Uses of ter- in Malay: A corpus-based study

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1. Introduction

The purpose of this study is to examine the functions of the morpheme ter- in Standard Malay used in Malaysia. In studies of a number of varieties of Malay, many scholars (including Wee (1995) on Standard Malay of Singapore; Sneddon (1996) on Indonesian grammar; and Nik Safiah et al. (1997) on Standard Malay of Malaysia) have suggested that ter- contains an 'accidental' meaning. Earlier grammarians, such as Winstedt (1927), have pointed out a 'perfected,' result-oriented, and unconscious interpretation of ter-, whereas Wee (1995:126–133) proposed three non-volitional states of ter- by identifying the roles of the initiator (i.e., ‘initiator-endpoint subject,’ ‘initiator subject,’ and ‘initiator oblique/absent’), shown in example (1) below.

(1) (a) Initiator-Endpoint Subject (low transitivity events)
   Ali ter-tawa
   Ali ter-laugh
   “Ali laughed.”

(b) Initiator Subject (high transitivity events)
If one considers the three sentences from the perspective of voice, example (1b) seems to be active, whereas (1c) is passive. Even though the meaning of the notions of ‘active’ and ‘passive’ may vary depending on linguistic theories, particularly in the Austronesian languages (cf. Wouk and Ross, 2002), this study identifies these two based on a semantic reading (i.e., whether an active or a passive interpretation is possible). This paper follows the convention used in Bambang Kaswanti (1988), who compares the active men- with the passive di- in Indonesian, and uses the traditional labelling of ‘active’ and ‘passive’ sentences. However, the author is aware of the controversial views of different scholars regarding the use of traditional ‘active’ and ‘passive’ for Malay.

As for the prefix ter- in Malay, its complexity is sometimes not noticeable to a native speaker. In (1c), since the initiator (Ali) might be absent (thus, John ter-pukul ‘John TER-hit’), this construction is sometimes indistinguishable from (1a). In other words, occasionally, a similar construction, such as [Noun TER-VP], can represent both an active (Ali ter-kencing “Ali accidentally pissed.”) and a passive (Ali ter-pukul “Ali was hit.”) meaning. Conversely, by adding an agentive phrase (oleh Ali) to (1a), a ‘real’ passive sentence such as (1c) will be produced. The translation “Ali laughed,” therefore, can also be written as “Ali was amused (by something unmentioned or trivial).”

Cumming (1991:49) has stated precisely in the following excerpt the fuzziness between active and passive, as well as between transitive and intransitive forms in Malay:

In the literature on Malay and Indonesian, intransitive verbs in ter- have been treated as passive or PT (it has been described as “agentless passive”), and intransitive verbs in meng- and ber- have been treated as active or AT... Nowadays probably the most common stance is to treat some ter- verbs as passive and all other intransitives [not ter-] as active.

Although Cumming has mentioned that ter- generally is viewed as passive, the previous examples show that ter- also possesses an active meaning, albeit the active meaning might be indistinguishable in form [Noun TER-VP] from the passive meaning. In addition, the intransitive-transitive distinction is unable to distinguish between active and passive meanings because, as shown previously, an intransitive verb, such as ‘laugh’ in (1a), can still be made passive by adding the agentive phrase oleh ‘by.’ Therefore, the active-passive distinction in ter- is neither based on construction nor on transitive-intransitive verb types. This paper argues that a criteria-based, semantic interpretation of ter- is needed in order to distinguish the active and the passive uses of ter-. The fuzziness of the active-passive meanings of ter- can be further elaborated upon in examples (2) and (3) below, this time using ter-tawan ‘TER-capture.’ These examples were taken from the Malay historical corpus Sejarah Melayu, which was used throughout this study.

(2)  (a)  SM 190:1
    Maka Raja Sulung ter-tawan ke Aceh
    then King Sulung TER-capture to Aceh
    “Then King Sulung was captured to Aceh.”

(b)  SM 212:6
    maka ter-tawan-lah hatinya akan harta dunia
    then TER-capture-LAH liver.3S.Gen. AKAN property world
    “Then his/her heart was captured/attracted (unexpectedly) toward worldly property.”

Sentence (2a) is passive whereas sentence (2b) is similar to (1a) previously (i.e., Ali ter-tawa), as a ‘seemingly’ passive meaning is present. This second type is what Goddard (2003:304) considers “passive-like at first brush, but they are not really passives.” Since the latter part of this paper intends to examine ter- sentences that carry a passive meaning, a distinction between the passive types in (1a) and (1c) (i.e., the ‘seemingly’ passive and the ‘real’ passive, respectively) is needed. For this purpose, two

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3 This paper follows the transcription of Malay morphemes in the form of MORPHEME-STEM (thus, TER-STEM [cf. Cumming, 1991; Wee, 1995]), even though in written Malay, the hyphen before or after the morpheme is usually not present. In some cases, a morpheme will be joined with its stem (e.g., berasal ‘to originate’ in [6a]) if that word is not the focus of the current discussion.

4 Unless indicated as in this example (e.g., SM190:1, which comes from the historical manuscript Sejarah Melayu), all other instances were taken from modern news texts.
additional criteria for the identification of passive sentences are postulated: one is the substitution by the canonical passive di-
(because di- is not as ambiguous with respect to voice as ter- is) and the other is the addition of the agentive phrase oleh ‘by’. These two criteria will be used under the condition that the sentence’s meaning will not be overly altered (even though a change of connotation from ter- to di- will occur when the replacement is carried out). The substitution criterion is demonstrated in examples (3a) through (3c) below, while the addition criterion is seen in examples (3a), (3c), and (3d).

(3)  
(a)  
Maka Raja Sulung di-tawan ke Aceh oleh Raja D  
then King Sulung DI-capture to Aceh by King D  

``Then King Sulung was captured to Aceh by King D.''

(b)  
?maka di-tawan-lah hatinya akan harta dunia  
then DI-capture-LAH liver.3S.Gen. toward property world

``Then his/her heart was captured/attracted toward worldly property.''

(c)  
maka di-tawan-lah hatinya oleh harta dunia  
then DI-capture-LAH liver.3S.Gen. by property world

``Then his/her heart was captured/attracted by worldly property.''

(d)  
maka ter-tawan-lah hatinya oleh harta dunia  
then TER-capture-LAH liver.3S.Gen. by property world

``Then his/her heart was captured/attracted (accidentally) by worldly property.''

In (3a), the replacement of ter- with di- creates a grammatical sentence, even though a slight change in the manner of the action ‘capture’ has occurred – the use of di- decreases the unpredictability of the actions and the capturing process is not as unexpected in (3a) as compared to (2a). When the agentive phrase is added for (2b), as in (3c) and (3d), a conversion from ‘passive-like’ to a ‘real’ passive has taken place. In (3c) and (3d), by replacing ter- with di- and/or by adding oleh ‘by,’ the original meaning in (2b) previously is altered because now ‘worldly property’ is the ‘agent’ rather than the ‘goal,’ albeit there is a difference between (3c) and (3d), where an accidental reading of (3d) is absent in (3c).

As for (3b), the sentence is rather odd, semantically and grammatically. This may be due to the presence of akan (translated as ‘toward’ in [2b]), which does not usually appear after a passive verb. Thus, sentence (3b) (?di-VP...akan) shows a strange combination. Unlike most ‘real’ passive uses of ter-VP, which can be replaced by di- and/or preceded by an agentive phrase, ter-VP...akan lacks the necessary components of a passive construction. The rejection of these two criteria suggests that ter-VP...akan in (2b) may have an active meaning. Another example of ter-VP...akan is shown in (4) below, taken from the Internet (by delimiting Malaysian Internet domains, as there is no existing example found in our corpora for ter-VP...akan).7

(4)  
Kematian Ustaz Asri Rabbani Membuatkan Saya  
KE-dead-AN Ustaz Asri Rabbani cause I  
Ter-ingat Akan Detik Itu8  
TER-remember akan second that

``The death of Ustaz Asri Rabbani made me remember about that moment.’’

The sentence in example (4) is a complex construction, as it has a causative meaning expressed by membuatkan ‘to cause.’ In (4), we can analyze saya ter-ingat akan detik itu as a single clause to mean ‘I suddenly remember about that moment.’ Here, it is clear that ter-VP is active in meaning because the noun phrase (detik itu ‘that moment’) that follows akan cannot become

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8 Taken from http://mysuperkids.net/kematian-ustaz-asri-rabbani-membuatkan-saya-ter-ingat-akan-detik-itu/. The initial capital letters were taken verbatim from the example, as the sentence is a headline itself.
the agent as in saya ter-ingat/di-ingat oleh detik itu, which means ‘I was remembered by that moment.’ Therefore, if we compare the previous examples in (2) through (4), only (2a) matches the criteria of possessing a passive meaning, as all other passive constructions modified from (2b), such as (3c) and (3d), alter the meaning of the original sentence. Hence, the two criteria for selecting the passive meaning of ter-proposed in this work can be seen in (5) below.

(5) (a) When an instance of ter-VP can be replaced by the canonical di-VP without being ungrammatical, there is a possibility that this instance of ter-VP is a ‘real’ passive sentence.

(b) When an instance of ter-VP can have the agentive phrase oleh ‘by’ (originally optional) added to it without altering the meaning of the original sentence, except in reducing unexpectedness, there is a possibility that this instance of ter-VP is a ‘real’ passive sentence.

When these two criteria apply, we are able to make a judgment regarding the possibility that a passive meaning is present. In most cases, sentences that fulfill (5a) should also fulfill (5b), but it may not be the case vice versa because oleh ‘by’ can also mark a causal relationship (cf. Nik Safiah et al., 1997:269), as in oleh sebab ‘because of reason’ or ‘by reason of.’

The criteria in (5) will facilitate the retrieval of instances that are ‘truly’ passive in the corpora. These instances of passive meaning will be analyzed in terms of frequency and formality, a methodology replicated and modified from Chung (2005), who examined the other two types of Malay passive (di- and kena). It is, however, worth noting that separating active ter- and passive ter- does not mean that one removes the meaning of unintendedness in either group, as unintendedness is part of the semantics of ter-, regardless of whether ter- appears in an active or a passive sentence.

In this work, all instances of ter-VP will be collected from two corpora that differ in the year produced – one is a modern corpus of news texts while the other is a corpus containing historical manuscripts. First, a comparison between the uses of ter- in these two corpora was carried out. Through analyzing the different uses of ter-VP, additional meanings were found beyond those listed in (1) previously, such as instances of a superlative adjective (6a), abilitative use (6b), and a lexicalized adjectival participle (which in itself is a discourse marker) (6c).9

(6) (a) banyak ulama ter-kenal berasal dari Indonesia
many disciple TER-know originate from Indonesia
‘Many of the well-known disciples came from Indonesia’.

(b) Selagi ada umur dan ter-daya, mak cik akan
As.long.as Exist.age and TER-strength, aunt will
lakukan yang sebaik mungkin
Rel.as.good.as possible
du “As long as aunt (referring to herself) is still young and still has the strength, aunt will do everything as well as possible”.

(c) anaknya itu turut mati lemas dalam tragedy
Child.3S.Gen. that also dead drown in tragedy
ombre besar ter-sebut
wave big TER-mention.
‘That child of his/her was also drowned in the aforementioned strong current’.

From (6a), we can see that ter-kenal ‘most famous’ may have been lexicalized, as it does not serve as the main verb in the sentence (berasal ‘originate’ does). In (6b), ter-daya means ‘be able and with strength.’ In (6c), ter-sebut means ‘mentioned before.’ Similar uses are discussed in works as early as Winstedt (1927), who stated the following regarding the different functions of ter- (1927:86–87, cited in Benjamin, 1993:363):

(1) The prefix ter- denotes the perfected act, the realized condition. (2) It emphasizes not a process in which an agent takes part but a result – absolutely complete, sometimes sudden and due not to conscious activity on the part of the subject but to external compulsion or accident… (3) Seeing that in denoting the perfected act, the derivative in ter- connotes ability to bring it about, ter- has come to be used to denote the possible (or more commonly with the help of a negative or an interrogative, the impossible)… (4) Denoting completion beyond which one cannot go, ter- derivatives connote the superlative in degree and serve as intensives. In this connection ter- is prefixed to nouns, adjectives, and adverbs, as well as verbs.

9 The term ‘adjectival participle’ may not best describe this form in Malay (e.g., ter-sebut ‘mentioned before’), as this term was borrowed from English grammar. Nevertheless, it is used here for lack of a better alternative.
The above excerpt explains the interrelatedness among the different functions of ter- (see section 4 to follow for a discussion of grammaticalization). Later studies (after Winstedt) of ter- in a similar vein include Abdullah Hassan (1974) and Asmah Haji Omar (1975). These studies also mentioned some of the functions listed in (6). However, what makes this present study different from these previous analyses is that this work operationalizes the steps to distinguish the ‘passive-like’ (i.e., the active) from the ‘real’ passive. According to the criteria established in this work, too, the active form, and those in (6), cannot be substituted with the canonical passive di-, and the agentive oleh ‘by’ cannot be added. Thus, they form separate groups of their own.10 More importantly, this study compares the uses in two corpora and postulates possible grammaticalization patterns based on corpora and distributional data.

Before examining the instances of ter- extracted from the corpora, first, an overview of the Malay passive in Standard Malay of Malaysia (hereafter referred to as ‘Malay’ for this variety of the Malay language) and previous studies relating to it will be provided.

2. Malay passive ter- and ter- constructions

As mentioned above, the Malay language has more than one form of passive. Some of the different forms are shown in example (7) below.

(7) (a) Duit itu ter-simpan di atas meja (passive ter-)
    money that TER-place at above table 
    “That money was put on the table (unintentionally).”

(b) Duit itu di-simpan di atas meja (canonical passive di-)
    money that DI-place at above table
    “That money was put on the table.”

(c) Duit itu kena simpan di atas meja (adversative passive kena)
    money that KENA place at above table
    “That money was put on the table (an adversative action that may result in a negative effect to the passive subject).”

In (7a), an unintentional action is emphasized. In (7b), the use of di-simpan ‘DI-place’ removes the unintentional meaning. Sentence (7c), which is an adversative passive, indicates a negative connotation to the passive subject. In (7c), someone has put the money on the table, perhaps with the intention of causing the owner of the money to feel unhappy. As Taylor (2002:265) mentioned, “perfect synonymy is vanishingly rare, methodologically proscribed, or a logical impossibility”; there must be something different about near-synonym pairs. The sentences in (7) differ in meaning, even though all of them refer to the final state of the money, which is now on the table. Like most adversative passives, kena in (7c) gives hints about how the action is done, which is usually in a negative way. The adversative meaning is emphasized less in (7a) because the use of ter- makes the action accidental (as if carried out unintentionally by an absent-minded person). Unlike the discussion in (7), which is semantics-based, earlier works, such as S. Chung (1975) and Cartier (1979), tended to use syntactic properties to distinguish Malay passive types. Later work on passive types and transitivity in Malay can be seen in Hopper and Thompson (1980) and Hopper (1983). Hopper (1983), in particular, distinguishes among the ergative, the passive, and the active in Malay based on transitivity. Chung (2005) was the first article to discuss kena passive and compare it with the canonical passive di- and the bare form of passive. Replicating the transitivity analyses of Hopper’s work, Chung (2005) found that adversative passive kena occurs less frequently, and is less formal than the canonical passive di-, but it has a higher semantic transitivity. Additionally, Koh (1990), working on Malaysian colloquial Malay, observed that, in addition to ter-, other passive uses with ke-–aran and ber- are possible. Examples of the other two types are given in (8) below.

(8) (a) pisau toreh abal: tumpul macam se-tahun tak
    Knife tap.rubber dad blunt as.if one-year not
    ber-asah... [Koh, 1990:166]
    BER-sharpen
    “Dad’s ‘tapping-knife’ was blunt, as if it hadn’t been sharpened for a year…”

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10 Separate does not mean that they are unconnected.

11 This includes the bare form of passive used with the first- and second-person pronouns (e.g., Duit it saya simpan di atas meja).

12 The source that Koh used came from the colloquial Malay text Aku Budak Minang taken from the magazine Gila-gila, a well-known magazine in Malaysia with cartoons mostly illustrated with informal Malay, targeting Malaysian “school-age children, teenagers and young adults” (Koh, 1990:13).
Like ter-, these two forms are seldom recognized as passive forms in most literature and are thus worth researching in future works. This current paper focuses on ter- only and utilizes a quantitative methodology in investigating the semantics of this morpheme.

Some functions of ter- have been discussed in the work of Goddard (2003), which recognizes twelve constructional categories for ter- verbs. Goddard’s twelve categories appear in the following six groups (A through F), and they are tabulated by the author in Table 1 below. The constructional differences between groups are displayed in the second column (modified from Goddard by the author). For instance, aku ter-dengar suara mak... ‘I heard mother’s voice...’ in sub-group [A1] has the construction of someone TER-VP saw/heard something. The rightmost column shows the examples adapted from Goddard’s work (2003:290) (Goddard does not provide a table). In Table 1, some groups are subdivided (A1, A2, D1, D2, etc.) while others (B and F) are not. These groups and their definitions are Goddard’s original idea (2003:290). Most of the definitions in column one are verb-specific (e.g., [A1] ‘seeing or hearing something at one moment’). An evaluation of such methodology in dealing with the uses of ter- will follow.

Almost all of the uses of ter- in Table 1 above carry the meaning “momentariness” or “unintendedness” (Goddard, 2003:290). From Table 1, one can conclude that there are two major types of constructions for ter-: something TER-VP (particularly [C4], [D2], and [F]) and someone TER-VP (something) (the remaining groups and sub-groups). These constructions, nevertheless, are mostly active, even though they are “passive-like,” as Goddard (2003:304) noted. One example is Rosalina ter-sentak, “Rosalina jerked.” For this expression, if translated as “Rosalina was shocked,” a passive meaning seems to be present. Nevertheless, when tested using the criteria of substitution with the passive by the author in Table 1 below. The constructional differences between groups are displayed in the second column (modified from Goddard by the author). For instance, aku ter-dengar suara mak... ‘I heard mother’s voice...’ in sub-group [A1] has the construction of someone TER-VP saw/heard something. The rightmost column shows the examples adapted from Goddard’s work (2003:290) (Goddard does not provide a table). In Table 1, some groups are subdivided (A1, A2, D1, D2, etc.) while others (B and F) are not. These groups and their definitions are Goddard’s original idea (2003:290). Most of the definitions in column one are verb-specific (e.g., [A1] ‘seeing or hearing something at one moment’). An evaluation of such methodology in dealing with the uses of ter- will follow.

- **Table 1**

<table>
<thead>
<tr>
<th>Group</th>
<th>Definition</th>
<th>Example</th>
<th>Adapted from Goddard</th>
</tr>
</thead>
</table>
| A1    | Momentary perceptual/cognitive experiment | Aku ter-dengar suara mak... ‘I heard mother’s voice...’ | A. Uno ter));
| A2    | Thinking (or thinking of) something at one moment | Adakala dia ter-fikir adalah anaknya gay... | A. Uno ter-));
| B     | Unintended action | Kami belum ter-fikir tentang perkara itu... | A. Uno ter-));
| C     | Unintended feelings (and feeling-based thoughts) | We haven’t yet thought about that issue... | A. Uno ter-));
| D     | Movement-related | Rosalina ter-sentak. Rosalina jerked... | A. Uno ter-));
| E     | Temporary cognitive disruption | Suasana ter-(r)asa sepi... | A. Uno ter-));
| F     | Sudden appearance in a place | The atmosphere felt calm... | A. Uno ter-));

(a) **Example:** Suara-nya ke-denger-an sampai ke sini [Arbak Othman, 1981:248] *voice-3 KE-hear-AN until to here* “His/her voice can be heard (up to) here.”

The author would translate this instance as ‘the atmosphere was felt to be calm’ because the speaker was saying this from the perspective of all the people (which is absent in the sentence) in the context that they felt the atmosphere to be calm (rather than the atmosphere was able to feel calm).
Unlike the seemingly passive sentences in Table 1, the meaning of sentence (9) and the presence of oleh ‘by’ + agent (‘Malacca people’) prove and further solidify its passive meaning. An active sentence, on the other hand, should appear in the form of example (10) below.

(10) ada di antara mereka yang ter-kencing
Exist in between 3P.Nom. Rel. TER-piss
“There are some among them that pissed unintentionally.”

Nevertheless, it is unclear whether ter-kencing ‘TER-piss’ can be categorized as ‘involuntary movement of body-part triggered by a feeling’ (D1) because the action is not precisely a movement of a body-part. Another observation found in addition to this is the occurrences of similar constructions with different meanings (a similar problem pointed out earlier). An example is shown in (11) below.

(11) dia ter-panggil untuk memberi pandangan dalam
3S.Nom TER-call for give point.of.view in
ruangan DCCK
space DCCK
“He was summoned to give (his) view in the DCCK column.”

The construction of ter- in example (11) seems to be someone TER-VP call + complement, which appears to be the same as many constructions in Table 1 (although with a different verb). Nevertheless, the sentence in (11) is a passive sentence. This shows that the use of constructions (e.g., Someone TER-VP for both Ali ter-pukul, “Ali was hit,” and Ali ter-tawa, “Ali laughed.”) may not be an ideal way to deal with the Malay ter- prefix. Since this is the case, the linguistic analyses that follow in section 3 are mainly semantics-based.

In order to explain the complexity of ter-, the distribution of many ter- constructions was examined in a modern corpus consisting of modern news texts, and these were compared to the uses of ter- in the historical manuscript Sejarah Melayu. The purpose in doing this is to see whether the pattern differs across time. A different pattern may indicate a change in the tendency of language use where ter- is concerned. In addition, through these two corpora, one can compare the frequency of passive ter- to other functions of ter-. In sections 5.1 and 5.2 to follow, comparisons of frequency and formality between di-, kena, and ter- will be carried out.

3. Corpus data

The first corpus is modern and contains 24 randomly selected news articles taken from the online news archive of Utusan Malaysia (available at http://www.utusan.com.my/) from January through March 2005. The total word count for this corpus is 19,955 words. The second corpus consists of historical texts and comprises extracts from Sejarah Melayu, available through the Malay Concordance Project at the Australian National University.13 The texts are based on the edited version by Ahmad (1979). The original texts were written in 1808, according to the documentation of the Malay Concordance Project. This corpus has 94,069 words. Since the two corpora differ in size, instances in these two corpora are compared by using distributional data based on percentages.

From the modern news texts, 343 instances of ter- constructions were collected using the Wordsmith Concordance tool (Scott, 1999) with a wild card (*) following ter*. Words that start with ter- but are not our target words, such as terus ‘continue,’ were removed manually and thus not included in this final count. In the historical texts, when the same methodology was applied to search for ter* using their online search engine, 806 instances were returned, but among these 109 were not the target words (e.g., terbang ‘fly’) and they were removed manually. The remaining 697 instances matched our target words, and all of these instances were analyzed as either active, passive, superlative, abilitative, or adjectival participle; each type is shown below in example (12).

Among these uses, only the passive group can be replaced by the canonical *di-* and can accept the addition of the agentive phrase *oleh* ‘by.’ Those that cannot be substituted were categorized according to the semantics of *ter-*. The last category (i.e., adjectival participle) was found to be mostly lexicalized. The lexicalized participles are in fact discourse markers, as they now mark referents in the texts, a different function from the main verb *ter-*. After analysis, the distribution of *ter-* constructions from both corpora is shown in Table 2.

**Table 2**

Uses of *ter-* constructions in the modern and historical corpora.

<table>
<thead>
<tr>
<th>Uses of <em>ter-</em> Constructions</th>
<th>Modern News Articles (Year 2005)</th>
<th>Sejarah Melayu (Year 1808)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>122 tokens 35.57%</td>
<td>424 tokens 60.83%</td>
</tr>
<tr>
<td>Superlative</td>
<td>112 tokens 32.65%</td>
<td>119 tokens 17.07%</td>
</tr>
<tr>
<td>Passive</td>
<td>59 tokens 17.20%</td>
<td>56 tokens 8.03%</td>
</tr>
<tr>
<td>Adjectival Participle (Marker)</td>
<td>49 tokens 14.29%</td>
<td>53 tokens 7.61%</td>
</tr>
<tr>
<td>Abilitative</td>
<td>1 token 0.29%</td>
<td>45 tokens 6.46%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>343 tokens 100.00%</td>
<td>697 tokens 100.00%</td>
</tr>
</tbody>
</table>
The results from the modern corpus show that the active construction constitutes about 36 percent of the total 343 instances, followed closely by the superlative form with about 33 percent. Their combination, with more than 68 percent, dominates the total 343 instances. The historical corpus shows a different distribution. More than 60 percent of its instances reflect the active construction while about 17 percent are in the superlative form. Their combination constitutes about 78 percent of the total instances but the ratios of the two types differ from that of the modern corpus. This shows an observable shift from a majority of active construction in 1808 to an increasing use of the superlative form in 2005, with a concomitant decrease in the active use of ter- constructions compared to their occurrence 200 years earlier.

The passive construction, on the other hand, constitutes about 17 percent of the total instances in the modern text, but there was only half of this amount (8%) in the historical texts. This shows that passive use is on the increase in modern texts. A similar pattern is also found for the participles, as the lexicalized use has nearly doubled in the modern texts. As for the abilitative, its occurrence is the least in both corpora, but the proportion in the modern texts is far lower (with only one instance, less than 0.5%) as compared to the much higher proportion (about 7%) in the historical texts.14

In summary of this section, the comparisons between corpora show that the superlative, the passive, and the participle forms were on the increase in 2005, while the active and the abilitative showed a decrease. Increasing percentages of the three functions in modern texts also show that more uses of ter- are becoming non-active. This is also true because even the non-passive use of ter- as an abilitative form has decreased steeply from the past to the present. As Hopper and Traugott (1993:103) suggested, that “[f]requency demonstrates a kind of generalization in use patterns,” the data in Table 2 above provide useful hints regarding these generalized use patterns that exist, according to Hopper and Traugott, as a result of “commonly needed discourse functions” (p. 95). This could mean that pragmatics motivations are one of the main forces that drive the frequency patterns of language use. For example, from Table 2, we can see that the increased use of ter- as superlative, passive, and adjectival forms causes an increase in their frequency, from the 1808 corpus to the 2005 corpus. The increased frequency also suggests that these functions are gaining the status of a grammatical form. Uses such as buku ter-ter-ter-enter’ book TER-mention’ (that book that has already been mentioned previously), parti ter-ter-babit’ party TER-involve’ (parties that are involved), and ter-masuk ‘TER-enter’ in example (13) below mark the discourse information of previously mentioned nouns.

(13) ...mempunyai tanggungan lain ter-masuk menjaga anak tirinya.
    possess burden other ter-enter take.care step.child.3S.Gen.
    “...to possess other responsibilities, including taking care of her/his stepchild.”

These uses, obviously, have diverged from the active-passive dichotomy, as they are no longer the main verbs in the sentence. They no longer carry an active or a passive meaning. A further example of ter- as a discourse marker can be seen in example (14) below.

(14) ...kerana ada pihak-pihak ter-ter-tentu yang amat suka
    because Exist. party.Red. TER-make.certain Rel. quite like
    mengapi-apikan di belakang
    stir.up.trouble at back
    “...because there are parties involved (referring to some specific people) who love to stir up trouble.”

These uses, which are increasing in frequency, have become lexicalized units functioning like determiners one uses after a noun. More about grammaticalization is explained in section 4.

4. Grammaticalization of ter-

Given the above discussion regarding the different functions of ter- in both the modern and the historical texts, grammaticalization could have occurred within the uses of ter-. As Benjamin (1993:362) states, “[I]t is unlikely that such a range of functions could have come together synchronically in a single suffix unless they possess some meaning in common.” Grammaticalization in this work is defined as a mechanism that “focuses on how grammatical forms and constructions arise, how they are used, and how they shape the language,” based on the definition by Hopper and Traugott (1993:1). Like many other studies, such as Heine et al. (1991), and Bybee et al. (1994), this work considers grammaticalization to be “a mechanism by which structure emerges from language use” (Bybee and Hopper, 2001:13). It is also seen as a framework that is concerned with “the question of whether boundaries between categories are discrete, and with the interdependence of structure and use, of the fixed and less fixed in language” (Hopper and Traugott, 1993:1).

In this section, we attempt to explain the grammaticalization of ter- based on the data collected from the two corpora. First, we refer to Winstedt’s (1927) analysis of ter- (cited previously), which is displayed as an ordered listing, in (15) below.

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14 It is worth noting that the abilitative form does not match the criteria of passive ter-. Therefore, if a use of ter- is passive but it carries an abilitative meaning, it is likely to be grouped under the passive ter-. However, passive instances of ter- with an abilitative reading are rare.
Winstedt defined ter- as denoting a perfected act or a completed process with, at times, accidental results. This constitutes two of the first characteristics in (15) above.

In addition to Winstedt’s study, we also found a source-target list of grammaticalization in Heine and Kuteva’s (2002) book. Some of the relevant development paths are listed in (16) below.

(16) (a) Ability >> possibility
(b) Get >> ability
(c) Get >> passive
(d) Definite >> superlative

Similar to Winstedt’s discovery, Heine and Kuteva found that many languages display a grammaticalized pattern similar to (16a). In our data, ter- demonstrates a function of ability (e.g., ter-daya ‘with strength’ in [12d] previously) and at the same time, we found that 40 (88.89%) out of 45 instances of the abilitative sentences from the historical texts are collocated with a negator tiada ‘none’ (thus, impossibility), as shown in example (17) below.

(17) (a) SM 219:23
Maka orang mati pun tiada ter-kira banyaknya;
Then people die PUN Neg. TER-count many.3S.Gen
‘Then, the number of people who died is uncountable;’

(b) SM 66:15
...orang Singapura pun letihlah, tiada ter-angkat-kan
people Singapore PUN tired.LAH Neg. TER-lift-KAN
senjatanya lagi.
weapon.3S.Gen again
‘The Singaporeans became tired and they had no more strength to lift their weapons.’

Both examples in (17) show that ‘ability’ and ‘impossibility’ are found with ter- (with the latter needing a negator), although they were both grouped under the abilitative form in our data. The form in (17), nonetheless, is not found in modern texts, as only one instance was found.

From (16b) and (16c) previously, we see that get is related to ‘ability’ (as in ‘manage to’ or ‘be able to’) and to ‘passive’ (‘to get’ or ‘to obtain’). Even though we did not specify a get-meaning with ter-, many abilitative uses can still be understood with the get construction. For example, the sentence in (17b) above can also be expressed as “The Singaporeans could not get themselves to lift their weapons.” At the same time, as get gives rise to both ‘ability’ and ‘passive,’ as suggested in (16b) and (16c), it is not surprising that ter- possesses both of these functions.

As Winstedt (1927:86–87) had postulated, the superlative function of ter- is a result from its meaning “denoting completion which one cannot go.” It makes sense that a perfected act denoting a completed process can be extended to its utmost limit (i.e., the superlative). From the discussion above, we can explain the co-existence of the superlative function with the perfected ter-. Conversely, in (16d), we see that the superlative may also be developed from the adjectival participle, which serves more like definite demonstratives than main verbs (e.g., ter- modifies a noun, as in mejra ter-sebut ‘that table’). The fact that a definite function can also develop into a superlative form suggests that there might be more than one path leading to a single grammaticalized form, a phenomenon that Craig (1991) has called ‘polygrammaticalization’ and Hopper and Traugott (1993:112) has called ‘multiple paths.’

The remaining question concerning the functions of ter- is the link between active and passive forms. One possible answer may be a reference to a general assumption that the active is the basic form, whereas the passive is the transformed structure. In this paper, we will examine this assumption utilizing frequency. We will refer to the frequency of the active and the passive between the two corpora based on the increase or decrease of use in the modern and historical texts, a methodology also used in Givón and Yang (1994) and Hundt (2001) in both of their discussions on the English get-construction. As found in the previous frequency analyses in Table 2, the active construction is decreasing in modern texts while the passive construction is increasing. Despite this fact, the active construction is still ranked first in both corpora (cf. Table 2). As Heine et al. (1991:38) have proposed, the “source of grammaticalization” (i.e., the form prior to grammaticalization) is usually “of [more] frequent and general use” than the target (or the result of grammaticalization). If this is the case, the active should be the source and the passive should be the target.
The possible developments of the different functions of *ter-* are shown below. Three lines of development are seen with *ter-* and they all start with perfected, sudden acts. (18a) emphasizes the change from an active use to a more passive use. (Note that (18a) cannot be interpreted as the development from all active to passive forms in other languages.) (18b) shows a development into ability, (im)possibility, and superlative. (18c) shows a separate path from definite (or ‘adjectival participle,’ using our term) to superlative. However, with regard to order, there is no clear evidence concerning which one of these three comes first. The change of perfectivity is also provided in parentheses.

Even though Winstedt suggested that almost all uses of *ter-* are perfected acts, we found that some grammaticalized forms are gradually losing their perfectivity. For instance, when *tiada ter-angkat-kan ‘Neg. TER-lift-KAN*’ in (17b) previously is used to refer to “with no more strength to lift,” it can refer to both a perfected act (that someone has tried but failed) and an imperfected act (that someone knows he/she no longer has the strength to do something). The most significant change from perfected to imperfected is seen when the static status of the superlative is reached, referring to the adjectival attribute of a noun (e.g., *Budak yang ter-tinggi itu ‘That tallest child’*).

Table 3 represents a summary of the increase and the decrease of frequency from the 1808 corpus and from the 2005 corpus (third row). Included are other attributes of each function, such as the denotation of lexical versus functional meaning, verbality (i.e., a verb/not a verb), perfectivity, a controllable act/not a controllable act, and with or without inherent negativity (i.e., whether a negative meaning is already present in the verb).

Even though the results in Table 3 do not show a consistent presence or absence of features across functions, we see a phenomenon similar to the “grammaticalization chains” postulated by Heine et al. (1991:229). In building the resemblance, a term used by Heine et al., we see family-resemblance-like attributes among the senses, which “have a clear internal structure and are required to describe and account for language structure” (p. 229). The non-exhaustive list of features in Table 3 shows that there are shared features among these functions, and yet there are also differences in each of these features. As Lyons (1977:234) has observed, these features are a “set of possible distinctions” in categories such as “tense, number, gender, case, person proximity, visibility, shape, animacy, etc.” As the list is non-exhaustive, there might also be synchronic changes within a grammaticalized form, as Bybee et al. (1994:8) have believed – frequency may keep increasing “after a grammatical status has been reached.” Therefore, the grammaticalization process we presented above depends on the pragmatics of *ter-* and whether a particular function of it is needed at a particular time.

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**Table 3**

<table>
<thead>
<tr>
<th>Features</th>
<th>Active</th>
<th>Passive</th>
<th>Abilitative</th>
<th>Adjectival Participle</th>
<th>Superlative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples</strong></td>
<td>Ter-kenjing ‘TER-piss’</td>
<td>Ter-pukul (oleh) ‘TER-hit (by)’</td>
<td>Ter-daya ‘TER-strength’</td>
<td>Ter-sebut ‘TER-mention’</td>
<td>Ter-tinggi ‘TER-tall’</td>
</tr>
<tr>
<td><strong>Decrease/Increase in Frequency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diachronically</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Denotation of Lexical/Functional Content</strong></td>
<td></td>
<td></td>
<td>Functional</td>
<td>Lexical</td>
<td></td>
</tr>
<tr>
<td><strong>Verbality</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Perfectivity</strong></td>
<td>Perfactive</td>
<td>Perfactive</td>
<td>(Im)Perfective</td>
<td>Perfactive</td>
<td>Stative</td>
</tr>
<tr>
<td><strong>Controllable Act (by the grammatical subject)</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td><strong>Inherited Negativity</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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Soh (1994) considered all abilitative uses of *ter-* as being imperfective with the rationale that only the abilitative *ter-* allows sentence negation. However, the author believes that by adding a negation, one can also mean ‘a failed attempt that has taken place’ (in addition to a habitual reading of ‘without an ability’).
In section 5 to follow, we focus on the passive ter-, which we have identified using our two criteria discussed in section 2 (i.e., replacement with di- and addition of the agentive phrase oleh ‘by’). Since ter- carries different senses, as elaborated in detail in this section, these two criteria prove to be beneficial in extracting the verb of interest in the next analysis.

5. Comparing passive ter- with other types of Malay passive forms

From previous analysis shown in Table 2, ter- passive constitutes about 17 percent of the total forms in modern use. In order to examine further the features of passive ter- in comparison to the previous analyses of Chung’s (2005) canonical passive di- and adversative passive kena, the following analyses of frequency and formality were carried out.16

5.1. Frequency

First, for the modern texts, the average frequency per instance was calculated for all 59 instances of passive ter- found within the 24 news articles, which amounted to 19,955 words (therefore, comprising 0.30% of the total word count). This means that passive ter- appears once in every 338 words, on average. Compared to the results of Chung (2005), based on news texts, this frequency is lower than passive di- (which occurs once in every 35 words, on average) and higher than passive kena (which occurs once in every 508 words, on average).

Second, for the historical texts, the analysis showed that there were 56 instances of passive ter- in the total 94,069 words in the corpus of Sejarah Melayu, indicating that passive ter- occurs once in every 1680 words, on average. This is far lower in frequency than the modern texts. Passive di-, when searched according to the same method in the Sejarah Melayu, returned 3578 instances, indicating one occurrence in every 26 words. This means that passive di- was used frequently in the historical texts. As for passive kena, a search in the Sejarah Melayu returned 59 instances, among which only four were ‘real’ passive. This construction, therefore, shows an occurrence of one instance in every 23,517 words, on average, and is the lowest frequency obtained so far.

Therefore, based on this analysis, the most frequently used passive type in Malay modern texts is passive di-, followed by passive ter-, and, lastly, by passive kena. Although this comparison combines results from two studies, this is not a problematic case because Chung’s (2005) work is also based on the news texts from Utusan Malaysia. As for the historical texts, the same results were returned but with a larger gap of differences between di- and ter- and between ter- and kena. The comparisons of the passive types are displayed in the continuum in (19) below: (19a) represents the continuum for the modern texts, where ter- is compared to kena and di- based on Chung (2005), and (19b) shows the data from the historical texts. (The distance between the passive types in (19) is an estimate.)

(19) (a) Modern Texts from Utusan Melayu

| Passive Type | Frequency 
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>passive kena</td>
<td>One in every 508</td>
</tr>
<tr>
<td>passive ter-</td>
<td>One in every 338</td>
</tr>
<tr>
<td>passive di-</td>
<td>One in every 35</td>
</tr>
</tbody>
</table>

(b) Historical Texts from Sejarah Melayu

<table>
<thead>
<tr>
<th>Passive Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>passive kena</td>
<td>One in every 23,517</td>
</tr>
<tr>
<td>passive ter-</td>
<td>One in every 1,680</td>
</tr>
<tr>
<td>passive di-</td>
<td>One in every 26</td>
</tr>
</tbody>
</table>

Comparing the two scales, historical texts seem to contain more uses of passive di-, while passive ter- and passive kena are used far less frequently. While the frequency of passive di- in the modern texts has dropped slightly, there has been a vast increase of frequency for passive ter- and passive kena from the historical texts to the modern texts. Passive kena, in particular, has increased 46 times in frequency from the historical texts 200 years ago to the present. As can be seen, more instances of passive ter- and passive kena are used today than 200 years ago.17 Also following Chung (2005), an analysis of formality was carried out and the results are reported in section 5.2.

16 Following Hopper and Thompson (1980) and Hopper (1983), Chung (2005) also analyzed the transitivity of di- and kena. This paper, however, does not conduct this analysis, as it is not the intent of this work.

17 From the analysis of kena in the historical texts, the author found that kena was used 90% of the time as a verb, 7% as a passive form, and 3% as an adverb. This pattern may help explain the grammaticalization of kena from a real verb to a passive marker, which will be considered in future research by the author.
5.2. Formality

As Koh (1990) and Benjamin (1993) have noted, both formal and colloquial Malay are present in the same community, and these two forms are used interchangeably by the same speaker. Malay provides a good basis for research on formality. Benjamin (1993:353), in particular, points out that the difference between formal and colloquial Malay depends on “a Malay speaker’s decision whether to express a particular meaning in a formal or a colloquial manner,” suggesting that there seems to be a subset of the language that can reflect different degrees of formality through elements such as syntax, lexis, etc. This can possibly explain why several passive types are needed in Malay, despite their overlapping passive functions – intentionality, intensiveness, formality, and a syntactic motivation for the bare form.

In this section, particular attention will be focused on the analysis of different types of articles. The choice of a particular passive form over all other forms in a particular genre can be seen as one of the indications of formality.

The distribution of the 59 instances of passive ter- that were found in the 24 articles is shown in Table 4. The types of articles reflect the newspaper sections from which the instances of passive ter- were extracted.

From Table 4, it can be seen that most of the ter- constructions were found in ‘Family’ articles (25%), followed by ‘Feature’ articles (19%), and ‘Religion’ articles (17%). This shows that many of the ter- instances were found in contexts that may be related to personal daily life (considering the high frequency in ‘Family’ and ‘Religion’ articles; ‘Feature’ articles may vary according to topic, depending on the focus of the theme). This is possible because, as Goddard (2003) discovered, many of the uses of ter- are perception-based (even though he was examining the active construction). In fact, Benjamin (1993:362) found that the unintendedness of ter- may have surfaced through the “normative Malay view that the course of one’s life depends on the will of God or of one’s rulers, and that one can do little to alter it.” This may also explain the frequent occurrences of ter- in ‘Religion’ articles. Furthermore, the sense of unintendedness expressed by ter- is also strongly associated with personal contexts.18

The results of formality show that passive ter- may relate closely to personal daily life. However, this cannot be stated definitely since it is not certain where passive ter- falls on the continuum, as seen in (20) below.

(20) passive kena passive ter?

<table>
<thead>
<tr>
<th>Types of Articles</th>
<th>Number of Passive Ter-s Found</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>15</td>
<td>25.42</td>
</tr>
<tr>
<td>Feature</td>
<td>11</td>
<td>18.64</td>
</tr>
<tr>
<td>Religion</td>
<td>10</td>
<td>16.95</td>
</tr>
<tr>
<td>Special Report</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>Entertainment</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>Literature</td>
<td>5</td>
<td>8.47</td>
</tr>
<tr>
<td>National News</td>
<td>3</td>
<td>5.09</td>
</tr>
<tr>
<td>Front Page</td>
<td>3</td>
<td>5.09</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Moreover, based on the analyses of the colloquial Internet use of kena reported in Chung (2005) (sometimes in the form of [kena + an English participle], such as kena caught ‘was caught’), we noted a preliminary observation that passive ter- may have a tendency to be used more formally than passive kena. Nevertheless, this still requires the support of further analyses.

6. Conclusion

The current work uses a corpus-based approach in examining the prefix ter-. First, all instances of ter- were compared in terms of their distribution in two corpora (one modern and the other historical). Second, passive ter- was compared to canonical passive di- and adversative passive kena in terms of frequency and formality. One difficulty encountered in carrying out the second step arose from the fact, demonstrated in this paper, that in the case of ter- it is sometimes difficult to differentiate between an active and a passive meaning. The current study has overcome this by presenting a criteria-based method to identify passive ter- in Malay. These criteria use substitution and additive strategies – substituting ter- with di- and/or by adding the agentive phrase oleh ‘by.’ These strategies are not new to linguistic research. However, they have not previously been used systematically to analyze corpus data. This study has followed these criteria consistently throughout

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18 In Chung (2005), di- showed a stronger tendency to appear in the newspaper sections ‘Economy’ (36%), ‘Forum’ (34%), and ‘National News’ (14%); kena was highest in the sections ‘Forum’ (10%) and ‘Family’ (10%).
the analyses and has sorted out the different uses of ter- in the two corpora. The results make it possible to address the confusion between a ‘passive-like’ meaning of ter- and a ‘real’ passive meaning. Furthermore, since distributional data were also obtained, possible language change processes can be postulated.

However, since the analyses targeted written texts, there might be limitations in terms of distributional data. Furthermore, since the modern text corpus is small, a larger, more rigorous analysis could be carried out to confirm the observations discussed herein. Despite these limitations, the study offers contributions in different forms to quantitative research. For example, methodology-wise, this research has demonstrated a way to compare a particular sense of a morpheme to its similar forms in written texts. Since all -di-s are passive, there may be no need to separate their different senses. Similarly, kena is easier to detect because it is a free form in running texts. The detection of ter-, however, returned many senses that are not necessarily passive – this is only one of its uses. The proposed methodology can be applied to studies of morphemes with multiple meanings, where some of the meanings must be removed in order to carry out a second stage of research. It is clear that a comparison of ter- to -di- and kena is made possible only through operationalized research as discussed herein.

This paper has suggested a way to extract a particular sense relevant to the research question of the study and has further compared this sense with its other forms, suggesting three possible grammaticalization developments for the functions of ter-. These grammaticalization paths show that multiple developments are possible and that decreasing perfectivity is also seen with a strongly perfected verb such as ter-. Grammaticalization patterns, such as the developments from ability to possibility, from definite to superlative forms, and the relatedness of ability and passive forms, are also seen in ter-. Future work aims at enlarging the current data and discovering the differences between the series of Malay passives (i.e., the remaining ke-, an, and ber- forms), which have not been examined so far in the literature.

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References

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