Verb Movement in Malay

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ABSTRAK

Makalah ini membincangkan dan menganalisis struktur ayat dalam bahasa Melayu seperti berikut:

1. *Masukkah Aminah ke dalam bilik itu?*
2. *Tidurkah awak di situ tadi? (dari Mashudi Kader, 1981)*
3. **Menangkapkah Ahmad ikan itu?*
4. **Menggalikah dia perigi itu?*

Kerangka teori yang digunakan dalam menganalisis struktur ini ialah model teori Tatabahasa Transformasi Generatif yang terkini, iaitu Teori Kuasaan dan Tambatan. Makalah ini mendakwa bahawa ayat dalam (1) dan (2) dibentuk oleh dua pemindahan kepala, iaitu Pemindahan Kata Kerja dan Pemindahan Fleksi, dan bukannya dibentuk oleh satu operasi Pendepanan Kata Kerja seperti yang disarankan oleh Freeman, Hetzron dan Schwartz (1970). Analisis ini juga menggunakan prinsip seperti Kendala Pemindahan Kata Kerja Teritlak dan syarat Adjacency dalam penandaan Kasus untuk menghuraikan operasi tersebut.

ABSTRACT

This article discusses and analyses a structure in Malay as follows:

1. *Masukkah Aminah ke dalam bilik itu?*
   'Did Aminah enter the room?'
2. *Tidurkah awak di situ tadi? (from Mashudi Kader, 1981: 247)*
   'Did you sleep there, just now?'
3. **Menangkapkah Ahmad ikan?*
   'Did Ahmad catch the fish?'
4. **Menggalikah dia perigi?*
   'Did he dig the well?'

The framework used in accounting this structure is the latest model of the Transformational Generative Grammar, i.e. the Government and Binding Theory (GB). This article claims that the sentences in (1) and (2) are formed by two movements of head, i.e. Verb Movement and Inflection (INFL) Movement and argues against an analysis by Freeman, Hetzron and

Schwartz (1970) which claims that the sentences are formed by an operation called Verb Fronting. Principles such as the Generalized Head Movement Constraint (GHMC) and Adjacency Condition on Case Assigment are used to account for these operations. Thus the operational conditions are not ad hoc, but accounts in a natural and sophisticated way.

GENERAL BACKGROUND

Malay is a configurational language with fixed positions for subject NP, INFL and VP. Word order is of prime importance in the language, since it does not make use of declension or conjugation. There are no overt marking on NPs for Case, nor do there exists any agreement phenomena between the subject NP and the verb. The verb is not marked for any inflection. The basic word order is Subject-INFL-Verb-Object.

The present analysis argues that yes-no question construction in which verbs superficially occur in clause-initial position, is derived by two movements of heads, i.e. Verb Movement and following the standard assumption that INFL is the head of S, INFL Movement, rather than by a single rule of verb fronting proposed by Freeman, Hetzron and Schwartz, (1970; henceforth FHS). It will be argued that there is no such rule of verb fronting in Malay. In particular, I am interested in accounting for the contrast between (1a) and (1b) below.

(1) a. Masukkah Aminah ke dalam bilik itu?
         enter-Q Aminah to in room the
         Did Aminah enter the room?

     b. *Menuliskah Aminah surat itu semalam?
         act-write-Q   Aminah letter the yesterday
         Did Aminah write the letter yesterday?

The present analysis also differs from previous analyses in claiming that auxiliaries in Malay are base-generated in INFL, rather than in VP, i.e. as the head of VP. (cf. FHS (1970); Karim (1978) and Kader (1981). One piece of evidence that shows that the auxiliaries occur in INFL is inversion, auxiliaries, but not main verbs invert with the subject in questions.

(2) a. Sudahkah dia membeli buku itu?
         has-Q   s/he act-buy book the
         Has s/he bought the book?

     b. *Membelikah dia buku itu?
         act-buy-Q   s/he book the
         'Has s/he bought the book?'

Another evidence is VP deletion:

(3)   a.   John telah pergi dan Mary telah [e] juga.

                                          VP

               John has   go   and Mary has   too

   John has   gone and Mary has   too

The fixed position of the auxiliaries, i.e. to the left of VP is consistent with their properties as grammatical formatives which occur in INFL. For example, they do not assign any theta-role to VP.

I conclude that the auxiliaries are base-generated in INFL, rather than in VP. INFL in Malay contains a cluster or morphemes such as negative, aspect and modal. The internal structure of INFL in Malay is in (4).

(4)
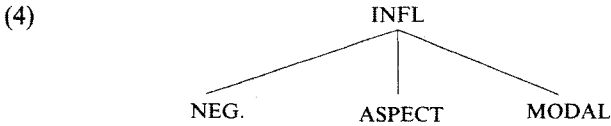
THEORETICAL BACKGROUND

We assume the framework of Government and Binding theory (henceforth GB theory), as in Chomsky (1981). The structure of S is as in Chomsky (1986).

(5)
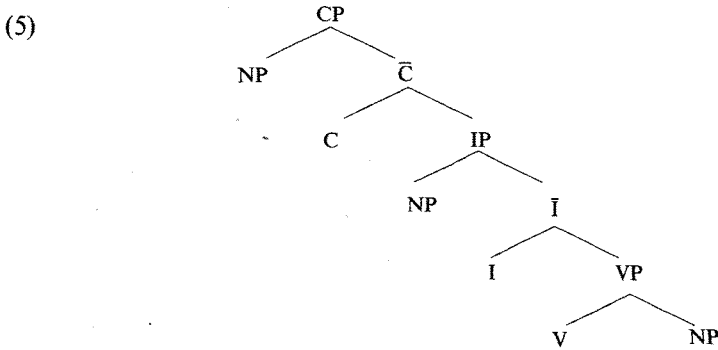
GB· theory consists of a small number of autonomous subsystems of principles. Of these subsystems, the most important in this paper is the theory of Case. We briefly sketch the main points of Case Theory below. Before doing so, however, we introduce and define the notion of government, as this will be central in what follows.

(6) Government – A governs B if and only if:

    i) A is one of the lexical categories (N, A, V, P) and INFL.
    ii) A c-commands B
    iii) Any maximal projection dominating A also dominates B.

(7) c-command (Aoun & Sportiche 1983) – A c-commands B if A does not dominate B and every maximal projection that dominates A dominates B.

<center>AUXILIARIES IN MALAY</center>

What has been generally aclepted as auxiliaries in Malay are the following closed class of lexical items:

(8)   a.   Aspects:

pernah	'completed'	
sudah		
telah	'has'	(perfective)
sedang	'in the process of'	(progressive)
akan	'will' (future)	

    b.   Modals:

hendak	'want'	
mahu		
ingin	'wish'	
harus	'may'	
mesti	'must'	
{ boleh ⎱ dapat }	'can/able'	

Aspects and modals can occur individual or co-occur in a sentence in the order shown in (4).[1]

(9)   a.   Dia akan ingin pergi memancing bila cuaca baik.
        S/he will wish go   act-fishing when weather good.
        'S/he will wish to go fishing when the weather is good'.

    b.   John telah boleh balik ke rumah setelah
        John has can   return to house after
        berada di rumah sakit selama tiga hari.
        stay at house sick for   three day.
        'John has been able to return home after
        staying at the hospital for three days.'

If the order is reversed, the sentences are ungrammatical.

(10) a. *Dia ingin akan pergi memancing bila cuaca baik.

b. *John boleh telah balik ke rumah setelah berada di rumah sakit selama tiga hari.

Furthermore, each element (i.e., aspect and modal) can occur recursively. Karim (1978) points out that the "obligation" class modals can occur only as the first element in a modal-modal sequence, and the other two classes, "intention and ability," can occur freely, i.e., before or after each other. As for aspects, their recursiveness is more constrained. Soermarmo (1976) indicates the existence of recursive occurrences of the aspects and refers to it as the progressivization process. Some expamples are in (11):

(11) a. Mereka akan sedang tidur bila kita tiba.
they will prog. sleep when we arrive.
'They will be sleeping when we arrive.'

b. Dia akan sudah tidur ketika itu.
s/he will has sleep time the
'S/he will have slept by that time.'

The order of the elements under AUX in (4) may not be interrupted by any other constituent, just as no constituent may interrrupt and adjective and the noun it modifies.

(12) a. *Penduduk kampung sudah semalam boleh
settler village has yesterday can
menuai padi.
act-harvest rice.

b. Penduduk kampung sudah boleh menuai padi semalam
settler village has can act-harvest rice yesterday
'The villagers were able to harvest the rice yesterday.'

(13) a. *Akankah dapat mereka membajak sawah itu?
will-Q can they act-plow field the

b. Akan dapatkah mereka membajak sawah itu?
will can-Q they act-plow field the
'Will they be able to plow the field?"

(14) a. *Sudahkah pernah Ali pergi ke Seattle?
          has-Q   been Ali go   to Seattle

      b. Sudah pernahkah Ali pergi ke Seattle?
          has   been-Q Ali go to Seattle
          'Has Ali ever been to Seattle?'.

Note that (12a), the order is interrupted by an adverb and in both (13a and 14a) are interrupted by the question particle *KAH*. Hence, the ungrammaticality of the sentences.

Finally, the aspects are restricted only to tensed clauses, as shown below:

(15) a. Ali berharap supaya John pergi
          Ali hope   for   John go
          'All hopes for John to go'

      b. *Ali berharap supaya John telah pergi.
          *All hope   for   John has go.

(16) a. Ali berharap bahawa John akan pergi.
          Ali   hope   that John will   go.
          'Ali hopes that John will go.'

(17) a. *Ali berharap bahawa John pergi.
          Ali hopes   that John go.

In conclusion, we have shown that the auxiliaries in Malay exhibit the following syntactic characteristics:

(i)   The aspects are restricted to tensed clauses.
(ii)   Auxiliaries occupy second position in ordinary sentences and aspects and modals can only occur in the order indicated in (4).
(iii) Nothing can interrupt between the aspects and the modals.
(iv)   Auxiliaries are necessary followed by a VP; they do not assign a theta-role to the subject NP. The theta-role for the subject NP is determined by the verb in the VP (cf. Chomsky [1981]).

Auxiliaries in Malay thus share two general characteristics with English modals: (1) morphologically, auxiliaries in Malay and modals in English are always realized as a word class; (ii) auxiliaries in Malay share the same basic syntactic properties with English modals, a much discussed subject in the literature (cf. Chomsky [1957], Emonds [1976,

1985], Jackendoff [1977]). One of the main issues is the status of the modals, that is whether they should be considered as main verbs or not. For Malay, Freeman, Hetzron & Schwartz (1970), Karim (1978) and Kader (1981) consider the auxiliaries as main verbs. In this paper, however, auxiliaries are not considered as main verbs but are distinct elements under INFL. See Ramli Md. Salleh 1990 for a detailed discussion of the INFL node.

CASE THEORY

The basic properties of the theory of abstract Case are as follows: Each lexical NP needs to have Case at S-structure. Otherwise, the Case Filter marks the structure as deviant in the PF-component. The Case Filter which is drawn from Chomsky (1980) is stated as follows:

(18)   Case Filter
       *NP, if NP has phonetic content and has no
       Case

Case is assigned to an NP by a lexical category which governs it. I assume that INFL, V and P as Case assigners.

In certain languages such as English and French, Case-marking observes a condition on adjacency (cf. Stowell 1981). The adjacency condition simply states that adjacency of some sort is a condition on Case assignment. In other words, if an NP is not adjacent to a Case assigner, then Case may not be assigned, the NP will receive no Case and the Case Fitler is violated.

Languages which require adjacency for Case assignment may require either strict adjacency, as in English, or argument adjacency, as in French. The French examples in (20) are from Travis (1984)[3].

(19)   a.   I kicked the ball very hard.
       b.   *I kicked very hard the ball.

       a.   John put the book on the table.
       b.   *John put on the table the book.

(20)   a.   J'aime beaucoup les livres.
            I like very much the books
            'I like books very much'

       b.   *J'ai mis sur la table le livre
            I have put on the table the book
            'I put the book on the table'

The examples in (19) show that nothing can intervene in English between the Case assigner and the Case assignee. On the other hand, the French examples in (20) show that an adverb can intervene but not an argument.

Below I present evidence that Malay, like English, requires strict adjacency with respect to Case assignments. In Malay, neither manner, time or place adverbs may intervene between a verb and its object, as the examples in (21) and (22) show.

(21) a. Aminah memandu kereta itu dengan perlahan.
         Aminah act-drive   car   the   with   slow
         Aminah drives the car slowly.

     b. Aminah menulis sepucuk surat semalam
         Aminah act-write one-cl letter yesterday
         Aminah wrote a letter yesterday.

     c. Aminah membaca surat itu di rumah.
         Aminah act-read   letter the at house
         Aminah read the letter at home.

(22) a. *Aminah memandu dengan perlahan kereta itu.
          Aminah   act-drive   with   slow   car   the
          'Aminah drives the car slowly'

     b. *Aminah menulis semalam surat itu.
         Aminah   act-write yesterday letter the
         'Aminah wrote the letter yesterday'

     c. *Aminah membaca di rumah surat itu.
         Aminah   act-read at house letter the
         'Aminah read the letter at home'

On the other hand, there is some apparent evidence to the contrary. For example, in Heavy NP Shift constructions, the object NP can move to the end of the VP as illustrated in (23).

(23) a. Saya menyepak bola yang dia   campak kepada
         I   act-kick   ball that she/he   throw   to
         saya dengan kuat.
         I   with   hard.
         'I kicked the ball that she threw to me very
         hard.'

b. Saya menyepak t dengan kuat bola yang dia
I   act-kick   with hard ball that s/he
campak kepada saya
throw   to   I
'I kicked t hard the ball that s/he threw to
me.'

Malay behaves just like English and French with respect to Complex NP Shift constructions. The examples below are from Travis.

(24) a.   I like t very much those books that you tell
           me to read.

      b.   J'ai mis t sur la table tous les livres que
           tu m'as donnes.

However, the adjacency condition obtains in (23) and (24) if the trace of the assignee produced by Complex NP Shift is adjacent to the Case assigner.

Independent evidence from wh-movement also suggests that requiring adjacency of the trace and Case assigner in the above examples is not unreasonable. It is generally accepted that in wh-movement, when extraction is from a subject or object position, Case is assigned to the trace left behind in the original position. Hence the trace is adjacent to the Case assigner.

(25) a.   Who$_i$ did You give the book to t$_i$?
      b.   Who$_i$ t$_i$ gave the book to you?

Whitney (1982, 1984) argues that Complex NP Shift and wh-movement share the same properties and thus concludes that these two processes are grouped in the same class. That is, both are movements to A-positions. Given this conclusion, she proposes that traces of Complex NP Shift, like traces of wh-movements, are identified as variables.

In summary, the adjacency condition obtains in all the examples above, if the traces of the assigness produced by Complex NP shift in (23) and (24) and by whmovement in (25) are adjacent to the Case assigners.

Evidence form prepositional phrases also suggests that Malay requires strict adjacency with respect to Case assignment.

(26) a.   Mary membeli sebuah jam untuk Ali semalam.
           Mary act-buy one-cl. watch for Ali yesterday.
           'Mary bought a watch for Ali yesterday.'

  b. *Mary membeli sebuah jam untuk semalam Ali.
      Mary act-buy one-cl. watch for yesterday Ali.
      'Mary bought a watch for Ali yesterday.'

In sum, all the evidence presented above suggests that Malay, like English, requires strict adjacency with respect to Case assignment.

VERB MOVEMENT

I propose that the syntactic operation of Verb Movement is a rule that applies freely, constrained by independently motivated principles, namely the Case theory and the Generalized Head Movement Constraint (GHMC) of Emonds (1985) and Lobeck (1986), a principle originally proposed by Travis (1984).

  (27) The Generalized Head Movement Constraint
        A head may only move into or adjoin to a head
        which governs it.

The rule of Verb Movement moves verbs from their base generated positions in VP to INFL position during the syntax. Following Koopman (1984), Travis (1984) and Chomsky (1986), Verb Movement leaves a trace.
    Given the GHMC, Verb Movement may be a substitution or an adjunction, assuming Chomsky-adjunction.
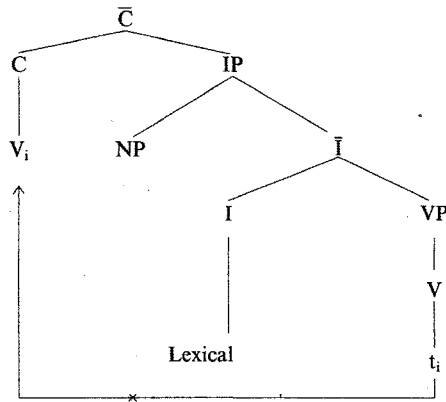
  (28)
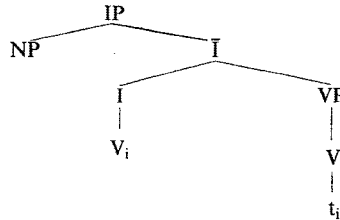
A Substitution of a head into another head or an adjunction of a head to another head does not block antecedent government. Following Chomsky (1986) INFL is now lexical and V_i L-marks VP in both (28) and (29); VP is no longer a barrier for the verbal trace, which is now properly governed by V_i, producing no ECP violation.

(29)

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                                   IP
                          ┌─────────────┴──────┐
                         NP                     Ī
                                          ┌─────┴──────┐
                                          Ī            VP
                                    ┌─────┴────┐       │
                                    I          Vᵢ      V
                                    │                  │
                                 lexical               tᵢ
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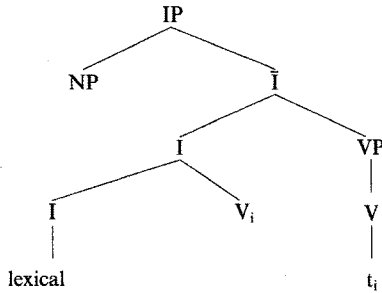
The GHMC ensures the localness of the Verb Movement rule and allows the verb to move only to the position of INFL, its governing head, and not to the front of IP, i.e. to the higher head, COMP. In other words, Verb Movement is a head-to-head operation. For illustration, consider the derivation in (30).

(30)

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                              C̄
                       ┌──────┴──────┐
                       C             IP
                       │        ┌────┴──────┐
                       Vᵢ      NP           Ī
                       ↑                ┌───┴────┐
                       │                I        VP
                       │                │        │
                       │             Lexical     V
                       │                         │
                       │                         tᵢ
                       └────────×────────────────┘
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(31) a. *Masukkah Aimah sudah ke dalam bilik itu?
          enter-Q   Aimah has to in   room the
          'has Aimah entered the room?'

     b. *Berjalankah dia akan boleh selepas kemalangan itu?
          walk-Q   s/he will   can   after   accident   the
          'Will s/he be able to walk after the accident?'

In (31a-b) the verbs have moved to the next higher head, COMP, while there is a closer head, INFL. This is a violation of the GHMC. From COMP, the verb will not antecedent govern their coindexed trace in VP because a closer head, namely the lexical auxiliaries in INFL, intervenes. The trace of the verb violates the ECP.

INTERACTION OF THE VERB MOVEMENT AND THE CASE THEORY

As a consequence of the Verb Movement rule discussed above, which apply freely, we expect that all verbs may move to INFL. And, since elements in INFL may subsequently move to the next higher head, COMP, it follows that these verbs will land in the front of IP. However, not all of the derivations would be grammatical.

(32) a. Masukkah Aminah ke dalam bilik itu?
          enter-Q Aminah to   in   room the
          Did Aminah enter the room?

      b. *Menuliskah Aminah surat itu semalam?
          write-Q   Aminah letter the yesterday
          'Did Aminah write the letter yesterday?'

What we need then is to block certain verbs such as transitive verbs from moving to the INFL position and yet allow other verbs such as the copula *adalah* and other intransitive verbs to move without stipulating an *ad hoc* condition. The difference between verbs that may or may not move to the head INFL is whether the verb assign Case or not. An intransitive verb that does not subcategorize for an NP does not assign any Case and thus, may move to INFL. On the other hand, a transitive verb that sub-categorizes an NP has a Case to assign, and may not move to INFL. This property may be captured by the following generalization.

(33) Verbs may move only if they do not assign Case.

A stipulation on the Verb Movement may be avoided by adopting a principle of Case theory, namely the adjacency condition on Case assignment discussed earlier. Recall that Malay requires strict adjacency with respect to Case assignment. Nothing may intervene between the Case assigner and the assignee.

In order for the adjacency condition to be compatible with the theory proposed here, it must be assumed that a verbal trace is a block to government and Case assignment. Case assignment in Malay may be captured by the following generalization.

(34) Case is assigned only under adjacency

                          * t NP
                             t PP

Given the adjacency condition, a verb which subcategorizes an NP is blocked from moving to INFL position. If Verb Movement applies, the

derivation violates the adjacency condition, since a trace intervenes between the verb in INFL and the NP in VP. The NP fails to be assigned a Case and the Case Filter is violated.

The claim that a verbal trace cannot assign Case in Malay is not an unreasonable one as other evidence shows. Malay has a rule of Particle Movement as in Emonds (1976) and that this rule move an intransitive preposition leftward.

(35) a. Mary mengangkat kotak itu ke atas
        Mary   act-carry box   the to up
        Mary carried up the box

This movement is not applicable to transitive preposition.

(36) a. Ahmad menyimpan wang itu dalam laci.
        Ahmad   act-keep money the in   drawer
        Ahmad kept the money in the drawer

    b. *Ahmad menyimpan dalam wang itu laci
        Ahmad act-keep   in   money the drawer
   *Ahmad kept in the money the drawer

The ungrammaticality of (36b) can easily be explained if we accept the assumption that prepositional traces do not assign Case. The sentence is ruled out because the preposition which is a Case assigner is not adjacent to its object NP and by the adjacency condition Case cannot be assigned; the Case Filter is violated.

The claim in this analysis is contrary to the proposal of Koopman (1984) in which she argues that in Vata and Gbadi, a trace assigns Case. Thus, in these languages, all verbs (transitive and intransitive) may move to INFL and subsequently to the front of IP. May be there is a correlation between whether at trace assigns Case or not and V-2 and V-last. Vata, Gbadi and Dutch in which a trace assigns Case are all V-last in the base, whereas, V-2 languages like Malay and English, trace doesn't assign Case.

THE HEAD OF INFL

Following Whitney (1984) and Lobeck (1986), I distinguish two distinct positions in INFL, which result from the Verb Movement rule. As in English, these two positions may be distinguished by their ability to undergo movement. The position that is able to undergo movement such as INFL Movement is referred to as the head, in contrast to a non-head position which is unable to undergo any movement.

(37)
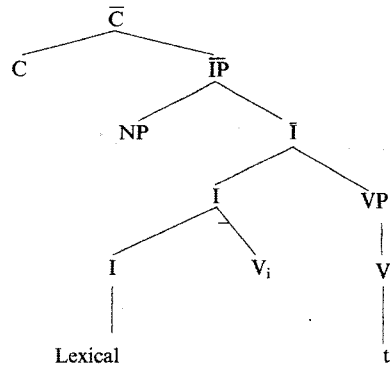
(38) a.   Sudahkah Ali pergi ke sekolah?
           has- Q Ali go to school
           Has Ali gone to school?

      b.   Sudah pergikah Ali ke sekolah?
            Has   go- Q Ali to   school
           Has Ali gone to school?

      c.   *Pergikah Ali sudah ke sekolah?
            go- Q   Ali gone to school
           'Has Ali gone to school?'

      d.   *Akankah Ali boleh pergi ke sekolah?
            will- Q Ali can   go to school
           'Will Ali be able to go to school?'

The "head" is complex in Malay (2 positions) but not in English and
movement takes a different node (any I in Malay, the lowest I in English).

<div align="center">INFL MOVEMENT</div>

Consider again the sentences below:

(39) a.   Masukkah Aminah ke dalam bilik itu?
            enter-Q Aminah to in   room the
           Did Aminah enter the room?

      b.   *Menuliskah Aminah surat itu semalam?
            write- Q   Aminah letter the yesterday
           'Did Aminah write the letter yesterday?'

and their S-structure representations in (40)

(40) a. [masukkah$_i$ [Aminah [t$_i$ [t ke dalam bilik
          C   IP   I VP
          itu]]]]

      b. *[menuliskah$_i$ [Aminah [t$_i$ [t surat itu]]]
          C   IP   I   VP

Notice that the derivations in (40a) and (40b) are exactly the same. Each of the verbs, the head of VP, in accordance with the GHMC, first moves into its governing head, INFL and subsequently into the next governing head, COMP. The ECP is not violated in either case because all the traces are properly governed as required. The initial trace t is properly governed by t$_i$, which itself is properly governed by its antecedent in COMP. In order to do this correctly, we have to extend the L-marking system of Chomsky to include COMP as well. Thus, COMP is now lexical after INFL Movement applies; the element in COMP L-marks IP, and IP is no longer a barrier for t$_i$, which is properly governed by its antecedent in COMP. Thus, all the empty categories are properly governed. (40b) then seems to be a violation of the Case Filter and not an ECP violation.

The contrast between (40a) and (40b) also suggests that, contrary to appearances, (40a) does not prove that Malay has the rule of verb fronting, analogous to the Wh-type of Verb Movement rule discussed in Koopman (1984). If this were the case, then (40b) would be possible. The contrast between (40a) and (40b) follows if we assume it is not verb fronting that is crucial here, rather INFL Movement. In summary, no rules treat INFL and verbs alike. In other words, this amounts to saying that, since intransitive verbs behave like the auxiliaries, i.e. invert with the subject, these verbs undergo Verb Movement and then are reanalyzed as auxiliaries.

A comparison of a construction like (41a) with the grammatical (41b) also indicates that at rule of verb fronting does not exist in Malay.

(41a)   *[masukkah$_i$ [Aminah [sudah t$_i$ [t ke dalam
        C   IP   I   VP
        bilik itu]]]]

The contrast between (40a) and (41 a) illustrates that even though the verb is in INFL, it does not move to COMP. It has to be reanalyzed as INFL as in (41b), to undergo INFL Movement.

(41b)   [sudah masukkah_i [Aminah [t_i [t ke
          C   IP   I VP
          dalam bilik itu]]]]

Supposing that there is a verb fronting rule in Malay, we expect the verb
to be able to move to COMP in (41 a), either by a single jump from VP to
COMP, as shown in Koopman for Vata and Gbadi, or cyclically from VP
to INFL to COMP. But, this is not the case, as evidenced by (41a). We
conclude that (41b) is derived by two separate rules, i.e. Verb Movement
and INFL Movement, rather than by a single rule of verb fronting.

NOTES

1. Only very few constructions can the order be reversed.
    (a) Dia mesti sedang tidur bila saya tiba.
         s/he must prog. sleep when I come.
         'S/he must be sleeping shen I come.'
    (b) John harus akan pergi ke bandar esok.
         John may will go to city tomorrow.
         'John may go to the city tomorrow
2. I will not discuss other case assigment such as genetive case assigment.
3. Stowell (1981) observes that Italian behaves like French by allowing manner adverbs to
    intervence between the verbs and the NP. In other respects, Italian behaves like English
    and Malay.

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