a nasal, the nasal of the prefix is dropped, while only the nasal of the base remains. No suitable example with  $\eta$ / could be found, but the assumption is that it behaves similarly to the other bases that start with a nasal.

```
/m/ paŋ- madai /pamadai/ [pamada¹] 'flirter'
/n/ paŋ- napsu /panapsu/ [panapsu] 'person with strong desire'
/n/ paŋ- papopoke /papopoke/ [papopoki] 'grumbler'
```

When the base starts with a fricative f/, f/, or f/, a liquid f/ or f/ and when the base starts with a semivowel f/ or f/, the prefix f/ is attached to the base without any phonological change.

```
/f/
        pan- foya
                             /panfoja/
                                            [panfoja]
/s/
        pan- sabar
                             /pansabar/
                                            [pansabar]
/h/
        paŋ- hoba
                             /panhoba/
                                            [panhoba]
/1/
        paŋ- lupa
                             /paŋlupa/
                                            [paŋlupa]
/r/
        paŋ- rasa
                             /paŋrasa/
                                            [paŋrasa]
/w/
        pan- waras
                             /panwaras/
                                            [panwaras]
/j/
        paŋ- jakin
                            /panjakin/
                                            [panjakin]
```

A word beginning with a vowel can be prefixed with *paŋ*- without resulting in any phonological change. A few examples are given here.

```
/a/ paŋ- alas [paŋalas]
/u/ paŋ- urus [paŋurus]
```

/i/	paŋ- isap	[paŋisap <sup>-</sup> ]
/o/	paŋ- oɟo	[paŋoɟo]
/e/	pan- e <del>j</del> a	[paŋeɨa]

Note that some words such as *pamalas* 'lazy', *panako* 'afraid', and *panyake* 'illness' are not the result of prefixation with *pang*- because this process would result in \*pangmalas, \*pantako, and \*pangsake respectively. These words pamalas, panako, and panyake are considered to be monomorphemic words in Ternate Malay.

Assimilation may occur with larger segments such as compounds. Two examples are given here: sarung bantal '(lit.) cover pillow' and sarung tangan '(lit.) cover hand'. In the first example, the velar nasal  $[\eta]$  is realized as a labial nasal [m] following a labial consonant [b]. In the second example, the velar nasal  $[\eta]$  of sarung is realized as [n] under the influence of the coronal [t] of the following segment. In ikang paus 'whale', the velar nasal  $[\eta]$  is realized as [m] following the labial nasal [p].

/saruŋ bantal/ [sarum'bantal] 'pillowcase' /saruŋ tangan/ [sarun'taŋan], [sarun'taŋaŋ] 'glove' /ikaŋ paus/ [ikam'pa<sup>u</sup>s] 'whale'

The same assimilation may occur between words. In the following two sentences the velar nasal  $[\eta]$  of the first word assimilates with the initial consonant of the following word. In the first sentence the  $/\eta/$  is realized as a labial nasal [m] under the influence of the following labial consonant/b/, while in the second sentence the velar nasal  $[\eta]$  is realized as a coronal nasal /n/ under the influence of the /d/.

/don pukul/ [dom pukul] 'they hit (him)'

/kon dia talucur/ [kon diya talucur] 'and it's slipping down'