VOWEL PATTERNING AND MEANING IN MALAY PAIR-WORDS
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There is a class of words in Malay which Zainal Abidin Ahmad (Zaba) (1924) termed pair-words and which perhaps comes closest to phonetic symbolism as it is understood in the literature available on psycho-linguistics. The term pair-words was defined as "set phrases consisting of two words combined which retain fully their literal meaning." Two types of pair-words were identified, namely (a) the alliterative, and (b) the non-alliterative. Those which come under the first category are pairs of words which repeat some of the sounds or reproduce them in some modified form as for example:

\[
\begin{align*}
\text{bukit} & \quad \text{bukit-bukau ('hills and valleys')} \\
\text{bukau} & \\
\text{gerak} & \quad \text{gerak-geri ('movements')} \\
\text{geri} & \\
\text{kueh} & \quad \text{kueh-mueh ('cakes, savouries, puddings')} \\
\text{mueh} &
\end{align*}
\]

The first word is regarded as the principal word, and the second qualifying, expanding, or intensifying the meaning of the first. What is meant is that when each pair-word is split, the morpho-syntactical status of the first word is primary whereas the second or following word is morpho-syntactically secondary. Words of primary status in this context have freedom of occurrence in other morpho-syntactical environments, while those words which are secondary do not have this freedom outside the fixed attachments they have with their respective primary or principal word. Thus the secondary word has semantic value, particularly when paired with the first, however, it cannot be treated in the conventional analytical fashion based on a contrast between signifier and signified. Zainal Abidin had suggested that formation
of secondary words largely depends on euphony whose emphasis is on agreement between sounds being motivated by such considerations as being pleasing to the ear and the ease of pronunciation.

In the case of pair-words which are non-alliterative, it is not a repetition of sounds or syllables by the second word that occurs but rather the role of the second word is essentially to signify a cognate idea on the basis of the first, e.g.:

- kurus 'thin'
- kering 'dry'
- lintang 'across (of a barrier)' 'topsy-turvy, criss-cross, disorder'
- pukang 'fork, junction'
- sangkut 'stick or stuck, correct'
- paut 'clinging, hanging'

Zaba explained non-alliterative pair-words as being arbitrarily structured and that they are all fixed conventional forms. The functions of such linguistic devices as found in alliterative and non-alliterative pair-words as suggested by him are (a) similar to those served by reduplication to strengthen and intensify the ordinary meaning of the primary single word, by adding to it an idea of indefinite plural confusion, (b) to imply indefinite repetition, association, continuity or multiplied quantity, or (c) when the pairs are nouns, to express an indefinite universal inclusion of all kinds or species (and sometimes all materials).

However, Zaba had tended to account for the existence of alliterative and non-alliterative pair-words in a general manner, attributing their phonological characteristics as being due to euphony. In this respect, his analysis is unsatisfactory and in the context of ascertaining phonetic symbolism in Malay inadequate. Pair-words in Malay, whether they are alliterative or non-alliterative exhibit a remarkable consistency of pattern and as such are semantically pertinent.

There are two ways of describing Malay pair-words. One way is to look at their syllabic structures and the other way is to examine their vowel and consonant contrasts. In the latter case some attempt will be made to link vowel contrast in Malay pair-words to phonetic symbolism.

Structurally, Malay pair-words may be regarded as a special kind of compound. Without exception two words or morphemes are involved in their formation. If only semantic criteria are used to determine compound status (such as when it is said that two words each with its own semantic value when linked gives a third semantic value), Malay pair-words would strictly be excluded as compounds. This is because the second word in the pair in Malay pair-words usually has no independent
semantic value. However, the second word is obligatory if the intention is to extend the semantic boundary of the first word. But the higher level of meaning signalled when two words are used as a pair retains substantially the central idea represented by the first word. We may regard compounds in Malay as made up of two types, viz. the 'true' compounds and the 'quasi' compounds. Malay pair-words come under the latter category. The use of the terms (true vs. quasi) is purely dictated by functional-explanatory reasons and does not suggest or imply a qualitative difference between the two. Also other dichotomies are possible outside the two suggested. Perhaps some examples to illustrate their difference would be useful at this juncture.

True Compounds

rumah 'house'
tangga 'house-ladder, stairs; steps'
meja 'table'
kairi 'chairs'
kaki 'leg, staff'
tangan 'hand, workers in an office'

Quasi Compounds (Pair-words)

anak 'child'
pinak (no independent)

senang 'easy; easy'
lenang (no independent)

batu 'stone; rock; pebble'
batan (no independent)

Syllable Contrast in Pair-words

Syllable contrast in Malay pair-words may be best treated as linguistic phenomena associated with rhyming and chiming. In the case of rhyming a syllable in the primary word (which is always in initial position) matches a syllable in the secondary word (always in final position). Rhyming can occur between the initial syllable of the primary word and the initial syllable of the secondary word or between the final syllable of the primary word and the final syllable of the secondary word in disyllabic forms. In rare instances, rhyming may occur between the middle syllable of the primary word and the middle syllable of the secondary word in tri-syllabic forms, but this usually also involves the simultaneous rhyming of either the first or final syllable of the primary and secondary words as in:
\[ \text{se(rem)bah-se(rem)beh} \quad \text{'weeping copiously'} \]
\[ \text{se(ka)i-se(ka)a} \quad \text{'once in a while, occasionally'} \]

The following are some examples of rhyming found in disyllabic forms:

**Initial Rhyming**

(a) Nouns

- batu-batan  'all varieties and shades of stones'
- bukit-bukau  'hills and valleys'

**Final Rhyming**

(b) Nouns

- kuih-muih  'all varieties of cakes'
- selok-belok  'intricacies of a problem'

**Initial Rhyming**

(a) Adjectives

- gelap-gelita  'total darkness'
- jenggal-jenggul  'bumpy of roads'

**Final Rhyming**

(b) Adjectives

- kaya-raya  'wealthy'
- chondong-mondong  'inclinining precipitously'

**Initial Rhyming**

(a) Verbs

- beli-belah  'shopping; buying'
- lesap-lesup  'vanished without a trace'

**Final Rhyming**

(b) Verbs

- cerai-berai  'separated; scattered'
- halau-balau  'drive away furiously'

It should be noted that pair-words whatever their grammatical class may not be used as base forms to form complex words. In addition to this, pair-words are largely used (a) to show variety or heterogeneity, in which case they are verbs or nouns, and (b) to intensify or emphasise a quality or action in which case they are adjectives or adverbs. There are a great number of pair-words which are in fact onomatopoeic in function and character.

Chiming is the process whereby vowels in the primary word are somehow similar and these contrast with vowels in the secondary word which are also similar, e.g.:
While rhyming and chiming are useful concepts in describing Malay pair-words, their usefulness is however limited. This is because a great number of forms or pair-words cannot be accounted for by the use of these two concepts. To account for pair-words satisfactorily, vowel patterns underlying Malay pair-words would have to be described. The remaining section of this study will therefore attempt to show some coherence of the vowel-patterns as found in Malay pair-words. The concept vowel-patterning envisages the occurrence of certain vowel combinations in Malay pair-words, that is to say, the tendency for vowels in the secondary word to be somehow determined by the vowels in the primary word. Thus vowels in the primary word and vowels in the secondary word contrast in predictable ways. Contrast may also involve vowels and diphthongs. In certain instances all the vowels in both the primary and secondary words may also be similar. The patterns of contrast are basically structured in the manner shown by the vowel charts below:

(a) Vertical Contrast or Patterning

\[
\begin{align*}
[u] & \\
[a] & \\
[e] & \\
[i] & \\
\end{align*}
\]

\[
\begin{align*}
[u] & \rightarrow [a] \rightarrow [e] \rightarrow [i] \\
[a] & \rightarrow [e] \\
[i] & \rightarrow [u] \\
\end{align*}
\]

\[i + a = [ia] \text{ becomes a vowel cluster} \]
\[a + i = [ai] \text{ becomes a diphthong} \]

(b) Horizontal Contrast or Patterning

\[
\begin{align*}
[u] & \\
[a] & \\
[e] & \\
[i] & \\
\end{align*}
\]

\[
\begin{align*}
[u] & \rightarrow [a] \rightarrow [e] \rightarrow [i] \\
[a] & \rightarrow [e] \\
[i] & \rightarrow [u] \\
\end{align*}
\]

\[i + u = [iu] \text{ becomes a vowel cluster} \]
\[u + i = [ui] \text{ becomes a diphthong} \]
(c) Cross-wise Contrast or Patterning

\[ [i] \rightarrow [u] \]
\[ [e] \rightarrow [o] \]
\[ [a] \]

\[ [i] + [o] = [i/o] \] becomes a vowel cluster
\[ [o] + [i] = [oi] \] becomes a diphthong
\[ [u] + [a] = [ua] \] becomes a vowel cluster
\[ [a] + [u] = [au] \] becomes a diphthong

(d) Contrast of Front and Back Vowels with the Neutral (Schwa) Vowel

\[ [i] \rightarrow [u] \]
\[ [e] \rightarrow [o] \]
\[ [a] \]

We shall now look at two sets of phonological contrast employed in alliterative and non-alliterative pair-words in Malay, viz. (a) contrast made of consonants, and (b) contrast made of vowels. In almost every instance of contrast involving consonants, the initial sound of the primary word and the initial sound of the secondary word is the same sound. This characteristic is also found in pair-words which are constituted of two words having equal morphological status, that is to say having the freedom to occur as free forms in other morpho-syntactical environments such as for example:

- **tebang** 'to fell large trees'
- **tebas** 'to cut down scrub and bushes'
- **tebang-tebas** 'to cut down trees, large and small'
- **tegap** 'sturdy'
- **tegun** 'stand firmly (especially when surprised or frightened)'
- **tegap-tegun** 'well-built of person'

Thus there is a co-occurrence of an unvoiced plosive (alveolar, bilabial or velar) with an unvoiced plosive or alternately a voiced plosive with a voiced plosive. Similarly there is a co-occurrence of a fricative
(labio-dental, dental, alveolar, palato-alveolar, glottal) with a fricative of similar articulatory characteristics – voiced or unvoiced as the case may be. This principle of phonological distribution applies to laterals and affricates as well. Such a patterning of consonants is however not perfectly consistent as different consonants may co-occur in certain pair-words. It is however the vowels, both in terms of their patterning and opposition that provide the clue to phonetic symbolism in Malay. A number of patterns are observable and they may be systematised in the following order:

(a) Contrast of vowels occurs in the second or final syllable but the vowel in the first or initial syllable (in forms which are disyllabic) is similar, e.g.:

- **gunong-ganang** ('mountains and valleys') ([o] contrasts with [a])
- **teka-teki** ('riddles') ([a] contrasts with [i])
- **lalu-lalang** ('pàss to and fro') ([u] contrasts with [a])
- **bengkang-bengkok** ('meandering') ([a] contrasts with [o])
- **celum-celam** ('tramping in and out') ([u] contrasts with [a])

This form of contrast is the most popular and thus numerous examples may be obtained.

(b) Contrast of vowels occurs in both the first and second syllables of disyllabic forms showing perfect phonological balance, e.g.:

- **huru-hara** ('tumult; uproar') ([u] contrasts with [a])
- **duduk-dadak** ('sitting precariously') ([u] contrasts with [a])
- **hulur-halar** ('extending; slacking') ([u] contrasts with [a])
- **hukum-hakam** ('all varieties of law') ([u] contrasts with [a])
- **ongkoh-angkah** ('toptering') ([o] contrasts with [a])
- **porok-parak** ('trumping and stumbling') ([o] contrasts with [a])
- **susup-sasap** ('stealthily') ([u] contrasts with [a])
gopoh-gapah
('hurriedly')

huyung-hayang
('trotting of gait')

([o] contrasts with [a])

([u] contrasts with [a])

(c) Vowel patterning showing perfect symmetry of form, e.g.:

senget-menget
('a slant in an extreme way')

condong-mondong
('sloping; inclining')

comot-momot
('extreme filth; untidiness')

ceret-meret
('like water, wateriness')

kaya-rayat
('wealthy; opulent')

remeh-temeh
('minor; trivial')

([e] is consistent throughout)

([o] is consistent throughout)

([a] is consistent throughout)

([e] is consistent throughout)

([a] is consistent throughout)

([e] is consistent throughout)

(d) Contrast of vowels occurs in the second or third syllable of tri-syllabic words but the vowels in the first and second syllables of first and third syllables are similar, e.g.:

ketunjang-ketunjit
('clashing of sounds')

sakali-sakala
('once in a while')

serelah-serebeh
('hanging down, slovenly')

selusor-gelosor
('sliding; slipping')

jelepa-jelepoh
('flop down')

celengkang-celengkok
('zigzagging')

([a] contrasts with [i])

([i] contrasts with [a])

([a] contrasts with [e])

([u] contrasts with [a])

([a] contrasts with [o])

([a] contrasts with [o])

([a] contrasts with [i])

([i] contrasts with [a])

([a] contrasts with [e])

([u] contrasts with [a])

([a] contrasts with [o])

([a] contrasts with [o])

It will be noticed that vowel contrast in tri-syllabic forms occurs much more frequently in the third or final syllable. In any case alliterative or non-alliterative pair-words which are structurally tri-syllabic are relatively rare in contrast to those which are disyllabic - a linguistic fact noted earlier.
(e) Contrast of vowels or between vowel and diphthong occurs within the primary word and within the secondary word but together exemplifying perfect phonological balance in repetitive distribution, e.g.:

\begin{itemize}
  \item \textbf{hina-dina} \quad ([i] contrasts with [a])
  \item \textbf{halai-balai} \quad ([a] contrasts with [ai])
  \item \textbf{halau-balau} \quad ([a] contrasts with [au])
  \item \textbf{senang-lenang} \quad ([e] contrasts with [a])
  \item \textbf{sending-mending} \quad ([e] contrasts with [i])
  \item \textbf{sayar-mayor} \quad ([a] contrasts with [o])
\end{itemize}

(f) Contrast of vowels may occur in the first syllable of disyllabic forms. This is however extremely rare as in the examples:

\begin{itemize}
  \item \textbf{hary-biru} \quad ([a] contrasts with [i])
  \item \textbf{Jimat-cermat} \quad ([i] contrasts with [e])
\end{itemize}

(g) Finally contrast of vowels may occur in forms which have vowel clusters. In this case the first vowel in the first word contrasts with the first vowel in the second word and the second vowel in the first word contrasts with the second vowel of the second word, e.g.:

\begin{itemize}
  \item \textbf{cuak-caik} \quad ([u] contrasts with [a])
  \item \textbf{gediang-gediut} \quad ([i] contrasts with [i])
\end{itemize}

We are now in a position to make certain statements about the use of vowels and at the same time gauge their distribution in order to get an understanding of their role in transmitting meaning - their phonetic symbolism. The examples utilised so far to illustrate the various patterns and characteristics of vowel distribution in Malay pair-words are by no means exhaustive, but they are typical. Therefore statements made while they will be derived from the examples cited will also implicitly account for examples not included.
The most significant feature that may be stated is that vowel contrast (in both alliterative and non-alliterative pair-words) involves front vowels (particularly [i], [e] and [a]) with back vowels (particularly [u] and [o]). The order is however not consistent throughout, in that a back vowel may precede a front vowel and vice-versa.

Secondly, contrast of vowels may occur between a high front vowel (for example [i]) and a low front vowel (for example [a]). Here again the order is not consistent as either vowel can occur first.

Thirdly, contrast of vowels may occur between a high back vowel (for example [u]) and a semi-high back vowel (for example [o]). Order is similarly characteristic in that either can occur first.

Fourthly, contrast of vowels may occur in a cross-wise manner between a low front vowel (for example [a]), and a high, back or semi-high, back vowel (for example [u] and [o]). Or alternately contrast is between a high front vowel (for example [i]) and a semi-high back vowel (for example [o]).

Fifthly, a similar vowel may occur throughout all the syllables of a pair-word as shown in section (a) or in the primary word or the secondary word respectively as shown in section (b).

Sixthly, contrast of vowels may occur between the high front vowel [i] or the semi-high front vowel [e] with the central or neutral vowel [æ] in both close or open syllables. In examples where the final syllable in pair-words is closed contrast between the low front vowel [a] and the neutral vowel [æ] also occurs. Contrast between the neutral vowel and the back vowels is relatively rare.

Seventhly, contrast between vowels and diphthongs may also occur. However, here too we find that the previous rules established (rules 1 and 2 in this discussion) exercise a consistent pressure on the patterns of contrast that may be permitted as for example [a] contrast with [ai] where [a] and [i] together constitute the diphthong. In another example [a] contrasts with [au] where [a] and [u] together constitute the diphthong. Jones (1960:58ff) defines a diphthong as "an independent vowel-gliding not containing within itself either a 'peak' or a 'trough' of prominence". A diphthong is thus regarded as a syllable.

Finally, contrast of vowels in a cluster within the primary word; within the secondary word; and between the vowel cluster in the primary word and the vowel cluster in the secondary word exemplify the same degree of conformity with the patterns of vowel contrast found in rules 1 and 2 discussed earlier. Examples of contrast have been shown in the pair-words cuak-caik and gediang-gediut. A vowel cluster is different
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from a diphthong in that it has as many peaks of prominence as there are vowels in the cluster.

We may conclude on the basis of the discussion thus far made that the vowel patterns (both in contrast or in conformity with each other) of Malay pair-words show a predictable sequence. Vowel patterning of the types that have been identified are thus harmonious. They exemplify in other words vowel harmony, a linguistic phenomenon Gleason (1961:84) defines as "the commonest type of non-contiguous assimilation, in which vowels of successive syllables must be similar in some way". Vowel harmony can be extensive or limited depending on the language. However, Gleason's description of vowel-harmony stressed the grammatical function of vowels in which semantic and grammatical differentiation runs parallel with vowel differentiation. In the case of Malay, the distribution of vowels and their patterning in pair-words do not exhibit the same degree of semantic and grammatical function. While vowel patterns as they are found in Malay pair-words are highly regular, yet vowels in terms of their distribution and patterning are not determined by rules of grammar but rather by preferred phonological contrast in the patterns as identified. Vowels in the patterns as they are found in Malay pair-words have a symbolic aspect suggesting meanings as identified by Zaba, enumerated at the beginning of this discussion. Meanings are therefore suggested or signalled by a subtle combination of sounds involving vowels, consonants and diphthongs in predictable sequences and patterns. The phenomenon of phonetic symbolism as it refers to pair-words in Malay may be understood in terms of the dichotomy focus and elaboration. The first or primary word (with its structure or pattern of sounds) draws attention to the intention, quality, situation or state-of-being suggested by it whereas the secondary word (with its structure and pattern of sounds closely cohering with those of the first) elaborates on it. Some examples are found in the following pair-words:

<table>
<thead>
<tr>
<th>Focus</th>
<th>Focus + Elaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>senang</td>
<td>senang-lenang</td>
</tr>
<tr>
<td>('ease; easy')</td>
<td>('at leisure; entirely comfortable')</td>
</tr>
<tr>
<td>sekali</td>
<td>sekali-sekala</td>
</tr>
<tr>
<td>('once')</td>
<td>('seldom, once in a while')</td>
</tr>
<tr>
<td>susup</td>
<td>susup-sasap</td>
</tr>
<tr>
<td>('crawl under; pass under')</td>
<td>('enter stealthily')</td>
</tr>
<tr>
<td>selang</td>
<td>selang-seli</td>
</tr>
<tr>
<td>('passage, intervening')</td>
<td>('alternately')</td>
</tr>
</tbody>
</table>
Focus
licin ('smooth; sleek')
sungkor ('fall face forward')

Focus + Elaboration
licin-licau ('slippery; slipping away easily')
sungkor-sangkar ('sprawling on one's face')

In the case of pair-words which are onomatopoeic, the vowel sounds are the key elements in symbolising meaning, although they are not structured of a focus and an elaboration in the real sense of the word. In such instances, there is a pseudo focus-elaboration relationship between the two words, e.g.:
lecup-lecap 'sounds made by darts entering water'
porok-parak 'sounds of the feet slipping in a fight'
lepah-lepoh 'stumbling languidly'
dentam-dentum 'banging of guns or falling articles'
dentang-dentong 'booming of guns'

Among pair-words which are non-onomatopoeic, the most perfect combination of words in a pair is that which is constituted of a focus and an elaboration; where the consonants are similar in form; and where there is only one feature of vowel contrast as in the examples:

Focus
sungkor ('fall forward')
sekali ('ones')
dongkor ('bundle out')

Focus + Elaboration
[sungkor-sangkor] contrast is between [u] and [a] ('sprawling')
[sekali-sekala] contrast is between [i] and [a] ('rarely; occasionally')
[donkor-dangkar] contrast is between [o] and [a] ('expel neck and crop')

Individual phones or sounds, whether vowel, consonant or diphthong do not suggest or symbolise semantic values but it is the distribution of the sounds in pair-words which functions to expand, intensify or give a sense of continuous action to the meaning as contained in the primary word, namely, the focus.
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