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

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A R T I C L E I N F O

A B S T R A C T

Many instances of *ter-* in Standard Malay of Malaysia have confusing active and passive forms (i.e., a construction such as [Noun TER-VP] can represent both active and passive functions). Two criteria, namely (a) substitution by a canonical passive marker, and (b) addition of the agentive phrase, are established in order to distinguish the passive and the active. Utilizing a modern corpus and a historical corpus, words comprised of passive *ter-* were extracted and were then compared to the Malay canonical passive *di-* and the adversative passive *kena*. The results show that *ter-* appears less frequently than *di-* but more frequently than *kena*. Additionally, *ter-* is used informally in contexts related to personal daily life, typically denoting an unintended action. This study not only provides a criteria-based methodology to extract a particular meaning from the multiple meanings of a grammatical morpheme, but also it discusses the grammaticalization process of these different functions of *ter-* utilizing corpora data. The results indicate that *ter-* develops from perfected to imperfected to stative forms in addition to other grammaticalization patterns such as from ability to possibility and from definite to superlative forms.

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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.[1] 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.[2]

(1)　　(a)　　Initiator-Endpoint Subject (low transitivity events)

　　　　　　Ali ter-tawa

　　　　　　Ali ter-laugh

　　　　　　"Ali laughed."

　　　　(b)　　Initiator Subject (high transitivity events)

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[1] Since 'Malay' is a term that can refer to a wide range of varieties and dialects, the research herein focuses on the uses in Standard Malay in Malaysia only. In later sections, comparisons to the historical text *Sejarah Malay* (Annals of Malay History) will be undertaken.

[2] Standard Malay in Singapore is almost identical to that used in Malaysia due to their shared background and similar duration for development. Nevertheless, this is an assumption, as language changes may have occurred within each nation.

Ali ter-pukul John

Ali ter-hit   John

"Ali accidentally hit John."

(c)   Initiator Oblique/Absent (high transitivity events)

John ter-pukul oleh Ali

John ter-hit   by Ali

"John was hit by Ali."

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.[3] 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[4]

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) <u>toward</u> 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 <u>by</u> King D."

     (b) *?maka **di-tawan-lah** hatinya   <u>akan</u>   harta   dunia*
         then   DI-capture-LAH liver.3S.Gen. toward property world
         "?Then his/her heart was captured/attracted <u>toward</u> worldly property."[5]

     (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 <u>by</u> 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) <u>by</u> 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.[6] 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   <u>Akan</u> Detik   Itu*[8]
     TER-remember akan second that
     "The dead of Ustaz Asri Rabbani made me remember <u>about</u> 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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[5] The English translation, however, cannot show precisely the difference between (2b) and (3b), especially the oddness in (3b), except with the removal of 'unexpectedly' from (2b).

[6] Hopper (1983:70), however, found that when *akan* appears after passive *di-*, the noun phrase that follows *akan* (e.g., *harta dunia* in [2b]) becomes the "patient of the passive construction." In such a case, the verb will become ergative. However, in (3b), the sentence becomes ungrammatical because of the addition of another patient after *akan* when *hatinya* is already present.

[7] Except in the following example, in which *akan* is ambiguous between being a prepositional marker 'toward' and being one carrying a future aspectual meaning (almost) equivalent to the English modal verb 'will.' When it denotes the prepositional 'toward,' the phrase after it will become a nominalized phrase referring to the event of executing the punishment.

*Menurut   Azri, dia   tidak   pernah   **ter**-bayang <u>akan</u>*
According.to Azri 3S.Nom. Neg. with.experience TER-imagine AKAN
menjalani hukuman   ini…
execute   punishment this
"According to Azri, he has not tried imagining <u>about</u> executing this punishment…"
Or
'According to Azri, he has not tried imagining (he) <u>will</u> execute this punishment…"

[8] Taken from http://mysuperkids.net/kematian-ustaz-asri-rabbani-membuatkan-saya-teringat-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 a 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 vise 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
                  do   Rel.   as.good.as possible
                  "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
                  *ombak besar **ter-sebut***
                  wave   big   TER-mention.
                  "That child of his/hers 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.

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[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-*)[11]
          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- -an* 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*   [Koh, 1990:166]
          Knife tap.rubber dad blunt as.if   one-year not
          ***ber**-asah*… [ABM][12]
          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).

(b)   *Suara-nya **ke**-dengar-**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."

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-VPsaw/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] '<u>seeing</u> or <u>hearing</u> 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 *di-* and the addition of *oleh* 'by,' this sentence fails to match both criteria. In fact, no sentences in Table 1 match this study's criteria to be considered a 'real' passive. Therefore, Goddard was correct in considering them 'active.' A clearly passive sentence is shown in example (9) below (again, with *ter-tawan* 'capture').

Table 1
Re-organization of) "Dynamic *ter-*" in Bahasa Melayu.

[A] Momentary perceptual/cognitive experiment		
[A1] Seeing or hearing something at one moment	*Someone **TER-VP**saw/heard something*	*aku **ter-dengar** suara mak*. . . I heard mother's voice. . .
[A2] Thinking (or thinking of) something at one moment	*Someone **TER-VP**think something*	*Adakala dia **ter-fikir** adalah anaknya gay*. . . Sometimes he wondered if his son was gay. . .
	*Someone **TER-VP**think about something*	*Kami belum **ter-fikir** tentang perkara itu*. . . We haven't yet thought about that issue. . .
[B] Unintended action		
Doing something not because of wanting to do it	*Someone **TER-VP**unintended.action*	*Rosalina **ter-sentak**.* Rosalina jerked. . .
[C] Unintended feelings (and feeling-based thoughts)		
[C1] Unintended feeling	*Someone **TER-VP**feel adjective (EMOTIONAL.STATE)*	*saya **ter-(r)asa** sesuatu yang baik*. . . I had a good feeling. . .
[C2] Unintended feeling	*Someone's body/body-part **TER-VP**feel adjective(SENSATION)*	*Badan **ter-(r)asa** seram*. . . (My body) got the creeps. . .
[C3] Intuitively-based thought	*Someone **TER-VP**feel something*	*Dia **ter-(r)asa** panggilan itu amat mustahil.* He had a feeling that this call was most important. . .
[C4] Intuitively-based thought	*Something **TER-VP**feel adjective*	*Suasana **ter-(r)asa** sepi*. . .[a] The atmosphere felt calm. . .
[C5] *ter-* verbs of intention	*Someone **TER-VP**intention something*	***Ter-ingin** pulak aku nak he Kolumpo*. . . I felt like going to KL. . .
[D] Movement-related		
[D1] Involuntary movement of body-part triggered by a feeling	*Someone **TER-VP**body.movement*	*Anor tentu **ter-beluaj bijik mata** tengok aku nanti*. . . Anor is sure to go bug-eyed (i.e., be impressed) when she sees me later. . .
[D2] Uncontrollable movement leading to change of position	*Something **TER-VP**caused.motion*	*Mangkuk itu **ter-jatuh**. . .* The bowl fell over. . .
[E] Temporary cognitive disruption		
[E1] Temporary cognitive disruption by an unexpected event	*Someone **TER-VP**shock*	*Dia **ter-kejut** seketika*. . . She was startled for a moment. . .
[E2] Inhibited states of attention or awareness	*Someone **TER-VP**forget*	*Cikgu, hampir saya **ter-lupa**. . .* Teacher, I almost forgot. . .
[F] Sudden appearance in a place	*Something **TER-VP**appear prepositional.phrase*	*Rasa kecewa jelas **ter-bayang** di wajah mereke*. . . A look of disappointment came over their faces. . .

[a] 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).

(9)   SM 190:39

      . . .*Maka anak raja Kelantan yang perempuan itu,*
      then   child king Kelantan Rel. lady   that
      ketiganya   **ter-tawan oleh** *orang Melaka*
      third.3S.Gen. TER-capture by   people Malacca
      "Then the third daughter of the King of Kelantan was taken as prisoner by the Malaccans."

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-VPcall + 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).

---

(12)   (a)   **Active**

Mereka   hanyut di-bawa arus   deras Sungai Pahang

3P.Nom. sink   DI-bring current rapid river   Pahang

selepas **ter-pijak**   pasir jerlus itu

after   TER-step.on sand loose that

"They sank after being taken by the rapid current of the Pahang River when they accidentally stepped on the loose sand."

(b)   **Passive**

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."

(c)   **Superlative**

wanita   pertama yang di-lantik   memegang jawatan ketiga

woman first   Rel. DI-choose hold   position third

ter-tinggi dalam badan kehakiman Negara

TER-tall in   body judge   country

"The first woman who was chosen to hold the third-highest position in the national judges' bureau…"

(d)   **Abilitative**

Selagi   ada   umur dan **ter-daya**,   mak cik akan

As.long.as Exist. age   and TER-strength, aunt   will

lakukan yang sebaik   mungkin

do   Rel. as.good.as possible

"As long as aunt (referring to herself) is still young and still has the strength, aunt will do everything as well as possible."

(e)   **Adjectival Participle (discourse marker)**

anaknya   itu   turut mati lemas dalam tragedy

Child.3S.Gen. that also dead drown in   tragedy

ombak besar **ter-sebut**

wave   big   TER-mention.

"That child of his/hers was also drowned in that strong current (that has been mentioned previously)."

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.

Uses of *Ter-* Constructions	Modern News Articles (Year 2005)		Sejarah Melayu (Year 1808)	
	Tokens	%	Tokens	%
Active	122	35.57	424	60.83
Superlative	112	32.65	119	17.07
Passive	59	17.20	56	8.03
Adjectival Participle (Discourse Marker)	49	14.29	53	7.61
Abilitative	1	0.29	45	6.46
Total	**343**	**100.00**	**697**	**100.00**

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 about 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-sebut* 'book TER-mention' (that book that has already been mentioned previously), *parti 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-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 syncretically in a single affix 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.

(Note that the order was arranged by the author. The original author might not have postulated such a hypothesis, except for the relationship between 'ability' and 'impossibility,' which was stated explicitly.)

(15)   Perfected act >> Suddenness of meaning >> Ability >> (Im)Possibility >> Superlative

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 Kuveta'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 *meja 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.

Table 3
Interpretation of *ter-* in grammaticalization.

Features	Active	Passive	Abilitative	Adjectival Participle	Superlative
Examples	*Ter-kenjing* 'TER-piss'	*Ter-pukul* (oleh) 'TER-hit (by)'	*Ter-daya* 'TER-strength'	*Ter-sebut* 'TER-mention'	*Ter-tinggi* 'TER-tall'
Decrease/Increase in Frequency Diachronically	↓	↑	↓	↑	↑
Denotation of Lexical/Functional Content	Lexical	Lexical	Lexical	Functional	Lexical
Verbality	Yes	Yes	Yes	No	No
Perfectivity	Perfective	Perfective	(Im)Perfective	Perfective	Stative
Controllable Act (by the grammatical subject)	No	No	No	N/A	No
Inherited Negativity	Yes	Yes	No	N/A	N/A

The possible developments of the different functions of *ter-*, which consist of modification from the order in (15) previously, are shown in (18) 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.

(18)   Developments of *ter-*

    (a)   **Active** perfected, sudden acts >> **passive** perfected, sudden acts

    (b)   Perfected, sudden acts >> **Ability** (Perfected/Stative) >> **(Im)Possibility** (Perfected/Stative) >> **Superlative** (Stative)

    (c)   Perfected, sudden acts >> **Definite/Adjectival participle** (Perfected) >> **Superlative** (Stative)

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 stative 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 inherited negativity (i.e., whether a negative meaning is already present in the verb).

In terms of lexical versus functional content (row four), we found that only the adjectival participle serves a functional role, while the superlative still serves a lexical role. From here, we can see that some features are shared by more than one function (shaded) but they do not pattern similarly throughout. For example, concerning verbality (row five), only the last two columns are not verbs, and only the abilitative function allows both perfective and imperfective readings (row six).[15] Regarding a controllable act by the grammatical subject (row seven), all functions except the functional discourse marker (marked 'N/A') display a non-controllable act (adjectival participles modify nouns, not verbs). Finally, in terms of the inherited negativity in meaning (last row), the active and passive functions have inherited negative meanings. The abilitative requires a negation marker to bring out the negative meaning, while the adjectival participle and the superlative are both marked N/A in negativity. In fact, *ter-* as a superlative seems to emphasize the positive more than the negative (i.e., *ter-tinggi* 'tallest' is less marked than *ter-rendah* 'shortest'), but this may also be a feature of the superlative form in most languages.

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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[15] 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]
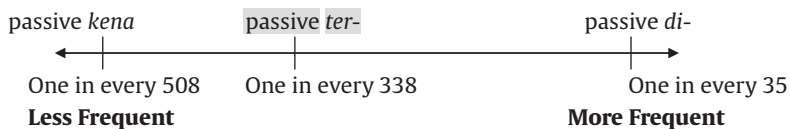
5.1. Frequency

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).
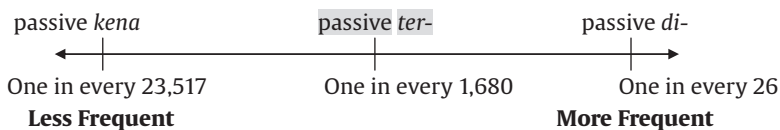
Second, for the historical texts, the analysis showed that there were 56 instances of passive *ter-* in the total 94,069 words in the corpus of *Sejarah Melayu*, indicating that passive *ter-* occurs once in every 1680 words, on average. This is far lower in frequency than the modern texts. Passive *di-*, 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 *kena*	passive *ter-*	passive *di-*
One in every 508	One in every 338	One in every 35
Less Frequent		**More Frequent**

(b) Historical Texts from *Sejarah Melayu*

passive *kena*	passive *ter-*	passive *di-*
One in every 23,517	One in every 1,680	One in every 26
Less Frequent		**More Frequent**

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.

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[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.

Table 4
Types of articles for the 59 instances of passive *ter-*.

Types of Articles	Number of Passive *Ter*-s Found	%
Family	15	25.42
Feature	11	18.64
Religion	10	16.95
Special Report	6	10.17
Entertainment	6	10.17
Literature	5	8.47
National News	3	5.09
Front Page	3	5.09
Total	**59**	**100.00**

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-*?   passive *di-*

      ←——————|————————|—————————————————|———

   Less Formal   Daily Life   **More Formal**
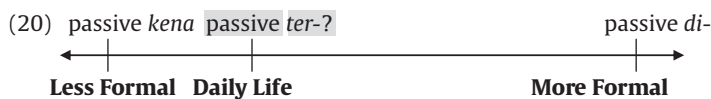
Moreover, based on the analyses of the colloquial Internet use of *kena* reported in Chung (2005) (sometimes in the form of [*kena* + an English participle], such as *kena caught* 'was caught'), we noted a preliminary observation that passive *ter-* may have a tendency to be used more formally than passive *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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