Expressive Properties of Internet *Evolutionized* Malay Words within the Dimension of Malay Values and Attitudes

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Abstract

Internet Evolutionized Malay (EM) is a newly formed language variety that has gained popularity within online text-based Malay communities. This paper discusses a study that utilized nine EM words and five of their corresponding Standard Malay (SM) words as word stimuli, with responses of 56 respondents towards 15 adjective pairs. The expressive properties or connotative meanings of the stimuli were then analyzed by means of Semantic Differential Analysis (SDA) to quantify the Type and Level of adjective-pairs. Based on the analysis, our investigation reveals two findings: 1) Different types of connotations of SM and EM words are observed, which are particularly common when the words pertain to emotional description of human character, and 2) Level of connotation differs, where native Malay speakers have a wider spectrum of perception for SM and EM words, showing higher sensitivity to the spelling changes on SM, while non-native Malay group shows less reaction to the change. It is important to note from this study that EM is not simply being exotically spelled as 'eye-candy' as always argued, but also triggers different perceptual connotations.

Keywords: Internet Evolutionized Malay, Semantic Differential Analysis (SDA), Malay Values and Attitudes, Expressions, Connotations

Introduction

Due to its relatively low cost and ease of use, text-based communication on the Internet has become available to an increasingly large number of users. However, such a mode of communication possesses several disadvantages, particularly in terms of the power of expression it can support when compared to a traditional face-to-face or even telephone conversation. Because of the absence of visual signals and intonation cues, Internet users have developed some series of symbols to function as a representation of their expression. This has resulted in the enormous use of *pictorial* or non-linguistic character based icons (emoticons), which produce richer dimensions within text-based communication (Wolf, 2000).

Even with the abundance of non-linguistic (or paralinguistic) elements offered in textual interaction, the need to mimic face-to-face conversation has pushed writers to inscribe words with the intention to better represent and further display their expression. This has resulted in the creation of various unusual spelling of words that are more colloquial in nature (Abd Rozan & Mikami, 2007). Here, the term *expression* is defined as the representation of feelings or attitudes, which can be demonstrated by producing or forming words that are in different spellings when compared to its standard variety. It is commonly accepted that such expression can be traditionally demonstrated within sound-mediated communication, which is universally capable of conveying someone's thoughts or feelings (Scherer, 2003) by representing different prosody in voice, which is noticeable by ear. Our idea is to illustrate to readers that a newly formed *Evolutionized* Malay (EM) may perform beyond its basic purpose as a representation of meaning per se. In other words, EM have the potential to represent not only the *literal meaning*, which is identical to the definition or meaning with its corresponding standard Malay

(SM) word, but also to bear a different representation of expression within the dimension of Malay values and attitudes, when compared to its matching SM word.

Background of Study and Objectives

Spelling modifications in the virtual world SM are not occurring in isolation; some other languages are in fact facing this phenomenon such as English (Baron, 2003) and also Catalan and Spanish (Climent et al., 2003). As (Crystal, 2001, p.2) explains, *'when broadcasting enabled selected voices to be heard by millions, there was an immediate debate over which norms to use as correct pronunciation, how to achieve clarity and intelligibility, and whether to permit local accents and dialects'*. In Crystal's view, the availability of online communication has provided even more creative and liberal ways of interaction. This has brought about the birth of own-standard rules in spellings, and still, surprisingly, the interaction is somehow understood by both the writers and readers.

The alteration of the established standard Malay (SM) into an *evolutionized* form of Malay language has prompted us to look deeply into the reasons behind this. Herring (2001) has identified several reasons for spelling changes on the web, particularly for non-standard English e-mails. The first reason is economization, the second is the representation of spoken style and the third is for creative expressions. Gani (2000) also suggested three features similar to those proposed by Herring but particularly for Malay evolution on the Web: the need to shorten words, to be similar to spoken style, and to represent melodically driven utterances. In SM evolution, the melodically driven utterances suggested by Gani may have a similar function as the creative expressions mentioned by Herring. Two other findings on the evolution of Malay words are: a) visual attraction constructed by exotically spelled words which serves as *eye-candy* and b) construction of a cross language environment, which demonstrated the influence of the standard English language and non-standard text-based online English on the modification of standard Malay words (Abd Rozan & Mikami, 2007). The findings from these three authors are shown in Table 1.

Table 1: Brief information on the reasons of the spelling changes from three authors

Herring (2001)	Gani (2000)	Abd Rozan & Mikami (2007)
•Economization •Spoken style •Creative expressions	•Shortened Words •Spoken style •Melody	•Spoken style •Visual attraction (eye-candy) •Cross language environment

Is the usage of such variety merely because of writing in spoken style, or rather its visual attraction, or does it have some other very special reasons that motivate people to use it? We continue to believe that there are some additional reasons behind the existence of this spelling variation. Based on that, in this paper, we would like to illustrate another feature EM has compared to SM that is to be more interactively expressive within text-based electronic communication. The main point is, although an EM word carries the same semantic meaning as its corresponding SM word, an EM word would be considered special, since it is able to modify the SM expression just by a slight modification of letters in a word.

The focus of this paper is to argue that spelling variations do not occur merely for the purpose of *eye-candying* (Abd Rozan & Mikami, 2007) or *creative expression*, as suggested by Herring, but that such variations bears special connotations that are distinctly different from those of SM words. In this study, our aim is to investigate the type and level of perceived connotative meanings of SM and EM words utilized by online users. Our main objective is to answer two research questions; '*Do SM & EM words have the same type of perceived connotative meanings?*' and '*What are the differences in the level of perceived connotative meanings for SM & EM words?*'

Online Text-Based Communication and Connotations

Human communication is described as a means of exchanging symbols among people (Littlejohn, 1989). The transfer or exchange of symbols is mediated through an electronic medium by at least two agents as a form of dialog. In computer-mediated communication, such symbols can be described as a system of human written languages that are used in communication and may consist of letters, emoticons, fonts, colors, etc.

In this study we define that, within an electronic text-based medium, a *symbol* is a *word*, which is determined by its *Spelling* that carries its *literal meaning* and a certain *connotative meaning*. This is shown in Figure 1. Particularly in this figure, the *literal meaning* is written as *Meaning* and the *connotative meaning* is written as *Feeling*. We are mostly interested in the *deepest component*, that is, *Feeling*. As our investigation involved requesting respondents to register their feelings about a *word* by providing feedback in order to measure the type and level of perceived connotative meanings, the term *deepest component* was found to be suitable for this. The observable words that are obvious and visible to our eye are termed as the *superficial component* which is transported via the electronic medium.
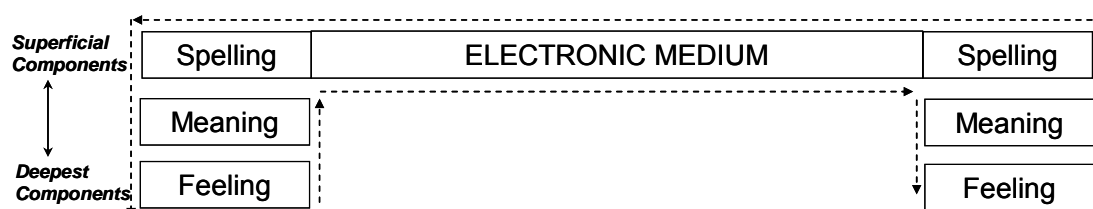

Figure 1: Three Components of '-ING': Spelling, Meaning & Feeling

According to Oxford Advanced Learners' Dictionary on CD (sixth edition), a word or expression that has the same or nearly the same meaning as another in the same language is known as a synonym. And also, two words could have the same spelling but carry different meanings; these are known as homonyms.

Let us now consider the situation in which a particular word is, for example, spelled in a non-standard spelling but has been constructed or evolutionized from a corresponding standard spelling word. In this case, when compared to its corresponding standard word, both words certainly have different spellings but bear the same meaning. We can neither call them synonyms nor two different words. We have termed the non-standard type as evolutionized words, which we define as 'a word that has a different variety of spelling(s) and was originally derived from a corresponding word that has standard spelling'.

Here we would like to argue that connotative properties of similar words (words with the same literal meaning) are affected by the spelling (standard or evolutionized). Indeed, based on earlier interview sessions with 31 Malay speakers residing in Japan, we found that almost 70% agree with this hypothesis. We found that 45% (14 respondents) agreed strongly, 22% (7 respondents) agreed and 15% (5 respondents) neither agreed nor disagreed with the idea of a writer using a different spelling in order to express himself or herself. Five respondents (5%) disagreed with this idea and stuck to the point that words written in either EM or SM perform exactly the same function, that is, to carry only its respective literal meaning, but not in any way to represent or suggest any sort of connotative meaning. With such statement, we decided to further investigate the connotative properties of standard spelling and non-standard spelling usage, i.e. standard Malay (SM) and Evolutionized Malay (EM). We started out with a general assumption that EM words are used to represent milder and non-harsh expression.

Internet *Evolutionized* Malay (EM) and Malay Values and Attitudes

A language is owned by the community who uses it, be it in spoken or written mode. This even includes the hybrid of both modes (Muniandy, 2002). The wider the propagation of a language and its

language community, the more likely the language is to have more varieties (Nik, Farid, Hashim & Abdul, 2006) and to be vulnerable to evolutionization (Abd Rozan & Mikami, 2007).

Internet *evolutionized* Malay (EM) is a variation of standard Malay (SM) used online that involves modifications of standard Malay spellings. EM spelling is highly influenced by traditional face-to-face spoken style, which is regularly utilized in written mode online communication such as web-forums or chat. According to (Bradner, Kellogg & Erickson, 1999), chat mode can be evaluated as being much like a conversation. Although there are various findings and views regarding this (Crystal, 2001; Herring, 2007; Muniandy, 2002), we agree upon the point that chat mode is more inclined towards conversational style. Since the word morphology in EM is similar to words constructed in chat mode, we can assume that the spelling structures are very much similar to the phonetics of spoken words. In this case, the spoken words that have been typed in are meant to convey the aural effects that reflect better expression of a writer's feelings, which may have similar expression via colloquial style. Here the ability to mimic the spoken element in written conversation may be one advantage of EM.

Generally, the nature of a language used in communication has correlations with the attitude and values for any group of society (Asmah, 1986), to which Malay people are no exception. For such reasons, the characteristic properties of Malay people have been of interest to researchers for decades and many papers have described such values from the perspectives of business and management (Asma, 1996), entrepreneurship (Abd Rozan, 2001), marketing (Muthaly et al., 2005) and even from the patterns of apologies in verbal communication (Marlyna, 2006). According to Asmah, as cited in Marlyna (2006), 'the rules of speaking in a society are always related to the cultural values of the society'. Here, the rules of 'speaking' cover mostly the verbal aspects of communication. This paper, which attempts to present a novel outcome, looks specifically at the written aspect of online communication.

Table 2: Values and attitudes of ethnic Malays

Apologetic	Generosity	Relationships
Cooperative	Good Manners	Respect for elders
Faith in God	Harmony	Rituals
Family oriented	Loyalty	Self-respect
Food/ceremonies	Not aggressive	Sincerity
Formalities	Patience	Tolerance

In order to better understand the perceptual effect of EM (and SM) on the concept of Malay values and attitudes, we have chosen to start with terms that represent Malay values and attitudes from the list of terms provided by Dahlan (cited in Muthaly et al., 2005), as shown in Table 2. This functioned as our research framework and served as a basic description for the development of our tool. Generally, our tool is intended to measure the level of intensity from different type of connotative meanings that are represented conceptually by terms derived from Malay values and attitudes. More details on the use of this framework will be explained in subsection 5.2.

Questionnaire Design and Experimental Procedure

In this section, several subsections are introduced. This includes our experimental method based on Osgood Semantic Differential Analysis (SDA), information on respondents' demography, selection of adjectives pair based on the concept of Malay values and attitudes and finally, selection of standard Malay (SM) and *evolutionized* Malay (EM) words that functioned as stimuli in the questionnaire instrument.

Experimental Method

The study consisted of a written questionnaire, which is based on an established method introduced by (Osgood, Suci & Tannenbaum, 1957) designed for measuring word meanings by utilizing bipolar

scales with adjectives of opposite meaning anchoring ends of each scale. The main idea of this approach is to quantify such meanings using SDA.

In our SDA study, all respondents were asked to rate each stimulus presented to them on the 15 sets of bipolar adjective scales. A five-step semantic differential scale was employed, where a response of 'Mostly' indicated that the stimulus was very closely related by the adjective anchoring to either one end of the semantic differential scale, while a response of 'Slightly' indicated that the stimulus was slightly associated to either one side but was not really neutral. Respondents were instructed to give a response of 'Neutral' if both of the scales equally associated with the concept, or neither of the anchoring adjectives characterized the stimulus.

'sibuk'

Mostly : Slightly : Neutral : Slightly : Mostly

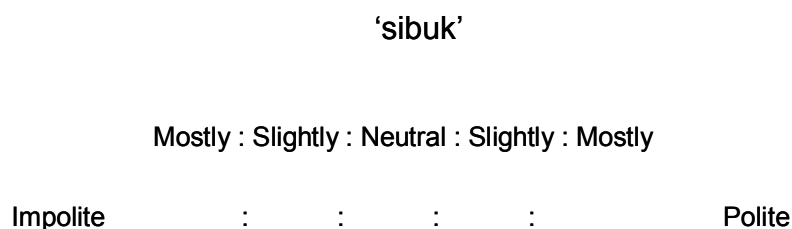Impolite   _____:_____:_____:_____:_____   Polite

Figure 2: Part of the 5-point bipolar adjective scale showing one adjective pair and a stimulus word.

In order to differentiate the given scales quantitatively, points were assigned for every scale from left to right, with '1' point for the left-most scale. This is followed by '2' points for the second scale, '3', '4' and '5' points for the respective subsequent scales. Higher points (>3) reflect the inclination towards the 'positive' zone of Malay values and attitudes and lower points (<3) works towards the opposite direction.

Fourteen stimuli were presented in a random order for each of fifteen adjective pairs. Figure 2 shows the 5-bipolar adjective scale with the bipolar adjective pair 'polite-impolite' and a stimuli word *sibuk* 'busy' presented as an example. In the instrument, the bipolar adjectives were written in the Malay words. The lists of these adjectives with the positive zones (values) are shown in Table 4.

Table 3: Demographic information of the study population

Number of respondents (n)	56
Sex [Male/Female]	4 / 52
Age [Year± SD (range)]	22.2 ± 0.8 (21-24)
Native Language Group	Bidayuh* – 1 (1.8%) Bisaya* – 1 (1.8%) Chinese – 11 (19.6%) Dusun* – 1 (1.8%) Iban* – 2 (3.6%) Indian– 2 (3.6%) Malay – 33 (58.9%) Sarawak Malay – 5 (8.9%)

*SD: Statistical Deviation. *:Indigenous Group*

In Table 3 the demographic information of our respondents is given. Respondents are final year undergraduate students of a Cognitive Science program attending a Computational Linguistics class in University Malaysia Sarawak (UNIMAS), a public university in the state of Sarawak, East Malaysia. All respondents are assumed fluent in Malay, as they have met the stringent entry requirements for multiethnic and multiracial students upon enrollment into tertiary level programs in Malaysian public universities.

From Concept words to Adjective-pair words

The reason for this experiment is to validate our claim that EM words can trigger a different impression when compared to SM words in online communication. Based on a discussion with three Malay native speakers prior to the development of our survey instrument, three concept words were chosen based on their close relationship with the notion of online communication. The selected concepts are good manners (*sikap yang baik*), tolerance (*toleransi*) and cooperation (*kerjasama*). The full concept words are available in Table 2.

As we know from our experience, intonation patterns in voice or speech utterances can convey different expressions and create different impressions in a hearer (Indirawati & Mardian, 2006). This is always noticeable even for a single word uttered, which can spell out the emotions or feelings of the speaker. This also applies to the selection of words in text-based online communication. Therefore, it is important to choose words that can correctly describe the connotative meanings of stimuli words.

Table 4: Corresponding bipolar adjective pairs both in Malay and in English

English*	Abbreviation	Malay*
<u>Hard</u> – Soft	SOFT	*<u>Keras</u> – Lembut*
<u>Proud</u> – Friendly	FREN	*<u>Sombong</u> – Ramah*
<u>Disorderly</u> – Peaceful	PEAC	*<u>Kucar-kacir</u> – Aman*
<u>Impatient</u> – Patient	PATI	*<u>Tidak sabar</u> – Sabar*
<u>Cold</u> – Warm	WARM	*<u>Dingin</u> – Mesra*
<u>Chaotic</u> – Calm	CALM	*<u>Kacau</u> – Tenteram*
<u>Insincere</u> – Sincere	SINC	*<u>Tidak Ikhlas</u> – Ikhlas*
<u>Loose</u> – Firm	FIRM	*<u>Renggang</u> – Erat*
<u>Harsh</u> – Gentle	GENT	*<u>Kasar</u> – Lemah lembut*
<u>Direct</u> – Indirect	INDR	*<u>Berterus-terang</u> – Berselindung*
<u>Aggressive</u> – Non aggressive	NAGR	*<u>Agresif</u> – Tidak agresif*
<u>Rigid</u> – Tolerant	TOLE	*<u>Tegar</u> – Toleran*
<u>Impolite</u> – Polite	POLT	*<u>Tidak sopan</u> – Sopan*
Strict – Not Strict*	NSRT	*Tegas – Tidak tegas**
Strong – Weak*	WEAK	*Kuat – Lemah**

Note: The adjective pairs as underlined represent negatives and non-underlined represent positives polarity of Malay values and attitudes.

*: These adjective pairs do not represent positive or negative values.

Taking into account the important role of such descriptive words, we have chosen the most appropriate descriptive words representing the three concept words. Good manners are represented by the values of *indirectness*, *politeness*, *softness* and *gentleness*. Tolerance is signified by the virtue of *non-aggressiveness*, *patience*, *peace*, *tolerance* and *calm*. Cooperation is denoted by *sincerity*, *friendliness*, *firmness* and *warmth*. Another two descriptive words, *strict* and *weak* are considered by the three Malay speakers as being too subjective and do not explicitly represent either positive or negative aspects of Malay values. For such condition, the two adjective (with its pairs) are only used as indicators to measure the level of strictness and weakness of stimuli words used. Note that some concept words from the list provided by Dahlan were also selected as descriptive words and listed as adjectives.

The lists of words used as bipolar adjectives are shown in Table 4. Please note that in the process of producing concept words and its corresponding dimensions, only Malay words were utilized in the discussion. The English adjective (or adverb) pairs that match Malay word pairs in Table 4 were later selected by translating Malay words into English using the *Dewan Eja Pro v1.0* electronic dictionary.

Stimuli Words

Stimuli were selected from EM words utilized in CMC. As numerous spoken-style words can be found either in asynchronous or synchronous discussion channels, we chose five groups of words as our stimuli selected from one web forum site, asamboi.org. This site provides many forum channels that are relatively informal, with large numbers of younger users and with the use of non-standard registers. The site's popularity is shown by the fact that it was ranked within the top 10 among web forums site within Malaysian cyberspace, awarded by Family Information Media, 2006 (E-keluarga.com, 2006). Table 5 gives the fourteen stimuli words with their English glosses. Note the slight differences in spelling between SM words and their EM varieties. Please also note that, since there is more than one word in EM corresponding to the same word in SM (except for 'lama'), we have grouped EM words into two classes of EM1 and EM2. EM1 represents spoken-style spelling and EM2 corresponds to words, which have melodic utterances. More information on the differences of EM words in terms of groupings can be found in Abd Rozan & Mikami (2007).

Table 5: Standard Malay (SM) and evolutionized Malay (EM) words used in the experiment as stimuli

English	Standard Malay (SM)	*Evolutionized Malay (EM1)*	*Evolutionized Malay (EM2)*	Concept / attribute
long/old	lama	-	lamer	Time / non-human
busy	sibuk	sibok	sebok	Situational / human
success	berjaya	berjaye	berjayer	Situational / human
crazy/not sensible /enthusiastic	gila	gile	giler	Situational / human
serious	serius	sirius	Seryuz	Situational / human

The literal meaning of *lama* 'long/old' is related to the concept of *time*, which is non-human in nature. For example in English, the word *lama* is used in Malay as the same meaning of 'an *old* street' or 'a *long* wait'. The words *sibuk* 'busy', *berjaya* 'success', *gila* 'crazy/non sensible' and *serius* 'serious' are associated with the concept of *situation* and dominantly related with the subjective nature of human. The word *gila* has several literal meanings in Malay, which translates as being insane or not sensible, extraordinary and enthusiastic. However, this word is not commonly used to represent the words 'extraordinary' and 'enthusiastic' because there are other preferable alternatives available. In addition, using the word *gila* is considered as rude, since it reflects negative connotations. *Serius*, while originally a loaned word, is now registered as a standard Malay lexical item.

Results and Discussion

In this section, three runs of analyses were performed. The first was on the perception of the whole sample of respondents (n=56). The second and third were on the perception among the native Malay (n=33) and non-native Malay (n=23) speakers, respectively. Cronbach's Alpha reliability tests were conducted for every each of the investigation and the coefficient value computed was 0.906 for all the 56 respondents, and respectively 0.908 and 0.903 for the native Malay and non-native Malay respondents. With this value, it is considered that the instrument used in this study is highly reliable since all the coefficient values are greater than 0.7 (Fink, 1995).

Mean Values, Stimuli words Direction and the Magnitude of Shift

Calculation of mean values for SM, EM1 and EM2 stimuli of every adjective pairs were performed which involved a grand total number of 405 mean values (3 analyses x 9 stimuli x 15 adjectives).

Mean value is important in order to display quantitatively a position, which may well describe the adjective type (within a bipolar adjectives) and to illustrate the level of intensity triggered by a specific stimulus. Moreover, such quantitative values can be used to gauge the shift of polarity within the adjective pairs by calculating the deviation of mean values between EM (1 or 2) and SM. For that reason, we introduced the use of arrow sign to represent the change of intensity within an adjective pairs.The directions of the arrow are vital here, which are determined by the relationships between mean values of stimulus pair SM – EM1 (60 cases, 4 stimulus pairs x 15 adjectives) and SM – EM2 (75 cases, 5 stimulus pairs x 15 adjectives).

When a mean value of EM1 is lower than SM, the deviation of EM1 – SM is negative and thus a downward arrow (↓) is produced which implies that the perception is directed into the *negative* region of Malay values and attitudes. A downward pointed arrow occurred if EM1 is smaller than SM ($\overline{EM1} < \overline{SM}$) or when EM2 is lesser than SM ($\overline{EM2} < \overline{SM}$).

In the case of a positive deviation, an upward arrow (↑) is used which symbolizes the shift of perception towards the *positive* region of Malay values and attitudes. For instance, upward pointed arrow occurred for EM1 – SM pairs, if EM1 is greater than SM ($\overline{EM1} > \overline{SM}$). This also applies for EM2 – SM pairs, if EM2 is of bigger value than SM ($\overline{EM2} > \overline{SM}$).

Another important test was to measure the magnitude of shift in perception from SM into EM1 or EM2, these were done by utilizing Multivariate Analysis of Variance (MANOVA) statistical analysis. Three series of MANOVA were employed to compare the means between SM – EM1 and SM – EM2 stimuli words towards fifteen adjective pairs. These were MANOVA 1, 2 and 3, for the whole respondents, for native Malay and non-native Malay speakers correspondingly as shown in Figure 3.

Major differences between stimuli words occurred when the MANOVA results showed significant values, which are represented by Sig. value that is less than 0.05 (p<0.05). These significant differences of mean and the direction of shift are shown as arrow with asterisk (↓*) or (↑*) in Table 6, 7 and 8.
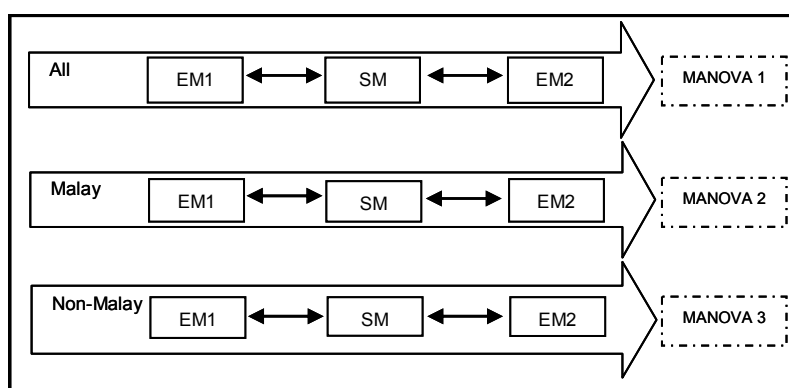

Figure 3: Summary of statistical analyses which involved three series of MANOVA tests.

Perception by all respondents

In this first analysis, the calculation of mean values for SM, EM1 and EM2 stimuli of every adjective pairs were performed based on scales selected by all 56 respondents.

Based on Table 6, the highest occurrences for *downward* arrows were for stimulus word '*sibuk*' (28/30=93%). This is followed by '*berjaya*', '*lama*' and '*serius*', which recorded 70%, 60% and 50%, respectively while '*gila*' showed 100% for *upward* arrows.

Therefore we can see that words that have a strong association with human values, i.e. '*sibuk*', '*berjaya*' and '*serius*', were highly affected by their EM versions. Based on the nature of the stimuli word '*gila*', which is considerably rude in nature, it is surprising to see that the modification of SM into EM for this word is perceived to be positive with a 100% shift. The somehow negative impression for such a rude word is changed by means of EM style. For a non-human related stimulus like '*lama*', the changes into EM were not so influential and for the word '*serius*', the effect was only partial.

The occurrences of significant values (26.7%) show that the *jumps* in perceived connotative meanings are large from one adjective to the other within adjective-pairs. Here, not only are the types of connotative meanings affected, but also the level of intensity of such connotative meanings.

Table 6: The direction and magnitude of shifts produced by the deviation of stimuli pairs (EM1 – SM and EM2 – SM) for all 56 respondents

	SOFT (hard-soft)		FREN (proud-friendly)		PEAC (disorderly-peaceful)		PATI (impatient-patient)		WARM (cold-warm)		CALM (chaotic-calm)		SINC (insincere-sincere)		FIRM (loose-firm)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
Lama		↓		↑		↓		↓		↓		↓		↓		↑
Sibuk	↓*	↓*	↓*	↓*	↓	↓*	↓*	↓*	↓*	↓*	↓	↓	↓	↓*	↓	↓
Berjaya	↓	↓	↓	↓	↓	↓*	↓	↓*	↓	↓	↓	↓	↓	↓*	↓	↓
Gila	↑*	↑*	↑	↑	↑	↑	↑	↑	↑	↑*	↑	↑	↑	↑	↑*	↑*
Serius	↑	↑	↑	↑	↓	↓	↓	↓	↓	↑	↓	↓	↓	↑*	↑	↑

	GENT (harsh-gentle)		INDR (direct-indirect)		NAGR (aggressive-non aggressive)		TOLE (rigid-tolerant)		POLT (impolite-polite)		NSRT (strict-not strict)		WEAK (strong-weak)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
Lama		↓		↑		↑		↓		↓		↑		↑
Sibuk	↓*	↓*	↑	↓	↓*	↓*	↓	↓*	↓*	↓*	↑	↓	↓	↓
Berjaya	↑	↓	↑	↑	↑	↑	↓	↓	↓	↓	↑*	↑*	↑*	↑*
Gila	↑	↑*	↑	↑	↑*	↑	↑	↑	↑	↑	↑*	↑	↑	↑
Serius	↓	↓	↑	↑*	↑	↑	↑	↑	↓	↓*	↑	↑*	↑	↓

*: Sig. <0.05 (p<0.05). Percentage of Sig. occurrences is 26.7% (36/135).

Perception of native Malay language speakers

The second analysis involves the calculation of mean values for SM, EM1 and EM2 stimuli of every adjective pairs performed based on scales selected by 33 native Malay speakers.

Table 7: The direction and magnitude of shifts produced by the deviation of stimuli pairs (EM1 – SM and EM2 – SM) for native Malay speakers

	SOFT (hard-soft)		FREN (proud-friendly)		PEAC (disorderly-peaceful)		PATI (impatient-patient)		WARM (cold-warm)		CALM (chaotic-calm)		SINC (insincere-sincere)		FIRM (loose-firm)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
Lama		↓		↑		↑		↓		↓		↓		↓		↑
Sibuk	↓*	↓*	↓*	↓*	↓	↓*	↓*	↓*	↓*	↓	↓*	↓*	↓	↓*	↓	↓
Berjaya	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓*	↓	↓
Gila	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Serius	↑	↑	↑	↑	↓	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓

	GENT (harsh-gentle)		INDR (direct-indirect)		NAGR (aggressive-non aggressive)		TOLE (rigid-tolerant)		POLT (impolite-polite)		NSRT (strict-not strict)		WEAK (strong-weak)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
Lama		↓		↑		↓		↑		↓		↑		↑
Sibuk	↓*	↓*	↑	↓	↓*	↓*	↓	↓*	↓*	↓*	↓	↓	↓	↓
Berjaya	↑	↓	↑	↑	↓	↓	↓	↓	↓	↓	↑	↑*	↑	↑*
Gila	↑	↑	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Serius	↓	↓	↑	↑*	↔	↑	↑	↑	↓	↓	↑	↑*	↑	↑

*: Sig. <0.05 (p<0.05). Percentage of Sig. occurrences is 17.0% (23/135).

It is interesting to find from the native Malay speakers' assessment that most stimuli words were perceived to be more 'indirect' and 'non-aggressive' when written in EM. However, 'sibuk' seems to move into the opposite direction and displayed a very significant shift towards 'aggressiveness'.

The dominant numbers of significant values found for the stimulus 'sibuk' (18/30), showed that all the jumps were associated with the shifts into the negative region of Malay values. This suggests that the EM form of the word 'sibuk' carries strong negative connotations.

The somewhat affected stimuli 'lama' and 'serius' showed some mixed directions. This is probably due to the fact that 'lama' is very objective and non-human, and 'serius' is not originally a native Malay word.

The amount of sensitivity regarding SM into EM shifts can be gauged by the number of occurrences in significant values. In Table 7, 17% of the values that occurred were significant.

Perception of non-native Malay language speakers

Here, the analysis involves the calculation of mean values for SM, EM1 and EM2 stimuli of every adjective pair performed based on scales selected by the 23 non-native Malay speakers. The respondents in this group represented the non-native speakers, whose native languages are Bidayuh, Bisaya, Chinese, Dusun, Iban, Indian and Sarawak Malay, as previously presented in Table 3.

There are not many differences between the perception of native and non-native Malay speakers. However, the measure of sensitivity of changes from SM into EM is rather low in non-Malay group. In Table 8, the occurrences of significant values were recorded as only 3.7%.

Table 8: The direction and magnitude of shifts produced by the deviation of stimuli pairs (EM1 – SM and EM2 – SM) for non-native Malay speakers.

	SOFT		FREN		PEAC		PATI		WARM		CALM		SINC		FIRM	
	(hard-soft)		(proud-friendly)		(disorderly-peaceful)		(impatient-patient)		(cold-warm)		(chaotic-calm)		(insincere-sincere)		(loose-firm)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
Lama		↑		↓		↓		↔		↑		↓		↓		↑
Sibuk	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Berjaya	↑	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Gila	↑	↑ *	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
serius	↓	↑	↔	↓	↓	↑	↓	↓	↔	↑	↓	↓	↓	↓	↑	↑

	GENT		INDR		NAGR		TOLE		POLT		NSRT		WEAK	
	(harsh-gentle)		(direct-indirect)		(aggressive-non aggressive)		(rigid-tolerant)		(impolite-polite)		(strict-not strict)		(strong-weak)	
SM	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2	EM1	EM2
lama		↓		↑		↑		↓		↓		↑		↑
sibuk	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓	↑	↑	↓	↓
berjaya	↑	↓	↑	↑	↑	↑	↓	↓	↓	↓	↑ *	↑ *	↑ *	↑ *
Gila	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
serius	↓	↓	↑	↑	↑	↑	↑	↑	↓	↓	↑	↑	↑	↑

*: Sig. <0.05 (p<0.05). Percentage of Sig. occurrences is 3.7% (5/135).

Conclusion

The aim of our investigation is to answer the two research questions that were introduced earlier, i.e. 'Do SM & EM words have the same type of perceived connotative meanings?' and 'What are the differences in the level of perceived connotative meanings for SM & EM words?' We have performed an empirical test based on Semantic Differential Analysis (SDA) on the perception of the use of non-standard spelling over standard spelling online. No other studies, as far as we are aware, have empirically tested the perception of standard words and non-standard words in Malay.

Although it is quite a huge challenge to reach a general conclusion for EM (and SM) on connotative meanings, based on our findings; we would conclude from this study that SM and EM words have different types of connotative meanings, which also registered different levels of intensity. Changes in the type of perceived connotative meanings for SM to EM occurred within a given adjective pairs

which are visible from the direction of arrow signs (as in Table 6, 7 & 8). Moreover, the occurrences of significant values that represent the jumps of perceived connotative meanings are large, which suggests that both EM and SM have a different level of intensity of given connotative meanings.

Prior to the experiment, our assumptions on EM words were that they are used for milder and non-harsh expression. Based on our experimental results, the perception of EM words showed mixed tendency. From the perception of all the 56 respondents, it is shown that EM could create larger shift in those human attributed SM words. Where, 'sibuk' is largely perceived as moving into the negative region of Malay values and attitudes when compared to a rude word 'gila', which shows the opposite tendency (100% towards positive, fitting Malay values) if written in EM. We suggest that the changes in connotative meaning highly affect human-attributed words, i.e. those that are related to human feeling and emotions.

Another interesting finding is the results from the two language groupings of native Malay and non-native Malay. Malay speakers have a higher sensitivity to recognize the shift of connotative meanings for the SM words, which shows a somewhat higher significant value (17%) compared to only 3.7% by non-native Malay. This suggests that native Malay speakers have highly sensitive perceptions of the changes from SM to EM words, which implies that they hold a strong feeling of correctness and incorrectness of use of their native language, Malay. This also implies that non-native Malay speakers are not as rigid and are more tolerant in their perception towards SM changes online. Since connotative meanings are related to speakers' real-world experiences (Allan, 2007), perhaps it is not surprising that results vary between these two groups.

Having pointed out the differences between responses to SM and EM words, here we would like to suggest a few points. A word selection strategy for this special type of orthographic changes could be devised. For example, a speaker may be able to more effectively convey his intended feeling via the connotative meanings represented by EM. A few respondents raised this point after they had completed the written questionnaire. For example, there was often difficulty in utilizing SM words instead of EM due to the mismatch of expression an SM word could provide. One respondent said, 'SM words are not the best choice if we want to match the expressive properties with our intention or feeling to others. We find EM words to be largely appropriate and suitable for the situation and purpose of our message'. Here, the selection of word and change of spelling have a great deal of influence on the type of expression such word could possibly provide.

Although EM words are frequently found online, with our improved understanding of the effect an EM word can trigger, we would suggest users to be more selective and careful when utilizing EM words. We cannot openly assume that such words can be utilized liberally without having a good sense of their implications. However, having the ability to apply different words for different expressions can also promote a more natural style of interaction. We are not saying that this natural style of interaction is on a par with face-to-face interaction or voice communication over the telephone, but rather that such utilization of EM could act as a tool, which expresses the non-explicit and auditory properties that are not ordinarily found in text. The orthographic dissimilarities between SM and EM are important and serve to contribute to differences in perception. Our findings support the claim that EM is not only exotically spelled to possibly provide a greater level of attraction or eye-candy (Abd Rozan & Mikami, 2007) but that EM spellings also trigger different perceptual meanings.

It is true that there are several limitations involved in this study, which we believe should be dealt with in further research. This includes using more stimuli words, which would represent more evolutionized Malay words. Another research consideration is the dialectal influence, in this case, stimuli words that may reflect better on numerous dialect in Malaysia should be used in future experiments. A well-balanced proportion of gender among respondents should also be considered. A sample with a larger age-range would improve patterns of responses and could possible give different impact in the outcome of results and minimize bias in results. Finally, this study is capable of measuring only the type and intensity of connotative meanings of EM and SM words within a general situation or context. Perception within a specific context will also be our main research agenda in future.

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Acknowledgments