

Syntactic Analysis of Motion Verb Structures in Malay: A Minimalist Approach (Analisis Sintaksis Struktur Kata Kerja Gerak Dalam Bahasa Melayu: Suatu Pendekatan Minimalis)

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ABSTRACT

Previous studies have delved into the analysis of motion verbs (MV) from both structural and theoretical perspectives. From a structural viewpoint, it was observed that MV is not mandatory in sentence structure, leading to the emergence of a specific pattern in Malay, DP-PrepP. On the theoretical front of previous theory, scholars suggested that MV still plays a role but implicitly in sentence structure, particularly when appearing with Prep. This conclusion implied that MV becomes optional in the presence of Prep. However, these analyses exhibit notable gaps, specifically the absence of a comprehensive explanation regarding the factors that render optional MV in sentence structure. Consequently, the optionality of Malay motion verbs is reexamined through their morphosyntactic features within the Minimalist framework. Data for this study were sourced from the DBP corpus, focusing on MV coupled with the PrepP 'ke-'. The findings indicate that MV is frequently associated with PrepP 'ke' tends to be a non-ergative verb. In the vP shells analysis, MV acquires explicit and implicit existence features [\pm Ov, \pm Cov] from the Prep carrying the [direction] feature. PrepP contributes locative information [Loc] to the MV within the sentence structure. Additionally, the study reveals that in a non-ergative structure, the MV when positioned as the head of V is elevated to the small k position to fulfill theta and case marking requirements. This research is anticipated to serve as a valuable reference for future MV investigations centered on its morphosyntactic features and its influence on sentence structure.

Keywords: morphosyntactic features; motion verb; minimalist; optionality; PrepP

ABSTRAK

Kajian terdahulu telah meneliti analisis kata kerja gerak (KKG/MV) daripada perspektif struktural dan teoretis. Dari sudut struktural, didapati bahawa MV tidak bersifat wajib dalam struktur ayat sehingga menghasilkan pola khusus dalam bahasa Melayu, iaitu DP-PrepP. Dari sudut teoretis pula, sarjana terdahulu mencadangkan bahawa MV masih memainkan peranan secara implisit dalam struktur ayat, khususnya apabila hadir bersama Prep. Kesimpulan ini menunjukkan bahawa MV menjadi opsional apabila wujudnya Prep. Walau bagaimanapun, analisis tersebut memperlihatkan beberapa kelompongan yang ketara, khususnya ketiadaan penjelasan yang menyeluruh tentang faktor yang menyebabkan MV bersifat opsional dalam struktur ayat. Oleh itu, sifat opsional kata kerja gerak bahasa Melayu diteliti semula melalui fitur morfositaksisnya dalam kerangka Minimalis. Data kajian ini diperolehi daripada korpus DBP dengan memfokuskan MV yang digandingkan dengan PrepP 'ke'. Dapatan kajian menunjukkan bahawa MV yang kerap hadir bersama PrepP 'ke' cenderung merupakan kata kerja tak ergatif. Dalam analisis cangkera vP, MV memperoleh fitur kewujudan eksplisit dan implisit [\pm Ov, \pm Cov] daripada Prep yang membawa fitur [arah]. PrepP turut menyumbang maklumat lokatif [Lok] kepada MV dalam struktur ayat. Selain itu, kajian ini mendapati bahawa dalam struktur tak ergatif, MV yang berada pada posisi kepala V dinaikkan ke posisi k kecil bagi memenuhi keperluan penandaan teta dan kasus. Kajian ini diharapkan dapat menjadi rujukan penting bagi penyelidikan akan datang berkaitan MV yang memfokuskan fitur morfositaksis serta pengaruhnya terhadap struktur ayat.

Kata Kunci: fitur morfositaksis; kata kerja gerak; Minimalis; opsyenaliti; PrepP

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INTRODUCTION

Motion verb (MV) structures have been widely examined in syntactic research across languages. In general, MV is defined by Matthews (2007), Crystal (2008), Huber (2017), Wälchli & Cysouw (2012), Gergel (2020), Nakazawa (2007) and Sansò & Giacalone (2016) as a lexical element expressing actions or behaviors involving movement. Concurrently, Jarad (2014), Beavers & Koontz-Garboden (2017) and Inagaki (2002) propose that the subject determiner phrase (DP) serving as an external argument for MV reinforces its role as an Agent, namely the performer of the motion action. From a semantic standpoint, Chapman & Routledge (2009), Radford (2009) and Yusof (2009) argue that MV entails specifying movement to a location for an action expressed by the verb (V). We also found that the MV phenomenon exists in other natural languages, such as in English. An example is presented in (1).

- (1) a. Doug **went** to Chicago.
b. Stacy **came** from sociolinguistics class. (Carnie, 2006)
c. He **ran** into the park. (Imani & Motavallian, 2020)
d. He **went** home. (Radford, 2009)

Based on the example in (1), it is found that the MV appears in the form of a lexical verb followed by a prepositional phrase (PrepP) as an adjunct. Carnie (2006) and Radford (2009) also discussed the obligatory presence of the English MV in construction (1). In theta structure analysis, the DP ‘Doug’ and ‘Stacy’ that precedes the MV ‘went’ and ‘came’ is marked as the Agent of the action denoted by the MV. This phenomenon also occurs in Japanese (2a) and Spanish (2b), as discussed by Inagaki (2001) and Matsumoto (2025), as shown in (2).

- (2) a. *Taro-ga eki-ni arui-te* (Japanese) (Inagaki, 2001)
‘Taro **walking** to the station.’
b. *La botella flotó hacia la cueva.* (Spanish)
‘The bottle **floated** toward the cave.’ (Matsumoto, 2025)

Based on the examples shown, the MVs ‘*arui-te*’ (2a) and ‘*flotó*’ (2b) illustrate the movement of the Agent ‘Taro’ and the Theme ‘The bottle’ from one position to a new one. Although sentences (2a) and (2b) contain target/goal information represented by a PrepP, such information is merely optional. However, in Swahili, MVs are also used in two distinct structures. This is demonstrated in example (3).

- (3) a. *Kijana a-li-ingia chumba.* (Swahili)
‘The youth **entered** to the room.’
b. *Julia a-na-ni-j-i-a.* (Swahili) (Matsumoto & Kahumburu, 2025)
‘Julia **comes** to me.’

According to Matsumoto & Kahumburu (2025), who discuss the MV phenomenon in Swahili, they assert that Swahili MVs can appear with a PrepP separately, as in ‘*a-li-ingia chumba*’ in (3a). Conversely, MVs can also occur in a lexical cluster that merges with personal pronouns, such as ‘*a-na-ni-j-i-a*’ in (3b).

Furthermore, the research also found that the MV phenomenon is regularly used in other languages, such as Dutch (4a), German (4b), and French (4c). This is illustrated in the following examples.

- (4) a. *Der Freund **läuft** in den Pavillon hin-ein.* (Dutch) (Lemmens, 2025)
‘The friend **runs** into the pavilion.’
- b. *Vennen min **går** opp trappen.* (German) (Brandner & Salzmann, 2012)
‘My friend **walks** up the stairs.’
- c. *Il **entre dans** le petit bâtiment.* (French) (Aurnague, 2011)
‘He **enters** into small building.’

Based on the examples provided, one instance of an MV used in Dutch is ‘*läuft*’ (runs). Meanwhile, the MVs ‘*går*’ (walks) and ‘*entre dans*’ (enters) illustrate that MVs can indicate either the starting point of movement or the targeted endpoint/goal (Lemmens, 2025; Brandner & Salzmann, 2012; Aurnague, 2011). The MVs found in (4) are also said to occur obligatorily in the sentence constructions. This phenomenon is consistent with the MV patterns observed in studies of Estonian and Italian, as shown respectively in examples (5a) and (5b).

- (5) a. *Nüüd **läheb** ta koju.* (Estonian) (Taremaa, 2021)
‘Now he will **go** home.’
- b. *La barca **galleggiò** nella grotta.* (Italy) (Kim, 2025)
The boat **floated** into the cave.

The discussion of MVs in Estonian and Italian by Taremaa (2021) and Kim (2025) demonstrates a clear similarity with the description of MVs in other spoken natural languages. This is because the MVs ‘*läheb*’ (5a) and ‘*galleggiò*’ (5b) exhibit a clear dependency between the explicitly present verb and the Locative element, which is supported by a PrepP that provides goal-related information within the sentence structure.

The phenomenon of motion verbs has also been discussed in studies on Malay. Illustrations of common MVs present in the Malay language structure are depicted in (6).

- (6) a. *Mereka **masuk** ke dalam air.* (Yusof, 2009)
they enter into water
‘They enter into the water.’
- b. *Banduan itu telah **lari** dari penjara* (Jubilado & Razak, 2018)
prisoner that already run from prison
‘The prisoner has already escaped from prison.’

- d. *Dia sudah berangkat ke Singapura.* (Omar, 2015)
he already go to Singapore
'He has already left for Singapore.'
- e. *Encik Yahya mengembara ke Afrika.* (Karim et al., 2010)
Mr Yahya travel to Africa
'Mr. Yahya traveled to Africa.'

Derived from the structure presented in (6a) to (6d), the lexical V '*masuk*' (enter), '*lari*' (run), '*berangkat*' (go) and '*mengembara*' (travel) exemplify Malay MV. These MVs operate as the primary V and possess only one external argument, specifically the subject DP. This assertion is made because the PrepP in sentences (6a) to (6d) do not function as internal arguments for MV; their presence is optional, signifying locative information pertaining to the action conveyed by MV.

Nevertheless, earlier Malay linguistic studies have explored the characterization of MV in terms of its role within sentence structures. In a structural analysis conducted by Karim et al. (2010), the omission of MV from sentence constructions was permitted, leading to the emergence of the fourth pattern in the Malay language, denoted as DP-PrepP. This is exemplified in scenario (7).

- (7) a. *Fatimah pergi ke Melaka pagi tadi.*
Fatimah go to Malacca morning earlier
'Fatimah went to Malacca this morning.'
- b. *Fatimah ke Melaka pagi tadi.* (Karim et al., 2010)
Fatimah to Malacca morning earlier
'Fatimah went to Malacca this morning.'

According to theoretical syntactic analyses conducted by Sultan (2015), it has been clarified that the omission of MV does not actually occur. As the head of the sentence, V still exists in the syntactic structure, albeit covertly. The covert presence of MV is denoted as \emptyset , indicating that this position is still filled by an MV in the internal structure based on the Government and Binding analysis (Chomsky, 1995). Consequently, Sultan (2015) does not align with the fourth pattern proposed by Karim et al. (2010) but instead views this structure as still adhering to the DP-VP pattern. An example is provided in (8).

- (8) a. *Ameerul pulang dari sekolah.* (Sultan, 2015)
Ameerul return from school
'Ameerul returned from school.'
- b. *Ameerul \emptyset_v dari sekolah.* (Sultan, 2015)
Ameerul \emptyset from school
'Ameerul returned from school.'

Although previous studies have addressed the optional presence of motion verbs, the syntactic factors permitting their absence in Malay sentence structures remain insufficiently explained. The explanations from previous studies have been found inadequate in presenting a robust argument to fully elucidate the optional nature of MV. This study provides a Minimalist analysis of the optionality of motion verbs in Malay sentence structures (Chomsky, 2015). The Minimalist Framework is applied to ascertain whether the optionality of MV is influenced by the morphosyntactic features carried by each lexical item during the formation of phrase structures.

The outcomes of this study are anticipated to fill existing gaps in Malay MV research in a more comprehensive and nuanced manner. As per Nusawantara et al. (2019) and Zawawi et al. (2024), the utilization of a language serves as a reflection of the user's knowledge, viewpoints, social and professional standing, and the power dynamics among these factors. This suggests that the structure of a sentence is intricately influenced by the social context of a given area. In the context of this investigation, the exploration of the optionality of Malay verbs mirrors the language user's comprehension or awareness regarding the use of such verbs in the communication process. This notion is further substantiated by Zawawi et al. (2022), Sultan et al. (2023), Zarifi & Mukundan (2019) and Ang & Tan (2016), who contend that language usage within social groups is considered universal, given its existence and presence in every cultural facet within a society.

THE ISSUES OF MALAY MOTION VERBS AND THEIR CONSEQUENCES

Recent discussions among scholars, focusing on the structural aspect of MV, have revealed an intriguing finding, particularly regarding its syntactic characteristics. According to Aman (2008), Omar (2015), Bakar (2002), Sultan & Ramli (2015), and Yusof (2009), a MV can be implicitly present when followed by a preposition (Prep) indicating the direction of the action. This is articulated because a sentence structure that does not explicitly position MV is still considered a grammatically acceptable structure. This is demonstrated when MV is omitted and replaced with the abstract symbol \emptyset , as subsequently presented in (9) to (11).

(9) a. *Suhayl telah pergi ke pekan.*
Suhayl already go to town
'Suhayl has already gone to town.'

b. *Suhayl telah \emptyset ke pekan.*
Suhayl already to town
'Suhayl has already gone to town.'

(10) a. *Athirah pulang dari pejabat.*
Athirah return from office
'Athirah returned from the office.'

b. *Athirah \emptyset dari pejabat.*
Athirah from office
'Athirah returned from the office.'

- (11) a. *Fatin masuk ke dalam rumah itu.*
Fatin enter to inside house that
'Fatin entered that house.'
- b. *Fatin ∅ ke dalam rumah itu*
Fatin to inside house that
'Fatin entered that house.'

Drawing from the examples presented, the omission of MV in sentences (9a), (10a) and (11a) is permissible. Consequently, the explicit absence of MV, as depicted in (9b), (10b) and (11b) does not compromise the grammaticality of these sentences in Malay. Furthermore, the structural omission leading to the phonetic absence of MV still preserves the original meaning of the sentences and remains intelligible to language users. Notably, the overt presence of MV in sentence structures results in these sentences adopting the DP-VP structure, aligning with the second declarative sentence pattern proposed by prescriptive scholar Karim et al. (2010). However, the omission of MV from sentence structures in (9b), (10b) and (11b) appears to indicate a syntactic shift in these sentences towards the DP-PrepP structure, corresponding to the fourth declarative sentence pattern according to prescriptive conventions in Malay.

According to the usage of motion verbs used by Malay native speakers from Malay DBP corpus database, they utilize the DP-PrepP structure. This involves omitting the MV from sentence structures to illustrate its grammatical correctness. This practice is demonstrated in example (12a), (12b) and (12c).

- (12) a. *Kami (hendak) ∅ ke khemah untuk bersarapan.*
We (want) to tent for breakfast
'We want to enter to the tent for breakfast.'
- b. *Kai Jun dan Tinesh ∅ ke pesta buku.*
Kai Jun and Tinesh to fair book
'Kai Jun and Tinesh went to book fair.'
- c. *Faris dan Robin ∅ ke rumah Irfan.*
Faris and Robin to house Irfan
'Faris and Robin headed to Irfan's house.'

The examples given in (12) illustrate constructions used in the Malay DBP corpus. These sentences in (12) serve as demonstrations showcasing how the authors elucidate sentence structures following the fourth pattern as proposed by prescriptive scholar Karim et al. (2010), namely DP-PrepP. Based on the examples provided in (12), it is noted that the sentences solely consist of DP constituents as the acting Agent and PrepP constituents conveying locative information. However, (12) appears to lack a primary V as the sentence's head. Nevertheless, this study argues that the omitted MV in (12) can be explicitly stated in the sentence structure, as demonstrated in (13a), (13b) and (13c).

- (13) a. *Kami (hendak) masuk ke khemah untuk bersarapan.*
We (want) enter to tent for breakfast
'We want to enter to the tent for breakfast.'
- b. *Kai Jun dan Tinesh pergi ke pesta buku.*
Kai Jun and Tinesh go to fair book
'Kai Jun and Tinesh went to book fair.'
- c. *Faris dan Robin menuju ke rumah Irfan.*
Faris and Robin head to house Irfan
'Faris and Robin headed to Irfan's house.'

By examining the examples provided in (12) and (13), it can be asserted that the analysis conducted by previous scholars, considering structural aspects that permit the omission of the MV in sentence structures, is influenced by the fourth declarative pattern following a prescriptive flow, specifically DP-PrepP. However, a notable limitation in this structural analysis is the absence of a thorough descriptive explanation serving as a rationale for supporting the omission of MV from the sentence structure. The presumption made by Karim et al. (2010), Aman (2008), Omar (1986), Tri Mastoyo (2010), Sarail (2017), Bakar (2002) and the collective authors of Malay prescriptive textbooks that sentence construction remains grammatical even in the absence of MV in the structure fails to provide a detailed account of the actual factors justifying the omission of MV, particularly concerning the main verb V.

However, scholars such as Sultan (2015) who challenge the appropriateness of excluding V from sentence structures. Through advancements in theoretical syntactic studies using the Government and Binding Theory, the omission of V from sentence structures does not actually occur. This is because V is a crucial component in shaping sentence structures, serving as the head of the sentence and occupying the head position of V in the binary branching process of phrase structure formation. Theoretically, PrepP occupies the right position of V in the syntactic tree diagram through binary branching. Consequently, if the head of V is omitted, PrepP cannot stand independently without any branches guiding it in the formation of phrase structure.

This standpoint was further strengthened by Sultan's (2015) study which employed the Government and Binding theory. The argument posited is that the absence of V in a sentence structure is not truly regarded as 'omission.' However, Sultan (2015) contends that although V is present in phrase structure, its presence is concealed. Building on this rationale, theoretical scholars like Sultan (2015) argue that a sentence lacking an explicit manifestation of V still harbors in its syntactic structure. Consequently, Sultan (2015) dismisses the fourth DP-PrepP pattern in Malay, asserting instead that Malay adheres to only two fundamental patterns: DP-VP and DP-DP.

Nevertheless, the theoretical analyses conducted by Sultan (2015) are also noted for their deficiencies, as they fail to provide explanations regarding the prerequisites for the implicit presence of V in the construction of phrase structures. Sultan (2015) merely state that unexpressed V still exists in the syntactic tree diagram but in a concealed manner. However, this explanation falls short in addressing the gap concerning the MV, which appears to have the flexibility to be either overtly or covertly present. It's acknowledged that the studies by Sultan (2015) are constrained by the limitations of the earlier syntactic theory, the Government and Binding Theory.

This theory is confined to investigating structure formation exclusively, and as a result, it is considered insufficient in exploring other syntactic aspects that remain inadequately explained.

Based on the insights gleaned from both structural and theoretical analyses of sentence constructions, it is evident that there is a need for a study to explore and identify the syntactic factors that contribute to the MV displaying optional characteristics, whether overt or covert, in Malay sentence structures. The theoretical investigation should be conducted within the framework of a contemporary syntax, specifically Minimalism (Chomsky, 2015). This framework allows for the analysis of MV's syntactic features based on the morphosyntactic features it carries, potentially influencing its presence in sentence structures. Employing the Minimalist framework (Chomsky, 2015) effectively requires incorporating data from the genuine usage of native speakers. Consequently, this study aims to scrutinize the optional traits exhibited by the MV through an analysis of morphosyntactic features, drawing on real usage data from Malay native speakers. The objective is to provide comprehensive insights that address the gaps in previous studies related to Malay MV with greater precision.

METHODOLOGY

This study of Malay MV adopts a qualitative descriptive research approach. As outlined by Adger (2003), linguistic studies, particularly in syntax, encompass two vital elements. The first involves descriptiveness, emphasizing a scientific exploration of language that prioritizes descriptive explanations, and the second element pertains to descriptive syntactic studies, aiming to portray actual language usage with comprehensive, systematic, objective, and precise explanations of patterns and real-world language use (Crystal, 2008; Mei & Ong, 2018; Habibi et al., 2015).

In broad terms, the analysis of generative syntactic studies typically involves three stages: observation, parsing, and description. To address the needs of these three stages, this study on the optionality of MV in the Malay language uses data from a computerized corpus sourced from the Dewan Bahasa dan Pustaka Corpus (DBP Corpus).

In the context of data selection for this study, the investigation into computerized corpus generation is specifically focused on MV that precede the PrepP *'ke'*. The objective is to examine the usage patterns of sentence structures with or without MV that co-occur with the PrepP. This encompasses both explicit and implicit occurrences of MV before the PrepP *ke* in sentence structures, utilizing the DBP Corpus. To ensure data relevance, specific concordance settings were established during the generation of the DBP Corpus. The primary keyword for raw data generation involved inputting the PrepP *'ke'* into the search engine with an eight-word context specified on both sides of the keyword. The raw concordance output was then manually screened using strict syntactic criteria: only active declarative clauses with an overt DP subject were retained.

Figure 1 illustrates the step-by-step workflow of data extraction and filtering from the DBP Corpus based on the screening criteria outlined above.

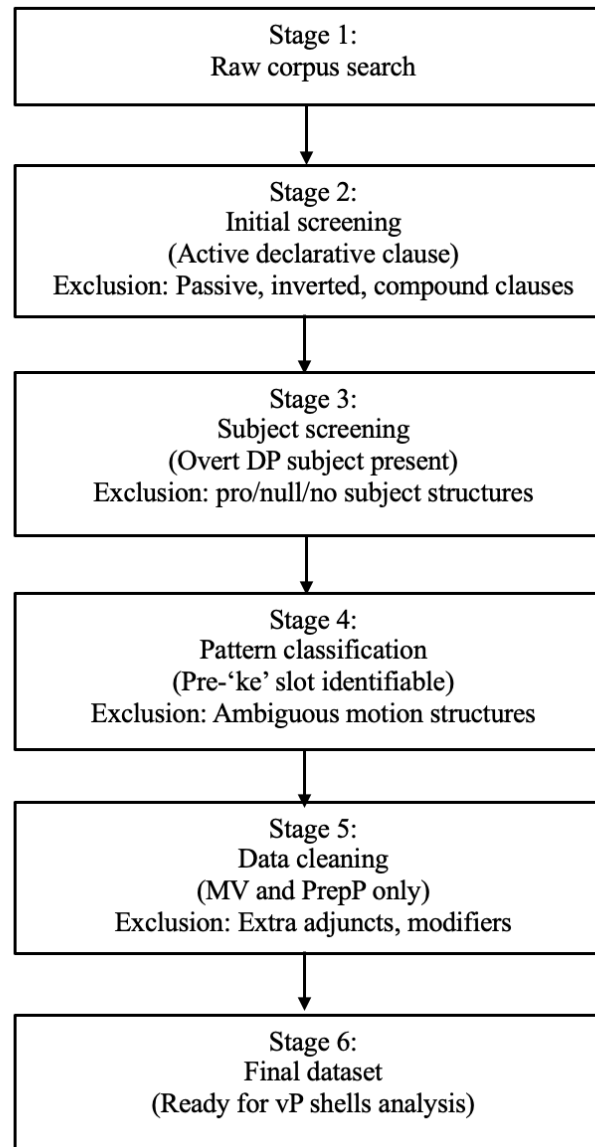


FIGURE 1. The step-by-step workflow of data extraction from DBP corpus

Following this filtering process, the remaining concordance lines were subjected to further cleaning, where extraneous constituents (e.g., adjuncts, temporal modifiers) were removed to retain only the essential MV arguments for analysis. This curated dataset of analyzable tokens, comprising both overt and covert MV patterns, provides the empirical foundation for testing our theoretical claims. Subsequently, all sentence data with MV before 'ke' underwent cleaning and analysis using the syntactic structure research version of the vP shell in the Minimalist Program (Chomsky, 2015).

Following the screening process, a total of 320 concordance lines met all inclusion criteria. From these, 187 sentences contained an overt MV preceding the PrepP 'ke' (DP-MV-PrepP pattern), while 133 sentences exhibited a null MV (DP- \emptyset -PrepP pattern). Sentences with ambiguous motion interpretation, incomplete clauses, or non-directional uses of 'ke' (e.g., temporal 'ke') were excluded from the final dataset. The final analyzable corpus comprised 187 sentences

(for overt MV analysis) and 133 sentences (for null MV analysis), which formed the empirical basis for both descriptive and theoretical analyses in this study.

Each instance was analyzed for the syntactic slot preceding *ke*. This process yielded two distinct empirical patterns: (1) sentences with an overt motion verb, and (2) sentences where this slot was null (\emptyset) yet semantically interpretable as a motion event. The presented data was then refined, retaining only the essential MV arguments; any extraneous constituents were omitted to facilitate analysis. This curated dataset of analyzable tokens, comprising both overt and covert MV patterns, provides the empirical foundation for testing our theoretical claims. Subsequently, all sentence data with MV before *ke* underwent cleaning and analysis using the syntactic structure research version of the vP shell in the Minimalist Program (Chomsky, 2015).

In terms of the theoretical framework, this study is grounded in Generative Grammar within the Minimalist Program (MP) by Chomsky (2015). The MP framework comprises four main levels: the lexical, numeration, merge, and the interface between logical and phonetic form. The underlying assumption in the MP is that a lexical item has a physical existence in the human lexicon (Chomsky, 1995). Additionally, each lexical item can be characterized by features, meaning that each item in syntactic operations possesses specific morphosyntactic features that impact the formation of syntactic phrases. At the numeration level, lexical items selected from the lexicon undergo an operation known as merge. Each merge operation involves checking and deleting morphosyntactic features. The framework of the MP (Chomsky, 2015) is depicted in Figure 2.

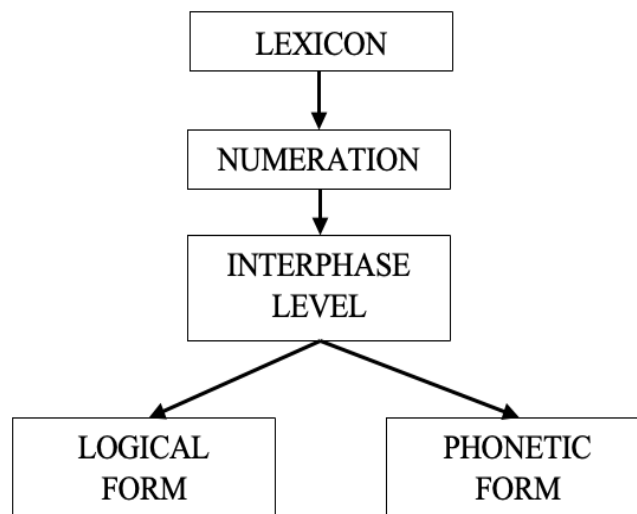


FIGURE 2. Basic Framework of Minimalist Program (Chomsky, 2015)

Figure 2 depicts the foundational structure of Chomsky's (2015) Minimalist Program. This Minimalist framework showcased in Figure 1 will be employed for theoretical analysis, aiming to explain the process of constructing the syntactic structures of sentences that include MV. Additionally, it will shed light on the theoretical factors justifying the deliberate omission of these MVs in the subsequent section.

DATA ANALYSIS AND DISCUSSION

Based on the corpus data generated from the computerized database, this study reveals two common variations in the use of Malay MV by native speakers. The first variation, observed in the corpus data, involves the explicit presence of MV preceding the PrepP 'ke', resulting in a sentence structure of DP-MV-PrepP. Conversely, the second variation features a sentence structure that does not overtly include MV. In this case, the study posits that MV still exists in the second variation but is covertly implied for reasons discussed in this section. Consequently, the second structure identified in the corpus data is DP- \emptyset_{MV} -PrepP.

Consequently, this section will present two analyses of the data: a descriptive analysis and a theoretical analysis. The descriptive analysis will provide a structural overview of the data derived from the DBP corpus, specifically detailing the constituents involved in the construction of the sentence structures commonly used by native speakers. Meanwhile, the theoretical analysis aims to clarify the formation of structures found in the computerized corpus through a systematic approach involving merge operations, checking and deletion of morphosyntactic features and the assignment of theta roles and cases following the principles of phrase formation within the Minimalist Program's vP shell framework (Chomsky, 2015). Both analyses aim to offer in-depth insights into the phenomenon of optional MV presence in Malay sentence structures.

THE OPTIONAL PRESENCE OF MOTION VERBS IN MALAY LANGUAGE

As previously stated, the concordance analysis of the DBP corpus identified sentence structures that explicitly place MV, while, on the other hand, there are sentences that do not feature MV. Examples of sentences with clear MV presence, as extracted from the DBP corpus, are presented in (14a), (14b), (14c) and (14d).

- (14) a. *Maimunah berjalan ke bilik bapa.*
Maimunah walk to room father
'Maimunah walked to father's room.'
- b. *Beliau menuju ke jalan yang lebih bersih.*
he head to road that more clean
'He headed to the road which is cleaner.'
- c. *Aku mahu pulang ke Singapura.*
I want return to Singapore
'I want to return to Singapore.'
- d. *Dia telah naik ke tebing.*
he already climb to cliff
'He has already climbed up the cliff.'
- e. *Farid telah datang ke pejabat saya.*
Farid already come to office my
'Farid has already come to my office.'

Based on the sentence structures provided in (14), it is evident that lexemes such as '*berjalan*' (walk), '*menuju*' (head), '*pulang*' (return), '*naik*' (climb) and '*datang*' (come) are examples of MV commonly utilized by Malay native speakers, as observed through computer corpus data. Additionally, these lexemes also function as the main verbs in their respective sentences. Serving as primary verbs representing MV, each listed verbs expresses actions involving the movement of an object or person towards a specific destination. Furthermore, identified as primary predicates within the generative study, the MVs in (14) have an external argument DP that supports the role of the Agent, the entity initiating the motion. In this context, DPs such as '*Maimunah*,' '*Beliau*' (He/She), '*Aku*' (I), '*Dia*' (He/She) and '*Farid*' function as external arguments to the MVs, acting as subjects and occupying the position [Spec,TP] in the syntactic structure.

The depiction of motion actions by the Agent DP would lack completeness without the incorporation of locative details regarding those actions. Therefore, information concerning the location of motion actions is facilitated by the PrepP constituent following the MV in the structure outlined in (14). This PrepP is led by the preposition '*ke*,' imbued with directional semantics. '*Ke*' provides directional semantics to the movement of an object, distinctly different from the preposition '*di*,' which denotes static locative information. This clarification signifies that MV is specifically linked to the subsequent preposition. Furthermore, it affirms that MV selects an appropriate preposition to succeed it, ensuring that a structure functions as a grammatical sentence. The proof is evident; substituting the PrepP '*ke*' in (14) with another preposition like '*di*/'*on*' '*dalam*/'*in*' or '*atas*/'*over*' carrying static locative meaning, renders the sentence construction awkward or ungrammatical. This assertion is demonstrated in example (15).

- (15) a. **Beliau menuju di jalan yang lebih bersih.*
b. **Farid telah datang atas pejabat saya.*
c. **Dia telah naik dalam tebing.*

Reviewing sentences (15a) to (15c), it becomes apparent that the sentence structures become awkward when replacing the PrepP '*ke*' with the static prepositions '*di*,' '*dalam*,' or '*atas*.' This strongly indicates that MV expressing movement have a natural and intimate connection with the subsequent preposition. In essence, MV selects a PrepP to effectively convey the semantics of movement in a grammatically sound manner.

Additionally, based on the data presented in (14), this investigation observes that MV occurring before the PrepP '*ke*' exhibit traits of intransitivity as non-ergative V. As defined by Jubilado & Razak (2018), a non-ergative V refers to an intransitive verb type with only one argument, serving as both the logical and grammatical subject. This study notes that the MVs in (14) solely attribute the theta role of AGENT based on the lexical meaning of the MV. In this context, the MVs outlined in (14) feature a subject with the intention to execute an action and are denoted as Agentive. This subject for the MVs leads to events in line with the inherent meaning of the MV. Furthermore, the non-ergative MVs derived in (14) were observed to lack any internal arguments within the argument-semantic structure. The PrepP following the non-ergative MVs in (14) was identified not to function as a complement; instead, it serves as an optional Adjunct, offering locative information to the expressed MV.

Nevertheless, this study revealed an interesting aspect, noting that the presence of MV in sentence structures becomes optional when the PrepP '*ke*' is included. This observation is supported by the findings presented in (16).

- (16) a. *AGENT*Lasim *Asp(telah)* \emptyset_{MV} direct.prep*ke* Segamat.
 Lasim (already) \emptyset_{MV} to Segamat
 ‘Lasim has already gone to Segamat.’
- b. *AGENT*Ayah \emptyset_{MV} direct.prep*ke* sekolah pada setiap hujung minggu.
 father \emptyset_{MV} to school at every end week
 ‘Father goes to school every weekend.’
- c. *AGENT*Hasan *Asp(telah)* \emptyset_{MV} direct.prep*ke* rumah.
 Hasan (already) \emptyset_{MV} return home
 ‘Hasan has already returned home.’
- d. *AGENT*Dia *Asp(telah)* \emptyset_{MV} direct.prep*ke* pejabat.
 he (already) \emptyset_{MV} to office
 ‘He has already gone to the office.’
- e. *AGENT*Beliau *Mod(mahu)* \emptyset_{MV} direct.prep*ke* Yaman.
 he (want) \emptyset_{MV} to Yemen
 ‘He wants to go to Yemen.’
- f. *AGENT*Cucu saya *Mod(hendak)* \emptyset_{MV} direct.prep*ke* tandas.
 gradchild me (want) \emptyset_{MV} to toilet
 ‘My gradchild wants to go to toilet.’

Examining the data presented in (16), this study reveals that non-ergative MV are not explicitly featured in the specified structures. Examples (16) solely illustrates the presence of DP as the agent carrying out the action, aspect auxiliary (Asp) or modality (Mod), which is optional, followed by the PrepP ‘*ke*’ offering locative information. The data showcased in (16) represents genuine information derived from corpus concordance, indicating the non-explicit presence of MVs in these structures. This affirms that the inclusion of MV in sentence structures is optional, as the sentences outlined in (16) remain grammatically sound and understandable to Malay native users.

Broadly speaking, sentences structured like those in (16) are also commonly employed by native users even when devoid of any verbs. This study establishes a direct correlation between the occurrence of MV and the PrepP ‘*ke*,’ leading to the categorization of MV as optional. In a more detailed examination, the study observes that the presence of the PrepP ‘*ke*,’ as seen in (16), makes MV optional, meaning its explicit presence is not essential while still maintaining grammatical integrity. However, in the absence of locative information expressed by the PrepP, the presence of MV in sentence structures is still considered obligatory. This is illustrated through example (17).

- (17) a. [DPLasim [*Asp*telah [*MV*pulang [*Prep*P*ke* Segamat]]]].
 b. [DPLasim [*Asp*telah [\emptyset_{MV} [*Prep*P*ke* Segamat]]]].
 c. *[DPLasim [*Asp*telah [\emptyset_{MV}]]].
 d. [DPLasim [*Asp*telah [*MV*pulang]]].

The examples provided in (17) clearly illustrate a specific and crucial relationship between MV and PrepP. In example (17b), the construction remains grammatical even when MV is not explicitly present. This is because locative directional information is still conveyed through the inclusion of PrepP in sentence (17b). Hence, this sentence is still interpreted as the Agent DP 'Lasim' moving towards a location represented by PrepP '*ke Segamat*.' However, in sentence (17c), the lack of PrepP carrying locative information would prevent the implicit/hidden presence of MV, making sentence (17c) ungrammatical without the explicit inclusion of MV. Therefore, structure (17d) serves as evidence that the absence of PrepP requires the explicit presence of MV.

The descriptive analysis of the data discussed in this section demonstrates that the presence of MV in sentence structures is optional when accompanied by a PrepP. However, this explanation is confined to structural research and does not offer a comprehensive understanding of the factors contributing to this phenomenon. Consequently, to address this, the analysis in this study will also concentrate on examining sentence structures from a theoretical standpoint in the following section.

OVERT EXISTENCE FEATURE [+Ov] AND COVERT EXISTENCE FEATURE [+Cov]

The optional presence of the motion verb (MV) in structures containing the directional prepositional phrase (PrepP *ke*) necessitates a theoretical mechanism within the Minimalist framework to account for this variability. Following the core Minimalist tenet that syntactic operations are driven by feature-checking (Chomsky, 2015), this study proposes that the optionality of the MV is governed by two complementary existence features borne by the verb head: an overt existence feature ([+Ov]) and a covert existence feature ([+Cov]).

The [+Ov] (Overt) feature is an intrinsic, interpretable feature of a lexical verb. It signifies the verb's inherent requirement for phonetic realization in the syntactic derivation, leading to its overt pronunciation at the Phonetic Form (PF) interface. Most lexical verbs in Malay, including motion verbs in isolation, carry this [+Ov] feature. The [+Cov] (Covert) feature, in contrast, is an optional and assignable feature. It is not intrinsic to the verb but can be assigned or licensed by a specific syntactic context. This study posits that in Malay, a directional PrepP (specifically *ke*) carrying a strong locative-directional feature [Loc, Dir] can optionally license a [+Cov] feature on a select class of verbs, namely, non-ergative motion verbs that merge with it. A verb that successfully receives and checks a [+Cov] feature gains the potential for non-overt realization.

This proposal is positioned within the broader Minimalist inquiry into feature valuation and lexical selection (Adger, 2003; Chomsky, 2001). While much work focuses on phi-features, case, and EPP, the status of a verb's obligatory presence, its "existence" in the structure is often assumed rather than derived. The [\pm Ov, \pm Cov] system offers a formal way to derive optionality: a verb endowed with *both* [+Ov] and [+Cov] features (via assignment from PrepP) can satisfy its feature-checking requirements either through its intrinsic [+Ov] (resulting in an overt verb) or through the assigned [+Cov] (resulting in a null/covert verb, \emptyset), without violating grammaticality. However, a verb with only the [+Ov] feature must be realized overtly. This mechanism will be explicitly demonstrated in the following vP-shell analysis.

THE MORPHOSYNTACTIC CHARACTERISTICS OF OPTIONALITY OF MALAY MV
THROUGH VP SHELL ANALYSIS

This section is intended to provide a novel analysis from a theoretical standpoint that delves into the optional characteristics of MV based on their morphosyntactic features. In this theoretical analysis, the step-by-step formation of phrases within the Verb Phrase Shell (vP Shell) through lexical merge operations will be explored. This exploration will be guided by the principles of feature checking and deletion, while adhering to the binary branching principle. The goal is to illustrate the correlation between morphosyntactic features and their impact on sentence structure.

In broad terms, generative syntactic analysis involves at least three stages of representation: observational, interpretive, and descriptive. These stages of representation must be thoroughly explained to scientifically elucidate a linguistic phenomenon. Thus, the analysis of sentence formation relies on the tree diagram of the minimalist Verb Phrase Shell (VP Shell) version (Chomsky, 2015), covering all the mentioned types of representation. This section will specifically examine a sentence structure featuring only the presence of a MV to exemplify the provided instances comprehensively. This approach aligns with the viewpoints of Adger (2003), Carnie (2006), Haegeman (1994), Taha et al. (2017), and Sultan et al. (2011), asserting that a syntactic explanation can be effectively represented by a minimal structure to encapsulate the entire sentence structure.

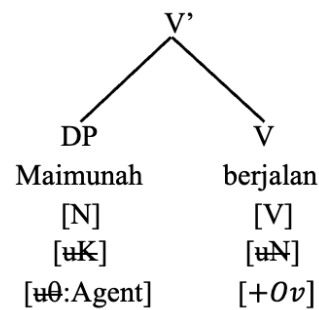
Hence, in order to present an analysis of the formation of phrase structure within the vP shells analysis, the sentence structure featuring a MV as the main V, along with a list of lexical computations (lexical arrays), is derived as depicted in (18).

- (18) a. [_{DP}Maimunah [_{MV}**berjalan** [_{Prep}ke bilik bapa]]].
b. Lexical arrays: {v, berjalan, Maimunah, bilik, ke, bapa}

At the lexical level, it is assumed that sentence (18a) is composed of six lexicals, as illustrated in (18b). According to Chomsky (2015), v (small) is posited to exist as a lexical in the human lexicon. Subsequently, these lexicals are directed to the second stage in the Minimalist program, known as the numeration phase. In the numeration phase, the process of phrase formation occurs through the merge operation (Chomsky, 2015; Adger, 2003; Carnie, 2006; Radford, 2009). The creation of syntactic structure in Minimalist analysis is not arbitrary, as each lexical joining the syntactic structure is influenced by the morphosyntactic features it carries. This enables the lexicals to merge with one another. This differentiation sets Minimalist analysis apart from the Government and Binding Theory (Chomsky, 1995), where structure formation only discusses binary mergers between lexicals without specifying the reasons for their merger. Consequently, Minimalist analysis provides a detailed account of the factors influencing the merger between lexicals and their correlation with the morphosyntactic features carried by each lexical.

Essentially, within the Minimalist framework, the initiation of syntactic structure involves the merging process to form V'. In the syntax tree diagram, the big V position is where the lexical verb resides, while small v signifies the position taken by a functional element (Chomsky, 2015; Adger, 2003; Carnie, 2006). Consequently, during the numeration phase of the VP formation derivation, the merge operation commences between DP 'Maimunah' and V 'berjalan.' This is exemplified in (19a).

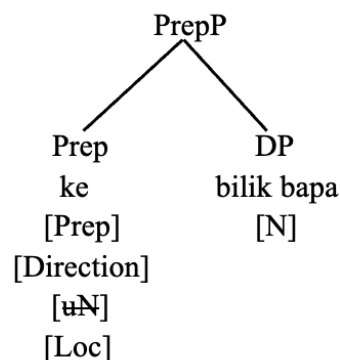
(19) a.



According to (19a), it is determined that DP 'Maimunah' is derived by merging with the large V 'walk' and forming the VP projection. By examining (19a), we can observe that DP 'Maimunah' carries at least three morphosyntactic features at the numeration level: features interpreted as the noun category [N], uninterpreted category selection features [uV], and unvalued, uninterpreted role-θ acceptance features [uθ:]. Additionally, the large V head carries three features: its category feature as a lexical verb [V], uninterpreted category selection features [uN], and the feature of its overt existence. Therefore, the existence feature carried by V is labeled as [+Ov]. The [uV] feature brought by DP 'Maimunah' implies that this lexical element needs to merge with a lexical element carrying an interpreted [V] feature to enable checking and deletion of the uninterpreted feature. Consequently, since V 'berjalan' has the category feature as a verb [V], the merger of DP 'Maimunah' with V 'berjalan' allows the uninterpreted feature [uV] on the head of DP to be checked and deleted [~~uV~~]. Furthermore, the merging operation in (19a) results in DP 'Maimunah' acquiring the θ-role AGENT assigned by the head of V. This leads to the uninterpreted θ-role acceptance feature on DP being evaluated as AGENT and can be perfectly deleted [~~uθ:Agent~~].

The second stage in constructing syntactic structure involves merging the PrepP 'ke' with the DP 'bilik bapa'. In this analysis, we assume that 'bilik' and 'bapa' have previously undergone internal merging, resulting in the formation of DP 'bilik bapa'. Thus, the combination of PrepP 'ke' and DP 'bilik bapa' is depicted in (19b).

b.

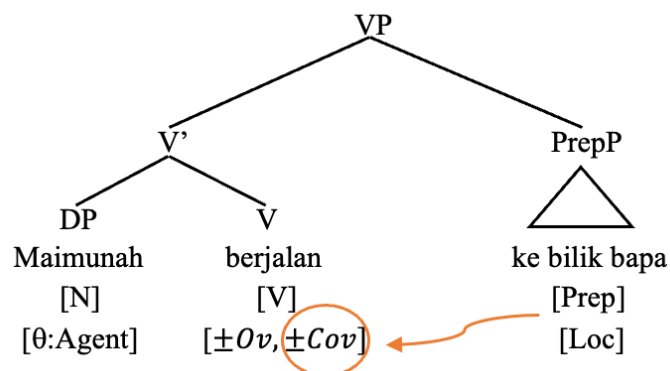


Based on the merging operation between the PrepP 'ke' and the DP 'bilik bapa' in (19b), a new projection is formed, known as PrepP. This study also uncovers that the PrepP 'ke' carries a minimum of four morphosyntactic features, including the category feature as a preposition

[Prep], the feature indicating the direction of movement [Direction], an uninterpreted category selection feature [uN], and a locative feature [Loc]. Simultaneously, DP *'bilik bapa'* possesses the category feature as a noun phrase [N]. Due to DP *'bilik bapa'* having features aligning with the requirements of PrepP *'ke'*, the merger between PrepP *'ke'* and DP *'bilik bapa'* enables the uninterpreted feature on the head of PrepP *'ke'* to be thoroughly checked and deleted [$\bar{u}N$].

As previously discussed in this study, the presence of PrepP alongside MV does not serve the role of a verb complement. This is because the occurrence of PrepP following MV is optional, and the absence of PrepP doesn't impact the grammatical correctness of the sentence. This suggests that PrepP functions as an adjunct. According to Adger (2003), Carnie (2006), Wahab et al. (2016), Radzi et al. (2012) and Haegeman (1994), an adjunct constituent doesn't integrate into the syntactic structure through the merge operation. Instead, an adjunct is permitted to be part of a syntactic structure through the Adjunction operation. According to Adger (2003), the Adjunction process can take place binary-wise in the vP Shell, either on the left or right side of a verb. Considering the analyzed sentence structure presented in (18a), PrepP is present following MV. Therefore, the Adjunction operation of PrepP *'ke bilik bapa'* occurs on the right side of VP. This is illustrated in (19c).

c.

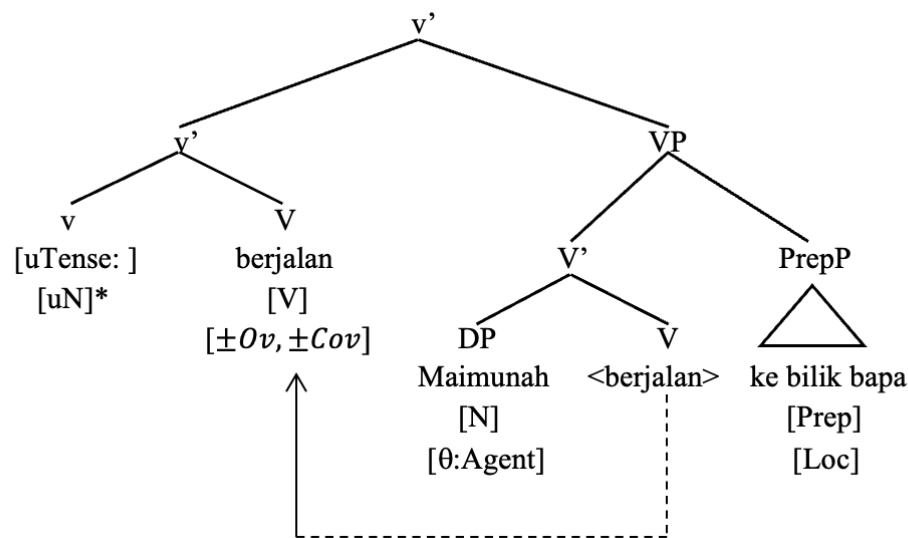


Based on the process outlined in the Adjunction operation in (19c), the fusion of the V' projection with the adjunct constituent PrepP results in the formation of the VP projection. The Adjunction operation in (19c) occurs on the right side of V'. Through the depicted Adjunction operation, this study determines that the integration of PrepP has conveyed locative information (Loc) to V'. This leads to the PrepP *'ke'* covertly spreading the existence feature [+Cov] to the verb *'berjalan'* within the syntactic structure. Consequently, the V head, filled by the verb *'berjalan'* acquires two existence features: its overt original existence [+Ov] and the newly obtained existence feature from the PrepP, namely the covert existence feature [+Cov]. Thus, in the syntactic structure, the verb *'berjalan'* operates as an optional verb, signifying its potential for overt or covert presence in a sentence structure due to the acceptance of the second existence feature from the PrepP *'ke'*. However, in the absence of locative information conveyed by PrepP, there is no propagation of the feature [+Cov] to V. This distinction highlights the optional nature of a verb's presence when accompanied by locative information in the sentence structure. Conversely, if there is no such information, the verb's presence is considered mandatory in the syntactic structure. As the operation outlined in (19c) is an Adjunction operation, this study

concludes that no verification and removal of features take place, given the inherently unrestricted nature of Adjunction operations.

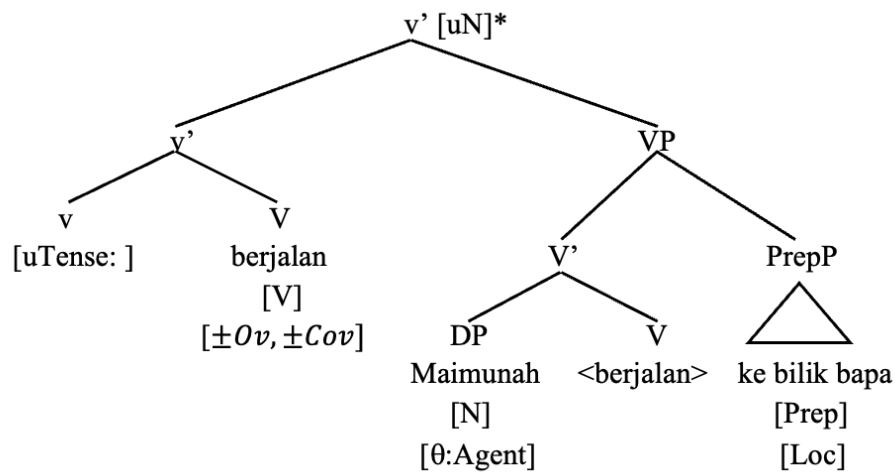
The operation shown in (19c) is still incomplete as the structure in (19c) has not fully developed into a phrase or a sentence. The next step involves merging the VP projection with the small *v* projection. The small *v* node functions as the head carrying functional elements in the syntactic tree diagram. According to Chomsky (2015), Sultan (2011), Sultan & Suhaimi (2012), Zawawi & Sultan (2023) and Zawawi et al. (2023), the combination of lexical and functional elements begins at the small *v* node. In the syntactic structure of the *v*P Shell, this study observes that the small *v* node is split into two nodes—the small *v* node and the big *V* node. The merging operation between the VP projection and the small *v* node leads to the verb ‘*berjalan*’ being elevated to occupy the position of the split big *V* node adjacent to the small *v* node. This is depicted in (19d).

d.



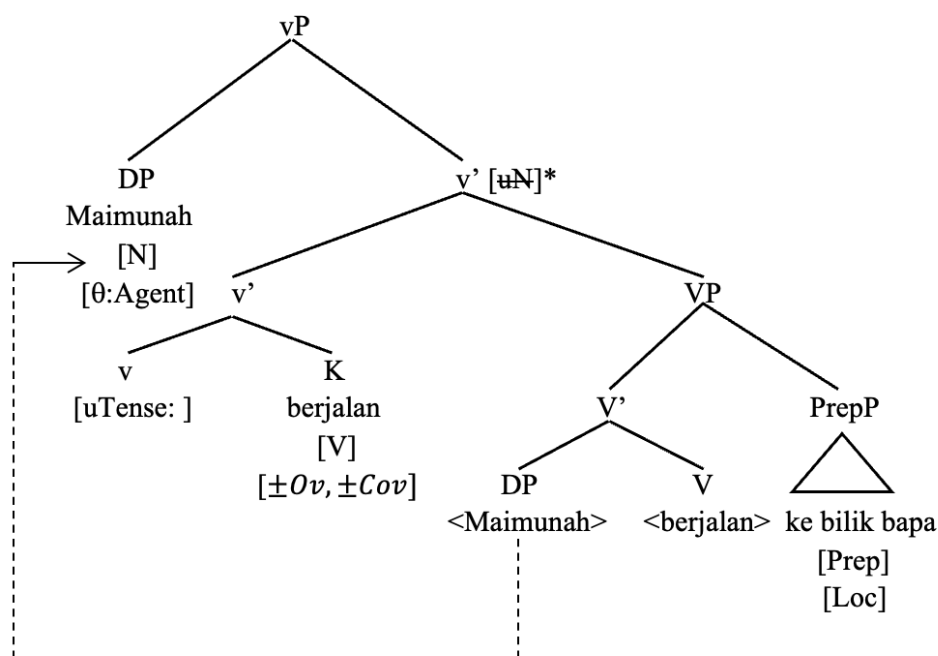
Based on the structure presented in (19d), the merging process between the VP projection and the small *v* node gives rise to a new projection, referred to as the *v*' projection. As per the operation depicted in structure (19d), the lexical term ‘*berjalan*’ initially situated in the *V* position, ascends to merge with the small *v* node. The original position vacated by *V* is indicated by <...>, signifying that the position has been abandoned. Furthermore, the small *v* node bears at least two morphosyntactic features: the unvalued tense feature [uTense:] and the uninterpreted EPP feature [uN]*. According to Chomsky (2015), Sultan & Othman (2021), Zawawi et al. (2022) and Zawawi & Sultan (2023), the small *v* node inherently carries both these features at the numeration level during the construction of phrase structure. However, in structure (19d), neither of these features on the small *v* node can be checked. Consequently, to verify the EPP feature [uN]*, this feature will be percolated to the *v*' projection as illustrated in (19e).

e.



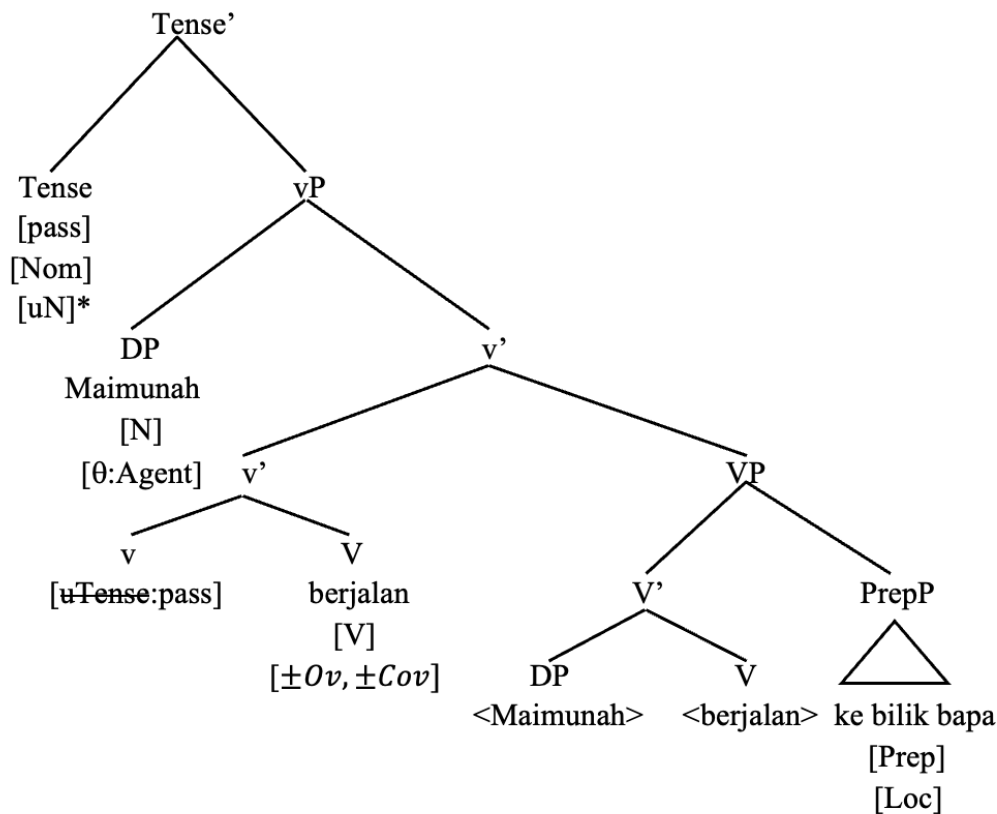
Based on the structure presented in (19e), it was observed that uninterpretable EPP features [uN]* originally located at node v have percolated to projection v'. This process aims to enable the projection v' to merge with a constituent carrying interpretable [N] features that correspond to its requirements. The merging of projection v' with a constituent bearing matching [N] features is intended to verify and eliminate these EPP features. Consequently, this investigation determined that projection v' elevates and combines with DP 'Maimunah'. The union of DP 'Maimunah' with projection v' gives rise to a new projection, referred to as the vP projection in the verb phrase, as outlined in (19f).

f.



The merging of projection *v'* with DP '*Maimunah*' led to the examination and removal of the uninterpretable EPP features [*uN*]* situated in projection *v'*. Nevertheless, the structure described in (19f) remains incomplete as there are still unassessed uninterpretable features, specifically the tense marking feature [*uTense*:]. To enable the evaluation of this feature with the correct tense, the projection in (19f) will combine with the Tense node. This is depicted in the structure outlined in (19g).

g.

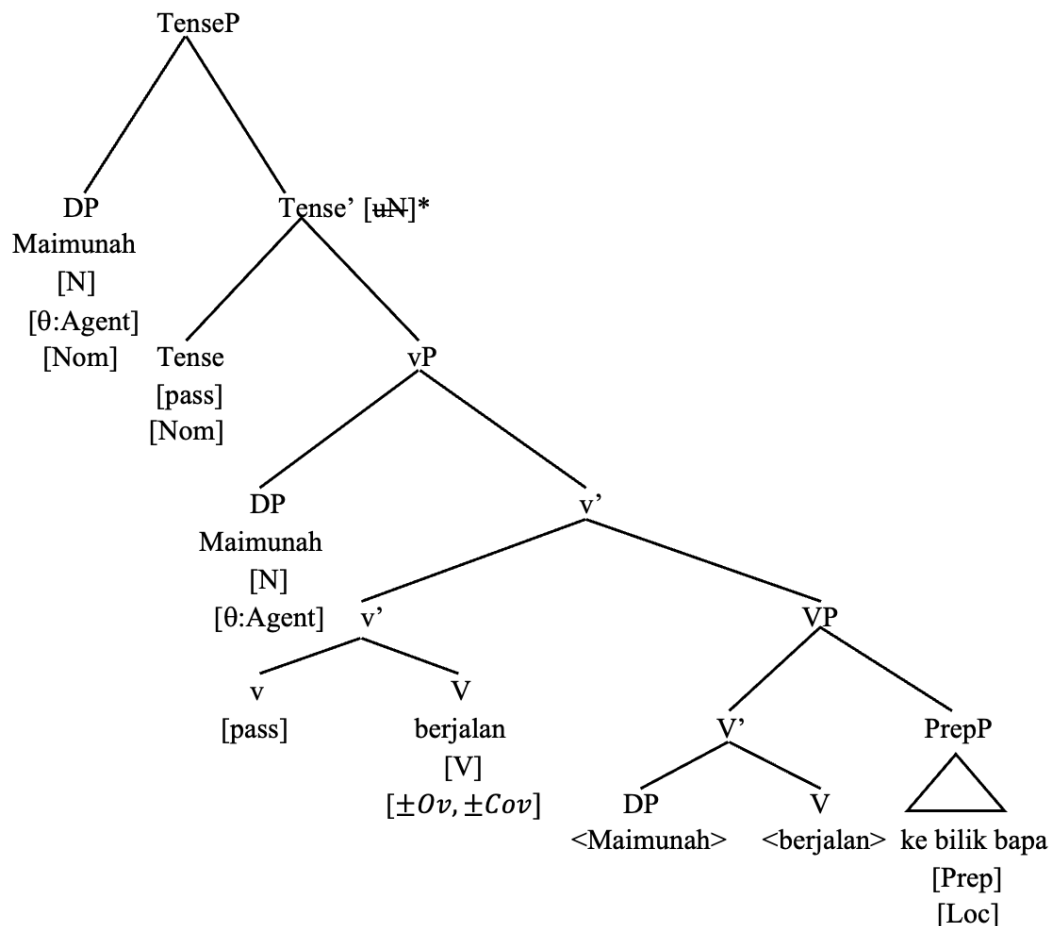


Based on the framework presented in (19g), the merging of the *vP* projection with the Tense node facilitates the creation of a new projection known as Tense'. As per Chomsky (2015), the Tense node typically encompasses at least three morphosyntactic features. The initial feature associated with the Tense node is the tense feature, indicating either present or past tense. In the context of this analysis, we assume that the structure (19g) incorporates the past tense [*pass*] feature. The second feature inherent in the Tense node is the nominative case feature [*Nom*], designed for allocation to the DP constituent in the subject position of the sentence. Additionally, the third feature carried by the Tense node is the uninterpretable EPP feature [*uN*]* that remains unassessed.

Building upon the syntactic operations outlined in (19g), the previously unassessed tense feature at the Tense node has been construed as [*pass*]. This enables the [*pass*] feature to distribute the corresponding features to the Tense node through a shared command in the syntactic structure. Furthermore, DP '*Maimunah*' has received the distribution of the nominative case, as indicated by the Tense node. Despite this, the structure in (19g) is deemed incomplete due to the persisting

unassessed and undeleted uninterpretable EPP features within the syntactic framework. Consequently, to evaluate the [uN]* EPP feature at the Tense node, the subsequent step involves percolating this feature to the Tense' projection. Consequently, the Tense' projection necessitates a constituent with matching [N] features to scrutinize and eliminate the uninterpretable EPP feature [uN]*. Therefore, the ensuing step entails the elevation of DP 'Maimunah' from the subject position in the verb phrase [Spec,vP] to a new position—specifically, the subject position of the sentence [Spec,TP]. This elevation is recognized as subject-to-subject raising, as elucidated in (19h).

h.



Based on the composite structure depicted in (19h), the uninterpretable EPP feature [uN]* on the Kala' projection can be thoroughly examined and eliminated [uN]*. This assertion holds because DP 'Maimunah' possesses a noun feature [N] that aligns with the requirements of Tense', allowing for the inspection and removal of the EPP feature. Consequently, the merging operation outlined in (19h) represents the conclusive step in syntactic derivation, as all uninterpretable features in the structure (19h) have been successfully addressed and removed. Therefore, the operation in (19h) has effectively generated a grammatically and structurally complete sentence: 'Maimunah berjalan ke bilik bapa/Maimunah walks to her father's room.' The structure in (19h) can also be articulated without featuring the empty verb MV, as in 'Maimunah ∅ ke bilik bapa/Maimunah walks to her father's room,' owing to the optional presence feature still retained

by the verb in the syntactic structure. As a result of eliminating all uninterpretable features, the structure (19h) can be taken beyond the surface level to the interface between logical form and phonetic form, enabling its pronunciation as a grammatical construction.

CONCLUDING REMARKS

This study has conducted a Minimalist analysis of the phenomenon of optional MV presence in Malay sentence structures, particularly when associated with the PrepP 'ke' (to). Through descriptive analysis, it was observed that the frequently used MV among native speakers is non-ergative. In this study's context, the MV, serving as the main verb, assigns only one theta role to its argument, with the DP subject receiving the AGENT theta role assignment. Additionally, the study's descriptive analysis indicates that the absence of MV in Malay sentence structures does not impact the sentence's semantics. This is because the lack of MV still maintains sentence grammaticality, and the absence of MV is naturally employed by native Malay speakers, as evidenced by corpus data. The theoretical analysis of MV within the Minimalist framework (Chomsky, 2015) has led to novel findings. Through the formation of structures via merge operations and adjunct attachment through the vP Shells, the study reveals that the presence of PrepP 'ke' has implications for the optional occurrence of MV in syntactic structures. This is asserted because the co-occurrence of PrepP 'ke' with MV results in the assignment of the hidden existence feature [+Cov] to MV. Consequently, MV acquires two existence features: its original overt existence feature [+Ov] and a newly assigned feature by Loc from PrepP 'ke', namely the hidden existence feature [+Cov]. However, when an MV structure is not followed by PrepP, the implications of optional presence do not arise since MV already possesses its original overt existence feature [+Ov]. This novel finding, rarely discussed in linguistic scholarship, especially concerning the optional presence of MV as the main verb in Malay sentence structures, is expected to be beneficial for language researchers, linguistic students, and language enthusiasts as a contemporary reference for practical studies on Malay MV. The study's implications also contribute to the Minimalist theory in Malay by highlighting the roles and functions of morphosyntactic features as the primary foundation for constructing grammatical phrase structures.

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REFERENCES

- Adger, D. (2003). *Core Syntax: A Minimalist Approach*. United Kingdom: University of London.
- Aman, M. S. (2008). *Mari Kita Berbahasa*. Seri Kembangan: Citra Kurnia Enterprise.
- Ang, L.H. & Tan, K.H. (2016). Preposition-related collocation use among British and Malaysian learners: a corpus analysis. *Pertanika Journal of Social Sciences and Humanities*, 24, 145-156.
- Aurnague, M. (2011). How motion verbs are spatial: the spatial foundations of intransitive motion verbs in French. *Linguisticae investigationes*, 34(1), 1-34.
- Bakar, M. A. (2002). *Pengantar Sintaksis dan Semantik Bahasa Melayu*. Singapura: Pustaka Nasional Pte Ltd.
- Beavers, J. & Koontz-Garboden, A. (2017). Result verbs, scalar change, and the typology of motion verbs. *Language*, 93(4), 842-876.

- Brandner, E., & Salzmann, M. (2012). Crossing the Lake: motion verb constructions in Bodensee-Alemannic and Swiss German. In *Comparative Germanic syntax: The state of the art* (pp. 67-98). John Benjamins Publishing Company.
- Carnie, A. (2006). *Syntax: A Generative Introduction*. United Kingdom: Blackwell Publishing.
- Chapman, S. & Routledge, C. (2009). *Key Ideas In Linguistics and The Philosophy of Language*. Edinburgh: Edinburgh University Press.
- Chomsky, N. (1995). *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, N. (2015). *The Minimalist Program*. Cambridge: MIT Press.
- Crystal, D. (2008). *A dictionary of linguistics and phonetics* (6th ed.). Blackwell Publishing.
- Gergel, R. (2020). Sich ausgehen: Actuality entailments and further notes from the perspective of an Austrian German motion verb construction. *Proceedings of the Linguistic Society of America*, 5(2), 5-15.
- Habibi, H., Salleh, A. H., & Singh, M. K. S. (2015). The Effect of Reading on Improving the Writing of EFL Students. *Pertanika Journal of Social Sciences & Humanities*, 23(4), 1115-1138.
- Haegeman, L. (1994). *Introduction to Government and Binding Theory (Second Edition)*. Oxford: Blackwell Publishers Ltd.
- Huber, J. (2017). *Motion and the English verb: a diachronic study*. Oxford University Press.
- Imani, Z., & Motavallian, R. (2020). Motion verbs of manner in FrameNet: A comparison between Persian and English. *Kervan. International Journal of African and Asian Studies*, 24(1).
- Inagaki, S. (2001). Motion verbs with goal PPs in the L2 acquisition of English and Japanese. *Studies in second language acquisition*, 23(2), 153-170.
- Inagaki, S. (2002). Japanese learners' acquisition of English manner-of-motion verbs with locational/directional PPs. *Second Language Research*, 18(1), 3-27.
- Jarad, N. I. (2014). The grammaticalization of the motion verb "rah" as a prospective aspect marker in Syrian Arabic. *Al-'Arabiyya*, 101-118.
- Jubilado, R. & Razak, R. A. (2018). Lapisan Frasa Kerja Dalam Bahasa Melayu. In Razak, R. A. & Yusoff, R. (Ed.), *Teori Sintaksis Bahasa Melayu [Malay Syntax Theories]* (page 1-53). Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Karim, N. S., Onn, F. M., Musa, H. & Mahmood, A. H. (2010). *Tatabahasa Dewan Edisi Keempat*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Kim, R. (2025). Reducing Typological Variation to Result Features: English and Korean Mono-Clausal Caused-Motion Constructions. *언어학 연구*, (74), 93-119.
- Lemmens, M. (2005). Aspectual posture verb constructions in Dutch. *Journal of Germanic linguistics*, 17(3), 183-217.
- Matsumoto, Y. (2025). The Co-occurrence Tendencies of Motion Ideophones and Motion Verbs: A Quantitative Study in Japanese. *Cognitive Semantics*, 11(2), 1-35.
- Matsumoto, Y., & Kahumbu, M. (2025). Motion event descriptions in Mombasa Swahili: An experimental study. *The Mouton-NINJAL Library of Linguistics*, 55
- Matthews, P. (2007). *The concise Oxford dictionary of linguistics* (2nd ed.). Oxford University Press.
- Mei, C. J., & Ong, C. S. B. (2018). The Choice of Suffix Variants for Participial Adjective in Corpus of Malaysian e-Newspapers. *Pertanika Journal of Social Sciences & Humanities*, 26(4), 2333-2346.
- Nakazawa, T. (2007). A typology of the ground of deictic motion verbs as path-conflating verbs: The speaker, the addressee, and beyond. *Poznań studies in contemporary linguistics*, 43(2), 59-82.
- Nusawantara, K., Rohmah, Z., & Kusumawardani, R. P. (2019). Corpus-based analysis of cohesive devices in academic essays written by Indonesian students: Across-gender analysis. *Pertanika Journal of Social Sciences and Humanities*, 27(4), 2265-2284.
- Omar, A. H. (2015). *Nahu Melayu Mutakhir Edisi Kelima*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Radford, A. (2009). *Analysing English Sentences: A Minimalist Approach*. United States of America: Cambridge University Press.
- Radzi, H., Sultan, F. M. M., Jalaluddin, N. H. & Ahmad, Z. (2012). Analisis bahasa komunikasi bangsa minoriti Negrito menerusi pengimbuhan dan peminjaman kata. *GEMA Online™ Journal of Language Studies*. 12(3): 885 - 901.
- Sansò, A., & Giacalone Ramat, A. (2016). Deictic motion verbs as passive auxiliaries: the case of Italian andare 'go' (and venire 'come'). *Transactions of the Philological Society*, 114(1), 1-24.

- Sarail, N. (2017). *Objek implisit dalam bahasa Melayu: Satu Analisis Sintaksis*. [Unpublished MA. Thesis]. Universiti Sains Malaysia.
- Sultan, F. M. M. (2011). The syntactic structure of a noun phrase: Austroasiatic vs. Austronesia. *Pertanika Journal of Social Sciences and Humanities*. 19(1), 263-271.
- Sultan, F. M. M., Ahmad, Z., Jalaluddin, N. H. & Radzi, H. (2011). Kata soal *Bila* dalam dialek Kedah Melayu Baling: Satu Analisis Sintaksis. *GEMA Online™ Journal of Language Studies*. 11(1), 69-80.
- Sultan, F. M. M. (2015). *Sintaksis Enklitik -nya*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Sultan, F. M. M. & Othman, S. A. (2021). Frasa topik dan fokus dalam bahasa Melayu: analisis program minimalis. *GEMA Online® Journal of Language Studies*. 21(2). 195-214. <http://doi.org/10.17576/gema-2021-2102-10>
- Sultan, F. M. M. & Ramli, M. R. (2015). Kata ganti nama dalam Bahasa Mendriq. *GEMA Online Journal of Language Studies*. 15(3), 67–82
- Sultan, F. M. M. & Suhaimi, N. (2012). *Kata Soal Dalam Dialek Kedah*. *GEMA Online™ Journal of Language Studies*. 12(2): 475 - 493.
- Sultan, F. M. M., Zawawi, A. S. A. A. & Razak, R. A. (2023). The structures of Malay language existential sentences. *Research Result. Theoretical and Applied Linguistics*, 9(4), 112-141. <http://doi.org/10.18413/2313-8912-2023-9-4-0-6>
- Taha, M., Sultan, F.M. & Yasin, S.M. (2017). The morphosyntax of causative construction In Sudanese Arabic. *Pertanika Journal of Social Sciences and Humanities*, 25(2), 419-428.
- Taremaa, P. (2021). Verbs of horizontal and vertical motion: A corpus study in Estonian. *Finnish Journal of Linguistics*, 34, 221-256.
- Wahab, K., Razak, R. & Sultan, F. M. M. (2016). The verb phrase construction in Malay: A Minimalist Program approach. *Pertanika Journal of Social Sciences and Humanities*. 24(S), 23-34
- Wälchli, B., & Cysouw, M. (2012). Lexical typology through similarity semantics: Toward a semantic map of motion verbs. *Linguistics*, 50(3), 671-710.
- Yusof, M. (2009). Analisis preposisi lokatif bahasa Melayu berdasarkan kerangka Role and Reference Grammar (RRG). *GEMA Online™ Journal of Language Studies*. 9(1), 17- 33.
- Zarifi, A., & Mukundan, J. (2019). Use of Phrasal Verbs in an ESL Learner Corpus and its Corresponding Pedagogic Corpus. *Pertanika Journal of Social Sciences & Humanities*, 27(4), 2185-2200.
- Zawawi, A.S.A.A., Sultan, F.M.M., Jaludin, A. (2022). Subjek nul pro bahasa Melayu: suatu penilaian semula berpandukan kerangka minimalis. *Issues in Language Studies*, 11(1), 109-128. <https://doi.org/10.33736/ils.4122.2022>
- Zawawi, A.S.A.A. & Sultan, F.M.M. (2023). Analisis ada sebagai kata kerja dwikomplemen: suatu pendekatan minimalis. *GEMA Online® Journal of Language Studies*, 23(2), 119-143. <http://dx.doi.org/10.17576/gema-2023-2302-07>
- Zawawi, A. S. A. A., Sultan, F. M. M. and Jaludin, A. (2023). Expletive There Structures: A Minimalist Analysis, *3L: Language, Linguistics, Literature® The Southeast Asian Journal of English Language Studies*, 29 (3), 125-147. <http://doi.org/10.17576/3L-2023-2903-10>
- Zawawi, A. S. A. A., Sultan, F. M. M. & Jaludin, A. (2024). Kata kerja ambitransitif dalam bahasa Melayu: Suatu analisis Minimalis. *KEMANUSIAAN The Asian Journal of Humanities*, 31(2), 163–191. <https://doi.org/10.21315/kajh2024.31.2.9>

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