THE TECHNICAL MALAY

SUMMARY

There are people who think that Malay are artistic but through their language we can proof that they are technical.

Many language posses classifiers which are significantly different from each other. Languages differ in the ways in which they classify certain entities. The classifying criteria include properties of entities such as shape, size and quality.

There is a wide range of classifiers in the Malay language. These classifiers have interesting semantic implications. One type of Malay numerical classifiers termed by Malay grammarians as "Penjodoh Bilangan", ("Countable match") is one on which our paper will present some conclusions involving semantic classification of its functions. This classifier which is sometimes referred to by some grammarians as "Penunjuk Jenis", ("Type Displayer") appears in binomial noun phrases as found in English binomial noun phrases, such as in "A bar of soap" and "A loaf of bread". The difference in this type of classifier in the Malay language is that they are very <u>heavily</u> used in the language and are influenced by shape, size, quality and other equally interesting factors. This is an example of how language can be in a technical form creating shapes technically. This means that a part of the original language is from the human technical point of view.

Although classifiers in the Malay language can have effects similar to that found in English language and other languages, there are in addition, technical language forms that are artistic, architecturallistic and mechanicallistic that form the creation of sizes, shapes and qualities.

This paper is not only meant for audience with technical background such as engineering and architecture student / lecture but also those who are with linguistic background.

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Introduction

Many languages possess classifiers which are significantly <u>different</u> from each other. Languages differ in the ways in which they classify certain entities. The classifying criteria include properties such as <u>shape</u>, <u>size</u> and <u>quality</u>. This paper presents some <u>conclusions</u> involving the <u>semantic classifications and functions</u> of classifiers in the Malay language.

There is a wide range of classifiers in the Malay language. The classifiers have <u>interesting semantic implications</u>. One type of Malay numerical classifiers is termed by Malay grammarians as *Penjodoh Bilangan* (Countable Match). This classifier, which is sometimes referred to by some grammarians as *Penunjuk jenis* (Type Displayer), appears in binomial noun phrases as found in English binomial noun phrases, such as <u>'A bar of soap'</u> and <u>'a loaf of bread'</u>. The differences in this type of classifiers in the Malay language are that they are very heavily used in the language and are usually influenced by <u>shape</u>, <u>size</u>, <u>quality</u> and other equally interesting factors. This is an example of <u>how language can be visualized in a technical form creating shapes technically</u>. This means that part of the original language is from the <u>human technical point of view</u>.

Although classifiers in the Malay language can have effects similar to that found in the English language and other languages, there are, in addition, technical language form that are artistically <u>designed towards architecture and engineering</u> that form the creation of <u>sizes</u>, <u>shapes</u> and <u>qualities</u>. The paper further gives examples whereby the language can be <u>interpreted into visual forms</u>. The word-order of this type of classifiers is usually the same as that in English, i.e:

NUMERICAL -CLASSIFIER – NOUN

In the Malay language, numerical classifiers which effect technical form are influenced by <u>size</u>, <u>shape</u> and <u>quality</u>.

(A) <u>**Size**</u>

There are a number of classifies that are influenced by various sizes. These classifiers match objects according to their sizes, whether they are small or big.

A.1.   The two words, <u>*Buah*</u> and <u>*Biji*</u>, match the different sizes of objects according to personal visual interpretation. *Sebuah* which means **'A Fruit'** matches <u>bigger objects</u> such as a chair *sebuah kerusi*, a ship *sebuah kapal*, a house *sebuah rumah* or a mountain *sebuah bukit*. On the other hand <u>*sebiji*</u> means **'A seed'** matches <u>smaller objects </u> than <u>buah</u> such as an apple *sebiji epal* or a ball *sebiji bola,* e.g. :

Sebuah rumah	*Sebiji kelapa*
A "Fruit" house	A "seed" coconut
A house	A coconut

A.2.   There are another two Malay words that differentiate size. Both words *Batang* and *Puntung* mean **'Stick'** or **'Stem'**. *Sebatang* matches <u>bigger sticks</u> such as a log *sebatang kayu balak*, a pole *sebatang tiang*, an oil palm tree *sebatang pokok kelapa sawit,* a highway *sebatang lebuhraya*.

<u>*Sepuntung*</u> matches <u>*smaller sticks*</u> such as cigarette *sepuntung rokok*, a match stick *sepuntung mancis api* or a toothpick *sepuntung penculik gigi*.

Sebatang kayu balak	*Sepuntung rokok*
A "stem" wood log	A "Stick" cigarettes
A log	A cigarettes

A.3.   There are also words in the Malay language that classify various sizes. These words are *ketul* and *buku* which mean **'Bar'**, **'Block'** or **'lump'**. *Seketul* mathches objects of <u>bigger sizes</u> like a rock *seketul batu*, or a gold bar *seketul emas*. <u>Sebuku</u> matches <u>smaller objects</u> such as salt *sebuku garam*.

Seketul batu	*Sebuku garam*
A"bar" rock	A "lump" salt
A piece of Rock	A lump of salt

(B) **<u>Shape</u>**

Most of these classifiers which are influenced by sizes are also influenced by shapes. These shapes are mostly <u>geometrical</u>, where some of them may focus on the <u>content</u> or <u>position</u> of the shape.

B.1.   *Buah* which means **'Fruit'** usually refers to something of a bigger size (see A 1) but with an unspecified <u>frame-like shape</u>. *Sebuah* matches objects like houses, boxes, ships, chairs, tables and mountains. For some new inventions like computersm calculators or satellites, these would match with *Sebuah*. Countries, states and towns are also included in this category since they have a frame-like shape from the Malay point of view.

Sebuah pulau	*Tiga buah gerabak keretapi*
A "fruit" island	Three "fruit" coach train
An island	Three train coaches

B.2.   *Biji* which means **'seed'** usually refers to something of a smaller size (see A.1.). It matches with objects which are <u>more or less rounded</u> in shape. In other words, it matches objects which are <u>not sharply pointed</u>. *Sebiji* matches fruits, balls and eyes from the Malay point of view. "Cups" also comes under *Sebiji* since it is rounded in shape.

Sebiji buah tembikai	*Lima biji bola keranjang*
A "seed" fruit of watermelon	Five "seed" basketball
A watermelon	Five basketball

There is another word *Butir* that takes <u>rounded objects</u> but which is <u>more specific than *Biji*</u>. Unlike *Biji*, *Butir* might only take <u>round and oblong objects</u>, such as eggs or bullets.

B.3. *Keping* and *Helai,* which mean **'piece'**, **'slice'** or **'sheet'**, do not refer to specific sizes. They match with thin <u>objects that have width and length</u>. *Sekeping* and *Sehelai* match with tiles, plywood, carpets and tablecloth.

Sekeping papan lapis	*Empat helai permaidani*
A "piece" wood layer	Four "pieces" carpet
A piece of plywood	Four pieces of carpets

B.4. *Batang* and *Puntung* mean **'Stick'** or **'Stem'**. They refer to specific sizes (see A.2.). and also *Utas* means **coil**, which does not refer to any specific size. These classifiers match <u>long objects which are mostly cylindrical</u> like pipes, poles, palm trees and ropes. They also match with uncylindrical objects like rails.

Seutas tali
A "coil" of rope
A piece of rope

B.5. *Bentuk* means **'curve'** it refers mostly to <u>small objects</u>. It classifies objects that are <u>curved or that are made into certain shapes through the process of curving</u>. *Bentuk* refers mostly to jewellery like rings, earrings, and lockets, and it can also refer to fishing hooks.

Sebentuk cincin berlian	*Tujuh bentuk mata kail*
A "curve" ring diamond	Seven "curve" eye hook
A diamond ring	Seven (fishing) hooks

B.6. *Pucuk* which means **'Shoot'**, refers to no specific size. This classifier is underlined by the shape of shoots of trees especially bamboo shoots from the Malay point of view. A shoot usually is pointed upward. This classifier matches a gun since traditionally a gun is usually placed with its sharp and upward.

> *Sepucuk senapang*
> A "shoot" gun
> A gun

Although *Pucuk* takes and objects as big as a gun, it would not however take an object as big as a pyramid (Pyramid matches *"Buah",* see A.1. & B.1.).

(C) **Quality**

Classifiers which are influenced by the sizes and shapes of objects as mentioned above are also influenced by their quality, i.e. solidity and softness.

C.1. *Keping* and *Helai* (see B.3.). Although they are the same in shape, they are entirely different in quality. *Keping* is hard or solid, while *Helai* is floppy or soft. So *Keping* matches with tiles, plywood and boards, while *Helai* matches with carpets, clothes and papers. A piece of bread or a computer diskette is matched with *Keping* because it cannot be folded or rolled.

C.2. *Batang*, *Puntung* and *Utas* are classifiers which identify similar shapes (see B4). While *Batang* and *Puntung* are of different sizes (see A.2.), *'Utas'* has no specific size but it differs from *Batang* and *Puntung* in quality. *Utas* is floppy and soft, while *Batang* and *Puntung* are hard and solid. *Batang* matches with logs, pipes, poles and palm trees. *Puntung* matches with cigarettes, toothpicks and match sticks, and *Utas* matches with ropes, strings, wires and chains.

C.3. *Biji* (see A1&B2) and *butir* (see B.2) are nearly the same in shape, but *ketul* (see A3) is more solid than both of them but less rounded. *Biji* and *Butir* match with balls, fruits, eggs and bullets, while *ketul* matches with rock, gold and soap.

General Analysis

Some aspects of Malay classifiers have <u>interesting semantic views</u>.

<u>Letters</u> which match with *Pucuk* (see B.7) are opposed to <u>papers</u> which matched with *Helai* (see B.3 & C.1), a piece of <u>paper that matches with *helai*</u> when <u>written as a letter which match with *pucuk*.</u>

There are some possibilities that make letters come under this *'pucuk'* category. Through my experiences, most <u>historical letters</u> (with reference to Malay tradition) are written <u>initially with shorter lines at the top of a page</u> then become broader towards the bottom. This makes them look like a shape of a shoot. It may also be due to the way <u>how the letters are folded</u>. During the olden days, Malays are popular in the art of folding, like the <u>folding of *Sungkit*</u> cloth or betel leaves for wedding or for royal ceremony. It might probably be that they <u>fold letter in this shape to be handed o the king</u>. The letters are shaped like a shoot with its pointed edge upwards.

Another interesting view is when <u>a soap, which is less solid</u>, comes under *ketul* (see A.3 & C.3), while <u>bullets</u>, which are <u>more solid</u>, come under *Biji/Butir* (see A.1 & B.2). Typically <u>a soap is not rounded but</u> a bullet originally is. That's why a soap goes under *ketul* and the bullet goes under *Biji/Butir*. Say, <u>if we melt gold and makes it into small rounded marbles</u>, the Malays <u>might match these gold marbles with *Biji/Butir*</u> because shape has more influence on the objects than the quality and size in Malay classifiers.

For the Malay speakers, to use the classifiers (see size, shape, & quality<u>), they need to judge or focus on the objects by their actual shape, size, and quality</u>. This judgement depends on <u>personal visual interpretation</u>. It is not unusual for two people to use different classifiers for the same objects for most of the objects have nearly the same shape, size, and quality. For example *Sebatang* and *Sepuntung*, or *Sekeping* and *Sehelai* are used in the following ways.

Beri saya sebatang rokok	*Beri saya sekeping kertas*
Give me a "stick" cigarette	Give me "sheet" paper
Give me a cigarette	Give me a sheet of paper

The proper classifier for a cigarette is *Sepuntung*, and for paper is *Sehelai*.

The Judgement and focus also on *sebatang* and *sepuntung*. *Sebatang* focus on the stick but *sepuntung* focus on the tips. So cigarette and match stick with tips at the end of the stick may classify as "*Sepuntung*".

We can view all these classifiers by their size, shape and quality through this chart.

It is interesting here to see a <u>narrow</u> difference between <u>*Sebiji*</u> (see A.1, B.2, C.3) and <u>*Sebutir*</u> (see C.3). Both are [- big] [+ rounded], while "*Sebutir*" is [+ solid]. But, *Sebiji* has no specific quality in solidness and softness. It could either [+ solid] or [- solid]. This means that <u>any object that matches with *Sebutir* may be classified with *Sebiji*, but not every object that matches with *Sebiji* can be classified with *Sebutir*.</u> For example, fruits may be matched with *Sebiji* but not with *Sebutir*; while eggs and bullets which match with *Sebutir* are more specific, while *sebiji* may cover a wider range.

Another significant thing observed here is that <u>*Sebentuk*</u> (see 2.B.6) mostly matches with jewellery such as rings, earrings, and lockets, but gold chains are matched with *Seutas* (see B.4 & C.2). Here, even though the object is curved, but if the shape is long and floopy it matches <u>*Seutas*</u>.

Additional Factors

Besides size, shape and quality, there are other Malay matching classifiers which basically show some technical forms.

(D) **Focus**

D.1.　*Orang* means '**Person'**, and *Ekor* means **'Tail'**. Both are matched with living creatures. The Malays count animal using *Ekor* as classifiers, as opposed to English and Arabic that classify them by heads. The Malays classify human with *Orang* instead. From this we can interprets that the Malay language differentiates human, animal and other living creatures by focusing on the tail. It is from the Malay point of view that creatures have tails. So *Orang* matches only human, while *Ekor* matches all animals including birds, fish and insects.

Seorang guru	*Empat ekor ikan*
A "person" teacher	Four "tail" fish
A teacher	Four fish

D.2.　*Kuntum* means **'Buds'**. And *tangkai* means **'Stalks'**. Both are mostly matched with flowers. We can say:

Sekuntum bunga	or	*Setangkai bunga*
A "bud" flower		A "stalk" flowers
A flower		A flower

The difference is that *Sekuntum* focuses on the flower itself, while *Setangkai* focuses on the stalk of the flower, actually both refer to the same flower attached to the same stalk.

D.3.　*Kerat* and *Potong* mean **'Portion'**. These classifiers match with pieces that are cut off from any object.

Sepotong kek	*Sekerat kayu*
A "portion" cake	A "portion" wood
A piece of cake	A piece of wood

The difference here is that the focus is on the pieces that are going to be cut, whether the <u>shape is intended or otherwise</u>. For example, if we want to cut a cake into pieces of a certain intended shape, then the pieces match with *Potong*. But if we just cut the wood into pieces that we do not bother how the shape would turn out to be, then the pieces match *Kerat*. Most probably when we cut a piece of cloth into shapes that we want to make it into a shirt, we will say *Sepotong*. But remember, if we cut an object into slices it may go back to *Keping* (see B.3 & C.1).

Sekerat might mean a half at certain situation, if we only cut it into two pieces. On the other hand the art of cutting also influence the way malays classified them. *Sepotong* (a piece) from the word *potong* (cut or chop) but *"sekerat"* a piece or a half from the word *kerat* (cut by pushing and pulling a knife or saw hard into a solid material but if the material is quite hard and floppy to be cut we might call it *"hiris"* *"sehiris"* a piece. So it's focusing on how things are cut and the quality of the material to be cut.

D.4. *Bilah* may mean **'blade'**. It matches with sharp tools and parts that we use to cut, chop and stab, or <u>narrow blade-like objects</u>. The <u>focus is on the sharpness</u> of tools or spare-part objects, for example knives, swords and nails which people use for cutting, chopping and nailing.

> *Sebilah pedang*
> A "blade" sword
> A sword

D.5. *Bidang* means **'Surface area'**. It <u>focuses mostly on the surface area</u> or land. It matches with plantation and fields with no specific shape or size.

> *Saya beli sebidang tanah dan tiga bidang ladang getah.*
> I buy a "surface area" land and three "surface area" rubber plantation
> I buy a piece of land and three rubber plantations.

D.6.   Some of the Malay numerical classifiers that indicate <u>measurement</u> focus on the shape and size of the object to be measured.

Sejengkal   :   a distance between the thumb and finger, to measure smaller objects or surfaces.

Sehesta   :   an arm (A measurement of one arm), to measure bigger objects or surfaces.

Sepemeluk   :   a hug (measurement of one hug), to measure a big long and cylindrical objects.

Sedepa   :   a stretch (A measurement of one stretch of two hands) to measure a big flat surface.

Pokok itu besarnya lebih kurang sepemeluk
Tree that size it more or less a "hug"
The size of that tree s about a hug

D.7.   There is numerical classifier in Malay language that classifiers pairs.   The word <u>"Pasang"</u> which means **'Put together'** matches with anything in pairs.

Dia mempunyai sepasang mata yang cantik.
He/She has a pair eye that beautiful
He/She has a pair of beautiful eyes.

In the pair system, if we want to <u>focus on only</u> one object of a pair, there is a special classifier which classifies that.   This classifier is *Belah* which means **'Split'**.

Dia hanya memakai sebelah kasut
He/She only wears a "split" shoe
He/She wears only one shoe.

To refer to a pair of eyes we match it with *pasang*, but if we want to <u>focus on the eyes individually</u>, the Malays classify them with *'belah'*.

Ke dua dua belah matanya buta
To two two "split" eye his blind
Both his eyes are blind

Conclusions

In general, we can conclude that from the highly <u>descriptive</u> and <u>expressive</u> forms of these Malay numerical classifiers, the Malays are <u>not</u> only <u>artistic but are technical</u> as well!

There are technical language forms that are <u>artistically inclined towards architecture and engineering</u>. This shows that the Malay language has <u>high potentials to accommodate high technology knowledge</u> in the modern world. It is assumed, therefore, that with such <u>overwhelming potentials</u>, the Malay language can <u>confidently be internationally widespread</u> in the near future. However, this has to depend on how the <u>implementation</u> of the language in the field of hi-tech. We <u>cannot</u> continue <u>borrowing</u> from other languages; instead we must try to <u>accommodate the language to hi-tech</u>. This is, of course, <u>not an easy task</u> since a lot of research must be done.

Finally, it is recommended, therefore, that <u>more linguists specialised in the Malay</u> language to <u>come forward</u> to support the immediate need of the Malay language in the hi-tech world.

CLASSIFIERS	BIG	LONG	ROUNDED	THIN	SOLID
Sebuah	+ (frame)	0	0	-	0
Sebiji	-	0	+	-	0
Sebutir	-	0	+	-	+
Sebuku	-	0	-	-	+
Seketul	+	0	-	-	+
Sekeping	0	0	0	+	+
Sehelai	0	0	0	+	-
Sebatang	+	+	0	-	+
Sepuntung	-	+	0	-	+
Seutas	0	+	0	0	-
Sebentuk	-	0	0	0	+ (curve

Sepucuk = (+ pointed up)
Seulas   = (+ section)

0 = not specific