TOBA BATAK LANGUAGE MORPHOLOGICAL SYSTEM: A GENERATIVE TRANSFORMATIONAL STUDY

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ABSTRACT

The objective of this study is to investigate morphological system of Toba Batak language from the view of generative transformational study. The major issue in this microlinguistic study is word formations through the processes of affixation, reduplication, and compounding. Most studies done morphologically are structural based theory which explore language phenomena unsatisfactorily. For instance, in Indonesian language the following forms are never found: **ambilan* “something taken”, **berpesawat* “go by aeroplane”, **keobatan* “being dead or sick because of consuming too much medicine”. We, on the other hand, will find the words *kiriman* “something sent”, *bersepeda* “go by bicycle”, *keracunan* “being dead or sick because of consuming something poisonous”. In Toba Batak language, for example, we will not find the words **lehonan* “a give”, **marsintua* “visit a church functionary to consult something”, **mamiso* “use a knife to cut something”. Whereas the forms *tongosan* “something sent”, *mardatu* “go to a shaman to ask for help”, and *manakkul* “use a hoe to do the farm” are actual words that have been used by Toba Batak language speakers. Based on the Toba Batak language phenomena above, the most relevant theory to be applied to treat such problems and the like exhaustively from descriptive to explanatory adequacy is generative morphology. In so doing, this study rests on the theory of generative morphology proposed by Halle (1973), Aronoff (1976), Scalise (1984), and Dardjowidjojo (1988). The theory requires four separated components, they are: (1) List of Morphemes, (2) Word Formation Rules, (3) Filter, and (4) Dictionary. Generative morphology has predictive power to generate actual words and potential words. The method of the study that will be applied is qualitative descriptive method, that is, a kind of linguistic method to describe language phenomena naturally without manipulation. This research will be conducted in 4 regencies in North Sumatra, they are: (1) Samosir Regency, (2) Toba Samosir Regency, (3) Humbang Hasundutan Regency, and (4) North Tapanuli Regency. There are three types of data that will be collected in this study, they are: (1) oral, (2) written, and (3) intuition. Oral data will be collected by observing, interviewing, listening attentively, and chatting with the informants. Written data will be originated from story books in Toba Batak language and bible in Toba Batak language. Intuition data will be based on the writer’s intuition because the writer is a native Toba Batak language speaker. The data will be analyzed using equal and distributional methods.

Key words: morphological system, generative morphology, potential words

CHAPTER I INTRODUCTION

1.1 The Background of the Study

Indonesian society as the speaker of national language belongs to bilingual society. In family environment they speak regional language, whereas if they are in formal situation they speak Indonesian. Linguistically, the status and function of each language are the same. In other words, no language is more superior than other languages and no language is considered more inferior even though the typology of those languages are different. Sibarani (1994: 2) states how poor the life of a society, the population are rich in language as a tool of communication.

Dardjowidjojo (1988: 33) states that in case of meaning, the native speaker of a language understand the semantic details of each word in their own language. For instance, English native speaker understand intuitively that the word *table* does not directly refer to a thing which usually functions as a place to put something on. However, there is another meaning of *table* as thing to inventory something, such as, number, name, sex, signature, etc.

Morphologically, every language includes Toba Batak language has their own vocabulary rules and different grammatical systems. In other words, morphological process of one word will determine the meaning of the word. And the word produced by the morphological process can be actual word or it can be potential word as well. For example, in Toba Batak language the morphological process to form adjective becomes noun is by adding confix *ha-on* to adjective base as in the word *halojaon* 'weariness' which consists of *loja* + (*ha-on*). The form is an actual word in Toba Batak language. However, the form *hamohopon* which consists of the forms *mohop* + (*ha-on*) is not found in Toba Batak language. Based on the Word Formation Rule in generative morphology, the word *hamohopon* is possible but non-existent word, morphologically

called potential word. It means the process of forming the word *hamohopon* is based on the Word Formation Rule in Toba Batak language.

Dealing with language as communication tool, Chaer (2007: 4) states that language consists of subsystems, they are, morphological subsystem, phonological subsystem, syntactic subsystem, and semantic subsystem. Kridalaksana (1996: 6) states that morphological subsystem includes words, parts of words, and process of word formation. For example, infixation processes in Toba Batak language and in Indonesian language has their own characteristics and productivity as in the following:

1. Indonesian language has five infixes, they are, -em-, -en-, -in-, -el-, -er-, Kridaklaksana (1996: 62 and 76).
2. Toba Batak language has four infixes, they are, -in-, -um-, -ar-, -al-, Sinaga (2002: 67).

1.2 The Problems of the Study

There are four problems in this study, they are:

1. What types of affixes, reduplications, and compositions are found in morphological system of Toba Batak language?
2. How are the processes and rules of morphophonology in morphological system of Toba Batak language?
3. How are morphemic productivity in morphological system of Toba Batak language?
4. How are the patterns of potential words in morphological system of Toba Batak language?

1.3 The Objectives of the Study

Particularly, this study aims to find the answers to the four questions above, they are:

1. To study the types of affixes, reduplications, and compositions in morphological system of Toba Batak language.
2. To elaborate the processes and rules of morphophonology in morphological system of Toba Batak language.
3. To elaborate morphemic productivity in morphological system of Toba Batak language.
4. To elaborate the patterns of potential words in morphological system of Toba Batak language.

1.4 The Significances of the Study

Theoretically, this study has significances to: (1) give contributions to linguistic research, especially in the study of generative morphology, (2) give contributions toward the development of linguistics and all at once to enrich linguistic treasury particularly morphology of regional language, (3) give contribution toward formulation and decision of morphophonemic formation in morphological processes by applying the theory of generative morphology, (4) give contribution toward the use of morphophonemic rules in morphological construction in relation with parts of words and phrases.

Practically, the findings of this study signify: (1) to become reference in Toba Batak language standardization, (2) to give contribution toward the arranging of grammar of Toba Batak language generatively, because by using morphophonemic rules, word structure in Toba Batak language morphologically can be explained, and (3) to document library of regional language especially Toba Batak language both for young generation of Toba Batak society and for observers of Toba Batak language.

CHAPTER II

BASIC OPERATIONAL CONCEPT, THEORETICAL FRAME, AND THEORETICAL STUDY

2.1 Basic Operational Concept

The basic operational concept that will be discussed in the following parts are transformation and generative that consist of (1) morphology, (2) morpheme, (3) words, and (4) morphophonemic. Morphologically, transformation refers to transformational rules and morphophonemic rules. According to Chomsky (1965) in Badudu (2005: 25) generative transformational grammar is a theory of competency. The principles behind these theories are the theory of competency and performance, and the theory of deep structure and surface structure. Jacobs (1968: 17) states that although surface structure of two sentences are different, the sentences have the same deep structure.

2.1.1 Morphology

Matthews (1974: 3); Katamba (1994: 1); Crystal (1989: 90) define morphology as a branch of linguistic that studies word forms in different constructions. For example, the word *mangido* 'beg' in Toba Batak language consists of morphemes *ido* + *maN*- where *ido* is as a stem and *maN* is as a prefix. Another example, the word *mamolusi* 'go through' consists of three morphemes they are *bolus* + *ma-i*. *Bolus* is a base, and *ma-i* is a confix.

2.1.2 Morpheme

Nida (1962 : 1); Kridaklaksana (1983: 110) define morpheme as the smallest meaningful unit. It can be as word called free morpheme or parts of words called

bound morpheme. For example, in English *un-*, *ish*, and *-ly* are bound morphemes in *unlock*, *childish*, and *lovely*.

In other concept, Bloomfield (1933: 161) states that morpheme is a language form that is not similar to other form both the sound and the meaning. For instance, in Indonesian language the word *pelindung* ‘protector’ does not consist of one morpheme because *pe-* has similarity to *pe-* in other word like word *pelari*. However, if the word *pelindung* and *pelari* are cut into *pe-* and *lindung* and *lari* each of them does not have similarities.

2.1.3 Words

Katamba (1994: 17-19) states that words are realized in physical forms of lexeme in an utterance or written form. For example, in English the words *see*, *sees*, *seeing*, *saw* and *seen* are physical forms realized by lexeme SEE.

2.1.4 Morphophonemic

Katamba (1994: 34) states that morphophonemic studies phenomenon that includes morphological and phonological studies. Chaer (2007: 195-196); Kridalaksana, 1996: 27) states that morphophonemic is a process of changing morpheme either in affixation process, reduplication process, compounding process, acronym process, and conversion process.

According to Halle’s model theory (1973), morphophonemic in generative morphology paradigm consists of four components, they are (1) lists of morphemes, (2) word formation rules), (3) filter, and (4) dictionary. Procedures of Halle’s model as in Scalise (1984: 31) about word formation process can be seen in the following:

**Diagram 1: Procedures of Word Formation,
Halle's Model in Scalise (1984: 31)**

- (1) The word *friend* ends up in the Dictionary as it is. The word *friend* passes unchanged through the WFR's and the Filter. However, the word *friend* must be included in the List of Morphemes, since it is needed for the creation of other words, such as *friend*, *unfriendly*.
- (2) The word *boyhood* is not in the List of Morphemes. These two elements are combined by the WFR's and the output, *boyhood*, goes on to the Dictionary without acquiring any idiosyncratic features. The change of feature [-abstract] of the base *boy* to [+abstract] of the output *boyhood* is carried out by the WFR's.
- (3) The word *recital* is formed regularly by the WFR's, as is *boyhood*. Before *recital* arrives to the Dictionary, however, the Filter assigns it certain idiosyncratic features with regard to meaning (i.e. "performance of a soloist")
- (4) The word *ignoration* is formed by the WFR's, but it is blocked by the Filter, which

assigns it the feature [-Lexical Insertion]. That is, the word *ignoration* is considered a “possible” but “non-existence” word, and thus is not listed in the Dictionary. Lipka (1975: 180) suggested that the concept of Lexical Insertion should be supplemented or replaced by the notion of MORPHEMIC INSERTION.

- (5) The word *mountainal* is not formed by the WFR’s, since *-al* is attached by rule to verbs (for instance, *refuse/refusal*, *approve/approval*) not to nouns. *Mountainal* is both a “non-existent” and an “impossible” word.

2.1.4.1 Lists of Morphemes

In Lists of Morphemes, there are two types of morphemes found, they are root and affixes, both inflectional and derivational affixes. Root can be divided into two parts, they are, base and stem. All roots are grouped into major lexical category, such as, Noun, Verb, Adjective, Adverb, and Number. Stem consists of affixes, such as, prefixes, infixes, and suffixes. All stems and affixes are listed in Lists of Morphemes using labelled brackets along with their categories. For example, in Indonesian language [*buku*] N, [*belajar*] V, [*senang*] Adj, [*depan*] Adv, [*lima*] Num, [*me-*] prefix, [*-er-*] infix, dan [*-kan*] suffix. In Toba Batak language, for example, [*timbo*] Adj, [*jangkit*] V, [*sada*] Num, [*-on*] suffix, [*di*] Adv, [*-um-*] infix.

2.1.4.2 Word Formation Rules

In Word Formation Rules, the formation to form noun, verb, adjective, adverb, and number are formulated. Each formation must be with its meaning. A theory of word formation must include an explanation of the fact that lexical items differ semantically from the sum of their components (Lipka, 1975: 179). For instance, in

Indonesian language, the word *penggambar* is formulated as [[pɔŋ-] pref + [X]V]N. The formation is read as noun that can be formulated by adding prefix [pɔŋ-] to the root (V=X). Therefore, it means person or tool to do X. Other examples of adding prefix /pɔŋ-/ to the root *datang*, *tantang*, *babat*, *pancing* are described in the following:

*[# [pɔŋ-] pref + [datan] Vp#]N

*[# [pɔŋ-] pref + [babat] Vp#]N

*[# [pɔŋ-] pref + [pancin] Vp#]N

If the form of the above words are actual words or well-formed, they go directly to dictionary. Those words which are not actual words or ill-formed must be processed in filter.

2.1.4.3 Filter

As it has been mentioned above that deep structure that can be accepted as actual word will go directly to dictionary and those which are not actual words must be put into filter because they must undergo morphological process such as assimilation or nasal deletion. The morphological formation are as follows:

1 (a). The assimilation formation of nasal velar /ŋ/ is:

CONSONANT	CONSONANT	CONSONANT
$\left\{ \begin{array}{l} + \text{nasal} \\ - \text{anterior} \\ - \text{coronal} \end{array} \right\}$	$\rightarrow$	$\left\{ \begin{array}{l} \text{anterior} \\ \text{coronal} \end{array} \right\}$
	/----	$\left\{ \begin{array}{l} \text{anterior} \\ \text{coronal} \end{array} \right\}$

This formation means that nasal /ŋ/ of which the features are [+ nasal, - anterior, - coronal] is assimilated, therefore, the phoneme is changed into consonantal with the same features such as [anterior] and [coronal] following it.

(b). The assimilation formation of the nasal /ŋ/ based on the above features are:

/ŋ/ = /ŋ/ before stop velar voiced /g/ as in *penggambar*

/ŋ/ → /n/ before stop alveolar voiced /d/ as in *pendatang*

/ŋ/ → /m/ before stop bilabial voiced /b/ and /p/ as in *pembabat* and *pemancing*

(c) The deletion formation of nasal velar /ŋ/ is:

$$\left\{ \begin{array}{l} \text{CONSONANT} \\ + \text{nasal} \\ - \text{anterior} \\ - \text{coronal} \end{array} \right\} \quad \emptyset / \text{-----} + \quad \text{CONSONANT} \quad \text{lateral}$$

This formation means that nasal /ŋ/ of which the features are [+ nasal, - anterior and – coronal] are deleted if the phoneme is followed by verb preceded by lateral /l/ as in the word *pelari*. The deep structure is *[#[pɔŋ-] pref + [lari] V#]N.

3. After the formation of the Deep Structure (DS) is formulated, all Surface Structure (SS) achieved from the application of word formation rules especially those of the ill forms can be described as in the following.

*[#[pɔŋ-] pref + [datan] Vp#]N → [penɔdatan]

*[#[pɔŋ-] pref + [babat] Vp#]N → [pɔŋbabat]

*[#[pɔŋ-] pref + [pancin] Vp#] → [pɔŋpancin]

The deep structures such as the above are not allowed to go into the dictionary.

The structures must be processed under assimilation formation in order to be put into the dictionary and, therefore, the surface structure is obtained as in the following:

DS	:	*[#[pɔŋ-] pref + [datan] Vp#]N	→	*[penɔdatan]
ASSIMILATION /ŋ/:	:	*[#[pɔn-] pref + [datan] Vp#]N	→	[pendatan]
SS	:	pendatang		
DS	:	*[#[pɔŋ-] pref + [babat] Vp#]N	→	*[pɔŋbabat]
ASSIMILATION	:	*[#[pɔm-] pref + [babat] Vp#]N	→	[pɔmbabat]
SS	:	pembabat		
DS	:	*[#[pɔŋ-] pref + [pancin] Vp#]	→	*[pɔŋpancin]
ASSIMILATION	:	*[#[pɔm-] pref + [pancin] Vp#]	→	[pɔmpancin]

SS : pemancing

2.1.4.4 Dictionary

The fourth component is dictionary as the last place to store real words. All actual words are stored in the dictionary, such as, roots, stems, bases, affixed words that have been formulated through word formation rules and which have gone through filter. All words in the dictionary come along with their meanings and features mentioned in the root of *pendatang*, that is, *datang* ‘come’ of which the features are:

+ alive

$$\left\{ \begin{array}{l} + \text{ human} \\ - \text{ abstract} \\ + \text{ count noun} \end{array} \right\}$$

2.2 Morphological Processes

Morphological processes are the processes of word formation to form new word. The central issues in this study are affixation, reduplication, and compounding. All of these elements are systematic to form new words. Systematic refers to the term regular pattern to form one meaningful and functional manifestation. In generative morphology paradigm, morphological processes consists of four components, they are: (1) List of Morphemes, (2) Word Formation Rules, (3) Filter, and (4) Dictionary.

2.3 Types of Rules and Patterns of Morphophonemic

The types of rules of morphophonemic can be seen in the form of (1) phoneme emergence , (2) phoneme deletion, (3) phoneme assimilation, and (4) phoneme change. The patterns of morphophonemic refer to transformational components, they are, (1) deep structure and (2) surface structure .

2.4 Morphemic Productivity

Productivity is one of the central mysteries of derivational morphology. The term productivity is widely used in studies of derivational morphology, and there is obviously some intuition behind the usage, but most of the discussion of it is rather vague. The more general a word formation process is, the more productive or the more generative it will be assumed to be (Katamba, 1993: 66). Productivity in morphophonemic process is meant to say whether or not word formation be done unlimited (Chaer, 2007: 193).

2.5 Potential Words

There are many words which a grammar can generate in a language which, accidentally and unsystematically, never appear. This very pervasive phenomenon cannot be handled in a morpheme-based grammar which does not posit an independent level of words. Of the few substantial words on morphology within generative grammar, generative morphology is designed to deal with exactly between potential and actual words. Potential word is considered a “possible” but “non-existent” word. Speakers are able not only to identify the meaningful units which words contain, but also to create new words (Katamba, 1993: 82).

2.6 Theoretical Frame

Theoretical frame that will be used in this study is based on the principles of generative transformational grammar, that is, theory of generative morphology and in some parts the theory is integrated with the theory of generative phonology with the reference to morphophonemic rules.

Diagram 2: Theoretical Frame of Toba Batak Language Research

Generative transformational grammar was born by the publishing of the book *Syntactic Structure* (1965) by Chomsky. The theory applied in the book is usually called classical transformational grammar because of the critics and suggestions headed to him. In 1965, Chomsky developed new *Transformational Generative Grammar*.

2.7 Theoretical Study

According to Halle the basic unit of lexeme consists of some categories, such as, stems, bases and affixes. Aronoff (1976) in his book *Word Formation in Generative Grammar* chooses words as the basic unit in word formation, because words have syntactic categorial information. For example, in Toba Batak language, stem that does not have syntactic categorial information like the word *kuling*. However, the stem *kuling* simultaneously can be formed into verb or noun depends on the affix attached, such as, *manghuling* (verb) ‘make or produce sound or talk’, *manghuling-huling* (verb) ‘make sounds repeatedly’, *panghulingi* (verb) ‘talk to...’, *mamanghulingi* (verb) ‘talk’, *panghuling* (noun) ‘the way we talk’. On the other hand, base such as the word *boan* ‘bring’ has got syntactic categorial information without the process of affixation.

2.8 Previous Studies

This previous studies are intended to know a number of research findings done by previous researchers in generative morphology in relation with this study. Zainuddin

(2012), *Sistem Morfologi Bahasa Gayo: Kajian Transformasi Generatif* applied the method of qualitative description. The findings show that the kinds and patterns of morphophonemics in Gayo language consists of four formulations and two patterns. The productivity of morphemic process in Gayo language covers affixes to form nouns, verbs, adjectives, and prefixes.

Nasution (2011), *Pembentukan Kata Bahasa Indonesia yang Berasal dari Bahasa Arab: Kajian Morfologi Generatif* used the method of qualitative description. The findings show that affixes to form verbs are /meN/, /-an/, /ber-/, /ter-/ /meN-kan/ dan meN-i/. Viewed from morphological typhology, word formulation in Indonesian language which derive from Arabic language belongs to mixed-typed.

Murdiyanto (2000), *Proses Pembentukan Bahasa Jawa: Sebuah Kajian Transformasi Generatif* uses generative transformation paradigm. This study has similarities to the one done by the writer. First, this study uses theoretical frame that is generative transformation theory. Besides, this study is based on the study of word formation through affixation and reduplication processes. The difference is that Murdiyanto does not discuss compounding.

Sukri (2008), *Sistem Morfologi Bahasa Sasak: Kajian Transformasi Generatif* has similarity as well, that is, this study uses generative transformation theory proposed by Halle (1973) and Aronoff (1981). Besides, this study focuses on morphophonemic processes like affixation, reduplication and compounding.

CHAPTER III

THE METHODS OF THE STUDY

3.1 The Method of the Study

The method applied in this study is qualitative descriptive method, that is, a method of study to describe language phenomena naturally. Systematically, the steps that will be done in this research are as follows:

Diagram 3: Chart of Toba Batak Language Study

3.2 The Locations of the Research

This research will be done in four regencies in North Sumatra, they are, Samosir Regency, Toba Samosir Regency, Humbang Hasundutan Regency, and North Tapanuli Regency.

3.3 Sources of the Data

There are three types of data that will be collected in this study, they are: (1) oral, (2) written, and (3) intuition. Oral data will be collected by observing, interviewing, listening attentively, and chatting with the informants. Written data will be originated from story books and bible in Toba Batak language. Intuition data will be based on the writer's intuition because the writer is a native Toba Batak language speaker.

3.4 Data Selection, Data Classification, and the Method of Data Analysis

The data will be selected to make the researcher easier to analyze them. Besides, the data will be classified in order to be easier to answer the problems of the study. The data will be analyzed using equal and distributional methods.

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