

Emotion terms in Malay

Patterns in [*meN-*], [*meN-* -*i*], [*meN-* -*kan*], and [-*kan*]-only forms

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This study examined 25 emotion terms in Malaysian Malay and used corpus data to investigate whether these emotion terms appeared with the [*meN-*], [*meN-* -*i*], [*meN-* -*kan*], and [-*kan*]-only forms. The emotion terms were patterned in four different ways. Category One included local emotion verbs that conformed to the pattern [Affector-Affectee]. In this category, the verbs were dominated by the [*meN-* -*i*] form, with a small number including the suffix [-*kan*]-only. A verb in the [*meN-* -*kan*] form was either a Category Two [Causer *meN-* -*kan* Causee] pattern or a Category Four [Experiencer *meN-* -*kan* Event] pattern, among which Category Two had a higher number of instances. Category Three included two possible patterns – [Experiencer *meN-* -*i* Stimulus] and [Experiencer *meN-* (Stimulus absent)]. We found that the emotion terms with the [*meN-*]-only form were largely “narrating” the emotions of the speaker or situation, which provided the background, while the emotion terms with the [-*kan*]-only form were largely “proposing” the emotion of the speaker or the subject being referred to (cf. Hopper 1983; Bambang Kaswanti Purwo 1988). We were able to discern not only emotion terms in Malay but also their different uses in [*meN-*], [*meN-* -*i*], [*meN-* -*kan*], and [-*kan*]-only forms.

Keywords: emotion terms, semantic roles, Malay, corpus, [*meN-*] [*meN-* -*i*] [*meN-* -*kan*] [-*kan*]

1. Introduction

The study of emotions is one of the channels that taps into the cognitive system of a speech community. A great many studies have been carried out to investigate the language of emotions, such as the renowned Natural Semantic Metalanguage (NSM) approach by Wierzbicka (1992; 1996), and Kövecses’ (1990; 2000) emotion metaphors. Kövecses (2000: 2) provided two types of emotion words: (a)

“emotion words [that] can *express* emotion” (such as *yuk!*, and *wow!*); and (b) “[o]ther emotion words [that] can *describe* the emotions they signify. “Words like *anger* and *angry*, *joy* and *happy*, *sadness*, and *depressed* are assumed to be used in such a way” (ibid., p.2). The terms we analyzed in our work were of the second type.

Studies on emotions have also focused on the historical inspection of emotion lexicons (Fabiszak 1999; Diller 2014), while others took a technological approach with the aim of recognizing emotion automatically in the computational field (among many, Kim et al. 2004; Hovy 2015). Heider (1991) conducted large-scale fieldwork to categorize emotions in Indonesian by asking subjects to judge how close or distant one emotion was from another emotion. In fact, abundant studies on the research of emotion can be cited from various fields. However, among these studies, not many have discussed how emotion terms are patterned with Malay verbs. Those that have discussed emotion terms (e.g. Musgrave 2001) found that the Malay emotion system is complicated and requires further study, because the great variation of affixes in Malay increases the complexity of the emotion system in Malay. Wee (1995:4) noted that the Malay prefixes (*meN-*, *di-*, *ber-*, and *ter-*) require “an appeal to a semantic notion” to understand them.

Our study intended to find the patterns of Malay emotion terms when they appeared with four Malay verb forms that are highly similar yet distinctive from one another, namely, [*meN-*], [*meN-* *-i*], [*meN-* *-kan*], and [*-kan*]-only constructions.¹ To achieve our goal, a corpus-based approach was employed. Much linguistic research on Malay morphology in the past relied on a small amount of data or intuitive examples by native speakers. Our research made use of a large collection of authentic written texts in Malaysian Malay to investigate the emotion terms that appeared in those texts. The advantage of using a corpus in our research was that it enables us to check whether a grammatical form exists with a certain emotion term, as well as what the form means and how it is used in the text.

In the language we analyzed, Malaysian Malay (hereafter Malay),² there was no equivalent term that meant ‘emotion’, but there was the loanword *emosi*. There was also a generic ‘feeling’ term (i.e. the basic emotion ‘feel’, according to Johnson-Laird & Oatley 1989) used to refer to emotion – *pe-rasa-an* PE-feel-AN ‘feeling’ – as shown in (1a) below:³

1. The third letter *N* in the first three forms is capitalized because it is a variant that can change according to the phonological sounds of the following syllable; thus, it includes the allomorphs [*men-*], [*mem-*], [*me-*], [*meng-*], and [*meny-*].

2. For an introduction to Malaysian Malay, see also Koh (1990).

3. All corpus examples in this paper were taken from the online newspaper *Utusan Malaysia* (available at <http://www.utusan.com.my/>), unless otherwise stated. All Malay morphological

- (1) a. *Fasha luah pe-rasa-an di Twitter.*
 Fasha pour PE-feel-AN LOC Twitter
 'Fasha poured out (his) feelings on Twitter.'
 [Annotated News Corpus of Malaysian Malay 267.txt]
- b. ...1 *Ekspresi me-rujuk kepada ke-bebas-an me-luah-kan pe-rasa-an*
 1 Ekspresi ME-refer to KE-free-AN ME-pour-KAN PE-feel-AN
emosi dan jasmani dengan cara yang sihat.
 emotion and physical.body with way REL healthy
 '1 Ekspresi [a slogan for a bicycle event] referred to the freedom to pour out one's emotional feelings and physical body in a healthy way.'
 [Annotated News Corpus of Malaysian Malay 36.txt]
- c. *pada waktu itu, saya ter-paku dan me-rasa hairan.*
 at time that 1SG TER-froze and ME-feel surprise
 'At that time, I was frozen and felt surprise.'
 [Annotated News Corpus of Malaysian Malay 26853.txt]
- d. *di China pula pen-(t)ulis-pen-(t)ulis blog*
 LOC China on.the.other.hand PEN-writer-RED blog
me-lahir-kan rasa kecewa terhadap harga barang-an yang
 ME-give.birth-KAN feel disappointment toward price thing-AN REL
semakin men-(t)ingkat.
 increasingly MEN-rise
 'In China, on the other hand, blog writers expressed feelings of disappointment toward prices of things that were increasingly on the rise.'
 [Annotated News Corpus of Malaysian Malay 12847.txt]

Rasa can be a verb or a noun, and its derived noun form *pe-rasa-an* can appear on its own, as in (1a), or combined with other emotion terms, including the generic term *emosi* in (1b). The derived verb *me-rasa* can take many kinds of emotions, such as *hairan* 'surprise' in (1c), and as a bare noun, it can also appear with other emotion terms, such as *kecewa* 'disappointment' in (1d). Musgrave (2001:164) commented that Malay "[e]motion and cognition words can occur in typically nominal environments. The most common of these is as apparent object of the verb (*me*)*rasa(kan)* 'feel'." Apart from the use of *rasa* and its derived forms, emotion expressions in Malay can also appear as idioms, such as *besar hati* 'happy' in (2a) below, *panas hati* 'angry' in (2b), and *iri hati* 'jealous' in (2c), or as metaphor-

derivations were glossed except those that have been lexicalized, such as *tersebut* 'that/mentioned', *terhadap* 'towards', *berkenaan* 'related', *semakin* 'increasingly', and so forth. The number at the end of each example shows the text ID in the corpus. In principle, the past tense was adopted for the translation of most examples.

ical phrases, such as *men-didih darah* ‘MEN-boil blood’ in (2d). The idioms in (2a) to (2c) can appear with or without *rasa*.

- (2) a. *kita harus me-rasa besar hati dengan bahasa kita...*
 1PL should ME-feel big-heart(happy) with language 1PL
 ‘We should be [or feel] proud of our language...’
 [Annotated News Corpus of Malaysian Malay 29872.txt]
- b. *Umar semakin panas hati men-dengar-kan itu semua, tanpa*
 Umar increasingly hot-heart(angry) MEN-hear-KAN that all without
mem-buang masa beliau terus meng-(k)etuk pintu rumah Fatimah
 MEM-throw time he continue MENG-knock door house Fatimah
dengan kuat!
 with strong
 ‘Umar was increasingly angry to have heard it all; without wasting any more time, he straightaway knocked loudly on Fatimah’s door!’
 [Annotated News Corpus of Malaysian Malay 1374.txt]
- c. *setiap individu sewajar-nya tidak ber-(r)asa*
 each individual actually-ADV.SUFFIX NEG BER-feel
iri hati dan dengki apabila ada kalangan rakan
 jealous-heart (jealous) and envy when EXIST group friend
se-jawat yang di-naik-kan pangkat.
 SE-position REL PASS-raise-KAN rank
 ‘Each individual need not feel jealous or envious when there is a colleague who is promoted.’ [Annotated News Corpus of Malaysian Malay 9259.txt]
- d. *Awang tidak mahu men-(t)erus-kan tulis-an ini kerana men-didih*
 Awang NEG want MEN-continue-KAN write-AN this because MEN-boil
darah.
 blood
 ‘In anger [with his blood boiling], Awang [the speaker calling himself] doesn’t want to continue this writing.’
 [Annotated News Corpus of Malaysian Malay 18406.txt]

From these examples, one can see that, like many languages, emotion expressions in Malay involve more than one mechanism. Charteris-Black’s (2000) work on body-part phraseology found instances of *mata* ‘eye’ and *kaki* ‘foot/leg’ that referred to emotions. For example, the metaphor THE EYE TRANSMITS COVERT INFORMATION ABOUT THE FEELINGS was found, with examples such as *mata merah* ‘eye-red; crying’ and *bermain mata* ‘play-eye; to flirt sidelong with glances’ (Charteris-Black 2000: 289). Goddard (1996; 2001) studied Malay emotion terms using the NSM approach (see also Wierzbicka 1992; 1996), a theory that lays out the explicit conditions for the reason a meaning occurs. For instance, Goddard

(2001) examined the conditions that may evoke the virtues of *sabar* 'patient', *ikhlas* 'sincere', and *setia* 'loyal'. Goddard (2001:667) provided the NSM of *sabar* 'patient' in Malay: "being *sabar* is like having a kind of 'mental discipline'. The final component [last line in (3)] adds a strong moral endorsement ('it is good if a person can be like this')".⁴ Goddard (2001:665) argued that one could act *sabar* but not really feel so; based on the explication in (3), the true meaning of *sabar* is thus a "true state of mind", not "appearance":

- (3) X is *sabar* [at this time] =
 at this time, X felt something bad
 because of this, X could have thought:
 I don't want this, I want to do something now
 X did not think this, because X didn't want to think anything like this
 it is good if a person can be like this

In Goddard (1996), the NSM explications were also laid out for several selected emotions, such as *malu* 'shame', *bangga* 'pride', *marah* 'angry', *hampa* 'let down', *benci* 'hate/dislike', *dendam* 'vengefulness', and *cemburu* 'envy'. Like the example in (3), Goddard's (1996) analysis, taken from a psychological perspective, stated explicitly the conditions in which these emotions may be evoked. The results explained the psychological process of the speaker and the state of mind undergone to constitute these emotions. In analyzing the emotion terms in our study, sometimes we referred to these psychological processes to understand why an emotion term was selected in a certain situation. However, the psychological process did not provide information about the morphological patterns of the emotion terms.

As for recent research on Malay emotions, it has mainly been conducted from a computational perspective, including studies that have tried to recognize emotion in speech (e.g. Rajoo & Ching 2016), a research that have paid attention to Internet users' emotions in social networks (Muhammad Nabil Fikri Jamaluddin et al. 2016), and a study on emotions in publicized online materials such as

4. "[F]or a person (X) to be *sabar* means that the person 'felt something bad' (a vague formulation compatible with anything from mild irritation to great suffering) and that this had the potential to bring about an impulse 'to do something now' (again, a vague formulation but one which highlights the immediacy of the intended action). However, person X did not form such an intention, because 'X did not want to think anything like this'. In other words, being *sabar* is like having a kind of 'mental discipline'. The final component adds a strong moral endorsement ('It is good if a person can be like this')." (Goddard 2001:663).

YouTube (Shamsiah Abd Kadir et al. 2018).⁵ Yet without researching the formation of emotion terms in Malay, it is difficult to have an overall, systematic understanding of the emotion system in Malay. For emotion terms, we argue that patterns of meanings are brought about by affixes. In our study, we looked at four possible morphosyntactic structures that can be combined with emotion terms in Malay, namely, [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only, to investigate whether similar emotion terms could be found with all four forms and whether they expressed similar meanings. Our research questions are as follows:

- a. What are the categories of emotion terms that occur with the [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only forms in Malay?
- b. How do the categories of emotion terms reflect upon the differences between [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only?
- c. What are the semantic and discourse functions of the emotion terms with the four forms?

Based on these research questions, we examined a group of twenty-five emotion terms and checked whether they appeared with each of the four forms. The following section will provide a discussion of the [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only forms.

2. [*MeN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only

Emotion terms that are originally nouns or verbs can appear with [*meN-*], [*meN- -i*], [*meN- -kan*], or [*-kan*]-only. Some terms that appear only in adjective form do not take these affixes. For example, *jujur* ‘honest’, which is classified as an “adjective” in the official reference grammar in Malaysia, *Dewan Bahasa dan Pustaka*, can occur without these affixes, as shown in (4a) below,⁶ and the same for *sabar* ‘patient’ in (4b):

- (4) a. *dalam masa sama, mereka lebih meng-hormat-i suami yang
in time same they more MENG-respect-I husband REL
ber-tanggungjawab dan jujur.
BER-responsibility and honest
‘At the same time, they respect more husbands who are responsible and
honest.’* [Annotated News Corpus of Malaysian Malay 35573.txt]

5. Following Chung (2019), Malay names, which follow the “patronymic naming system of given name + bin/binti + father’s name” (<https://en.wikipedia.org/wiki/Patronymic>), are cited in full names both in the in-text citations and in the references.

6. <http://prpm.dbp.gov.my/Cari1?keyword=jujur>

- b. *kami memang tidak sabar untuk pergi ke lebih banyak negara*
 1PL indeed NEG patient for go LOC more many country
berikutan potensi pasar-an yang cukup besar.
 following potential market-AN REL enough big
 ‘We could not wait (literally: We are really impatient) to go to more coun-
 tries as a result of a potentially big enough market.’
 [Annotated News Corpus of Malaysian Malay 2809.txt]

Although it is convenient to recognize such emotion terms as nouns, verbs, or adjectives, the distinctions between them are sometimes fuzzy. Musgrave (2001: 179) claimed that emotion and cognition verbs are not always in the same lexical category, so “a case by case” approach is needed although he did not use this approach:⁷

[...] it may not be realistic to treat emotion and cognition words as though they all belonged to the same basic lexical category. A small group allow comparative and superlative formations like true adjectives [e.g. *bangga* → *ter-bangga* ‘proud → most proud’, Musgrave (2001: 177)], others can function as verbal roots without morphological derivation [e.g. *ingat* → *ter-ingat* ‘remember → be reminded’, Musgrave (2001: 178)]. The most realistic view is probably that there is a cline between adjectives and verbs in Indonesian, with some emotion and cognition words closer to one end of the continuum and some closer to the other. If this is the case, then the only useful approach would be to consider each word in detail and make a decision as to lexical category on a case by case basis [...].

As stated above, Musgrave (2001) did not use the approach of looking at the emotion terms case by case. However, our goal was to examine a group of emotion terms one by one to see whether they formed derivation patterns with [*meN-*], [*meN-* -*i*], [*meN-* -*kan*], and [-*kan*]-only. We selected only four forms due to the limited scope of our study.

Musgrave (2001: 148) found that *cemburu* ‘jealous’ can take the suffix [-*i*] as well as the causative [-*kan*] according to a native speaker’s intuition, but no textual evidence of this was found in that study. Different derivations of the emotion term *cemburu* ‘jealous’ are shown in (5) below. The corpus examples found in our study will be shown in this work, which will illustrate the advantage of using a large-sized corpus.

7. Musgrave (2001) examined Standard Indonesian, rather than Standard Malaysian Malay. However, where the standard form is concerned, many similarities can still be drawn because “[o]nly in Bahasa Indonesian [not colloquial Indonesian] is the use of all of these verbal affixes regarded as obligatory” (Benjamin 1993: 357). The affixes are also used in Standard Malaysian Malay. Features that are not related to Malaysian Malay will not be reported in this paper.

- (5) a. *me-lihat orang lain yang ber-kahwin dan mem-punya-i anak*
ME-see people other REL BER-get.married and MEM-possess-I child
men-jadi-kan saya cemburu dan meny-(s)esal...
MEN-become-KAN 1SG jealous and MENY-regret
'To see other people who get married and have children caused me [to be]
jealous and regretful...'
[Annotated News Corpus of Malaysian Malay 16337.txt]
- b. *ketika ramai yang men-cemburu-i ke-jaya-an-nya, Amber*
while many REL MEN-jealous-I KE-success-AN-3GEN Amber
meng-ingat-kan sentiasa diri-nya agar jangan se-sekali
MENG-remember-KAN always self-3GEN so.that NEG SE-once.more
me-lupa-kan sejarah.
ME-forget-KAN history
'While many were jealous of her success, Amber always reminded herself
not to forget her own history.'
[Annotated News Corpus of Malaysian Malay 2206.txt]
- c. *gara-gara cemburu-kan isteri, rogol adik ipar.*
because.of jealous-KAN wife rape sister brother-in-law
'Because of jealousy towards [his own] wife [(he was) suspicious of her
unfaithfulness], [he] raped the sister of his brother-in-law.'
[Annotated News Corpus of Malaysian Malay 35295.txt; headline]

For (5a), it is interesting to see *cemburu dan meny-(s)esal* in a coordinated construction, while not [*cemburu dan *sesal*] or [**men-cemburu dan meny-(s)esal*]. This again shows that some emotion terms prefer a certain form, and in this work, we intended to find the patterns.

Cumming (1991: 36) mentioned that some psychological activities, such as *tahu* 'know', are unprefix verbs, such as *Tahu-lah dia...* 'Know-LAH he...', a sentence Cumming considered a type of agent-trigger (AT) sentence. Winstedt (1913: 65) stated that "[n]o prefix attaches to intransitive words signifying spontaneous states of feeling and simple acts" (reorganized in Table 1 below).

Table 1. List of verbs with bare forms by Winstedt (1913: 65)

<i>kaseh sayang</i>	<i>suka</i> 'feel	<i>mau, hendak</i>	<i>terjun</i> 'leap	<i>diam</i> 'keep
<i>rindu</i> 'love'	pleasure'	'wish'	down'	silent'
<i>jatoh</i> 'fall'	<i>lari</i> 'run'	<i>bangun</i> 'rise'	<i>turun</i> 'descend'	<i>masuk</i> 'enter'
<i>datang</i> 'come'	<i>ada</i> 'be'	<i>harap</i> 'hope'	<i>pergi</i> 'go'	<i>tidur</i> 'sleep'
<i>tahu</i> 'know'	<i>terbang</i> 'fly'	<i>sampai</i> 'arrive'	<i>sujud</i> 'kneel'	<i>naik</i> 'ascend'
'jemu' 'feel	<i>tunduk</i> 'sloop the			
satirely'	head'			

When used both as an intransitive verb and to mean a “spontaneous feeling” or a “simple act”, these verbs may not require affixes. Some verbs can take the *ber-* prefix, such as *Ali ber-lari* ‘Ali BER-run’ ‘Ali runs’ and *Ali ber-diam (diri)* ‘Ali BER-keep.silent (self)’ ‘Ali keeps (himself) quiet’, although in the latter example a reflexive pronoun is needed to complete the meaning. In general, these verbs are bare forms when used intransitively, but not in transitive forms such as in ‘*saya me-rindu-kan dia*’ ‘I missed him/her’.

This explains why *cemburu* in (5a) is a bare form, but this does not explain why *meny-(s)esal* is used with the [*meN-*] form. In (5b), *men-cemburu-i* appears with the [*meN- -i*] form but no example of [*meN- -kan*] was found. There was also no *men-cemburu* in our data, but there was [*-kan*]-only as shown in (5c). With regard to these differences, we intended to find out what caused them using our corpus data.

For both [*-i*] and [*-kan*], Musgrave (2001: 5) called them “applicative” markers that allow a term to take on a transitive verb function (e.g. *cinta* ‘love’ to *men-cinta-i* ‘to love’), including what we call a “benefactive” function, such as in *Dia mengirimi suaminya uang* ‘She sent her husband money’ and *Dia menuliskan ayahnya surat* ‘She wrote a letter for her father’. Musgrave (2001) also provided a table that listed emotion and cognitive verbs in Indonesian and their possible derivations. We replicated the list in Table 2 below but only showed the “applicative” and “causative” derivations of the verbs. The emotion terms that we included in our study are marked with a superscript number sign < [#] >. Musgrave’s (2001: 150) data were based on the following texts: (a) two novels in Indonesian; (b) a novel translated from English into Indonesian; (c) “[e]xamples drawn from a corpus of contemporary Indonesian journalism collected by Helen McKay”; (d) examples from an Indonesian-English dictionary; and (e) two native speakers’ intuition.

In our work, we hypothesized that there are other reasons, apart from phonological constraint, that allow the occurrence of [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only. Phonological constraints are those in which “[t]he affix *-i* is never suffixed to verbs ending in *i* or *ay*” (Adelaar 1984: 404), which creates the verb *mem-benci* instead of **mem-benci-i*.⁸ Other phonological rules for the sound change in the formation of [*meN-*] can be found in the reference book by Nik Safiah Karim et al. (2015) and Tadmor (2009). They are not reported in detail here since they are not directly related to the scope of this work. In the following, we will review past literature on [*meN-*] and discussions on [*-i*] and [*-kan*].

8. There has been speculation that *mem-benci* has the applicative meaning *-i*, although it does not have the suffix *-i* (cf. Musgrave’s (2001: 161) personal communication with Adelaar; Sneddon et al. 2010). We treated *benci* as a stem that takes *meN-* in our study, although *benci* was the only emotion term to take the *meN-* form.

Table 2. Indonesian emotion and cognition verbs (part of the table taken from Musgrave 2001: 148)*

Word	Gloss	APPL**	CAUS***	Word	Gloss	APPL	CAUS
<i>bangga</i> ^{#****}	proud	(-kan)	+	<i>kuatir</i>	afraid	(-i)	+
<i>benci</i> [#]	hate			<i>lupa</i>	forget	-kan	
<i>bimbang</i> [#]	anxious	-kan	+	<i>malu</i> [#]	ashamed		(+)
<i>bosan</i>	bored		+	<i>marah</i>	angry		+
<i>cemas</i> [#]	worried			<i>mimpi</i>	dream	-kan	
<i>cemburu</i> [#]	jealous	(-i)	(+)	<i>mirip</i>	resemble		
<i>cinta</i> [#]	love	-i		<i>peduli</i>	care about	-kan	
<i>curiga</i> [#]	suspect	-i	+	<i>percaya</i>	believe	-i	(+)
<i>ganggu</i> ^{*****}	upset			<i>prihatin</i>	concerned	-kan	+
<i>gemar</i> [#]	fond of	(-i)		<i>puas</i>	satisfied		+
<i>gemas</i>	annoyed	(-i)	+	<i>sadar</i>	aware	(-i)	(+)
<i>gila</i>	insane	-i	+	<i>salut</i>	respect		
<i>heran</i>	surprised	-kan	+	<i>sayang</i> [#]	pity, love	-i/-kan	+
<i>ingat</i>	remember	-kan	+	<i>senang</i>	like	-i	+
<i>jemu</i>	fed up		+	<i>setia</i>	loyal	(-i)	
<i>jengkel</i>	annoyed		+	<i>simpati</i>	sympathetic		
<i>kangen</i>	long for	(-i)	+	<i>suka</i> [#]	like	-i	+
<i>kasih</i> [#]	love	-i		<i>takut</i> ^{#*****}	afraid	-i/-kan	+
<i>kasihan</i> [#]	pity	-i	(+)	<i>tega</i>	have the heart to		
<i>kecut</i>	afraid		+	<i>yakin</i>	sure	-i	+
<i>kenal</i>	know so	-i	+				

* “Applicative” takes a specified suffix to derive a transitive verb; “Causative” takes the suffix *-kan* to derive a causative verb. “A plus sign in any column indicates that at least one textual example of the clause type has been recorded. A bracketed plus sign indicates that native speakers believe the clause type is possible, but that no textual examples have been recorded” (Musgrave 2001: 149).

** APPL =Applicative

*** CAUS =Causative

**** #Emotion terms included in our study.

***** One of the reviewers commented that *ganggu* can take the suffix [-i] “to convey iterativity, which is not valence-increasing”. However, Musgrave (2001) did not find any examples of the applicative *ganggu*. Its use with the causative [-kan] was also not given. Both of these examples were not found in our corpus either.

***** Musgrave (2001: 149) stated that “the suffix *-i* can also derive a causative with *takut*”. Yet, in our current work, we did not find this example in our corpus data.

2.1 [MeN-]

MeN-, according to Nik Safiah Karim et al. (2015:159–160), has the following meanings:

- (6) a. *melakukan sesuatu* ‘to do something’ (*menumis* ‘to fry’, *menggoreng* ‘to fry’)
- b. *megeluarkan suara* ‘to give out a sound’ (*mencicit* ‘to make chirping sound’, *mengiau* ‘to mew’)
- c. *mencari atau mengumpulkan sesuatu* ‘to search for or to collect something’ (*merotan* ‘to collect rattan’, *merumput* ‘to collect/cut grass’)
- d. *menuju sasaran* ‘to aim at a goal’ (*melaut* ‘to sail’, *mendarat* ‘to land’)
- e. *berlaku seperti atau menyerupai* ‘act like or look alike’ (*mengekor* ‘to move like wagging tail’, *membusut* ‘to make a hill-like shape’)
- f. *hidup sebagai* ‘to live in a state as denoted by the noun’ (*menjanda* ‘to live as a widow’, *menduda* ‘to live as a widower’)
- g. *menjadi* ‘to become’ (*memutih* ‘to whiten’, *memanjang* ‘to lengthen’)

Emotion is likely to become part of the meanings in (6g), as in ‘to become the state of the emotion’ (e.g. *mem-benci* MEM-hate ‘to become resentful’). However, it is improper to make such a judgment because these are [*meN-*] forms *per se*; when *meN-* combines with the suffixes [-*i*] and [-*kan*], different meanings are produced.

There have also been detailed discussions about the morphology and grammar of [*meN-*] in Nik Safiah Karim et al. (2015) and Asmah Haji Omar (2015), but they were unrelated to the emotion terms we intended to study in our work. In other words, a great amount of studies that mentioned [*meN-*] did not discuss emotion terms in Malay, which highlights the significance of the current study.

Working also on [*meN-*], Soh & Nomoto (2011:78; italics added) stated that “[t]he verbal prefix *meN-* is one of the most well-studied yet controversial affixes in Malay.” Benjamin (1993:370) labeled *meN-* an “active (transitive) voice” or “agent-focus.” Cumming (1991:31–36) used the term “trigger” as a “syntactic role label” to divide Malay/Indonesian sentences into “agent-trigger” (AT) and “patient-trigger” (PT) constructions. The circumfixes [*meN-* -*i*] and [*meN-* -*kan*] fall into the AT category. While both Benjamin’s (1993) and Cumming’s (1991) approaches seem binary, Wee (1995:64–65) also noted that *meN-* “can take a variety of stems, some of which require volitional action [e.g. Malay verbs that mean ‘dance’ and ‘sing’], some of which are more typically non-volitional [e.g. ‘day-dream’; ‘cry’], some which appear to be open to either volitional or non-volitional interpretation [e.g. ‘scream’; ‘mutter’].” Even though many, including Wee (1995), have discussed *meN-*, none have applied it directly to emotion terms. Soh & Nomoto (2011:88) claimed that “all intransitive *meN-* sentences are unergative”. The definition of “unergative”, using the example from Soh & Nomoto (2011:83),

is as follows: “[T]he sole argument of an unergative verb can appear only in a pre-verbal position” (e.g. *Seorang lelaki tinggi pergi ke pasar* ‘A tall man went to a market’ cannot be changed to **Ke pasar pergi seorang lelaki tinggi*, but unaccusative verbs can, such as *Dari jauh datang seorang lelaki tinggi* ‘From a distance came a tall man’). Comparing the two types of verbs, Soh & Nomoto (2011:85) claimed that unaccusative roots (e.g. *datang* ‘to come’, *jatuh* ‘to fall’, *wujud* ‘exist’) form a causative meaning with [-kan] and [meN- -kan], but not when the roots are unergative (e.g. *pergi* ‘go’, *nyanyi* ‘sing’, *fikir* ‘think’). In other words, unergative roots do not form causative uses (e.g. **pergi-kan*, **mem-[p]ergi-kan* ‘*to cause x to go’). Even when the unergative root takes [-kan] or [meN- -kan], such as in *nyanyi-kan* ‘sing-KAN’ and *me-nyanyi-kan* ‘ME-sing-KAN’, it means ‘to sing’, rather than ‘to cause x to sing’. This clearly shows that, it cannot be predicted when [-kan] and [meN- -kan] will be causative without studying their stems and their lexical arguments. This phenomenon was found when examining the emotion terms in the current study. None of the 25 emotion terms could be distinguished by categorizing them as positive or negative emotions; or as having the same meaning unless each were attested in different morphosyntactic structures. We argue that the analysis of semantic meanings, especially the semantic roles of lexical arguments, is necessary. The following examples will explain the interrelationship between grammar and semantics.

To express emotions in Malay, some terms (such as *malu* ‘shy/ashamed’) can appear as a bare form (e.g. *seseorang malu kerana...* ‘someone is shy because...’) or with other affixes, such as [meN- -kan] in (7a) and with [-kan] only (e.g. *malu-kan* ‘to shame [someone/something]’, which will be discussed in §2.2). For *malu*, no examples of [meN-] and [meN- -i] were found in our corpus. In (7b) below, two emotion terms – *kasih* and *sayang* (both mean ‘love’) – are shown, and for these terms, we did not find any instances of the [meN- -kan] form:

(7) a. [MeN- -kan]

keadaan ini boleh me-malu-kan imej negeri yang
situation this can ME-shame-KAN image state REL
se-memang-nya ter-kenal dengan produk pe-lancong-an.
SE-indeed-ADV.SUFFIX TER-well.known with product PE-visit-AN
‘This situation can damage [to bring shame] the image of a state that is
indeed famous for tourism products.’

[Annotated News Corpus of Malaysian Malay 0188.txt]

b. [MeN- -i]

kita perlu meng-(k)asihi dan meny-(s)ayang-i anak-anak.
1PL need MENG-love-I and MENY-love-I child-RED
‘We need to love children.’ (*kasih* and *sayang* both mean ‘love’)

[Annotated News Corpus of Malaysian Malay 1311.txt]

In Malay, occurrences with either [*meN- -i*] or [*meN- -kan*] or with any other form are not random, but are often semantically motivated. Section 2.2 will discern the suffixes [*-i*] and [*-kan*].

2.2 [*-i*] and [*-kan*]

Musgrave (2001:6) noted that “Indonesian morphology as a whole has not yet been analyzed satisfactorily. In particular, there are restrictions on the co-occurrence of affixes which are not well understood.” This is also true of Malaysian morphology. For this section, we collected information on [*-i*] and [*-kan*] from past research. Cumming (1991:34–35; underlines added) stated:

Both *-i* and *-kan* have the function of altering the argument structure of a verb, for instance by introducing a new argument slot or by allowing an oblique argument to become a direct argument. [...] Verbs suffixed with either are invariably transitive. The precise effect of these affixes depends on the semantic class of the stem. *-i* generally promotes a recipient, a location, a goal, or some other oblique participant, adding a direct argument. The functions of *-kan* are more varied [...]. With an intransitive, stative verb or noun, it [*-kan*] adds an argument to create a transitive verb, often causative in meaning. [...] With a transitive verb, it forms a benefactive; the beneficiary becomes P [patient]. With a ditransitive (three-argument) verb involving transfer, it chooses the theme as P and the recipient as an oblique.

Adelaar (1984:404; italics added) also noted that in Standard Malay, [*-i*] “forms location-oriented verbs” or “acquire[s] the added meaning of plurality, intensity, duration or iteration.” A locational meaning of [*-i*], defined by Sneddon et al. (2010:89), is as follows:

[The locative *-i* is used] to indicate that the object is the place where the action occurs or the person or place to which the action is directed. When the action is directed at a person, that participant is called the recipient; when it is located or directed at a place, that participant is the location.

One example given was *tandatangan* ‘signature’ (noun). When it appears in *men-(t)andatangan-i* MEN-(t)andatangan-I ‘to place a signature on something’ and if it takes *surat* ‘letter’ as its object, the letter becomes a location where this action is taking place. This use, however, is found less often with emotion terms and therefore will not be discussed in this paper. Sneddon et al. (2010) also mentioned that [*-i*] has a repetitive function: *men-cium* ‘MEN-kiss’ means one kiss, but *men-cium-i* ‘MEN-kiss-I’ means kisses that occur repeatedly or that occur a num-

ber of times. Some emotion terms probably have this effect too. This is what Adelaar (1984: 404) called added “plurality, intensity, duration or iteration.”

Comparatively, the suffix [-*kan*] is “the most productive transitive verb marker and like [-*i*], it can be used with adjective (*merah-kan* [‘to redden’]), intransitive verb (*muntah-kan (darah)* [‘to vomit (blood)’]), and noun (*penjara-kan* [‘to imprison’])” (Adelaar 1984: 404; italics added). When [-*kan*] is combined with transitive verbs, it can take the same object or a different object. If the verb takes the same object [*tulis* ‘write O [Object]’ → *tulis-kan* ‘write O down’], it can mean the same as the verb before adding [-*kan*], or it has a causative meaning [*kenal* ‘know, recognize O’ → *kenal-kan (per-kenal-kan)* ‘introduce O, cause O to be known’] (Adelaar 1984: 405). In (8) below, two uses of [-*kan*] are shown, one of which has a causative (8a) reading, and the other (8b) has a preemptive reading where the presence of [-*kan*] does not change the valence or argument structure of the sentence; that is, *malu* and *malu-kan (malu akan)* both mean ‘to be ashamed of’.

(8) a. [-*kan*]

gerai using malu-kan pen-duduk.

stall old shame-KAN PEN-reside

‘The old stall embarrassed the residents.’

[Annotated News Corpus of Malaysian Malay 14367.txt; headline]

b. *saya sudah tidak perlu mem-(p)akai solek-an apabila keluar rumah*

1SG already NEG need MEM-wear make.up-AN when go.out house

seperti dahulu kerana malu-kan kesan noda hitam.

same.as before because shame-KAN effect stain black

‘I don’t wear makeup anymore when I go out compared to last time (when I did so) because I was embarrassed [feel embarrassed] of the dark spots

[on my face]. [Annotated News Corpus of Malaysian Malay 33739.txt]

In (8), two types of suffix [-*kan*] are shown. In (8a), a causative reading is found (i.e. the old stall caused the residents to feel embarrassed), while in (8b), the dark spots on the face are the cause of embarrassment – a *malu akan* ‘be embarrassed of’ reading is found. Goddard (1996: 432) posited that the situations in which a person feels *malu* vary: (a) “It could follow upon one’s having done something wrong or foolish” (i.e. become ashamed); (b) “the role of *malu* is preemptive” (i.e. be embarrassed or ashamed, e.g. *Tak MALU ke suruh orang perempuan belanja?* ‘Aren’t you ASHAMED to ask a woman [to] treat you?’); (c) “where shy seems fitting”; and (d) “a reference to ‘restraint’ or ‘propriety’ often makes for a sensitive translation”. The example in (8a) could be a more extensive version of the first type – the emotion is not due to a ‘foolish’ action but something (the *old stall*) that

causes someone to become ashamed although the emotion could still be a wrong or foolish one – while (8b) is the “preemptive” kind of embarrassed feeling.

As for the example in (8b), some relation between [-*kan*] and *akan* has been made by scholars in the past. For Indonesian, Sneddon et al. (2010:93) mentioned that *mem-benci* ‘MEM-hate’ and *meng-gemar-i* ‘MENG-fond.of-I’ usually take *akan* (e.g. *benci akan*; *gemar akan*) in their bare form, while *meny-(s)uka-i* ‘MENY-like-I’ has an optional *akan* (e.g. *suka [akan]*).⁹ This is the type that Adelaar (1984: 405) suggested was one of the kinds of transitive verbs that are formed by intransitive verbs, with examples such as *lupa (akan)* ‘forget (about)’ → *lupa-kan* ‘forget O’ and *muntah* ‘vomit’ → *muntah-kan (darah)* ‘vomit (blood)’. Cumming (1991:42–45) claimed that *akan* marks the second argument in “all two place verbs in classical Malay”. Cole & Son (2004: 340) argued that “the core functions of the suffix [-*kan*] are, in fact, predictable – but the unifying function is syntactic rather than semantic.” Cole & Son (2004: 351) also suggested that “the functions of -*kan* is to license the theme as primary object.” For original “two-placed intransitive verbs” such as *mandi* ‘bathe’, Cole & Son (2004: 361) indicated that -*kan* “adds a default higher argument to the argument structure” from ‘Agent *mandi*’ to ‘Causer *mandi-kan* Agent’, and that -*kan* developed from *akan* is “extended in function so that it licenses a constituent not previously in the thematic structure.” Such verbs are also referred to as ‘reflexives’, ‘reflexive middles’, or ‘causative reflexives’ (see Kemmer 1993; Yap & Iwasaki 2003; Yap & Ahn 2019).¹⁰ Yet only a few examples of intransitive verbs were discussed in the studies, and we found it difficult to apply intransitive verbs to the emotion terms discussed herein. In addition to the above, Sneddon et al. (2010:75) provided two typical constructions of the causative [-*kan*], as follows (original bold replaced by underlines; glosses added).

One subtype of causatives are based on adjectives indicating emotions and attitudes. These verbs indicate that the subject causes the object to experience the emotion or attitude expressed by the base [see (a) below]. [...] However, when the object is understood as applying to everyone in general, it is typically omitted [see (b) below]. [...] When there is no object these verbs function like adjectives and are usually translated by adjectives [...]

- (a) *Film-film seperti itu mem-bosan-kan saya.*
 film-RED same.as that MEM-bore-KAN 1SG
 ‘Movies like that bore me.’

9. In Malaysian Malay, it is possible to use *benci* without *akan* as a bare form (*Saya benci Ali* ‘I hate Ali’). We thank the reviewer for pointing this out.

10. We thank the reviewer for this comment.

- (b) *Film-film seperti itu mem-bosan-kan.*

film-RED same.as that MEM-bore-KAN

‘That movie is boring.’

(Sneddon et al. 2010: 75)

These two constructions of the causative [*meN-* *-kan*] were also the most often seen constructions in our corpus. Even so, as we will show, causative constructions can also be found with [*meN-* *-i*].

Comparing [*-i*] and [*-kan*], Wee (1995: 43) stated that, at some point, “*-i* and *-kan* are quite polysemous due to their participation in various metaphorical mappings for causation”. The suffix [*-i*], according to Nik Safiah Karim et al. (2015), can also mean “causative or to cause to happen” (e.g. *baik-i* good-1 ‘to make better’, ‘to fix or restore to good condition’) and “locative”, as mentioned (e.g. *me-naik-i bus* MEN-go.up-1 bus ‘to board a bus’). According to this definition, both suffixes [*-kan*] and [*-i*] can denote a causative meaning.

To differentiate the causative meaning from the local meaning, we defined ‘local’ meaning according to the following. “Local” is the terminology suggested by Wolff (1996: 18) for the suffix [*-i*], such as in “I love him.” In the current study, ‘local’ refers to a basic emotion, as in ‘I love you’ whereby ‘I’ is the ‘Affecter’ and ‘you’ is the ‘Affectee’ (this will be further defined in §2.3). Most instances of local emotions fall into the first category of emotion proposed in this study. Unlike the ‘local’ meaning, for the causative meaning there is a ‘Causer’ and a ‘Causee’ to an emotion, such as in ‘I make him angry.’ In Malay, as mentioned, the use of [*meN-* *-i*] and [*meN-* *-kan*] to distinguish the two is not a clear criterion. Some emotions that have both local and causative meanings can work in both directions. For instance, using Wolff’s example, when someone says *Ali men-(t)akut-i Amin* ‘Ali MEN-fear-1 Amin’, there are two possible readings – that ‘Ali is afraid of Amin’ (local) and ‘Ali scares Amin’ (causative). In this example, [*-i*] can also carry a causative reading when the speaker wants to topicalize the Causer (Ali) rather than the Affectee (Amin) in the local reading.¹¹ For the more canonical causative constructions, we often found the use of [*meN-* *-kan*], such as in *Ali men-(t)akut-kan Amin* ‘Ali MEN-fear-KAN Amin’ which means ‘Ali caused Amin to be frightened’. However, what the difference in [*meN-* *-i*] and [*meN-* *-kan*] is when used with emotion terms has never been clearly discussed in the past. In this paper, we claim that it is important to look not just at the morphosyntactic structure of the emotion terms but also their semantic roles. In the literature, there are many listings of functions found in different Malay reference grammar resources on

11. The ambiguity of *takut* ‘afraid/fear’ was mentioned by Kibrik (1997) in his discussion of the Riau Indonesian language. We shall investigate this issue in follow-up research.

[*meN-*], [*-i*], and [*-kan*], respectively, but none that explain how they can be used with emotion terms.

In Malay reference grammar resources, the only difference between the suffixes [*-kan*] and [*-i*] mentioned by Nik Safiah Karim et al. (2015) is the “benefactive” reading that is not allowed with [*-i*]. In the discussion of Proto-Malayic affixes, Adelaar (1984: 405) stated that when [*-kan*] “is suffixed to a transitive verb” and when it takes an additional object, the object can be the “beneficiary of the action” or “the instrument used to perform the action”. Of the two, the instrument [*-kan*] (e.g. *Dia meng-gores-kan kuku-nya ke meja* ‘She scratched her nail on the table’) (Sneddon et al. 2010: 84) is found less often in Malaysian Malay, and when it is found, it is not used with emotion terms. As for the beneficiary [(*meN-*) -*kan*] (such as in (9) below, taken from Wolff 1986: 169; bold and glosses added), it has not been found with emotion terms.¹²

- (9) *Dia mem-baca-kan saya doa.*
 3S MEM-read-KAN 1SG prayer
 or
Dia mem-baca-kan doa untuk saya.
 3SG MEM-read-KAN prayer for 1SG
 ‘He recited a prayer for me.’

For emotion terms, it is almost impossible for an emotion to take a benefactive role that receives the emotion. In the following, we shall exemplify the effect of the affixes on two emotion terms – *curiga* ‘suspect’ and *kagum* ‘admire/amazed’.

In (10a) below, the bare form of *curiga* ‘suspect’ is shown, which is a verb, not a noun, since it can be negated by *tidak* rather than *bukan*. As noted in Musgrave (2001: 164), *tidak* “negates verbs and adjectives”, whereas *bukan* is “the usual negator for nouns.” However, *curiga* can also be a noun, especially when it appears with *me-rasa* ‘ME-feel’, which is similar to *hairan* ‘surprise’ shown in (1c). In (10b), *curiga* functions as an adjective.¹³ Emotion and cognition words often appear in “a relative clause [*yang*]” (Musgrave 2001: 166), as in (10b) below:

- (10) a. *jika curiga kegiatan jiran anda, segera lapor-kan pada polis.*
 if suspect activity neighbor 2SG quickly report-KAN to police
 ‘If you suspect your neighbor’s activity, quickly report it to the police.’

12. Most discussions of [*-kan*] in previous literature often assumed that the prefix [*meN-*] could be also discussed. This can be seen in the examples provided. The discussion of [*-kan*]-only, as intended in this work, has occurred less often.

13. We followed the argument made by Teeuw (1962; 1977), and later by Musgrave (2001), that there is the category of “adjective” instead of “verb” for emotion and cognition verbs.

- b. *namun, se-buah kereta pe-ronda polis yang curiga dengan*
 however SE-CLASS car PE-patrol police REL suspicious with
ke-hadir-an ke-dua-dua suspek di kawasan itu telah
 KE-present-AN KE-two-RED suspect LOC area that already
mem-(p)eriksa mereka.
 MEM-inspect 3PL

‘However, a patrol police car that was suspicious of the presence of both suspects in that area had already inspected them.’

[Annotated News Corpus of Malaysian Malay 2382.txt]

When *curiga* takes [*meN- -i*], as shown in (11a) below, it can produce a local emotion [someone *men-curiga-i* something] that means ‘someone is suspecting something.’ It can also produce a causative reading, as in (11b). However, this kind of causative meaning of [*meN- -i*] is seen less often. In (11b), the construction is similar to (11e), whereby ‘the thing being suspected’ (‘activity’ in (11b) and ‘more than 20 documents’ in (11e)) is presented in a relative *yang* clause,¹⁴ although the occurrences of [*meN- -i*] as a causative form is less typical than those of the [*meN- -kan*] form in (11e). Another less productive causative sentence is shown in (11c). At first glance, (11c) seems to take *pe-sakit* ‘patient’ as the object [*ke-ada-an men-curiga-kan pesakit-nya* ‘situation MEN-suspect-KAN his/her patient’], but this sentence actually means ‘the situation that caused the patient to be suspicious.’ If one reads the example closely, *pe-sakit* ‘patient’ is not the direct object of *men-curiga-kan*, it is the head noun of a reduced relative clause (*pe-sakit-nya yang men-(t)erima rawat-an kerana meng-alam-i pen-darah-an* ‘his/her patient who was receiving treatment for bleeding’). The causative adjective *men-curiga-kan* ‘suspicious, or which induces suspicion’ modifies the ‘situation’, not the patient; that is, *keadaan (yang) men-curiga-kan* ‘the situation that raises suspicion.’ This is rather similar to (11d), a topicalized form that Sneddon et al. (2010) considered to be most likely translated as an adjective (i.e. ‘situation that is suspicious’). In the last example in (11f), we show that the verb *meng-kagum-kan* ‘MENG-amaze-KAN’, in contrast, takes an object (*se-siapa sahaja* ‘just anyone’), and more instances of this use were found in our corpus.¹⁵ In comparison, *men-curiga-kan* seldom appears in such form.

14. See Yap (2011) for more discussion of *yang*.

15. In (16b) (to follow), a seemingly similar pattern was found but it was later analyzed to be a topicalized object in the causative *-kan* form.

- (11) a. *serbu-an petang ini di-laku-kan hasil intip-an pihak kami*
 raid-AN afternoon this PASS-conduct-KAN product spy-AN party 1PL
dan juga maklumat daripada orang awam yang men-curiga-i kegiatan
 and also information from people public REL MEN-suspect-I activity
di premis tersebut.
 LOC premise that
 ‘The raid this afternoon was conducted as a result of our own spying and
 also because of information from the public who suspected the activity
 [that took place] in this premise.’
 [Annotated News Corpus of Malaysian Malay 13116.txt]
- b. *namun, beliau me-minta orang ramai yang ter-serempak dengan*
 however 3s ME-ask people many REL TER-come.across with
aktiviti yang men-curiga-i di se-panjang kawasan lebuhraya supaya
 activity REL MEN-suspect-I LOC se-long area highway so.that
meng-hubung-i tali-an hotline PLUS 1-800-88-0000 dengan segera.
 MENG-contact-I line-AN hotline PLUS 1-800-88-0000 with quick
 ‘However, he asked members of the public who came across the suspicious
activity along the highway to call the hotline PLUS 1-800-88-0000 quickly.’
 [Annotated News Corpus of Malaysian Malay 35540.txt]
- c. *sikap prihatin se-orang doctor me-lapor-kan kepada polis tentang*
 behavior careful one-CLASS doctor ME-report-KAN to police about
keadaan men-curiga-kan pe-sakit-nya yang men-(t)erima rawat-an
 situation MEN-suspect-KAN PE-sick-3GEN REL MEN-receive treat-AN
kerana meng-alam-i pen-darah-an, ber-jaya mem-bongkar
 because MENG-experience-I PEN-blood-AN BER-success MEM-reveal
rahsia remaja perempuan itu yang baru me-lahir-kan anak.
 secret youngster female that REL new ME-give.birth-KAN child
 ‘The alert response of a doctor who reported to the police about the suspi-
cious situation of his patient who was receiving treatment for bleeding
 succeeded in revealing the secret of the female youngster who had just
 given birth to a child.’
 [Annotated News Corpus of Malaysian Malay 13404.txt]
- d. *kata-nya, setelah meng-(k)esan se-buah bot pancung dalam keadaan*
 say-3GEN after MENG-detect SE-CLASS boat headless in situation
men-curiga-kan, pasukan itu cuba meng-hampir-i bot tersebut.
 MEN-suspect-KAN team that try MENG-near-I boat that
 ‘He said, after [they] detected a “headless” boat [name of a type of boat] in
 a suspicious state, the team tried to approach the boat.’
 [Annotated News Corpus of Malaysian Malay 9633.txt]

- e. *ter-dapat lebih 20 dokumen yang men-curiga-kan di-jumpa-i dalam empat fail tuntutan per-untuk-an.*
 TER-obtain more 20 document REL MEN-suspect-KAN PASS-see-I in
 empat fail tuntutan per-untuk-an.
 four file claim-AN PER-for-AN
 'More than 20 suspicious documents were found in four files [that documented] the provision claims.'
 [Annotated News Corpus of Malaysian Malay 20490.txt]
- f. *...ke-canggih-an-nya se-memang-nya akan meng-kagum-kan se-siapa sahaja yang me-lihat-nya.*
 KE-sophisticate-AN-3GEN SE-indeed-ADV.SUFFIX will MENG-amaze-KAN
 se-siapa sahaja yang me-lihat-nya.
 SE-who only REL ME-see-3GEN
 '...its sophistication will indeed amaze anyone who sees it (literally, cause anyone who sees it to become amazed).'
 [Annotated News Corpus of Malaysian Malay 8238.txt]

In the discussion above, the examples of *curiga* 'suspect' and *kagum* 'admire/amazed' were used to explain the difference between [*meN- -kan*] and [*meN- -i*]. These are two emotion terms that are frequently used with both forms, a phenomenon not displayed by other emotion terms. In the next section, we shall provide some background on the semantic roles used in our study.

2.3 Semantic roles

Cumming (1991:35) claimed that "[t]he precise effect of these [-i] and [-kan] affixes depends on the semantic class of the stem". Musgrave (2001) also supported the view that emotion terms must be discussed on a case-by-case basis. Emotion terms do not necessarily have the same meaning even when the same suffix is found. This is why it was important to analyze the emotion terms one by one in our study, along with the semantic roles of the arguments of the emotion terms. Koh (1990:174) suggested that "[t]he addition of *-kan* to the root derives a transitive verb [from 'a normally intransitive verb'] and introduces another argument, the Causer <Actor>. The Undergoer/Experiencer (Causee) of the causative corresponds to the subject of the intransitive root." From the above, it is clear that the analysis of semantic roles is not new, and scholars working on Malay (Cumming 1991; Musgrave 2001; Chung 2011) have agreed that Malay affixation is highly semantic-based.

In our work, some semantic roles were adopted from the work of Fillmore (1968; 1976; 1977), while others were added following the convention of thematic roles in the semantic analysis of the argument structure (Dowty 1991; Aarts 2018). We also used some of the roles taken from FrameNet. Frame semantics is a conceptual representation that entails the necessary properties, experiences, and

knowledge to understand the semantic structure and meaning of a word. The definition of “emotion” in FrameNet is given in (12) below (highlights modified):¹⁶

- (12) In this frame an **Experiencer** experiences an **Emotion** or is in an Emotional state. There can also be an *Evaluation* of the internal experiential state.

The definitions of the semantic roles used in this paper are shown in (13) below. The first two definitions were adopted from Aarts (2018: 92), while the last four definitions were partly adopted from FrameNet. Definitions and examples from Murphy & Koskela (2010: 149; small capitals removed) were also added.

(13) Semantic roles

- a. ‘Affecter’ (or ‘Agent’ by Aarts 2018): “The ‘doer’ or instigator of the action denoted by the predicate” (Aarts 2018: 92) or the “volitional initiator of an action” (e.g. *Mary broke the egg.*) (also called ‘Agent’ in Murphy & Koskela 2010: 149).
- b. ‘Affectee/Causee’ (or ‘Patient’ by Aarts 2018): “The ‘undergoer’ of the action or event denoted by the predicate” (Aarts 2018: 92), also defined by Murphy & Koskela (2010: 149) as “the entity that undergoes and is affected by the event” (e.g. *Mary broke the egg.*), also called ‘Patient’.
- c. ‘Causer’: Instigator of some action or “an event [(2)] in which something caused event (1)” (e.g. *caused something to die.*) (Murphy & Koskela 2010: 28).
- d. ‘Experiencer’: The Experiencer is the person or sentient entity that experiences or feels the emotions, or “an animate being that is aware of some situation or is affected inwardly by it, but is not in control of it” (e.g. *Mary loves eggs.*) (Murphy & Koskela 2010: 149).
- e. ‘Event’: The occasion or happening that Experiencers in a certain emotional state participate in. Event is generally defined as “a type of situation that is dynamic – that is, in which something happens” (e.g. *the collapse of the building.*) (Murphy & Koskela 2010: 65).
- f. ‘Stimulus’: The person, event, or state of affairs that evokes the emotional response in the Experiencer, or “a mental or physical sensory input that the Experiencer is affected by” (e.g. *Mary loves eggs.*) (Murphy & Koskela 2010: 149).

The semantic roles above were analyzed for each emotion term that appeared with the [meN-], [meN- -i], [meN- -kan], and [-kan]-only forms.

16. <https://framenet2.icsi.berkeley.edu/fnReports/data/frameIndex.xml?frame=Feeling>

3. Methodology and results

We used the Annotated News Corpus of Malaysian Malay (Chung & Shih 2019) that contained 35,767 news articles with morphological and part-of-speech tagging. The news articles were taken from the Malay newspaper *Utusan Malaysia*, collected from 16 December 2010, through 14 June 2011, for research purposes. We first selected a list of 25 emotion terms, mostly discussed in Musgrave (2001) (see Table 3).¹⁷ They were also selected because they have enough data in the corpus. We placed different emotion terms into the slots of the [meN-], [meN- -i], [meN- -kan], and [-kan]-only forms and searched for their occurrences in the corpus. The aim of this step was to see whether any of the [meN-], [meN- -i], [meN- -kan], and [-kan]-only forms works with each emotion term.¹⁸

Table 3. Emotion terms used in our study

<i>bangga</i> ‘proud’	<i>curiga</i> ‘suspect’	<i>sedih</i> ‘sad’	<i>kecewa</i> ‘disappointed’	<i>resah</i> ‘worry’
<i>benci</i> ‘hate’	<i>derita</i> ‘suffer’	<i>harap</i> ‘hope’	<i>malu</i> ‘shy/ashamed’	<i>gembira</i> ‘happy’
<i>bimbang</i> ‘worry’	<i>duka</i> ‘sad’	<i>suka</i> ‘like’	<i>hasrat</i> ‘hope/wish’	<i>takut</i> ‘afraid/fear’
<i>cemas</i> ‘dread’	<i>dukacita</i> ‘sad’	<i>sayang</i> ‘love’	<i>kagum</i> ‘admire/amazed’	<i>kasihan</i> ‘pity’
<i>cemburu</i> ‘jealous’	<i>gemar</i> ‘fond of’	<i>cinta</i> ‘love’	<i>hairan</i> ‘surprised’	<i>kasih</i> ‘love’

For the 25 terms, we also checked the frequency of their base form, as well as their four targeted forms, as the first step. The bare forms included all nouns, verbs, or adjectives. For *kasih* ‘love’ and *cinta* ‘love’, in particular, we removed unwanted examples, such as *terima kasih* ‘thank you’, names of persons, and TV series titles that had these two bare forms. The frequencies of the base forms are shown in Figure 1 below. These frequencies exclude the four target forms (i.e., [meN-], [meN- -i], [meN- -kan], and [-kan]-only), which will be shown in Table 4.

In Figure 1, *gembira* ‘happy’, *suka* ‘like’, and *hasrat* ‘hope/wish’ are the top most frequently found bare forms. It is by coincidence that the top emotions are all positive emotion terms. As mentioned, some emotion terms tend to appear in bare form rather than in the suffixed form. For instance, *curiga* ‘suspect’ is near the bottom of the list when it comes to its bare form.

17. The list is not exhaustive because, as mentioned, there are many ways to express emotions in Standard Malay. Our original list contained *rasa* ‘feel’, but it was removed because it also has the meaning of ‘taste’.

18. Although an equivalent English translation is provided in Table 3, a single translation usually cannot elicit the significant meaning of emotion terms in Malay, as Goddard (2001) has also emphasized.

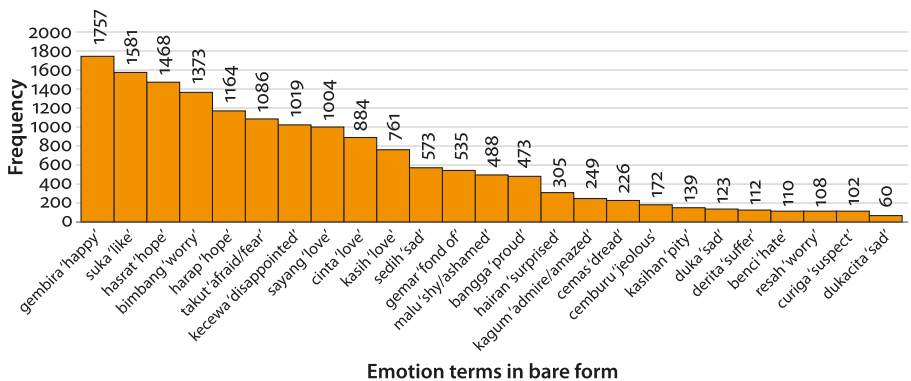


Figure 1. Frequencies of the bare forms of the 25 emotion terms in Malay

The next analysis consisted of two parts – we first consulted the corpus to find the possible [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only verbs that take emotion terms as their stems. Then, we had to find the semantic roles of the arguments of the four forms where the stems are emotion terms.

The frequencies of the 25 emotion terms are shown in Table 4 below. The frequency count included only the verb forms of [*meN-*], [*meN- -i*], [*meN- -kan*], and [*-kan*]-only. In Table 4, *harap* 'hope' tops the frequency list, followed by *bimbang* 'worry' and *bangga* 'proud', which is a different order than that found in Figure 1.

Table 4. Percentages and frequencies (in brackets) of emotion terms in Malay

Emotion terms	<i>MeN-</i>	<i>MeN- -i</i>	<i>MeN- -kan</i>	<i>-kan-only</i>	Total
<i>harap</i> 'hope'	6.86 (67)	0	81.35 (794)	11.78 (115)	909
<i>bimbang</i> 'worry'	0	0	89.13 (418)	10.87 (51)	469
<i>bangga</i> 'proud'	0	0	95.25 (401)	4.75 (20)	421
<i>kecewa</i> 'disappointed'	0	0	98.10 (362)	1.90 (7)	369
<i>sedih</i> 'sad'	0	0	100.00 (302)	0	302
<i>cinta</i> 'love'	0	51.54 (134)	0	48.46 (126)	260
<i>malu</i> 'shy/ashamed'	0	0	96.39 (240)	3.61 (9)	249
<i>takut</i> 'afraid/fear'	0	0	85.65 (185)	14.35 (31)	216
<i>sayang</i> 'love'	0	44.13 (94)	0	55.87 (119)	213
<i>gembira</i> 'happy'	0.47 (1)	0	99.07 (212)	0.47 (1)	213
<i>suka</i> 'like'	0	51.18 (108)	0	48.82 (103)	211
<i>kagum</i> 'admire/amazed'	0	13.59 (25)	86.41 (159)	0	184
<i>curiga</i> 'suspect'	0	8.57 (15)	91.43 (160)	0	175
<i>gemar</i> 'fond of'	0	66.07 (111)	0	33.93 (57)	168
<i>hairan</i> 'surprised'	0	0	99.30 (141)	0.70 (1)	142

Table 4. (continued)

Emotion terms	MeN-	MeN- -i	MeN- -kan	-kan-only	Total
<i>cemas</i> ‘dread’	0	0	100.00 (79)	0	79
<i>dukacita</i> ‘sad’	2.74 (2)	0	97.26 (71)	0	71
<i>resah</i> ‘worry’	2.13 (1)	0	95.74 (45)	2.13 (1)	46
<i>kasih</i> ‘love’	0	78.79 (26)	0	21.21 (7)	33
<i>kasihan</i> ‘pity’	0	48.39 (15)	0	51.61 (16)	31
<i>benci</i> ‘hate’	82.46 (94)	0	0.88 (1)	16.67 (19)	20
<i>cemburu</i> ‘jealous’	0	72.22 (13)	0	27.78 (5)	18
<i>derita</i> ‘suffer’	98.95 (189)	1.05 (2)	0	0	2
<i>hasrat</i> ‘hope/wish’	0	0	100.00 (1)	0	1
<i>duka</i> ‘sad’	0	0	100.00 (1)	0	1

When we compared the frequencies in Figure 2 below, we noticed that most emotion terms had higher bare forms than the four target forms. Only *derita* ‘suffer’ and *curiga* ‘suspect’ had lower bare forms than the four target forms. The example in (10) earlier, which involves the bare verb *curiga* ‘suspect’, was rarely found in our corpus. In addition, we found instances in our authentic data that were not found in previous studies. In Table 4, we also found instances of (*mem-*)*benci-kan* ‘MEM-hate-KAN’ and *men-cemas-kan* ‘MEN-dread-KAN’, which were not listed in Musgrave’s (2001) list of emotion terms in Table 2. These results confirm the advantage of our approach, which will be discussed later.

The assignment of semantic roles is demonstrated in the two examples shown below.

- (14) a. [Affector *meN-* -i Affectee]
pada ke-biasa-an-nya masyarakat di negara ini lebih
at KE-normal-AN-ADV.SUFFIX society LOC country this more
meng-gemar-i produk minum-an ber-asas-kan herba.
MENG-fond.of-I product drink-AN BER-base-KAN herbs
‘Normally, the society in this country prefers drinks of herbal taste more.’
[Annotated News Corpus of Malaysian Malay 15703.txt]
- b. [Causer *meN-* -kan Causee]
kami telah mem-beri peluang kepada Nick di Jerez, minggu lepas
1PL already MEM-give opportunity to Nick LOC Jerez, week ago
dan dia benar-benar meng-kagum-kan kami.
and 3s true-RED MENG-surprise-KAN 1PL
‘We had given opportunities to Nick in Jerez, last week, and he truly surprised us.’
[Annotated News Corpus of Malaysian Malay 16814.txt]

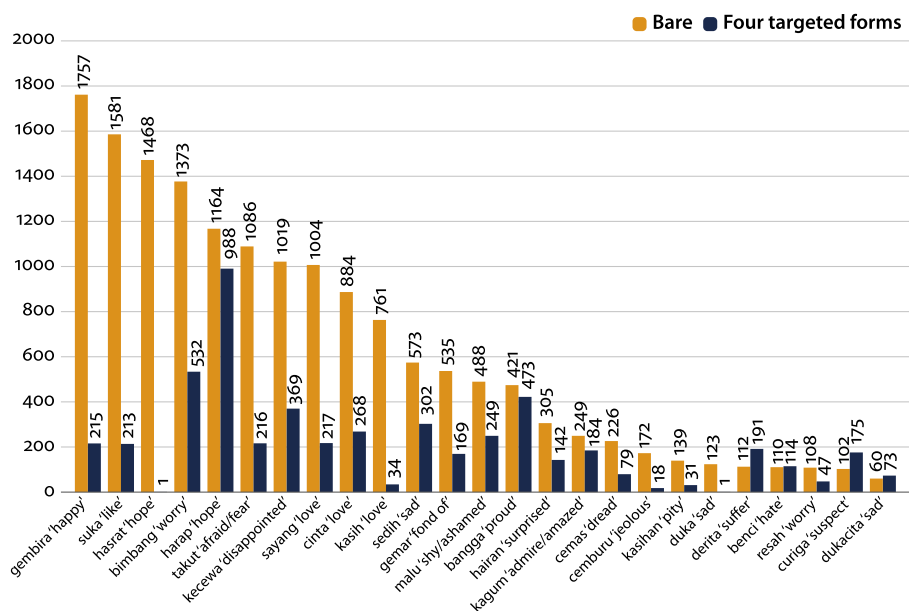


Figure 2. Comparison of the frequencies of the bare forms with the four target forms

Based on the roles assigned to each instance of the [*meN*-], [*meN*-*i*], [*meN*-*kan*], and [*-kan*]-only verbs of the 25 emotion terms, we created Table 5. Seven breakdown patterns for four main categories were observed with the combinations of semantic roles. ‘Yes’ and ‘No’ in Table 5 represent whether there were instances found in the corpus. If only one instance was found, it was especially noted. Their frequency counts will be given in the pattern analysis section.

Table 5. Placing each emotion term into the slot*

Category	Semantic roles	Cinta Benci		Resah Kagum	
		‘love’	‘hate’	‘worry’	‘admire/amazed’
One	[Affector <i>meN</i> - <i>i</i> Affectee]	Yes	Yes (<i>meN</i>)	No	Yes
	[Affector <i>-kan</i> Affectee]	Yes	Yes	Yes (1)	No
Two	[Causer <i>meN</i> - <i>kan</i> (Causee)]	No	No	Yes	Yes
	[Causer <i>meN</i> - <i>i</i> (Causee)]	No	No	No	Yes
Three	[Experiencer <i>meN</i> - (Stimulus absent)]	No	No	Yes (1)	No
	[Experiencer <i>meN</i> - <i>i</i> Stimulus]	No	No	No	Yes
Four	[Experiencer <i>meN</i> - <i>kan</i> Event]	No	No	No	Yes

* This is not the full table. This table shows an illustrative sampling of four verbs only.

In gathering the data for Table 5, we noticed that if an emotion term (such as *resah* ‘worry’) occurred with the [*meN-* -*kan*] form, we needed to decide whether it meant [Causer *meN-* -*kan* Causee] or [Experiencer *meN-* -*kan* Event], because the term itself did not reveal what it meant. The interpretation depended on the lexical arguments of the verb. After searching for all patterns, we categorized the emotion terms according to their tendency of appearing with the four forms.

4. Pattern analysis

4.1 Category One: [Affecter-Affectee]

This category contained two patterns – [Affecter *meN-* -*i* Affectee] and [Affecter -*kan* Affectee]. Figure 3 shows the results of the comparisons of the tendency of the four forms [*meN-*], [*meN-* -*i*], [*meN-* -*kan*], and [-*kan*]-only to appear with emotion terms as an overall picture. Most of the emotion terms in this category had the form [*meN-* -*i*] as their most dominant occurrence (except *men-benci*, which had instances of [*meN-*]); many also had the [-*kan*]-only suffix.

The emotion terms in Category One formed local emotions in which the emotion terms took [*meN-* -*i*] strictly as their derived verb form. The Affectee in the pattern in (15) below could be a person (as in “I love you”) or a thing:

- (15) a. *men-didik mereka men-cinta-i sejarah dan ke-seni-an negeri ini.*
 MEN-educate 3PL MEN-love-I history and KE-arts-AN state this
 ‘to educate them so that they love the history and arts of this state’
 [Annotated News Corpus of Malaysian Malay 14064.txt]
- b. *pada ke-biasa-an-nya masyarakat di negara ini lebih*
 at KE-normal-AN-ADV.SUFFIX society LOC country this more
meng-gemar-i produk minum-an ber-asas-kan herba.
 MENG-fond.of-I product drink-AN BER-base-KAN herbs
 ‘Normally, the society in this country prefers drinks of herbal taste more.’
 [Annotated News Corpus of Malaysian Malay 15703.txt]

We noticed that the emotion terms that were found frequently with [*meN-* -*i*] had no instance of [*meN-* -*kan*], except for *curiga* ‘suspect’ and *kagum* ‘admire/amazed’, which instead had both [Affecter-Affectee] and [Causer-Causee] uses; therefore, they appear in both Figures 3 and 4. Example (16a) below (repeated from (11a)) has a local meaning, but (16b) has a topicalized object in the causative [*meN-* -*kan*] pattern, which is presented as ‘the explanation *men-suspect-kan* us’ (made us suspicious).

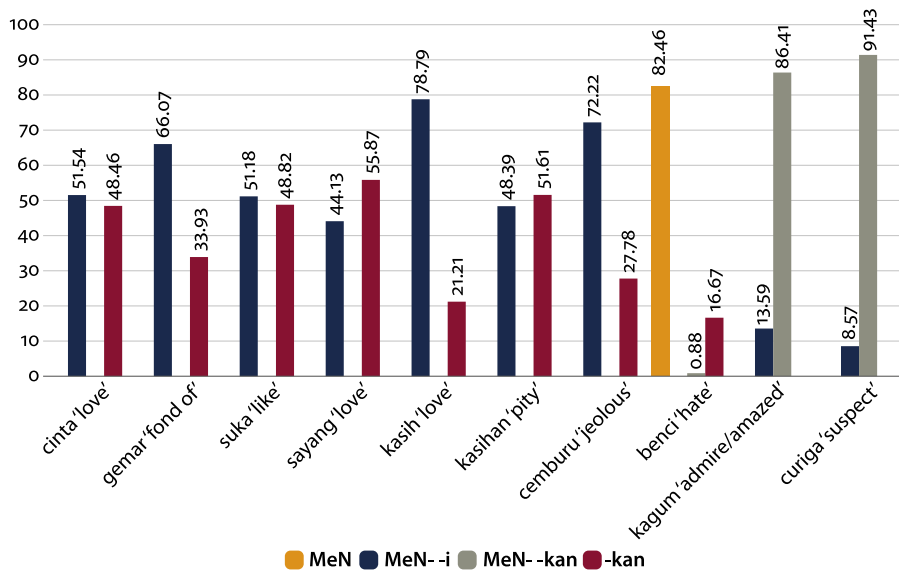


Figure 3. Percentages of emotion terms with the [Affecter-Affectee] meaning

- (16) a. *serbu-an petang ini di-laku-kan hasil inti-pan pihak kami*
 raid-AN afternoon this PASS-conduct-KAN product spy-AN party 1PL
dan juga maklumat daripada orang awam yang men-curiga-i kegiatan
 and also information from people public REL MEN-suspect-I activity
di premis tersebut.

LOC premise that

‘The raid this afternoon was conducted as a result of our own spying and also because of information from the public who suspected the activity [that took place] in this premise.’

[Annotated News Corpus of Malaysian Malay 13116.txt]

- b. *alas-an itu men-curiga-kan kita mem-(p)andang-kan tanam-an*
 reason-AN that MEN-suspect-KAN 1PL MEM-watch-KAN plant-AN
tersebut banyak di Malaysia.

that many LOC Malaysia

‘The reason made us suspicious for we could see that that kind of crop was abundantly found in Malaysia.’

[Annotated News Corpus of Malaysian Malay 31463.txt]

As shown in Figure 3, we also found many occurrences of [-kan] with the most emotion terms (except *kagum* and *curiga*, which had [meN- -kan] uses, but not [-kan] uses). *Benci* ‘hate’ had only one [meN- -kan] example, as shown in (17) below:

- (17) *mereka sering me-naik-kan semangat orang ramai supaya mem-benci-kan*
 3PL often ME-raise-KAN spirit people many so.that MEM-hate-KAN
kerajaan.
 government
 ‘They often stirred up the spirit of the public so that they hate the government.’
 [Annotated News Corpus of Malaysian Malay 31794.txt]

This example of *mem-benci-kan* does not have a causative reading, as it reads like *benci akan* in the [Affecter-Affectee] category. The non-causative meaning of *mem-benci-kan* was also mentioned in Kroeger (2007). In (18a) below, both *meny-(s)ayang-i* ‘MENY-love-I’ and *sayang-i* ‘love-I’ have the same meaning under the [Affecter-Affectee] category.

- (18) a. [Affecter *meN-* -i Affectee]
sebelum meny-(s)ayang-i orang lain, se-baik-nya anda sayang-i
 before MENY-love-I people other SE-good-ADV.SUFFIX 2SG love-I
diri sendiri.
 self self
 ‘Before [you] love others, you better love yourself.’
 [Annotated News Corpus of Malaysian Malay 1395.txt]
- b. [Causer *meN-* -kan Causee]
**perkara itu meny-(s)ayang-kan kita*
 matter that MENY-love-KAN 1PL
 ‘*That matter causes us to feel loved.’
- c. [Affecter -kan Affectee]
kerana dia amat sayang-kan keluarga
 because 3SG very love-KAN family
 ‘because he loves [his] family very much’
 [Annotated News Corpus of Malaysian Malay 10908.txt]

As mentioned, most of the emotion terms in Figure 3 did not appear with the [*meN-* -kan] form, as in (18b); rather, they had a simple [-kan]-only suffix, as shown in (18c). This suggests that the [-kan]-only suffix is not the short form of the [*meN-* -kan] form because they do not behave similarly, which is unlike *meny-(s)ayang-i* ‘MENY-love-I’ and *sayang-i* ‘love-I’ in (18a), in which both seem similar in meaning.

Based on this finding, we conducted a pattern check in our corpus, and the results are shown in Table 6 below. For a quick comparison, we considered [*meN-* -i], [-i], and [-kan] as applicatives, and only [*meN-* -kan] as causative. In Table 6, we also show Musgrave’s (2001) results in the two far-right columns. Also in Table 6, our inconsistencies with Musgrave’s (2001:148) results are marked by a superscript exclamation mark (!) and in boldface. If there was an instance found,

we marked it with a check (v); if there was no instance found, we marked with a cross (x). Inconsistency was not compared for emotion terms that were not inspected by Musgrave (shaded and marked as “n/a”).

We did not find an applicative [-i] for *takut* ‘afraid/fear’ (row 8) or causatives for *suka* ‘like’ (row 4), *sayang* ‘love’ (row 10), *cemburu* ‘jealous’ (row 18), and *kasih* ‘pity’ (row 19), which Musgrave found either in the corpora or from the native speakers’ intuition in his study on Indonesian. In contrast, we found causative uses for *cemas* ‘dread’ (row 17), which Musgrave did not find; in addition, *mem-benci-kan* ‘MEM-hate-KAN’ (row 22) is not a causative, as previously discussed in (17).

Sometimes, the [Affecter-Affectee] category could be distinguished from the [Causer-Causee] category by running the following test. In (18) previously, one can say (a) *meny-(s)ayang-i* ‘MENY-love-I’ but not (b) *meny-(s)ayang-kan* ‘MENY-love-KAN’. This shows that *sayang* ‘love’ does not have a causative meaning. *Sayang-kan* ‘love-KAN’ in (18c) is allowed because (18c) does not carry a [Causer-Causee] meaning but an [Affecter-Affectee] meaning. That is why Figure 3 has more instances of [-kan] (though not [*meN-*kan]) compared with Figure 4 for [Causer-Causee], which will be discussed in the next section.

In addition to the above, one thing worth mentioning is that all 25 instances of the [*meN-*i] form of *kagum* are of the type in (19), while as previously shown in (11b), the causative uses of [*meN-*i] was possible with *curiga* ‘suspect’. However, for *kagum* ‘admire/amazed’, [*meN-*i] elicits the ‘admire’ meaning rather than the ‘amazed’ meaning. This is interesting because *kagum* has two meanings and we found one particular meaning in one specific form. As exemplified below, *meng-kagum-i* ‘MENG-admire-I’ in (19) means ‘admire’. In (19a), it is interpreted as [Affecter-Affectee] rather than [Experiencer-Stimulus]. This sentence is interpreted in the same way as (14a), whereby *masyarakat meng-gemar-i produk minum-an ber-asas-kan herba* ‘the society prefers drinks of herbal taste’ and *dia meng-kagum-i bandar Venice* ‘he admires Venice’ do not mean that the ‘drinks’ or the ‘city’ serve as the stimulus to the experiencer. Another more typical example is in (19b), where we found clearly that the two arguments of *meng-kagum-i* are Affecter and Affectee.¹⁹

19. We thank the reviewer for bringing this up. For [Experiencer-Stimulus], we found *Martel sedang men-derita-i peny-(s)akit* ‘Martel is suffering a certain disease’ (22c), which is a more typical ‘Undergoer/Experiencer’ meaning than this example. It is also worth mentioning that the title of this news article is *Johnny Depp Kagum-i Venice*; this title is confusing because it can be read in multiple ways – local or causative. However, the content of this news article told us that Johnny Depp admired the city, not that he made the city (audience or fans) scream for him. The investigation of [-i]-only could be a potential area of research for future study.

Table 6. Consistency of occurrences of [MeN- *-i*] versus [-*i*] and [MeN- *-kan*] versus [-*kan*]-only

Emotion terms		Our corpus				Musgrave (2001: 148; italic added)	
		APPL *			CAUS **	APPL	CAUS
		[MeN- -i]	[-i]	[-kan]			
1.	<i>kasih</i> ‘love’	v	v	v [!] ***	x	-i	x
2.	<i>cinta</i> ‘love’	v	v	v [!]	x	-i	x
3.	<i>gembira</i> ‘happy’	x	x	v	v	n/a	n/a
4.	<i>suka</i> ‘like’	v	v	v	x [!]	-i	+
5.	<i>hasrat</i> ‘hope/wish’	x	x	x	v	n/a	n/a
6.	<i>bimbang</i> ‘worry’	x	v [!]	v	v	-kan	+
7.	<i>harap</i> ‘hope’	x	x	v	v	n/a	n/a
8.	<i>takut</i> ‘afraid/fear’	x [!]	x [!]	v	v	-i/-kan	+
9.	<i>kecewa</i> ‘disappointed’	x	x	v	v	n/a	n/a
10.	<i>sayang</i> ‘love’	v	v	v	x [!]	-i/-kan	+
11.	<i>sedih</i> ‘sad’	x	x	x	v	n/a	n/a
12.	<i>gemar</i> ‘fond of’	v	v	v [!]	x [!]	(-i)	x
13.	<i>malu</i> ‘shy/ ashamed’	x	x	v [!] ****	v	x	(+)
14.	<i>bangga</i> ‘proud’	x	x	v	v	(-kan)	+
15.	<i>hairan</i> ‘surprised’	x	x	v	v	n/a	n/a
16.	<i>kagum</i> ‘admire/ amazed’	v *****	v	x	v	n/a	n/a
17.	<i>cemas</i> ‘dread’	x	x	x [!]	v [!]	x	x
18.	<i>cemburu</i> ‘jealous’	v	x [!]	v [!]	x [!]	(-i)	(+)
19.	<i>kasihan</i> ‘pity’	v	x [!]	v [!]	x [!]	-i	(+)
20.	<i>duka</i> ‘sad’	x	x	x	v	n/a	n/a
21.	<i>derita</i> ‘suffer’	v	x	x	x	n/a	n/a
22.	<i>benci</i> ‘hate’	x	x	v [!]	v [!]	x	x
23.	<i>resah</i> ‘worry’	x	x	v	v	n/a	n/a
24.	<i>curiga</i> ‘suspect’	v *****	x [!]	x [!]	v	-i	+
25.	<i>dukacita</i> ‘sad’	x	x	x	v	n/a	n/a

* APPL = Applicative
** CAUS = Causative
*** [!] Inconsistencies with Musgrave’s (2001: 148) results.
**** *malu-kan* could also be causative.
***** *meng-kagum-i* could also be causative.
***** *meng-curiga-i* could also be causative.

- (19) a. *aktor Johnny Depp ber-kata, dia meng-kagum-i bandar Venice dan masih*
 actor Johnny Depp BER-say 3S MENG-admire-I city Venice and still
ter-ingat peng-alam-an manis-nya meny-(s)usur-i
 TER-remember PENG-experience-AN sweet-ADV.SUFFIX MENY-walk.down-I
jalan-jalan di bandar tua itu.
 road-RED LOC city old that
 'Actor Johnny Depp said that he admired Venice and still recalled sweet
 memories of wandering down the roads of that old city.'
 [Annotated News Corpus of Malaysian Malay 5617.txt]
- b. *saya meng-kagum-i ramai ahli sejarah yang konon-nya*
 1SG MENG-admire-I many member history REL said.-ADV.SUFFIX
'ber-wibawa' me-laku-kan kerja-kerja peny-(s)elidik-an dan
 BER-authority ME-conduct-KAN work.RED PENY-research-AN and
pen-(t)erbit-an sejarah dengan begitu baik.
 PEN-publish-AN history with that good
 'I admire many historians who were said to be authoritative but were able
 to conduct research and publishing work of history that were impressive.'
 [Annotated News Corpus of Malaysian Malay 5860.txt]

In what follows, we shall discuss examples of the [Causer-Causee] category.

4.2 Category Two: [Causer-Causee]

Causative emotions (such as "I/This caused him to feel angry") took the [*meN-kan*] form as their most commonly occurring derived verb form, with the Causer being either a person or an event. A limited number of the [*meN-i*] form was also found for *curiga* 'suspect' only.²⁰

In this category, the Causee is sometimes optional, focusing on the impact of the event. This latter optional Causee form is the pattern more often seen in all instances in Figure 4.

For [*meN-kan*], the optional Causee caused the existence of two major [Causer-Causee] patterns. The first type is the canonical causative [Causer *meN-kan* Causee], as in (20a) below, while the other has the form in (20b), in which the Causee is not mentioned.

20. Due to our previous discussion of *meng-kagum-i* in (19), its percentage was removed from Figure 4, resulting in 86.41% for *meng-kagum-kan*. Similarly, other forms that were not causatives were also removed in Figure 4. This explains why some bars did not have a total of 100% for the results in Figure 4.

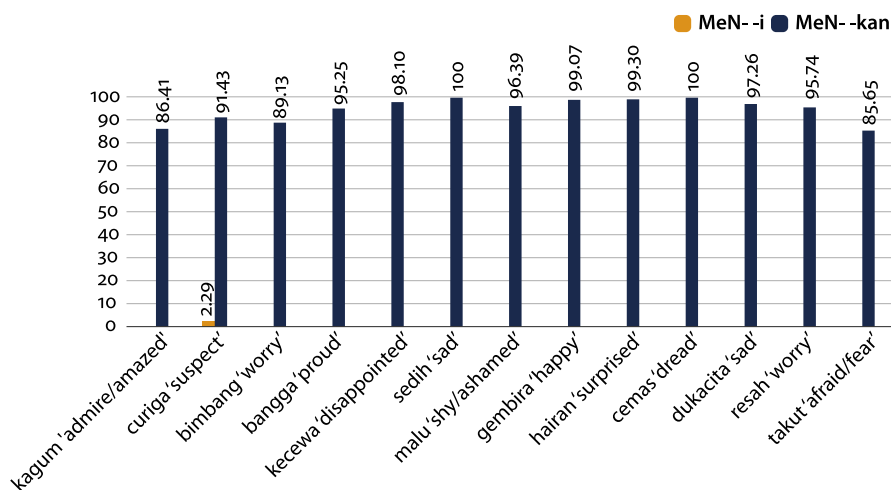


Figure 4. Percentages of emotion terms with the [Causer-Causee] meaning

- (20) a. [Causer *meN-* -*kan* Causee]
setiap per-lawan-an yang mereka harung-i, mereka tidak pernah
every PER-fight-AN REL 3PL CROSS.river-I 3PL NEG ever
meng-(k)ecewa-kan saya.
MENG-disappoint-KAN 1SG
‘In every match that they have been through, they never disappointed me.’
[Annotated News Corpus of Malaysian Malay 9067.txt]
- b. [Causer *meN-* -*kan* Ø]
malahan setiap kali beliau hadir di kaca televisyen, bibit-bibit yang
even every time 3SG present LOC screen television seed-RED REL
me-lucu-kan, men-duka-kan dan yang bersemangat kental
ME-funny-KAN MEN-sad-KAN and REL BER-spirit strong
meny-(s)ebab-kan pen-(t)onton mahu terus meny-(s)aksi-kan
MENY-reason-KAN PEN-watch want continue MENY-watch-KAN
per-sembah-an peng-hibur ini.
PER-worship-AN PENG-entertain this
‘Even every time when he appeared on TV, the sprout of something enter-
taining, saddening, and strong-spirited all caused the audience to want to
continue to watch this entertainer.’
[Annotated News Corpus of Malaysian Malay 17527.txt]

Example (20b) dropped the Causee as it was less important than the effect brought about by the Causer. The identity of the Causee was self-evident as the speaker was talking about his/her own feelings. As such, the Causer-Causee construction was used to emphasize the effect of the Causer on the Causee.

While Category One [Affecter-Affectee] was dominant with the [*meN-* -i] form, the Category Two [Causer-Causee] had higher instances of [*meN-* -kan], while few instances of [*meN-* -i] were detected, as shown in (11b) previously (*aktiviti yang men-curiga-i* ‘activity that was suspicious’). Since not all *men-curiga-i* were causative, we only showed the percentage that was causative (2.29%) in Figure 4. (There were 15 instances of *men-curiga-i*, and only six (40%) were causative. The total instances can be found in Table 4).

In most cases, the presence of the Causee was optional, indicating that the emphasis was on the Causer and most of the Causers were events, rather than human beings. In fact, from the collocates of [*meN-* -kan], we found that the right-most common collocates were *apabila* ‘when’, *bila* ‘when’, *kerana* ‘because’, *meng-apa* ‘why’, and *ialah* ‘that is’; all were followed by another clause indicating ‘what has happened to cause this emotion’, which was more salient than ‘to whom this emotion applies’, the Causee. Yet some emotion terms had a clear object, such as (*me-*)*malu-kan* ‘(ME-)shame-KAN’, as shown in (21a) and (21b), and *me-resah-kan* ‘ME-worry-KAN’ in (21c), because to whom a Causer brought shame or worry to was necessary in some uses, depending on the emphasis of the speaker. In § 5, we shall discuss the discourse functions of the four forms.

- (21) a. *se-suatu yang me-malu-kan system demokrasi di Malaysia*
 SE-ONE REL ME-shame-KAN system democracy LOC Malaysia
 ‘something that humiliates [brings shame to] the democracy system in Malaysia’
 [Annotated News Corpus of Malaysian Malay 1601.txt]
- b. *saya tak mahu malu-kan industry teater kita.*
 1SG NEG want shame-KAN industry theatre 1PL
 ‘I don’t want to humiliate [bring shame to] our theatrical industry.’
 [Annotated News Corpus of Malaysian Malay 22111.txt]
- c. *ke-jadi-an tanah runtuh di tebing Sungai Terap itu*
 KE-become-AN soil-fall (landslide) LOC side River Terap that
me-resah-kan Shamsiah Jaafar, 43, kerana ia terletak di belakang
 ME-worry-KAN Shamsiah Jaafar 43 because 3SG TER-place LOC back
rumah-nya.
 house-3GEN
 ‘The landslide on the bank of Terap River made Shamsiah Jaafaar, 43, worry because it was located at the back of his house.’
 [Annotated News Corpus of Malaysian Malay 20399.txt]

To see the distributions of the presence of ‘Causee’ and the ‘Causee’-less [*meN-* -kan] constructions, we carried out a search in the corpus for all uses of [*meN-* -kan] that appeared before a full stop or a comma (no semi-colon was found).

We used these as indicators that they appeared in the sentence-final positions, as shown in Table 7 below.

Table 7. Position of [*meN-* *-kan*] in the sentences

Emotion terms	Sentence-medial	%	Before full stop	%	Before comma	%	Total
1. <i>kagum</i> ‘admire/amazed’	144	90.57	12	7.55	3	1.89	159
2. <i>curiga</i> ‘suspect’	127	79.38	25	15.63	8	5.00	160
3. <i>bimbang</i> ‘worry’	331	79.19	30	7.18	57	13.64	418
4. <i>bangga</i> ‘proud’	295	73.57	29	7.23	77	19.20	401
5. <i>kecewa</i> ‘disappointed’	290	80.11	28	7.73	44	12.15	362
6. <i>sedih</i> ‘sad’	204	67.55	22	7.28	76	25.17	302
7. <i>malu</i> ‘shy/ashamed’	200	83.33	19	7.92	21	8.75	240
8. <i>gembira</i> ‘happy’	187	88.21	11	5.19	14	6.60	212
9. <i>hairan</i> ‘surprised’	119	84.40	5	3.55	17	12.06	141
10. <i>cemas</i> ‘dread’	72	91.14	2	2.53	5	6.33	79
11. <i>dukacita</i> ‘sad’	48	67.61	7	9.86	16	22.54	71
12. <i>resah</i> ‘worry’	45	100.00	0	0.00	0	0.00	45
13. <i>takut</i> ‘afraid/fear’	153	82.70	23	12.43	9	4.86	185

As shown in Table 7, among all 13 emotion terms that had [*meN-* *-kan*] as causative constructions, *men-curiga-kan* ‘MEN-suspect-KAN’ (number 2) had the highest percentage of occurrences before a full stop, while *men-(t)akut-kan* ‘MEN-fear-KAN’ (number 13) was the second highest. As for appearances before a comma, *meny-(s)edih-kan* ‘MENY-sad-KAN’ (number 6) and *men-dukacita-kan* ‘MEN-sad-KAN’ (number 11) had the highest percentage of occurrences. The appearances before a comma were likely to be followed by *kata-nya* ‘say-3GEN’ in direct reported speech.

In addition, among the 13 emotion terms, *resah* ‘worry’ had zero instances of appearing before either a full stop or a comma. *Resah* ‘worry’ (number 12) had [Causer *meN-* *-kan* Causee] causative meanings, but they did not appear in the [Causer *meN-* *-kan* Ø] causative constructions. All the instances of *resah* ‘worry’ had a Causee that followed the verb.

4.3 Category Three: [Experiencer-Stimulus]

A Stimulus in this category could be present or absent. If a Stimulus was absent at the surface form, it was recorded as Stimulus-absent. However, a Stimulus that was absent could be retrieved from preceding or latter contexts in forms other than a direct object (22b) or as a direct object (22c).²¹ Examples in this category were limited. Only one emotion term (*derita* ‘suffer’) fit the category [Experiencer-Stimulus], and two forms were found [*meN-*] (189 instances) and [*meN- -i*] (2 instances). In (22a) below, the Stimulus is absent as part of the lexical arguments of the verb *men-derita* ‘MEN-suffer’:

- (22) a. *kita juga tidak mahu men-dapat bonus tetapi akan meny-(s)ebab-kan*
 1PL also NEG want MEN-obtain bonus but will MENY-reason-KAN
rakyat men-derita.
 citizen MEN-suffer
 ‘We also didn’t want to receive a bonus but then make the citizens suffer.’
 [Annotated News Corpus of Malaysian Malay 6388.txt]
- b. *kata-nya, 11 pekerja meng-alam-i peny-(s)akit kulit, manakala*
 say-3GEN 11 PE-work MENG-experience-I PENY-pain skin whereas
se-orang lagi men-derita di bahagian sulit-nya berikutan
 SE-CLASS more MEN-suffer LOC part private-3GEN following
ter-dedah dengan asid itu.
 TER-expose with acid that
 ‘According to him, 11 workers experienced skin disease, whereas one more suffered in his private part following the exposure to the acid.’
 [Annotated News Corpus of Malaysian Malay 1512.txt]
- c. *Martel sedang men-derita-i peny-(s)akit alopecia areata, yang*
 Martel PROG MEN-suffer-I PENY-pain alopecia areata REL
meny-(s)ebab-kan dia hilang semua rambut-nya ketika berusia 10 tahun
 MENY-reason-KAN 3SG lose all hair-3GEN while BER-age 10 year
dan dia bertanding meng-guna-kan rambut palsu.
 and 3SG BER-compete MENG-use-KAN hair fake
 ‘Martel is now suffering from “alopecia areata” disease [literally: suffering “alopecia areata” disease], which caused him to lose his hair when he was 10 and he [now] competes wearing a wig.’
 [Annotated News Corpus of Malaysian Malay 11041.txt]

21. In all the patterns we found, the lexical arguments could be inferred from the contexts even if they were absent. The patterns we found showed only the presence or absence of the arguments.

Not many instances of *men-derita* were found, probably due to the type of emotion terms we selected for our study.

4.4 Category Four: [Experiencer-Event]

The last type of category has the construction of [Experiencer *meN-* *-kan* Event], with limited roots only (i.e. *hasrat* ‘hope/wish’ and *harap* ‘hope’), as shown in Table 8 below:

Table 8. Instances of [Experiencer-Event]

Emotion terms	<i>MeN-</i>	<i>MeN-</i> <i>-i</i>	<i>MeN-</i> <i>-kan</i>	<i>-kan</i> -only
<i>hasrat</i> ‘hope/wish’	0	0	1	0
<i>harap</i> ‘hope’	67	0	794	115

Examples of *hasrat* ‘hope/wish’ and *harap* ‘hope’ are shown in (23) below:

- (23) a. *pen-dekat-an ini juga tidak se-laras dengan hasrat Perdana Menteri yang*
PEN-near-AN this also NEG SE-level with wish Prime Minister REL
meng-hasrat-kan supaya Putrajaya di-bangun-kan se-cara mapan...
MENG-wish-KAN so.that Putrajaya PASS-develop-KAN SE-way sustainable
‘This approach was also not at the same level as the ambition of the Prime Minister who hoped/wished that Putrajaya could be developed in a sustainable way.’ [Annotated News Corpus of Malaysian Malay 2407.txt]
- b. *jadi kita meng-harap-kan prestasi ini akan ber-terus-an.*
as.a.result 1PL MENG-hope-KAN performance this will BER-continue-AN
‘As a result, we hope that this performance can be continued/will continue.’ [Annotated News Corpus of Malaysian Malay 9135.txt]

The constructions with [*meN-* *-kan*] in (23a) and (23b) do not denote a causative meaning. Instead, they take an Event meaning appearing in the clause following the verb.

To summarize the observations thus far, the semantics of the emotion terms were based on the meanings of the arguments, as well as the meanings of the emotion terms. This suggests that the meanings of the Malay affixes were largely determined by the stem, a characteristic that prevails in Malay morphosyntax. In the next section, we shall discuss the discourse functions of the emotion terms with regard to the four forms.

5. Discussion

Based on the four categories of emotion terms in Malay, we observed what the 25 emotion terms could mean with different affixes, as well as their interaction with these affixes. It is possible that the emotion terms in different forms served different discourse functions. Hopper (1983: 79) stated that the active *meN-* in Classic Malay is “often used in discourse to suggest a slowed tempo of narrative, and is thus usual in backgrounded details when scenic or characterological description is being given.” If [*meN-*] denotes “a slowed tempo of narrative,” [*-kan*] has a function that favors the speaker (see also Lewis 1968). However, modern Malay may differ. In our categories, most of the emotion terms in the [Affecter-Affectee] category had [*-kan*]-only instances, but they did not have a causative reading. Under the same [Affecter-Affectee] category, [*meN-* *-i*] described a local emotion that lacked intensity when [*-kan*] was used instead. Comparing *Saya meny-(s)ayang-i Amin* ‘I MENY-love-I Amin’ (18a), and *Saya sayang-kan Amin* ‘I love-KAN Amin’ (18c), the former describes the emotion as “a-matter-of-fact”, while the latter shows how the emotion “matters to the Affectee”. This is how [*-kan*] favors the speaker or the Affectee.

Bambang Kaswanti Purwo (1988:209) also suggested that the difference between [*meN-*] and [*-kan*]-only (which was termed “Ø verbs”), such as in *men-doa-kan* ‘MEN-pray-KAN’ and *doa-kan* ‘pray-KAN’, lies in the fact that in the former “the speaker is responding to the hearer or narrating something”, while in the latter “the speaker is initiating a discourse or proposing something to the hearer.” The selection of [*meN-*] and [*-kan*]-only in this case is “the opposition between ‘narrating’ and ‘proposing’” (Bambang Kaswanti Purwo 1988:210). In other words, for emotion terms, when someone uses [*meN-*], one tends to narrate the state of emotions, but when [*-kan*]-only is used, the speaker is likely to make a proposition. This is also why [*-kan*]-only is more likely to appear with an imperative tone or to be used with first- and second-person pronouns. Even though Hopper (1983) was comparing the perfective uses of ergative/passive *di-* and imperfective uses of active *meN-* in classical Malay, his observation of [*meN-*] is applicable to modern Malay, in which [*meN-*] is used as a device to narrate a state that has a slowed backgrounding effect.

To put it differently, it is possible that when a narrator chooses to use the [*meN-*] form, s/he intends to narrate or state the “background” information of the emotion of the subject being narrated; when [*-kan*]-only is used, the speaker intends to propose a kind of emotion to the subject mentioned.²² This makes

22. Lewis (1952), according to Benjamin (1993:360), went further and suggested that transitivity is culturally motivated. The change from *akan* to *-kan* intends to have a “reaching-out”

sense because [-*kan*] was found with various meanings in our corpus. Below, (24a) narrates how the people hoped a problem could be solved (*mem-harap-kan*), whereas (24b) is proposing the hope that matters to the person involved, the Experiencer (*kita*), often used with first- and second-person pronouns:²³

- (24) a. *keadaan bumbung-nya masih lagi tidak di-baik-i dan orang ramai terus meng-harap ia segera di-atas-i.*
 situation roof-3GEN yet more NEG PASS-good-I and people many
 continue MENG-hope 3SG quick PASS-up-I
 ‘The situation of his/her roof had not been repaired and people were hoping that it would be solved quickly.’
 [Annotated News Corpus of Malaysian Malay 9117.txt]
- b. *kita akan terus-kan walaupun peny-(s)erta-an mereka masih rendah dan kita harap-kan jumlah mereka akan ber-tambah pada masa akan datang*
 1PL will continue-KAN although PENY-together-AN 3PL yet low and 1PL hope-KAN sum 3PL will BER-add at time
 will come
 ‘We still continue although their participation was low and we hope the number will increase in the future.’
 [Annotated News Corpus of Malaysian Malay 11489.txt]

Other situations in which [-*kan*]-only can appear are shown in (25) below – (a) negation, (b) imperative, and (c) headline:

meaning “to a person (or thing) affected by the action,” which is “the underlying function of the suffix -*kan*” (Lewis 1952: 151).

23. We are aware that it might have been because of the first- or second- person pronoun that decided the dropping of [*meN-*] (not the selection of [-*kan*]) in this case. However, we would like to bring this a step further by interpreting why [*meN-*] was dropped in such a case (if so) and the discourse function it may display in the process. In (25c) to follow, we also found that non-first- or second-person pronouns were used with [-*kan*]-only. There has also been a suggestion that first- or second-person pronouns are more informal and so is the bare form of the verb, including those with [-*kan*]-only. Yet, Soh & Nomoto (2015: 149) claimed that “both the *meN-* and the bare verbal forms occur in written as well as the spoken form of the formal variety” (also in Soh & Nomoto 2009). Based on the above, the differences between [*meN-*] and [-*kan*], of which the latter we considered possessing the same feature of the bare form of the verb, should not be ascribed to the differences of register formality *per se*.

- (25) a. *saya tak mahu kecewa-kan arwah Yasmin dan mereka yang*
 1SG NEG want disappoint-KAN deceased Yasmin and 3PL REL
men-(t)aruh harap-an pada saya.
 MEN-put hope-AN to 1SG
 'I don't want to disappoint Yasmin, who had passed away, and those who
 placed hope in me.'
 [Annotated News Corpus of Malaysian Malay 14587.txt]
- b. *jangan-lah kecewa-kan kami lagi.*
 NEG-LAH disappoint-KAN 1PL again
 'Do not disappoint us again.'
 [Annotated News Corpus of Malaysian Malay 3214.txt]
- c. *parti kecewa-kan rakyat*
 party disappoint-KAN citizen
 'the party disappointed the citizens'
 [Annotated News Corpus of Malaysian Malay 2987.txt; headline]

This discourse function of the emotion terms has not been discussed in past literature. Moreover, this finding goes beyond the morphological discussion of the stem in Malay, and, in addition, it provided the categories of the emotion terms as well as their discourse meanings in the forms investigated.

As for *[-i]* and *[-kan]*, based on our findings of the categories of the emotion terms, as well as the possible discourse meanings carried by the different affixations, we can conclude the following. First, local meanings, which include a majority of *[meN- -i]* and some *[-kan]*-only examples, were mostly longer in duration, and milder, because its effect on the Affectee arose from the Affecter. Second, the *[Causer-Causee]* category, which was dominated by the *[meN- -kan]* form, displayed emotions that were stronger in impact, and the duration was often shorter due to an incident or a series of incidents, or a person or a group of people. Finally, we found a selection of morphological forms that had connections with the types of emotion terms, as well as their underlying discourse functions.

6. Conclusion and future work

The emotion system in Malay is complicated not only by the semantics of the emotions but also by the polysemy of the morphological system of Malay. Without researching the formation of emotion terms in Malay, it is difficult to have an overall, systematic understanding of the emotion system in Malay. In our study, we argued for patterns of meanings brought about by affixes. Four possible morphosyntactic structures that could be combined with emotion terms in Malay, namely, *[meN-]*, *[meN- -i]*, *[meN- -kan]*, and *[-kan]*-only, were investigated to find

out whether similar emotion terms could be found in all four forms and whether they expressed similar meanings. Our research questions were thus answered as follows.

For the categories of emotion terms, we found a distinction between four major types of combinations of semantic roles, which could be further broken down into seven types:

- Category One [Affecter *meN-* -i Affectee]
[Affecter *-kan* Affectee]
- Category Two [Causer *meN-* -kan (Causee)]
[Causer *meN-* -i (Causee)]
- Category Three [Experiencer *meN-* (Stimulus absent)]
[Experiencer *meN-* -i Stimulus]
- Category Four [Experiencer *meN-* -kan Event]

Based on these four categories, we found differences between the local and causative meanings of the emotion terms. However, as Malay is a highly semantic-pragmatic language, an emotion term cannot be in one category and exclusive of the others. Overlaps of categories may be found. In this study, we looked at the interaction tendency of the semantic roles and the affixes of the selected emotion terms.

As for the differences between [*meN-*], [*meN-* -i], [*meN-* -kan], and [*-kan*]-only, we deduced from the categories how each form differed from one another. We were able to detect differences between (a) [*meN-* -i] (local) and [*meN-* -kan] (causative); (b) [*meN-* -i] being local and causative at the same time; (c) [*meN-* -i] being more similar to [-i]-only than [*meN-* -kan] to [-kan]-only; and (d) [*meN-* -kan] and [-kan]-only are not similar, with the former being causative and the latter carrying a local meaning.

In addition, for the semantic and discourse functions of the emotion terms with the four forms, we found supportive evidence of the difference between [*meN-*] as a narrating emotion and [-kan]-only as proposing an emotion to the speaker or hearer. Based on our results, which could not have been achieved without the comparisons of the instances in the corpus, we showed findings that were mostly argued based on intuitive examples in the past. Furthermore, previous studies lacked a systematic discussion of the emotion terms, which clearly underlines the significance of the current work.

For future studies, we found that Malay displays some features of metaphorical extension. For instance, *hati* 'heart' in its derived forms *per-hati-an* 'attention', and *ber-hati-hati* 'be aware' shows a metaphorical extension from the physical heart to mental attention. This meaning extension can be compared cross-linguistically and can be observed at a more fine-grained morphosyntactic level.

In addition to the findings discussed above, there are other morphological forms such as [*ke-* *-an*], which was studied in great detail by Musgrave (2001), that can be researched further in terms of the various emotion terms that can fit into this pattern.

Acknowledgements

The author would like to thank the anonymous reviewers for their constructive comments on the previous version of this work. This paper was partially supported by the research grant 108-2410-H-004-095 and 110-2410-H-004-085 from the Ministry of Science and Technology.

Abbreviations

ADV.SUFFIX	adverbializer suffix	NSM	Natural Semantic Metalanguage
APPL	applicative	PL	plural
AT	Agent-Trigger	PT	Patient-Trigger
CAUS	causative	PASS	passive
CLASS	classifier	PROG	progressive
EXIST	existential	RED	reduplication
GEN	genitive	REL	relative
LOC	locative	SG	singular
NEG	negation		

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Publication history

Date received: 23 August 2019
 Date accepted: 17 February 2020
 Published online: 29 March 2022