

The verbal prefix *meN-* and the unergative/unaccusative distinction in Malay

Hiroki Nomoto
nomot002@umn.edu

Hooi Ling Soh
sohxx001@umn.edu

University of Minnesota

1. Introduction

Problem:

The verbal prefix *meN-* in Malay blocks DP movement across it in transitive sentences (Saddy 1991; Soh 1998; Cole and Hermon 1998).

However, no such blocking effect is found in intransitive sentences that contain verb roots that are usually considered unaccusative.

This is unexpected given that Malay syntax is sensitive to the unergative/unaccusative distinction (Nomoto, forthcoming-a), in accordance with the Unaccusative Hypothesis (Perlmutter 1978).

Proposal:

No blocking effect is observed in intransitive sentences with *meN-* because all intransitive *meN-* sentences are unergative.

Implications:

- (i) Lexical versus structural approaches to the unergative/unaccusative distinction:
Our analysis supports specifying the unergative/unaccusative distinction through syntactic structure.
- (ii) The semantic associations of unergative/unaccusative structures:
The association between an unergative structure with an internally caused event and an unaccusative structure with an externally caused event as proposed in Levin and Rappaport Hovav (1995) needs to be loosened.
- (iii) The function and meaning of *meN-*:
Our analysis provides a new data point for evaluating competing analyses of *meN-*.

2. Background

2.1 The verbal prefix *meN-*

There is no consensus as to the grammatical function or the semantic contribution of *meN-*.

MeN- has been claimed to be an active voice marker (Sneddon 1996; Voskuil 2000; Son and Cole 2004; Nomoto and Shoho 2007), a transitive marker (Chung 1976; Cole and Hermon 1998), an agentive (trigger) marker (Wouk 1989; Cumming 1991; Gil 2002; Englebretson 2003), an objective Case marker (Guilfoyle, Hung and Travis 1992) or recipient (Voskuil 1993), an object clitic/antipassive marker (Fortin, in press), an agreement marker (Willett 1993), among others.

More recently, we showed that *meN-* has aspectual effects, and that it shares with a progressive marker a restricted distribution in stative sentences (Soh and Nomoto, forthcoming).

Despite this, there is general agreement about its syntactic effect, namely it blocks DP movement across it.

2.2 The ban on DP movement across *meN-*

A-bar movement of a DP may not cross the prefix *meN-* in Malay (Saddy 1991; Soh 1998; Cole and Hermon 1998).¹

- (1) a. Apa Ali beli?
what Ali buy
'What did Ali buy?'
- b. [_{CP} Apa_i [_{TP} Ali beli t_i]]
- (2) a. *Apa Ali **mem-**beli?
what Ali _{meN-}buy
- b. *[_{CP} Apa_i [_{TP} Ali **mem-**beli t_i]]

¹ See Hasal (2005) for cases where this restriction does not appear to hold.

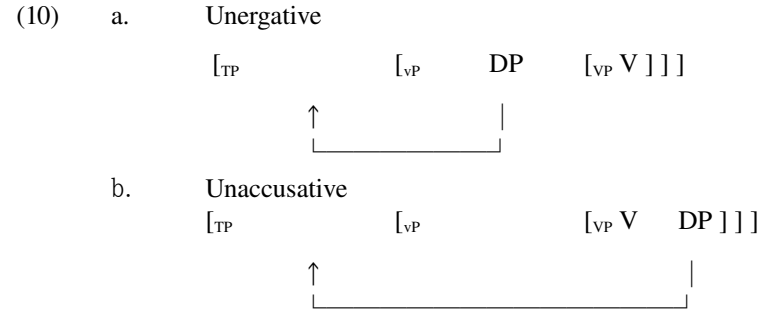
- (8) Unergative verbs
- a. Se-orang lelaki tinggi pergi ke pasar.
 1-CLF man tall go to market
 'A tall man went to a market.'
- b. *Ke pasar pergi se-orang lelaki tinggi.
 to market go 1-CLF man tall

The word order with the argument of an unaccusative verb in a post-verbal position is observed much more frequently in adverbial clauses, especially conditionals, compared to main and embedded clauses (Nomoto, forthcoming-a).

- (9) a. Bagaimana kita hendak mengambil tindakan
 how we will take action
 jika sesuatu berlaku di luar pengetahuan kita?
 if something happen at outside knowledge our
 'How are we going to react if anything happens without our knowing it?'
 (Utusan Malaysia, 29/01/2002)
- b. ... jika berlaku sesuatu kecemasan
 if happen something emergency
 mereka akan menghubungi saya atau Dr. Tan dengan segera.
 they will contact me or Dr. Tan with quick
 '... if any emergency happens, they will contact me or Dr. Tan immediately.'
 (Utusan Malaysia, 11/11/2002)

The contrast between unergative and unaccusative verbs in the possible positions of their sole argument is in accordance with the Unaccusative Hypothesis (Perlmutter 1978), which specifies that an unergative verb has an external argument, while an unaccusative verb has an internal argument.³

³ Unlike Chomsky (1995), we assume following Marantz (1997) and Chomsky (2001) that the verbal structure of an unaccusative is also headed by a v, though of a different type than that heading the verbal structure of a transitive and an unergative sentence. The v of an unaccusative lacks an external argument.



Assuming that the post-verbal position is an object position, the argument of an unaccusative verb may appear there as that is its merged position. The argument of an unergative verb may not, as there is no point in the derivation where its argument occupies an object position.

3.1.2 Causativization with the suffix *-kan*

The suffix *-kan* has multiple functions and meanings (see, e.g. Asmah 1993; Cole and Son 2004; Kroeger 2007; Son and Cole 2008).⁴ Causativization is one of them.

Causativization with *-kan* is possible with an unaccusative verb root, but not with an unergative verb root (Vamarasi 1999:27-33).

- (11) a. Unergative roots + *-kan*
- | | | |
|------------------|--|--|
| pergi 'to go' | *pergi-kan/*mem-(p)ergi-kan ⁵ | *'to cause x to go' |
| nyanyi 'to sing' | nyanyi-kan/me-nyanyi-kan | *'to cause x to sing'
'to sing x' |
| fikir 'to think' | fikir-kan/mem-(f)ikir-kan | *'to cause x to think'
'to think about x' |

⁴ Although there may be differences between Malay and Indonesian with respect to the use of the suffix *-kan* (cf. Kaswanti Purwo 2004), the causative use and the contrast between unergative and unaccusative verbs with respect to *-kan* described below are common to both. See Son and Cole (2008) for a unified analysis of the various types of constructions that *-kan* is found in Indonesian.

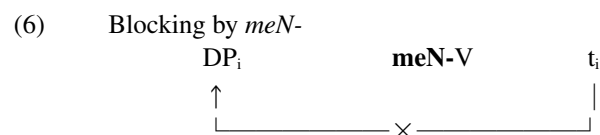
⁵ Wolff (1980:210) lists *mem-(p)ergi-kan* as meaning 'to send out' (= to cause x to go). Vamarasi (1999:33) states that it does not exist in Indonesian and regards it as an accidental gap. Two Indonesian speakers we consulted confirmed Vamarasi's observation. The relevant form appears to be non-existent in Malay too.

b.	Unaccusative roots + <i>-kan</i>	
datang 'to come'	datang-kan/men-datang-kan	'to cause x to come'
jatuh 'to fall'	jatuh-kan/men-jatuh-kan	'to cause x to fall'
wujud 'to exist'	wujud-kan/me-wujud-kan	'to cause x to exist'

This is expected if causative *-kan* introduces an external argument and can only combine with a root that is not associated with an external argument.⁶

3.2 No blocking effect

Given the Unaccusative Hypothesis and the blocking effect of *meN-*, we expect not to find unaccusative *meN-* sentences with its sole argument in a pre-verbal position.



Contrary to our expectation, such sentences exist.

Turun 'to fall' is an unaccusative verb.

Its argument may appear in a pre-verbal or a post-verbal position.

⁶ In the analysis proposed in Son and Cole (2008) for *-kan* in Indonesian, *-kan* is not associated with the introduction of an external argument/causer (in its causative use). They propose that *-kan* is a morphological reflex of a RESULT head, and the various *-kan* constructions share a result state component in their event structure, which is syntactically expressed. The semantics of RESULT gives rise to a causative interpretation. In fact, they argue specifically against analyzing *-kan* as heading a CAUSE phrase, along the line of Travis's (2000) analysis of the causative morphemes in Tagalog and Malagasy. The contrast between unergative and unaccusative verbs with respect to *-kan* is not explicitly discussed, however. We leave how their analysis may be extended to account for this contrast in future work.

- (12) a. Kalau *harga minyak tidak turun*, kita akan bankrup.
if price oil not fall we will bankrupt
'If the oil price doesn't fall, we'll go bankrupt.'
- b. Kalau tidak *turun harga minyak*, kita akan bankrup.
if not fall price oil we will bankrupt
'If the oil price doesn't fall, we'll go bankrupt.'

Turun 'to fall' may also be causativized with the suffix *-kan*.

- (13) Kerajaan telah **men-(t)urun-kan** harga minyak.
government PERF ME_N-fall-KAN price oil
'The government has lowered the price of oil.'

However, it may also occur with the prefix *meN-*, with its argument in a pre-verbal subject position.

- (14) a. Harga elektrik turun.
price electricity fall
'The electricity price fell.'
- b. Harga elektrik **men-(t)urun**.
price electricity ME_N-fall
'The electricity price is falling.'

(14b) is unexpected because the movement of the internal argument crossing *meN-* does not give rise to ungrammaticality.

- (15) a. [_{TP} Harga elektrik_i turun t_i]
-
- b. [_{TP} Harga elektrik_i **men-(t)urun** t_i]
-

It is not desirable to posit two distinct *meN-*, one that appears in transitive sentences and another that appears in intransitive sentences, as a possible solution to the problem.

Besides having to explain why these two *meN-* morphemes have the same form, one needs to also explain why they share other properties (e.g., a restricted distribution in stative sentences (Soh and Nomoto, forthcoming)).

4. Proposal

No blocking effect is observed in intransitive sentences with *meN-* because all intransitive *meN-* sentences are unergative.

4.1 The positioning of the argument

MeN- sentences with an unaccusative root pattern like unergatives and unlike unaccusatives in the positioning of its sole argument.

Unergative roots

The argument of an unergative root may only appear in a pre-verbal position, regardless of the presence of *meN-*.

- (16) Unergative root
- a. Kalau anak nyanyi dalam kereta api,
if child sing in train
ibu bapa-nya harus menegur-nya.
parents-3SG should reprimand-3SG
'If a child sings in the train, his/her parents should reprimand him/her.'
 - b. *Kalau nyanyi anak dalam kereta api,
if sing child in train
ibu bapa-nya harus menegur-nya.
parents-3SG should reprimand-3SG

- (17) Unergative root with *meN-*
- a. Kalau anak me-nyanyi dalam kereta api,
if child _{ME}N-sing in train
ibu bapa-nya harus menegur-nya.
parents-3SG should reprimand-3SG
'If a child sings in the train, his/her parents should reprimand him/her.'
 - b. *Kalau me-nyanyi anak dalam kereta api,
if _{ME}N-sing child in train
ibu bapa-nya harus menegur-nya.
parents-3SG should reprimand-3SG

Unaccusative roots

The argument of an unaccusative root differs in its possible positions depending on the presence of *meN-*.

Without the prefix *meN-*, it may appear in a pre-verbal or a post-verbal position.

- (18) Unaccusative root
(= (12))
- a. Kalau harga minyak tidak turun, kita akan bankrup.
if price oil not fall I we will bankrupt
'If the oil price doesn't fall, we'll go bankrupt.'
 - b. Kalau tidak turun harga minyak, kita akan bankrup.
if not fall price oil we will bankrupt
'If the oil price doesn't fall, we'll go bankrupt.'

However, with the prefix *meN-*, it may only appear in a pre-verbal position, patterning like an unergative root with or without *meN-*.

- (19) Unaccusative root with *meN-*
- a. Kalau harga minyak tidak men-(t)urun, kita akan bankrup.
if price oil not _{ME}N-fall we will bankrupt
'If the oil price doesn't fall, we'll go bankrupt.'
 - b. *Kalau tidak men-(t)urun harga minyak, kita akan bankrup.
if not _{ME}N-fall price oil we will bankrupt

This patterning suggests that the sole argument in a *meN-* intransitive sentence is always an external argument regardless of whether the verb root is considered unergative or unaccusative.

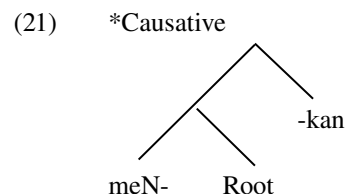
4.2 Causativization with *-kan*

If a [*meN*+ unaccusative root] form is associated with an unergative structure, we expect that the suffix *-kan* cannot attach to it with a causative interpretation.

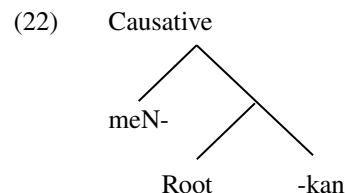
This expectation does not appear to be borne out at first glance. Forms like *men-(t)urun-kan* ‘to lower’ exist as causatives as in (20).

- (20) Kerajaan men-(t)urun-kan harga minyak sebanyak 15 sen.
 government *meN*-fall-KAN price oil as.much.as 15 cent
 ‘The government reduced the oil price by 15 cents.’

However, we argue that *men-(t)urun-kan* ‘to lower’ is a result of the merging of *meN-* to *turun-kan* as in (22), rather than the merging of *-kan* to *men-(t)urun* as in (21).⁷



Prediction:
meN-Root-kan → *meN-Root*
WRONG
 cf. (23) 1st and 3rd columns



Prediction:
meN-Root-kan → *Root-kan*
CORRECT
 cf. (23) 1st and 2nd columns

⁷ Son and Cole (2008) also argue for a structure with the relevant hierarchy as in (22). They claim that *-kan* is an overt instantiation of the head of Result phrase (RP), and assume that *meN-* occupies the Voice head (which they take to be equivalent to *v*). RP appears below VoiceP and VP as shown below.

(i) [_{VoiceP} External Argument *meN-* [_{VP} **V** [_{RP} *-kan* XP]]].

The existence of a *meN-X-kan* causative entails that of a *X-kan* form, but not a *meN-X* form.

- | | | | |
|------|-------------------------|---------------------|--------------------------------------|
| (23) | <u><i>meN-X-kan</i></u> | <u><i>X-kan</i></u> | <u><i>meN-X</i></u> |
| | meny-(s)ampai-kan | sampai-kan | *meny-(s)ampai |
| | ‘to convey’ | ‘to convey’ | |
| | | | (sampai ‘to reach’) |
| | men-(t)idur-kan | tidur-kan | *men-(t)idur |
| | ‘to put to sleep’ | ‘to put to sleep’ | |
| | | | (tidur ‘to sleep’) |
| | mem-ber-henti-kan | ber-henti-kan | *mem-berhenti |
| | ‘to dismiss’ | ‘to dismiss’ | |
| | | | (ber-henti ‘to resign’) ⁸ |

We do not find *meN-X-kan* verbs that do not have *X-kan* forms.

That *-kan* is more closely related to the verbal root than *meN-* has been argued for on the basis of phonological evidence from a related language, Indonesian. Cohn and McCarthy (1998) treat *X-kan* as a prosodic unit (= Prosodic Word or PrWd) to the exclusion of *meN-* to account for stress patterns and syllabification in Indonesian.

- (23) a. [X]_{PrWd}
 b. [X-kan]_{PrWd}
 c. *meN*-[X-kan]_{PrWd}

To the extent that stress and syllabification in Malay are the same as Indonesian in the relevant respects, the independently proposed structure corroborates our analysis.

⁸ Some authors (e.g. Vamarasi 1999; Kroeger 2007) conclude that a prefixed form like *ber-henti* ‘to resign; to stop (intransitive)’ is unaccusative based on the fact that its base (*henti* in this case) can be causativized with *-kan* as in *meng-henti-kan* ‘to stop (transitive)’. Other verbs that are concluded to be unaccusative based on the same reasoning include *meng-hilang* ‘to disappear’, *men-jadi* ‘to become’, *meng-alir* ‘to flow’, *meny-(s)eberang* ‘to cross’ and *men-(t)angis* ‘to cry’. Such an analysis is problematic as it ignores the difference between bare forms and prefixed forms. The causative diagnostic indicates that bare form may appear in an unaccusative structure, but does not necessarily suggest that the prefixed form can appear in an unaccusative structure as well.

To sum up,

- All intransitive sentences with *meN-* are unergative, regardless of whether the roots are considered unergative or unaccusative (contra Vamarasi 1999; Postman 2002; Kroeger 2007).^{9,10}
- Therefore, no DP movement takes place across *meN-*.

5. Implications

5.1 Lexical versus structural approaches to the unergative/unaccusative distinction

Two approaches to argument realization (unergative/unaccusative distinction):

(i) Lexical:

Verbs have structured lexical semantic representations from which syntactic structures are projected (Levin and Rappaport Hovav 1995; Rappaport Hovav and Levin 1998, 2002)

Levin and Rappaport Hovav (1995) on unergative/unaccusative distinction:

- Verbs are specified as being unergative or unaccusative, and an unergative verb describes an internally caused event while an unaccusative verb describes an externally caused event.
- Arguments are projected in accordance with the verb's categorization as unergative or unaccusative.
- Different nuances of verb meaning are due to different lexical verbs. e.g. An intransitive verb describing an externally caused event is unaccusative, while one describing an internally caused event is unergative.

(ii) Structural:

The meaning of a verb in a given use is determined compositionally from the meaning of the verb root and the syntactic environment in which the verb appears (Ritter and Rosen 1998; Marantz 1997; Borer 2005; Pytkäinen 2008; Ramchand 2008)

⁹ Vamarasi (1999:29) contends that prefixless verbs are all unaccusative. However, this claim is too strong because it does not allow for the existence of prefixless unergative verbs, which we believe exist (e.g. *pergi* 'to go' (8)). Also, it does not allow for cases where the same prefixless verb can appear in both unaccusative and unergative structures (variable behaviour verbs) (e.g. *turun* 'to fall; to alight' (25)).

¹⁰ See Soh (1994:14) for an early suggestion of this possibility.

Borer (2005) on unergative/unaccusative distinction:

- Verbs are not specified as being unergative or unaccusative.
- Arguments are projected freely.
- Different nuances of verb meaning are associated with the different structure in which the verb appears.

A single root with the same relevant meaning may have an unaccusative or unergative use depending on the surrounding structural elements in the functional domain (i.e., the presence of *meN-*).

Hence, the analysis supports specifying the unergative/unaccusative distinction through syntactic structure (e.g., Borer 2005), rather than lexical encoding (Perlmutter 1978; Perlmutter and Postal 1984; Levin and Rappaport Hovav 1995; Rappaport Hovav and Levin 1998, 2002).

Our analysis suggests that it is important to distinguish affixed forms from non-affixed forms when determining whether they can appear in an unergative or unaccusative structure (see footnote 8).

5.2 The semantic associations of unergative/unaccusative structures

Levin and Rappaport Hovav (1995) propose that verbs have structured lexical semantic representations from which syntactic structures are projected.

They relate the unergative structure with a verb that describes an eventuality that is conceptualized as 'internally caused', and the unaccusative structure with a verb that describes an eventuality that is conceptualized as 'externally caused'.

Under this view, *turun* 'to fall' is a variable behaviour verb (like *roll* verbs in English (Levin and Rappaport Hovav 1995:209)) in that it may have an unergative use as well as an unaccusative use.

With an animate volitional/agentive argument, the eventuality may be conceptualized as internally caused, and hence unergative. With an inanimate argument, the eventuality is conceptualized as externally caused, and hence unaccusative.

- (25) a. Dia turun dari bus. (internal causation;
he alight from bus unergative syntax)
'He alighted from the bus.'
- b. Harga minyak turun. (external causation;
price oil fall unaccusative syntax)
'The oil price fell.'

However, the situations described by (26a) and (26b) are both conceptualized as externally caused. Yet, (26a) without the prefix *meN-* involves an unaccusative structure, while (26b) with the prefix *meN-* involves an unergative structure.

- (26) a. Harga elektrik turun. (external causation;
price electricity fall unaccusative syntax)
'The electricity price fell.'
- b. Harga elektrik **men-**(t)urun. (external causation;
price electricity *meN*-fall unergative syntax)
'The electricity price is falling.'

This means that the connection between the type of the eventuality described (whether internally or externally caused) and argument realization in Levin and Rappaport Hovav (1995) needs to be loosened.

5.3 The analysis of the function and meaning of *meN-*

This new observation about the occurrence of *meN-* being associated with the existence of an external argument (which need not be an agent; cf. Dowty 1991; Ramchand 2008) raises questions about analyses that treat *meN-* as associated with an internal argument.

Such analyses include those that treat *meN-* as a transitive marker (e.g., Chung 1976; Cole and Hermon 1998), an objective Case marker (Guilfoyle, Hung and Travis 1992) or recipient (Voskuil 1993) or as an object/clitic/antipassive marker (Fortin, in press).

6. Future work

Why is it that *meN-* has the particular effect that it does?

Is it a syntactic effect due to *meN-* being a *v* that requires an argument in its Spec or does *meN-* contribute a certain meaning that is relevant to the argument realization of the verb?

In Soh and Nomoto (forthcoming), we argue that *meN-* has a "progressive-like" aspectual effect not only in the subclass of unaccusative verbs like *turun* 'to fall', but also with other transitive and intransitive verbs, and that it shares with a progressive marker a restricted distribution in stative sentences.

Q: How is this aspectual effect of *meN-* related to the finding in the present study about intransitive *meN-* sentences being unergative?

While previous studies on the unergative/unaccusative distinction have explored the relation between situation aspect and argument realization (e.g., Dowty 1991), to the extent that *meN-* can be viewed as a progressive view point marker, the present study raises the question about what role, if any, viewpoint aspect may play in argument realization.

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