

Incorporating Structural Diversity In The Malay Grammar

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Abstract

The underlying thesis of transformational generative grammar is that a grammar consists of a set of rules that governs the formation of linguistics structures and constructions. The rules are formulated based on regular patterns that are observable in the language under study. As a natural language, regularities in Malay are not homogeneous and uniform, and their realizations most often surface in various or diverse structures and constructions. Some of these structural variations are considered ungrammatical because their derivations are violating the standard rule prescribed by the grammar. Nevertheless, the so-called ‘incorrect variants’ are widely and productively used as attested in the corpus, and significantly has an impact on language learning. It has been reported that students are more inclined to use the ‘incorrect variant’ as compared to the standard one, and this accordingly affects their grade in the examinations (Nor Hashimah et al., 2004). The issue that arises here is that there is a disagreement between the rules prescribed in the school grammar and the language used by the community outside the school. This paper argues that structural diversity in the language must be recognized, and the regularity patterning the variant needs to be generalized and formalized into rule. If the formation of the so-called ‘incorrect variant’ is rule-governed, it must be accepted as well-formed and should be incorporated into the grammar.

Keywords: corpus, diversity, grammaticality, redundancy, rule.

Introduction

Diversity commonly refers to a state or quality of being different or varied. Thus, linguistic diversity means the number of different languages spoken in a given geographical area, and it can be classified into two types, namely language diversity and structural diversity (Nettle, 1999; Brenzinger, 2007). For instance, in comparing Papua New Guinea and Paraguay which are reported to be roughly the same size and have nearly the same population, language diversity is exemplified in the former because it has

850 indigenous languages, where as the latter has scarcely more than twenty. Another type of diversity is structural diversity which involves grammatical patterns or constructions. For example, in the ordering of the major constituents such as Verb, Subject, Object in a sentence, there are languages who favor the VSO structure (e.g. Tagalog and Maasai), SVO structure (e.g. Malay and English), and SOV structure (e.g. Japanese and Korean), or free order. In sum, a study on linguistic diversity either in the aspects of language diversity or structural diversity, basically involves an analysis of several human languages.

This paper, however, argues that linguistic diversity, particularly structural diversity can also be construed as variation of grammatical patterns or constructions within a single language. For the present purposes, the language under study is standard Malay, a variety that is used in the education system (school language), and in formal situations such as in speeches, meetings, seminars and in the mass media (Nik Safiah et al. 2008).

Malay Reference Grammar

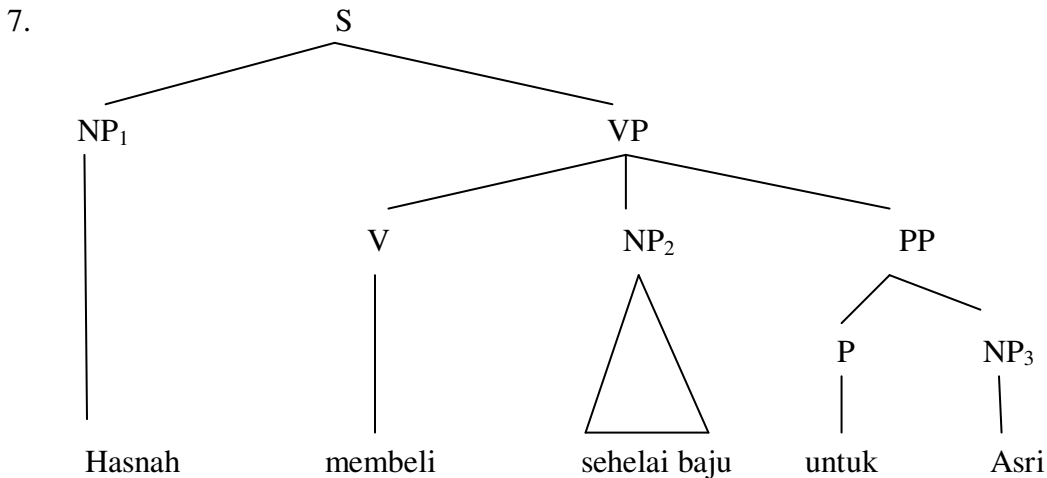
A grammar that is currently accepted as Malay reference grammar is *Tatabahasa Dewan* (Nik Safiah et al., 2008). This grammar is taught in schools at all levels, hence it is commonly dubbed as school grammar. The central theoretical background underlies the analysis of this grammar, particularly the syntactic aspects are based on transformational generative grammar propounded by Chomsky (1957). The underlying thesis of generative grammar is that linguistic structures or constructions are generated intuitively by a subconscious set of procedures. These procedures are part of the speaker's mind, and the goal of linguistic theory is to model these procedures. The means for modeling these procedures is through a set of formal grammatical rules. Thus, a grammar is defined as a set of rules that governs the formation of linguistic structures or constructions.

The grammatical rules of a language are formalized based on regular patterns that are observable in the language under study. Regularity implies that there is an underlying system that regulates how language works, and this system is governed by rules. Apparently, regularity in a natural language is not essentially homogeneous and uniform. Most often linguistic regularities occur in various or diverse structures or constructions. Structural diversity, notably in syntax is the focal point of linguistic descriptions analyzed within the framework of generative grammar. The grammar generates all and only grammatical sentences in the language, and these need to be formulated in terms of formal rules. For instance, structural diversity can be observed in sentences active-passive pairs involving ditransitive verbs in Malay. Although sentences active-passive pairs with ditransitive verbs have various constructions, they basically have the same propositional meaning as illustrated in the following examples (Nik Safiah et al., 2008).

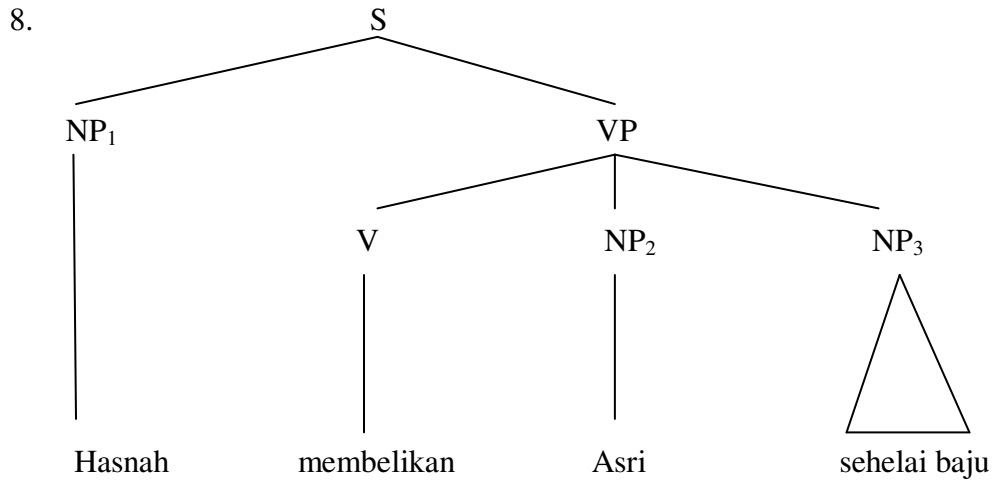
1. Hasnah membeli sehelai baju untuk Asri
Hasnah buy ACTIVE a shirt for Asri
'Hasnah buys a shirt for Asri'

2. Hasnah membelikan Asri sehelai baju
 Hasnah buy ACTIVE Asri a shirt
 ‘Hasnah buys Asri a shirt’
3. Sehelai baju dibeli oleh Hasnah untuk Asri
 A shirt buy PASSIVE by Hasnah for Asri
 ‘A shirt is bought by Hasnah for Asri’
4. Asri dibelikan sehelai baju oleh Hasnah
 Asri buy PASSIVE a shirt by Hasnah
 ‘Asri is bought a shirt by Hasnah’
5. * Asri dibeli sehelai baju oleh Hasnah
 Asri buy PASSIVE a shirt by Hasnah
 ‘Asri is bought a shirt by Hasnah’
6. * Sehelai baju dibelikan Asri oleh Hasnah
 A shirt buy PASSIVE Asri by Hasnah
 ‘A shirt is bought Asri by Hasnah’

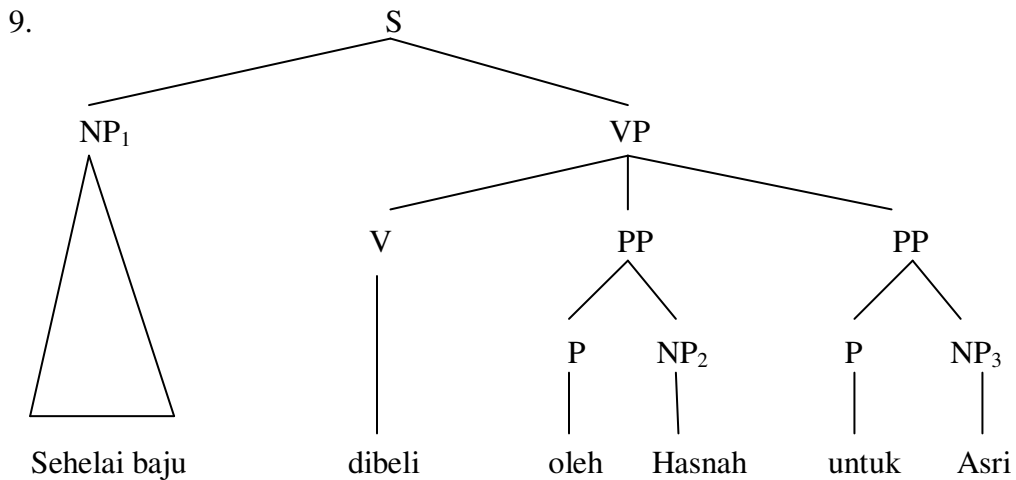
1 and 2 are active transitive sentences, whilst 3 and 4 are the passive ones. 5 and 6 are ungrammatical sentences because their derivations are violating the general rule of passivisation. The active transitive sentence in 1 is postulated as the underlying structure which can be represented in terms of tree diagram as in (7), and the other constructions are derived from this input by transformational rules (Nik Safiah et al., 2008).

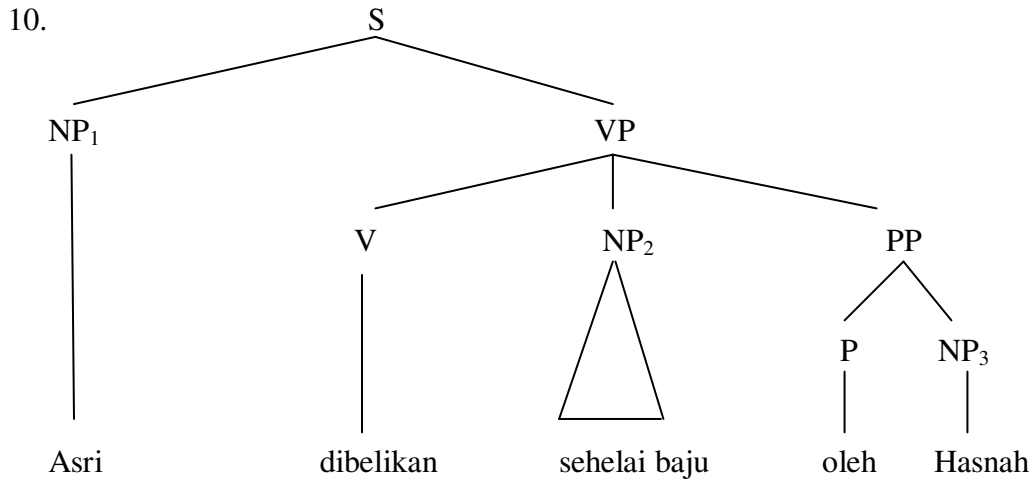


NP₁ in (7) is the subject, NP₂ is the direct object and NP₃ is the indirect object. The sentence can undergo dative transformation in which NP₃ ‘Asri’ is moved to direct object position and NP₂ ‘sehelai baju’ to the indirect one. The suffix -kan which functions as a benefactive verb marker is now being attached to the verb base, and the preposition *untuk* ‘for’ is dropped. The surface representation of the sentence is as follows:

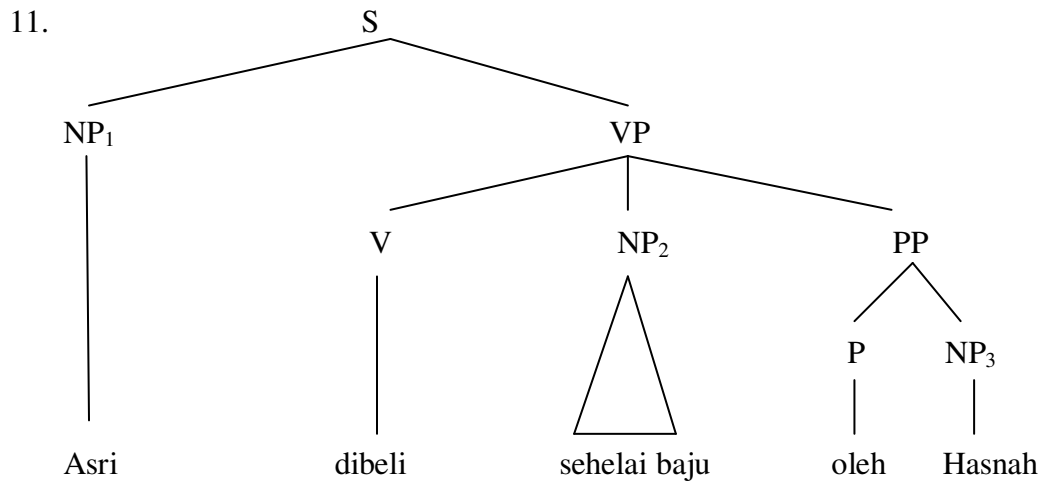


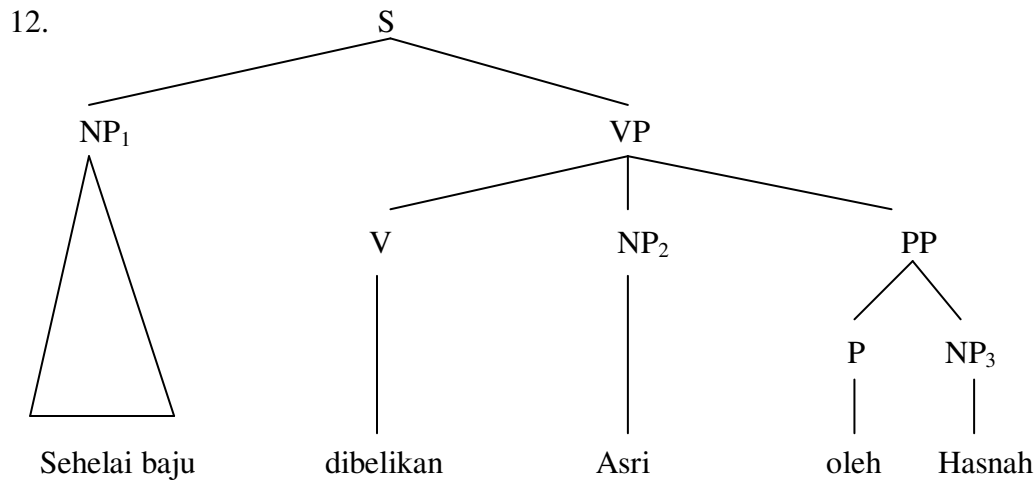
Another transformational process that is eminently relevant to grammatical relations is passivization, which converts a direct object (e.g. NP₂) into the subject of the passive and the former subject into an oblique. The application of passive transformational rules is represented in (9) and (10) consecutively where the direct objects *sehelai baju* ‘a shirt’ and Asri (e.g. NP₂) are promoted into the subject positions.





Passivization transformation only allows direct objects to be moved to the subject position, but not the indirect ones. This explains why 5 and 6 are ungrammatical sentences in the language, as the following representations illustrate.





Based on syntactic diversity given above, it is apparent that *Tatabahasa Dewan* does recognize the existence of structural variation in Malay providing that the variants in hand are derivable by grammatical rules.

Structural Diversity in Malay

The present study utilizes a collection of data extracted from the data-based corpus of UKM-DBP consisting of five million words (Zaharani, 2008a; Zaharani, 2008b; Nor Hashimah, et al. 2010). The corpus does not have any structural and grammatical markup. It is just a collection of texts of various types of written Malay, such as newspapers, magazines, and books. Various structures and constructions are generated from the corpus by a software called Wordsmith Tools, and the desired outputs are listed in terms of concordances.

It is apparent that structural diversity occurs at all grammatical levels in Malay, namely phonology, morphology and syntax. As we have seen in the earlier discussion, active-passive pair sentences with ditransitive verbs have many surface representations. All these sentences are assumed to be derived from a single underlying structure by transformational processes such as NP movement, deletion and insertion rules. In the case of phrasal diversity, different forms of phrasal constructions are attested in the corpus, which include verb phrase and adjective phrase. Diversity in the former concerns the ordering of verb, object and adjunct, whilst the latter affects the sequence of modifier and adjective.

13. Verb + Object + Adjunct (kembali/semula/lagi)
 ... untuk **merapatkan saf kembali...**
 bring closer row back
 ... dapat **mencambahkan kemeriahan semula...**
 cultivate happiness again
 ... untuk **mengindahkan gaya bahasa lagi ...**
 beautify style language more

14. Verb + Adjunct (*lagi/kembali/semula*) + Object
... untuk **merapatkan kembali saf...**
bring closer back row
...dapat **mencambahkan semula kemeriahan...**
cultivate again happiness
... untuk **mengindahkan lagi gaya bahasa ...**
beautify more style language

The words *kembali* ‘back’, *semula* ‘again’, *lagi* ‘more’ are categorized as adjuncts, and they are syntactically omissible which means that dropping an adjunct will not result in ungrammaticality of a sentence. Adjuncts in Malay occur in two different positions, that is pre-object position and post-object position. In the former, the adjunct evidently separates the verb and the object as a bound constituent. Additionally, structural diversity is also attested in adjective phrase. As common in many languages, prototypical adjectives are ‘gradable’ and as such take modifiers indicating degree. In Malay, gradable adjectives denoting superlative degree take modifiers categorized as intensifiers, such as *sekali* ‘very or once’ and *paling* ‘extremely’. The intensifiers can be either pre-head modifier or post-head modifier, or combination of both, as illustrated in the following examples.

15. Adjective + Modifier
...pertunjukan yang **menarik sekali** ...
attracted very
...penerangannya begitu **jelas sekali** ...
clear very
16. Modifier + Adjective
... yang **paling menarik** perhatian ...
extremely attracted
...adalah **paling jelas** bagi ...
extremely clear
17. Modifier + Adjective + Modifier
... yang **paling menarik sekali**...
extremely attracted very...
...yang **paling jelas sekali** kepada...
extremely clear very

Structural diversity is also visible in the aspect of morphophonology. As generally known, when morphemes combine to form words, some of the phonemes in the morpheme undergo phonological alternation. For instance, the root base *kumpul* ‘collect’ surfaces as *dikumpul* in the passive form and is realized as *mengumpul* in the active counterpart. The alternation in the latter is very regular in simple word formation but visibly irregular in the context of complex word formation. For example, when a nasal final prefix *meN-* is

attached to the base *ke tengah* 'central', there are three different realizations of active verb forms surface in the output representation, namely *mengetengahkan*, *mengketengahkan* and *mengenengahkan*. Semantically, all of them denote the same lexical meaning that is 'cause to be centralized'.

18. Variation of word realizations

- ... telah berjaya **mengetengahkan** kumpulan...
- ... mereka telah **mengketengahkan** isu itu ...
- ...ketua kumpulan telah **mengenengahkan** beberapa ...

Structural Diversity and the Issue of Grammaticality

As mentioned, structural diversity is transpired at all grammatical levels in the language. Some variants or diverse forms are regarded ill-formed and ungrammatical by *Tatabahasa Dewan* simply because they are violating the standard rule prescribed by the grammar (Nor Hashimah, 2006). Nevertheless, the so-called 'incorrect' variants are widely and productively used by the speakers of the language as attested in the UKM-DBP data-based corpus. The issue that arises here is that there is a conflict between the rule postulated in the grammar and the data represented in the corpus. The issue of grammaticality becomes crucial in the context of language learning when it has an impact on student's performance in the examination (Nor Hashimah et al., 2004).

As noted, one of the basic syntactic rules governing the verb phrase in Malay is a transitive verb that requires an obligatory object. The two elements are syntactically bound and therefore they cannot be separated or independently deleted. Phrases in (14) are violating this rule because there are intervening elements called adjuncts that separate the verb and the object of the phrase and therefore they are regarded ill-formed.

In the case of diversity involving gradable adjective phrase signifying superlative degree, *Tatabahasa Dewan* recognizes structures in (15) and (16) but discarded (17). The latter is violating the basic constraint or rule called redundancy which is not permitted in the language (Nik Safiah et al., 2008). A combination of intensifiers *paling* 'extremely', and *sekali* 'most' in the structure is undesirable because the connotation of superlative can be conveyed by any one of the modifiers.

For morphophonological diversity concerning the word *mengetengahkan*, *mengketengahkan* and *mengenengahkan*, *Tatabahasa Dewan* only accepts one variant that is *mengetengahkan* as the standard form, while the others are considered ill-formed. The phonological rule that governs the formation of the standard variant is called nasal substitution rule which is analyzed as a result of the application of two extrinsically ordered rules, namely (i) nasal assimilation rule, and (ii) voiceless obstruent deletion rule (Farid M Onn, 1980; Zaharani, 2008b). Both rules are applicable only to consonant initial base stems where as word internal segment is not affected by the rules.

In sum, certain grammatical structures or constructions are discarded because they do not adhere to the prescribed rule established in *Tatabahasa Dewan*. Prescriptive approach is arguably counterproductive to linguistic analysis in general and the Malay grammar in particular. Like any other scientific studies, linguistic analysis should be descriptive rather than prescriptive (Aitchison, 1978). The grammar that negates the existence of empirical data does not fulfill the central facet of linguistic analysis that is observational adequacy. Accordingly, this paper attempts to propose new grammatical rules which can account for structural diversity that occur in the language.

The Impact of Structural Diversity on Language Learning

The Malay language is one of compulsory subjects taught in schools starting from early age of primary years up to tertiary educations. Despite the language is long-windedly taught and learnt, it is reported that many students particularly the native Malays cannot score good grades for the subject. Nor Hashimah's (2004) preliminary study shows that the causal factor of this predicament is the type of questions asked in the examinations which is dubbed as 'problematic questions' which are associated to the issue of grammaticality. There is a correlation between student's performances and the total number of 'problematic questions' asked in the examination. It is observed that the grammar taught in schools is incompatible with the grammar used outside the school. In other words, there is a conflict between the school grammar and the corpus grammar. Corpus grammar is a grammar that widely and practically used by the language community as reflected in the corpus. Students seem to be more inclined to use corpus grammar as compared to school grammar. Some of the identified problematic questions are as follows.

Verb-object Dislocation

As mentioned, one of the basic syntactic rules governing the verb phrase construction is that the transitive verb cannot be dislocated from the obligatory object by any grammatical element. In the examination, students are asked to identify or determine the grammaticality of sentence (19) and (20) below. The research finding shows that the majority of the students opted for (19), and they failed to identify why this sentence is ill-formed or ungrammatical. However, it is affirmed in the school grammar that the correct structure is (20) not (19).

19. Ungrammatical sentence
 - a. Lelaki itu membesarkan **lagi** rumahnya
Man the enlarge more house his
'The man enlarges his house a bit more'

20. Grammatical sentence
 - a. Lelaki itu membesarkan rumahnya **lagi**
Man the enlarge house his more
'The man enlarges his house a bit more'

Grammatical Redundancy

Trask (1996) defines redundancy as “The central property of speech and language by which more information is provided than is strictly necessary for the message to be understood, so that, if some information is lost or misheard, the remaining information will still often be sufficient for the message to be received correctly”. It is claimed that redundancy is not permitted in Malay (Nik Safiah et al., 2008). For instance, nominal reduplicated word forms indicating plurality cannot take modifier categorized as quantifiers to mark plurality, such as *segala* ‘all’, *seluruh* ‘entire’, and *kebanyakan* ‘most’ (Zaharani, 2008a; Nor Hashimah, 2006).

21.	Ungrammatical structure	Grammatical structure	Gloss
	a. segala harta-hartanya	segala hartanya	‘all his properties’
	b. seluruh penduduk-penduduk	seluruh penduduk	‘entire residents’
	c. kebanyakan guru-guru	kebanyakan guru	‘most teachers’

Another typical example of redundancy that is frequently asked in the examination involves the morphological process of *memper-kan* affixation (Zaharani, 2008a). Circumfix *memper-kan* is a transitive verb marker used to derive transitive verbs from verbs and nouns by causation. For instance, from the base stem *dengar* ‘to hear’ and *isteri* ‘wife’, they can form *memperdengarkan* ‘to cause to be heard’ and *memperisterikan* ‘to cause to be made a wife’. It is argued that *memper-kan* cannot occur with adjectival base stems because its formation is morphologically redundant (Nik Safiah et al., 2008). The prefix that should be used here is *memper-* which can be glossed as ‘to cause to be more...’.

22.	Ungrammatical forms	Grammatical forms	Gloss
	mempercantikkan	mempercantik	‘to cause to be more beautiful’
	memperkecilkan	memperkecil	‘to cause to be smaller’

Similarly to the case of verb-object dislocation, the research finding shows that the majority of the students opted for the so-called ‘incorrect form’ discarded by the school grammar. Nor Hashimah et al. (2004) conclude that the underlying motivation of this option is that those forms are widely used and more familiar to the students.

Incorporating Structural Diversity in the Grammar

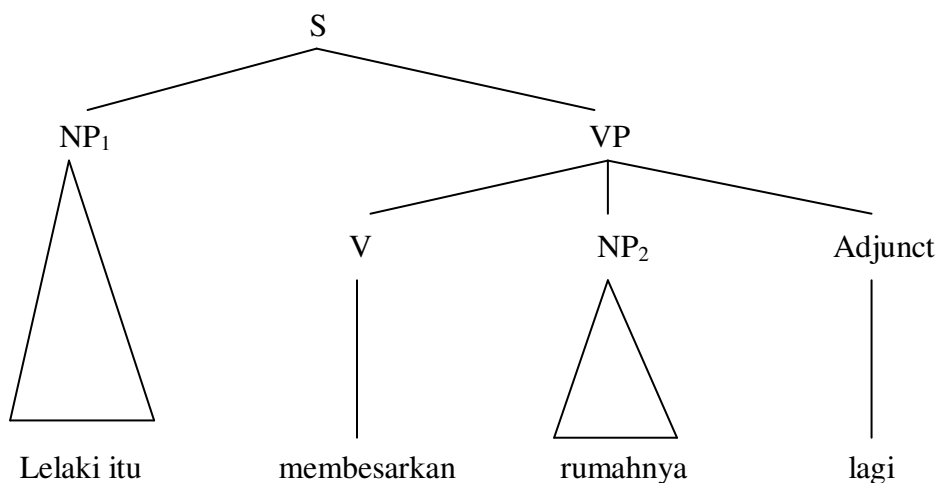
This paper argues that structural diversity, particularly the varieties that are productively used in the corpus should be reexamined and restudied for the following reasons. First, the variety signifies a current usage of contemporary Malay which undergoes structural development to sustain its multifunctional role as a modern language in a complex society. Second, the variety has an influential effect on student achievement in the examinations. Students should not be ‘victimized’ by problematic questions regulated by prescriptive rules which are unfamiliar and not faithfully representing the real language use in the community. Third, structural diversity reflects cultural creativity of the speakers in using their language. Diversity is most often motivated by communicative

functions of the language in different context of situations. Finally, it is the nature of language to have structural variety and never be homogeneous and uniform.

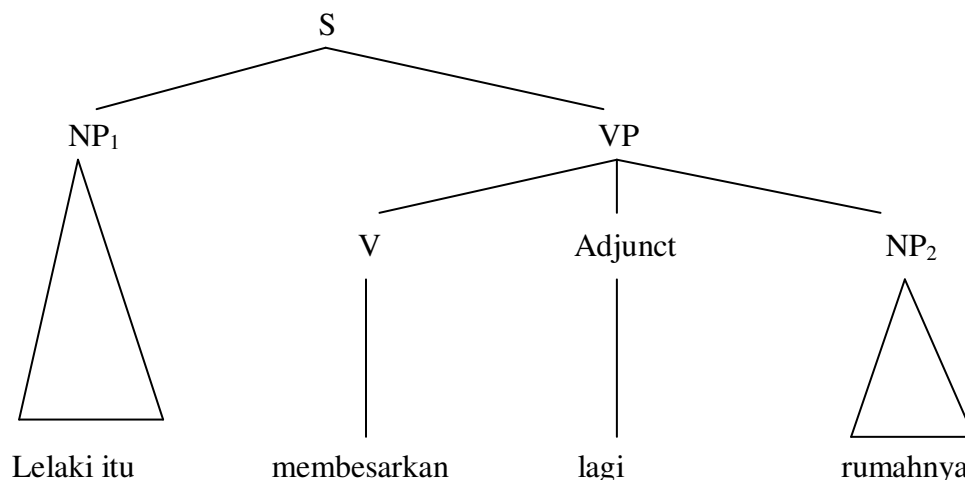
It must be mentioned, however, that not all structural diversity attested in the corpus must be incorporated into the grammar. There are cases where diversities are genuinely incorrect used of language as a result of speakers incompetency, errors, and other factors. This type of diversity is not productive, and its recurrence in the corpus is very low in terms of percentage. Furthermore, there is no regular pattern that can be generalized from the structures or constructions. The relevant form of diversity is the one that is visibly significant in terms of distribution and has regular structural pattern. The regularity patterning the variants needs to be generalized and formalized into rule. If the formation of the so-called ‘incorrect variant’ is rule-governed, it must be accepted as well-formed and should be incorporated into the grammar. It is now the task of current linguists to pursue the study on linguistic diversity and come out with regular rules so that the reference grammar can be improved and easily learnt by the students. In what follows we will demonstrate a few cases of diversity which shows certain regular pattern and can be regularized and formulated into rules.

Let us begin by analyzing the syntactic behavior of transitive verb phrase which is claimed to be syntactically bound, and therefore the verb and the object cannot undergo any transformational rules such as movement, insertion and deletion. This paper argues that the sentence in (19) is well-formed and it has undergone the process of transformation which is the basic tenet of generative grammar adopted by *Tatabahasa Dewan*. A transformational rule labeled as adjunct raising rule moves the word *lagi* ‘more’ from sentence final position to pre-object position (Zaharani & Mohd Ra’in, 2008), as illustrated in (23) and (24). A different version of transformational rule was proposed by Fazal et al. (2010) where his analysis suggests that the verb gets moved instead of the adjunct.

23. Input



24. Adjunct raising rule - adjunct is moved to pre-object position



Another prescriptive rule established in *Tatabahasa Dewan* that needs to be reexamined is the issue of redundancy. Zaharani (2008) argues that grammatical redundancy is at rampant in the language, as attested in UKM-DBP corpus. Interestingly, some of them have never been addressed as ill-formed and therefore can be assumed as grammatical. The first type of redundancy involves a combination of two content words which generally have an identical meaning, such as in (25) below. *Tatabahasa Dewan* classifies this as noun phrase with head + head structure which denotes a similar meaning (Nik Safiah et al., 2008).

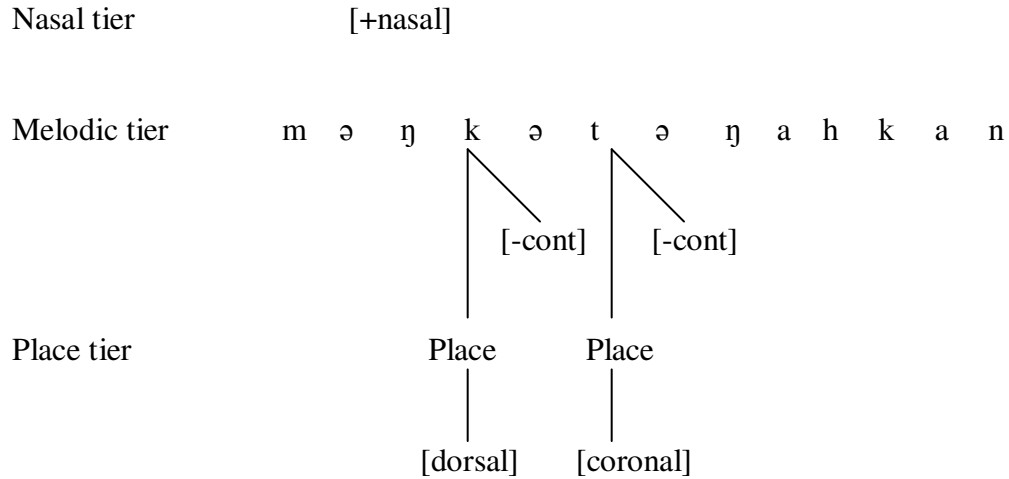
- | | | | | |
|-----|---------------|--------------|---------------------|-----------------|
| 25. | hamba abdi | tokok tambah | aman damai | cerdik pandai |
| | 'slave slave' | 'add add' | 'peaceful peaceful' | 'clever clever' |

Another type of repetition can be observed in a noun phrase comprises a combination of simple word plus complex word derived by a morphological process of affixation. The derived words normally have new grammatical meaning depending on the type of affixes that are attached to the base forms. For instance, nominal word-forms derived from *peN-* prefixation are names of instruments or tools (e.g. *potong* 'to cut' *pemotong* 'a tool that cuts (cutter)'). Although the affix has specific grammatical meanings such as 'instrumental', the derived words can still occur with simple content words that have the same lexical meaning, such as *alat* 'instrument'.

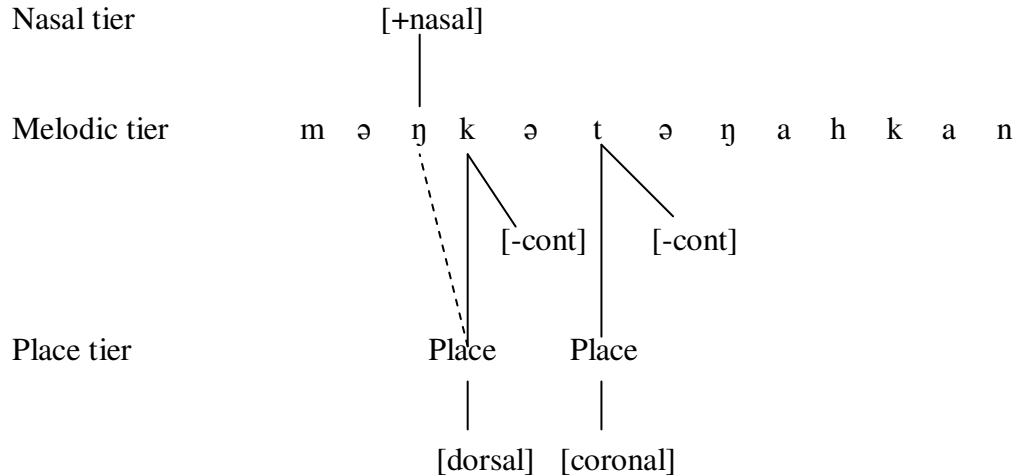
- | | | | | |
|-----|------------|---------------------|--------|--------------|
| 26. | alat | pengering | rambut | |
| | instrument | a tool that dries | hair | 'hair dryer' |
| | alat | penapis | minyak | |
| | instrument | a tool that filters | oil | 'oil filter' |

A similar pattern of repetition is manifested in verbal reduplicated word-forms as well. In verbal reduplication, only the stem is fully repeated and the reduplicated word-forms convey the following meanings: continuity, repetition, intensity, reciprocity. The grammatical meaning of continuity, repetition and intensity is also derivable from the

29 a. Input



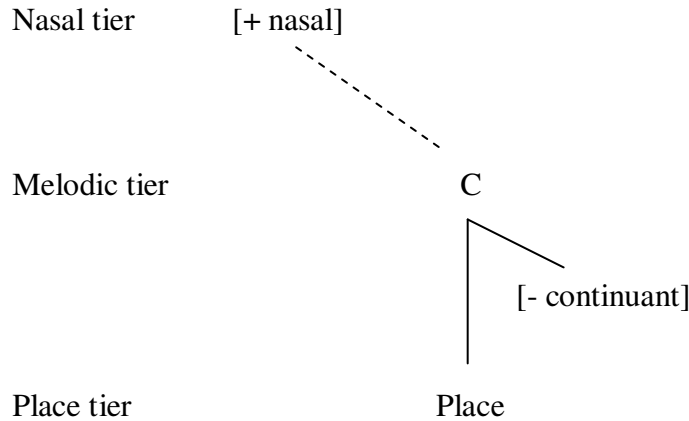
b. Assimilation rule – spreading of place feature



As can be seen in (29a), the final nasal prefix has only the nasal feature without a place node. Thus, the surface realization of nasal consonant cannot be determined. This triggers the application of nasal assimilation rule which involves the spreading of [dorsal] feature from the velar stop /k/. The combination of [dorsal] and [nasal] features eventually granted the realization of dorsal nasal [ŋ], and the final output is [məŋkətəŋahan] <*mengketengahkan*> .

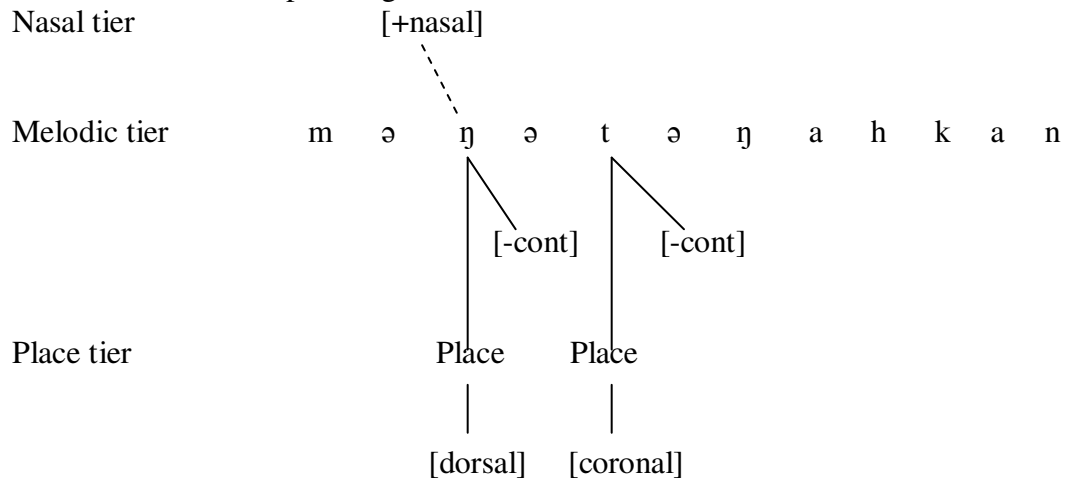
Next, we attempt to account for the phonological phenomenon of nasal substitution which derives the variant *mengetengahkan*. In the present study, nasal substitution is reinterpreted as an assimilation process that involves spreading of nasal feature to the following obstruent, as can be seen in (30).

30. Nasal substitution rule – spreading of nasal feature



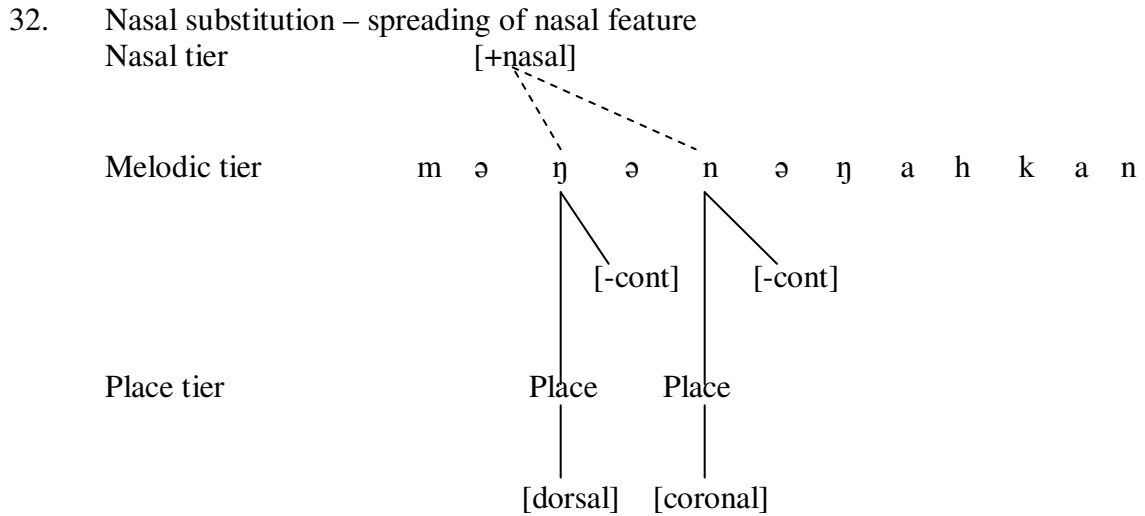
Based on the formalization given above, nasal substitution and nasal assimilation rules are structurally different in two respects, namely the autosegment involved and the direction of the spreading process. In the former, the autosegment concerned is a nasal feature and it spreads from left to right, whilst in the latter the autosegment is a place feature and the spreading is from right to left. The presence of nasal feature into the representation of the obstruent leads the segment being realized as a nasal stop. The following derivation illustrates the alternation process.

31. Nasal substitution – spreading of nasal feature



The presence of nasal feature in the representation transforms the dorsal oral stop into a nasal segment and the operation only applies to the initial consonant of the stems. Thus far we have seen that the rules of nasal assimilation and nasal substitution operate on the adjacent segment. Assimilation of this type is known as contact assimilation. Another type of assimilation is called distant assimilation in which the affected segment is far away from the source segment. This process is also common cross linguistically, such as vowel harmony in Turkish and vowel nasalization in Malay (Zaharani, 2008b). In this particular case of double alternations, the substitution of /k/ by dorsal nasal /ŋ/ can be regarded as contact assimilation, whereby the alternation of /t/ by /n/ is interpreted as

distant assimilation. Both processes are naturally and phonetically motivated, as illustrated in the following derivation.



The general rule that operates here is an assimilation rule which is interpreted as a spreading of an autosegment. The rule needs to apply because the underspecified nasal segment cannot be realized phonetically. Diversity of linguistic forms emerge as the result of parametric differences of the spreading process, namely (i) the autosegment involved, (ii) the type of assimilation that has taken place either contact assimilation or distant assimilation.

Conclusion

As a reference grammar, *Tatabahasa Dewan* should be a descriptive grammar rather than a prescriptive one. Prescriptive rules are not describing the actual use of language by the speech community, and therefore they are difficult to be learnt. It is evident as the so-called the standard forms prescribed by the school grammar are not generally preferred by the students. They are more inclined to use the ‘incorrect’ variant or diverse form which is productively attested in the corpus grammar. It is argued that structural diversity with regular linguistic patterns in the language must be recognized. If the derivation of the so-called ‘incorrect variant’ is rule-governed and culturally motivated, it must be accepted as well-formed and should be incorporated into the grammar.

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