

CONSONANT CLUSTERS AND STRESS RULES IN PATTANI MALAY

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ABSTRACT

This paper attempts to show that stress is predictable in the Pattani Malay dialect. In demonstrating this it touches on the phenomenon of geminate consonants which are considered a type of consonant cluster. It points out that geminate consonants do exist in this dialect, occurring only in word initial position as the result of consonant reduplication. Apart from their possible occurrences in loanwords, geminate consonants may also occur as the shortened free variants of the initial syllable of the full simple or prefixed words, or as the result of morpheme or functional word reductions of the full forms of words or phrases. Furthermore there is a relation between the geminate consonants and the primary stress, that is, words that have initial geminate consonants automatically receive the primary stress on the initial syllable, whereas in words with single initial consonants the primary stress normally falls on the final syllable. Thus, although there are examples in other works, which have been used to prove the phonemicness of the primary stress, it is argued in this paper that stress is in general predictable in Pattani Malay. The shifting of the primary stress from the final syllable of words with initial single consonant to the initial syllable of words with initial geminate consonants is phonetic, and is fully accounted for by a set of Pattani Malay stress rules.

1. Introduction

Pattani Malay (PM) is a dialect of the Malay language, a member of the western branch of the Malayo-Polynesian (Austronesian) language family.¹ It is the most widely spoken dialect in the Muslim populated southern provinces of Thailand, especially the provinces of Pattani, Yala, and Narathiwat. The name "Pattani Malay" is derived from the name of Pattani County, since it originated there when Yala and Narathiwat were still parts of Pattani County.¹ It is close to the Kelantan dialect of Malay spoken in Malaysia. Other Malay dialects spoken in Southern Thailand include Satun Malay, spoken in Satun province, Urak Lawoi (Orang Laut), Moklen and Moken, which are spoken by some minorities in different coastal provinces of southern Thailand.²

2. Phoneme inventories³

2.1 Consonants

PM has the following consonant phonemes: /p, b, t, d, c, ʃ, k, g, ʔ, s, ʁ, h, m, n, ɲ, ŋ, r, l, w, y, z/ as presented in Chart 1.

Points of Articulation

Manner of Articulation	bilabial	alveolar	palato-alveolar	palatal	velar	glottal
vl. plosives	p	t	c		k	ʔ
vd.	b	d	ʃ		g	
vl. fricatives		s				h
vd.		z			ʁ	
nasals	m	n	ɲ		ŋ	
trill		r				
lateral		l				
semivowels	w			y		

Chart 1: Consonant Phonemes

Other sounds, such as [k^h, p^h, t^h, c^h, ʔ^h] may be borrowed sounds, in which case they would normally occur in free variation with [k, p, t, c, d] respectively. Some sounds, such as [f, p^h, t^h], may also occur as the result of fast speech, and thus may occur as free variants of other sounds, or they may occur in loanwords.

2.2 Vowels

There are 12 simple vowels in Pattani Malay: they are 8 single non-nasalized vowels /i, e, ε, ɛ̃, a, u, o, ɔ/ and 4 simple

nasalized vowels /ẽ, ã, õ, ẽ/.

Vowel length is predictable. That is, in closed syllables the vowels are short, but they are long in open syllables, except /ɨ/, which is relatively short even in open syllables. Chart 2 shows the vowel phonemes in PM.

Height of Tongue	Positions of Tongue		
	front	central	back
high	i	ɨ	u,ũ
mid	e	ɤ	o
low	ɛ,ẽ	a,ã	ɔ,õ

Chart 2: Vowel Phonemes

It should be noted that [ĩ] occurs in this dialect, but is considered in this paper as an allophone of /i/, since it has been found to occur only in the environment of nasal consonants.⁶

3. Clusters of vowels: Diphthongs

Diphthongs in PM are vowel clusters, each vowel being the nucleus of a syllable. In other words, they are considered in this paper as phonemically clusters of two vowels; for example, /ai, ae, aẽ, ao, au/ are two syllables each.

4. Syllables and words in Pattani Malay

The syllable of PM words can be described as consisting of a vowel, with the possibility of one or two consonants preceding the vowel, and the possibility of one final consonant. That is, the syllable structure of PM words may be tentatively summarized as (C)(C)V(C), where a single C stands for a single consonant, and CC for a possible homorganic cluster or geminate consonants, and V stands for a simple vowel, not a diphthong.⁷

It should be noted that if syllable initial CC occurs in word initial position, it can only be geminate consonants, since only geminate consonant clusters occur word initially (e.g. /ddi-

vi/ 'to stand'). If syllable initial CC occurs in word non-initial position, it can only be a homorganic cluster, since only homorganic consonant clusters occur in word non-initial position (e.g. /a-m^bɔ/ 'I'). There are no syllable-initial heterorganic clusters except as the result of syllable reduction (see Sec.5).

PM words are basically disyllabic in their root forms, e.g. /ʒa-oh/ 'far', /i-bu/ 'mother'. Monosyllabic root words are limited, e.g. /pɔŋ/ 'then', /yɔ/ 'yes'. Words of more than two syllables are mostly affixed words, e.g. /ma-kɛ-nɛ/ 'food', which is derived from /ma-kɛ/'eat', or they may be loanwords, e.g. /si-pi-nɔ/ ~ /si-pi-vi-nɔ/ 'perfect, complete' (Sanskrit), or else they may be compound words, e.g. /ma-tɔ-ha-vi/ 'sun', which is derived from the words /ma-tɔ/'eye' and /ha-vi/ 'day'. Some words may be syntactically derived, e.g. /ba[?]-pɔ/ is derived from the phrase /siba[?] apɔ/, where /siba[?]/ 'reason' and /apɔ/ 'what' are contracted and joined into one word.

5. Consonant clusters

The term "consonant cluster" in PM can refer to both non-identical consonant clusters and geminate consonants. The non-identical consonant clusters include heterorganic and homorganic clusters.

5.1 Non-identical consonant clusters

5.1.1 Heterorganic clusters

Except in loanwords, heterorganic consonant clusters do not normally occur in the full forms of the PM root words. But they may occur in word initial position as the result of initial syllable reduction. Normally the reduced syllable is a non-stressed open syllable (the "Ci" structure), and the next syllable begins with the consonant /v/.

/kviɟɔ/ 'work', a shortened free variant of /kiviɟɔ/
 /bvapɔ/ 'how much, how many', a shortened free variant
 of /biɟapɔ/

Heterorganic consonant clusters may also be found in non-root words or in loanwords, occurring across syllable boundaries in word medial position.

/kiveŋme/ 'sending' (derived affixed word from the root
 /kiveŋ/ 'send')
 /ba[?]pɔ/ 'why' (a syntactically derived word from /siba[?]
 apɔ/, where /siba[?]/ 'reason' and /apɔ/ are each
 shortened and joined into one word)
 /pe[?]dɔh/ 'usefulness' (Arabic loanword)

5.1.2 Homorganic clusters

Except in loanwords, homorganic consonants in PM are nasals + voiced stops /mb, nd, ɲɟ, ŋg/, which occur in word medial but syllable initial position. Phonetically the accompanying stops in these homorganic consonant clusters are almost inaudible,⁸ and thus are realized as post-stopped nasals [m^b, n^d, ɲ^ɟ, ŋ^g].

Pattani Malay

/mb/	as in /ambeʔ/	[,ʔa'm ^b eʔ]	'to get'
/nd/	as in /panda/	[,pa'n ^d a]	'clever'
/ɲɟ/	as in /paŋɟe/	[,pa'ɲ ^ɟ e]	'long'
/ŋg/	as in /paŋge/	[,pa'ŋ ^g e]	'to call'

The homorganic nasals + voiced stops in PM are analogous to the homorganic nasals + voiced stops in Standard Malay. The above examples correspond to the following Standard Malay clusters:

/mb/	as in /ambil/	[,ʔam'brɪ]	'to get'
/nd/	as in /pandai/	[,paɪn'daɪ]	'clever'
/ɲɟ/	as in /paŋɟaŋ/	[,paŋ'ɟaŋ]	'long'
/ŋg/	as in /paŋgil/	[,paŋ'gɪl]	'to call'

As in Standard Malay, the homorganic nasals + voiced stops in Pattani Malay are treated in this paper as a cluster of two units. The difference is, in Standard Malay they occur across the syllable boundaries and are fully audible in their respective positions, but in Pattani they occur together in syllable initial position and are realized as post-stopped nasals.

5.2 Geminate consonants

In PM there are geminate consonants, which occur only in word initial position. They are phonemically treated in this paper as a cluster of identical consonants (i.e. /bb, dd,/ etc.), though phonetically they may be realized as single long consonants [b:, d:] etc.¹⁰

Initial geminate consonants in PM words are consonant reduplications. Their occurrences in PM words can be summed up as the result of either initial syllable reductions, initial morpheme reductions, or functional word reductions. They are also found in word initial position in many loanwords. The following will illustrate how the geminates can be derived.

(a) Initial syllable reduction

Initial geminate consonants may occur as the result of initial syllable reductions in PM full forms of words, either simple (non-prefixed) forms or prefixed forms. Words with

initial geminate consonants derived in this way are free variants of the full forms of simple or prefixed words.

(1) Geminates from simple words. These are derived by deleting the initial syllable and replacing that deleted syllable with a duplicate of the initial consonant of the remaining form. As such the initial member of these geminate consonants is the shortened free variant of the initial syllable of the full simple word.

- /w̄wi/ 'give', shortened free variant of the simple word /buwi/¹¹
- /d̄dadu/ 'police', shortened free variant of the simple word /s̄dadu/.
- /t̄tinɔ/ 'woman', shortened free variant of the simple word /b̄t̄tinɔ/
- /m̄m̄ətɔ/ 'jewelry', shortened free variant of the simple word /p̄im̄ətɔ/

(2) Geminates from prefixed words. These are derived by deleting the initial syllable, the "C̄" structure of the full prefixed words, and replacing the deleted syllable with a duplicate of the initial consonant of the remaining form. As such the initial member of these geminate consonants is the shortened free variant of the full prefix (if the prefix is monosyllabic) or part of the prefix (if the prefix consists of more than one syllable).¹²

/j̄jalɛ/ 'to walk' is the shortened free variant of the prefixed word /b̄j̄jalɛ/. The word /b̄j̄jalɛ/ consists of a noun stem: /jalɛ/ 'road, path' and a derivational prefix /b̄j̄/. The initial geminate cluster /j̄j̄/ in the word /j̄jalɛ/ occurs as the result of deleting the initial syllable (/b̄j̄/) of the full prefixed word, and replacing the deleted syllable with a duplicate of the initial consonant (/j̄/) of the remaining form (/jalɛ/).

/d̄divi/ 'to stand' is the shortened free variant of the prefixed word /b̄d̄divi/ which consists of a stem /divi/ 'self' and a derivational prefix /b̄d̄/. The initial geminate cluster /d̄d̄/ in the word /d̄divi/ occurs as the result of deleting the initial syllable (/b̄d̄/) of the full prefixed word, and replacing the deleted syllable with a duplicate of the initial consonant (/d̄/) of the remaining form (/divi/).

/ŋ̄ŋ̄aʒi/ 'to study' is the shortened free variant of the prefixed word /m̄ŋ̄aʒi/, which is derived from the stem morpheme {kaʒi} and the verbal prefix morpheme {m̄ŋ̄}.¹³ The initial geminate consonants /ŋ̄ŋ̄/ in the word /ŋ̄ŋ̄aʒi/ occur as the result of deleting the initial syllable (/m̄ŋ̄/) of the full prefixed word, and replacing the deleted syllable with a duplicate of the initial consonant /ŋ̄/ of the remaining form (/ŋ̄aʒi/).

/ŋŋɨcaʔ/ 'to paint' is the shortened free variant of the prefixed word /miŋɨcaʔ/, where the noun stem /caʔ/ 'paint' is prefixed by an allomorphic form /miŋɨ/ of the prefix {mi}¹⁴. The initial geminate consonants /ŋŋ/ in the word /ŋŋɨcaʔ/ occur as the result of the initial syllable reduction in the full prefixed word /miŋɨcaʔ/ by deleting the initial syllable (/mi/) of the full prefixed form, and replacing the deleted syllable with a duplicate of the initial consonant (/ŋ/) of the remaining form (/ŋɨcaʔ/).

(b) Initial morpheme reduction

(3) Geminate consonants from initial morpheme reduction. An example of these is the case of the reduction of full reduplicated adverbs. These geminate consonants are derived by deleting the (initial) reduplicative morpheme, and replacing the deleted morpheme with a duplicate of the initial consonant of the base. As such the initial member of the geminate consonants derived in this way is the shortened free variant of the initial reduplicative morpheme of the full reduplicated word.

/bbaeʔ/¹⁵ 'well', shortened free variant of the reduplicated adverb /baeʔ-baeʔ/

/mmɔleʔ/¹⁶ 'nicely, properly', shortened free variant of the reduplicated adverb /mɔleʔ-mɔleʔ/.

(4) Note that there are cases in which words with initial geminate consonants are equivalent to the Standard Malay full reduplicated words, but these words are not realized as fully reduplicated words in Pattani Malay.

/llaye/ 'a kite, a swallow' corresponds to Standard Malay /layan - layan/. But the fully reduplicated form /laye - laye/ does not occur in PM usage.

/kkuvɔ/ 'tortoise' corresponds to Standard Malay /kura-kura/, but the fully reduplicated form /kuvɔ-kuvɔ/ does not occur in PM usage.

(c) Functional word reduction

Initial geminate consonants may occur as the result of functional word reduction; for example, they may be derived from the reduction of a verbal linker in the underlying verb phrase or they may be derived from the reduction of the preposition in a prepositional phrase.

(5) Geminate consonants from reduction of the verbal linker /buwi/ 'to give' (used in the functional sense to mean 'so as to (be)') in

the underlying verb phrase. These initial geminate consonants occur as replacements for the loss of the verbal linker /*buwi*/, which links the main verb and the verb that follows it, by deleting the verbal linker, and replacing the deleted verbal linker with a duplicate of the initial consonant of the verb that follows it.

The verb phrase /*kiva*[?]---*ppan*^{dɔ}?/¹⁷ 'to cut...short' is derived from the underlying verb phrase:

/*kiva*[?]....*buwi pan*^{dɔ}?/

cut ... give short

('to cut ... short')

The verb phrase /*tavoh*...*ppan*^{ʃɛ}/ 'to keep...long' is derived from the underlying verb phrase :

/*tavoh*...*buwi pan*^{ʃɛ}/

keep ... give long

('to keep ...long')

The verb phrase /*basoh*...*ccuci*/ 'to wash...clean' is derived from the underlying verb phrase:

/*basoh* ... *buwi cuci*/

wash ... give clean

('to wash ... clean')

(6) Geminates from preposition reduction in adverbial phrases of place or time. These are derived by deleting the prepositions and reduplicating the initial consonant of the head nouns of place or time. As such, the initial member of the geminate consonants derived in this way represents the preposition in the morpho-syntactically derived word. It is also the shortened free variant of the preposition. For example:

/*ddara*?/ '(to, at, from) the shore' is the shortened free variant of the prepositional phrase /*ki dava*?/ 'to the shore', /*di dava*?/ 'at the shore', or /*davi dava*?/ 'from the shore', where /*ki*/ 'to', /*di*/ 'at', /*davi*/ 'from' are the prepositions, and /*dava*?/ 'shore' is the head noun.

/*ppagi*/ 'since morning' is the shortened free variant of the prepositional phrase of time: /*sijɔ*[?] *pagi*/, where /*sijɔ*[?]/ 'since' is a preposition of time, and /*pagi*/ 'morning' the head noun.

(d) Loanwords

In addition to the above cases, it has been found that many loanwords tend to have initial geminate consonants. For example, /*llɔp*^h*ha*?/ 'police station', a loan from the Thai /*loŋp*^h*ak*/; /*tta*/ 'palm tree', a loan from the Thai /*ta:n*/, or 'tar', a loan from

the English /tar/.

6. Initial Geminate Consonants: Condition for the Shifting of Primary Stress

Section 5 has discussed the different types of consonant clusters in PM, among them the geminate consonants. It has also discussed how initial geminate consonants of words can possibly be derived.

It can now be seen that there is a relation between geminate consonants and the primary stress; that is, words with initial geminate consonants automatically have the primary stress on the initial syllable. This is in contrast with words with initial simple consonants, where the primary stress would normally fall on the final syllable.

Thus, for instance, /buwɔh/ [,bu'wɔh] 'fruit', with a simple initial consonant, has the normal pattern of stress where the primary stress falls on the final syllable. But /bbuwɔh/ ['b:u,wɔh] 'to bear fruit', with the initial geminate consonants /bb/, which has morphological relation with /buwɔh/, has the primary stress on the initial syllable. Thus we get a contrastive pair

[,bu'wɔh] 'fruit' ['b:u,wɔh] 'to bear fruit'

Likewise, for a similar reason we get contrastive pairs

[,di'vi] 'self' ['d:i,vi] 'to stand'

[,ja'lɛ] 'road,path' ['j:a,lɛ] 'to walk'

/kɪda/ [kɪ'da] 'shop', with a simple initial consonant, has the normal pattern of stress, where the primary stress falls on the final syllable. But /kkɪda/ ['k:ɪ,da] '(to, at, from) the shop', which has a syntactic relationship with /kɪda/ but has the geminate /kk/, bears the primary stress on the initial syllable. Thus we get a contrastive pair

[kɪ'da] 'shop' ['k:ɪ,da] 'to, at, from the shop'

/matɔ/ [,mã'tɔ] 'eye', with a simple initial consonant, has the normal pattern of stress, where the primary stress falls on the final syllable. But /mmatɔ/ ['m:mã,tɔ] 'jewelry', with initial geminate consonants (having no morphological or syntactic relation with /matɔ/ 'eye') has the primary stress on the initial syllable. So we have a contrastive pair

[,mã'tɔ] 'eye' ['m:mã,tɔ] 'jewelry'

The evidence of such contrastive pairs as shown above has led other linguists to conclude that the primary stress is phonemic.¹⁸ It is the viewpoint of this paper, however, that stress is predictable in PM. That is, it can be stated in

general that words of ordinary full forms, that is, those with simple initial consonants, have the normal pattern of stress, where the primary stress falls on the final syllable. However, for words with initial geminate consonants, the primary stress falls on the initial syllable. As for the contrastive pairs shown in the examples above, we may say that the shifting of the primary stress from the final syllable in words with simple initial consonants to the initial syllable in words with initial geminate consonants is phonetic, and is predictable. That is, initial geminate consonants of PM words cause the primary stress to automatically fall on that very syllable where the geminate consonants are.

To sum up, this paper acknowledges the existence of geminate consonants as clusters of two identical consonants, which may be phonetically realized as single long consonants. The existence of this kind of consonant, which occurs only word initial, conditions the shifting of the primary stress from the final syllable (of words with simple initial consonants) to the initial syllable (of words with geminate initial consonants). This, in turn, suggests that stress is non-phonemic in PM.

7. A Complete Set of Stress Rules

To account for the statement that stress is predictable in PM, the following is the set of stress rules in PM:

(a) words with initial simple consonants

(1.) Every word with an initial single consonant has a syllable that bears a primary stress. If the word is monosyllabic, it bears primary stress. In a word of more than one syllable the primary stress is on the last syllable. Thus if the word is disyllabic, the primary stress will be on the second syllable, or if the word is trisyllabic, the primary stress will be on the third syllable. The rest of the syllables will bear a secondary (weak) stress or no stress, depending on the further conditions which will be mentioned in rules 2a and 2b.

/nɔʔ/	[ˈnɔʔ]	'wish, want'
/dalɛ/	[ˌdaˈlɛ]	'in, deep'
/gɪlisɔh/	[gɪˌliˈsɔh]	'restless'

(2.) For words of more than one syllable:

(2a.) If a non-final syllable has the open vowel /ɪ/, that syllable will be unstressed.

/tɪŋɔh/	[tɪˈŋɔh]	'half'
/pɪtɛ/	[pɪˈtɛ]	'evening'
/bɪlake/	[bɪˌlaˈkɛ]	'back'

(2b.) Non-final syllables, whether open or closed syllables, th

have vowels other than /i/, will have secondary stress.

/makεnε/	[,mā,kε'nē]	'food'
/buwɔh/	[,bu'wɔh]	'fruit'
/ʒalε/	[,ʒa'lε]	'road, path'
/divi/	[,di'vi]	'self'
/pimatɔ/	[pi,mā'tɔ]	'jewelry'

(b) words with initial geminated consonants

(3.) Words with initial geminated consonants will have the primary stress on the initial syllable, and other syllables will bear secondary stress.

/bbuwɔh/	['b:u,wɔh]	'to bear fruit'
/ʒʒalε/	['ʒ:a,lε]	'to walk'
/ddivi/	['d:i,vi]	'to stand'
/mmatɔ/	['m:ā,tɔ]	'jewelry'

NOTES

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1. Pitsamai 1984:3-4.
2. See Hogan 1972 for more information on Urak Lawoi, Moklen and Moken.
3. Cf. Pitsamai 1984:12,16.
4. Note should be made concerning [r] in connection with [v] in PM: [v] occurs in native words such as [,ʔo'vɛ] 'people', [,mã'vi] 'come', [,da'vaʔ] 'shore', and also in loanwords such as [,va'bu] 'Wednesday' (Arabic), [,ʔɛŋ] 'energy' (Thai). On the other hand, in some loanwords, such as foreign names, [r] fluctuates with [v], for instance [bi,rɛ'hɛŋ] ~ [bi,vɛ'hɛŋ] 'a man's name' (Arabic). However, in many loanwords [r] and [v] are not used interchangeably; for example, [r], not [v], occurs in [,rɔ,di'yu]'radio', [,ʔa:'raʔ] 'Arab'; and [v], not [r], occurs in [,va'sɔ] 'feeling', [,ʔoʔ] 'to be capable of'. Thus from a synchronic point of view /r/ can be considered a separate phoneme distinct from /v/.
5. Although [z] is found in loanwords, and in most cases occurs in free variation with [ʒ], it has become a fixed sound in some words.
6. Pitsamai 1984: 20-21.
7. Diphthongs are represented by VV, where each V represents the nucleus of a separate syllable.
8. Very often they are inaudible.
9. [ʔ] is considered a phonetic accompaniment of the vowel in word initial position, and is therefore not considered a phoneme in this position. For simplicity purposes the details on vowel length will be left out in all the phonetic representations of words. ['] before and above the syllable represents primary stress, [,] before and below the syllable represents secondary stress. Unstressed syllables will not be marked.
10. Earlier works such as the Pattani Malay-Thai Dictionary and Maneerat 1981 hold different views on these homorganic clusters. According to the Pattani Malay-Thai Dictionary these clusters occur syllable initially, although the stops that accompany the nasal are said to be inaudible. Thus for the word meaning 'goat' this is phonemically represented as /ka-mbeŋ/. According to Maneerat, however, these clusters occur across the syllable boundaries. For example, the word meaning 'goat' is phonemically represented as /,kam'beŋ/, and phonetically as [,kam^bɛŋ].
11. In most cases the initial geminate consonants in monosyllabic words that are derived in this manner occur in free variation with initial single consonants. E.g. /buwi/ 'to give' may be freely shortened to /wwi/ or /wi/.

12. Notice, however, the instance of /bbuwɔh/ 'to bear fruit', which consists of a noun stem /buwɔh/ 'fruit', and a prefix: the initial reduplicative consonant of the initial consonant of the stem. This word corresponds to the Standard Malay /bəbuah/ 'to bear fruit', in which the prefix /bə/ is affixed to the noun stem /buah/ 'fruit'. In PM, however, the full prefixed form is not used if the initial consonant of the prefix is identical to that of the stem. Thus, instead of the expected full affixed form: /bɪbuwɔh/, only the reduced affixed form /bbuwɔh/ is adopted in PM usage.
13. Some morphophonemic change occurs in the affixational process in the word /mɪŋaɟi/. That is, the allomorph /mɪŋ/ of the prefix is chosen to occur with the stem /kaɟi/. Then the initial voiceless stop (/k/) of the stem is deleted. Thus the final consonant (/ŋ/) of the prefix allomorph /mɪŋ/ becomes the initial consonant of the stem, resulting in a prefixed form /mɪŋaɟi/.
14. The allomorph /mɪŋi/ is prefixed to monosyllabic stems that begin with a consonant.
15. This may occur in a sentence such as /dudoʔ bbaeʔ/ 'stay well'.
16. This may occur in a sentence such as /jjalɛ mmɔlɛʔ/ 'walk properly'.
17. ...represents a possible occurrence of a noun.
18. Among them is Maneerat (1981:68) who claims that the primary stress is "a contrastive unit" in PM. "That is, the alteration of the position of the primary stress in disyllabic words will change the syntactic meaning of the words."

REFERENCES

- Anon. n.d. Pattani Malay-Thai Dictionary. Prince of Songkhla University unpublished manuscript.
- Hogan, David W. 1972. "Men of the sea: coastal tribes of South Thailand's west coast." *Journal of the Siam Society*.60:205-235
- Maneerat Chotikakamthorn. 1981. *A Comparative Study in Satun Malay and Pattani Malay*. Master's thesis, Mahidol University.
- Paitoon Masmintra Chaiyanara. 1983. *Dialek Melayu Patani Dan Bahasa Malaysia: satu kajian perbandingan dari segi fonologi, morfologi, dan sintaksis*. Chapter One, Master's thesis, University of Malaya.
- Pitsamai Intarachat. 1984. *Learn Southern Thailand Malay from Conversations on Basic Public Health (topics translated from Thai)*. Institute of Language and Culture for Rural Development, Mahidol University.

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