

## Phonotactics in the Syllables of Batak Toba Dialect

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### Abstract

*The title of this journal was "Phonotactics in the Syllables of Batak Toba dialect" which studied syllables, vocal row and consonant row. The background of this study was by imitating one's utterance in a written form and pronunciation in basic words. The objective was to determine the syllable structure, vowel row, and consonant row. Its benefit was that it could be used as teaching materials at senior high schools and colleges, especially in of Bataknese literature study program. It could also be used as the contribution to the development of the National Literature. The research used linguistic descriptive theory, library research, observton, and interviews. The result of the research showed that there were 7 (seven) types of syllable in the Batak Toba dialect: 1) word which consisted of one syllable, 2) word which consisted of two syllables, 3) word which consisted of three syllables, 4) word which consisted of four syllables, 5) word which consisted of five syllables, 6) word which consisted of six syllables, and 7) word which consisted of seven syllables. Nucleus (a, i, u, e, o), Onset (b, d, j, g, p, t, k, m, n, η, s, h, l, r), Code (p, t, k, m, n, η, s, l, r). Syllables based on vowel row were /-ao-/ and /-uae-/ and consonant row were /-rs-/ and /-nd-/.*

### Keywords

syllable, vowel row, consonant row



## I. Introduction

Identity is a form of self-reflection or self-reflection that comes from family, gender, culture, ethnicity and socialization process (Nurwani et al, 2020). Harmonization refers to harmony in the lives of people who live in a place but are from various ethnic groups, tribes, clans and different religions (Muda and Surhayanto, 2020). Indonesia consists of many ethnicities, each of which has its own characteristics, either in language or in culture. In doing communication with other people, one should use his own language because a local language or dialect constitutes the symbol of sound which comes from human utterance. Various dialects in Indonesia can be distinguished from Indonesian as a national and official language which binds and unites all Indonesian people. In this case, the dialect is the Batak Toba dialect which syllables in words are studied.

The main objective of the development and the conservation of dialects is to enrich the Indonesian language, especially in its vocabulary in the form of words. By knowing a local language or dialect, we can know various kinds of important factors in people's speech. The fostering and the development of dialects can be done by linguists seriously through beneficial researches. According to Tideman in Saragih, et al (2019) that Batak ethnic ancestors came from the South Indian region. The study on Batak Toba dialect was focused on the pattern and the structure of syllables which are the findings in the utterance of Batak Toba dialect. A syllable or *silaba* is a sequence of segmental phonemes consisting of one or more vowels that can be preceded or followed by a consonant. The vowel can stand alone which is the center or peak called the abbreviated Nucleus (N). The consonant that precedes the Nucleus is called the pedestal or abbreviated Onset (O), and the

consonant that follows it is called the tail or abbreviated Koda (K). The terms Koda (C), Nucleus (N) and Onset (O) (Hartmann and Stork (1972: 39, 155,158). From the above terms, this journal contains opinions from Lyons, O'Grady, and Hawkins having the same view of in terms of the distribution of phonemes, syllables, vowel series and consonant series, phonotactics discuss the constraints of series, whereas Lyons on phoneme distribution. Phonotactic concepts with syllables (Abdul Chaer, 1994: 124) and O 'Grady.

## II. Review of Literature

The structure of syllables is the sequence of segmental phoneme which consists of at least a vowel followed by a consonant or preceded by one, two, and three consonants as they are explained below:

A syllable is the sequence of segmental phonemes which consist of one vowel; this vowel can be preceded and followed by a consonant. The vowel can stand by itself and has high frequency as the center or the peak which is called Nucleus, abbreviated as N. This nucleus is squeezed out by consonants which have low frequency. A consonant preceded by Nucleus is called Onset, abbreviated as O, and the consonant which follows is called Coda, abbreviated as C (Abdul Chaer, 1994: 124).

The characteristics of syllable in Batak Toba dialect are

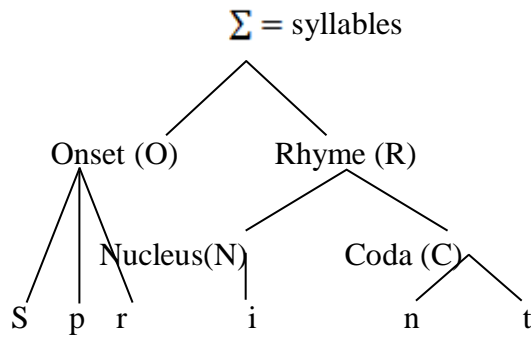
1. Word, minimum of one syllable and maximum of 5 syllables;
2. The syllable is called Nucleus, Nucleus + Coda, Onset + Nucleus, Onset, Nucleus + Coda;
3. Nucleus: a, i, u, e, o
4. Onset: b,d,j,g,p,t,k,m,n,η,s,h,l,r
5. Coda: p,t,k,m,n,η,s,l,r

Phonotactic is generally known as the study of the order of sounds in combination (Hawkins (1984: 61).

Phonotactic is a procedure of finding and determining the procedure sequence and connecting phonemes in a language based on distribution (beginning, middle, and end of the word) so that what is discussed in phonotactics is the pattern of sound sequences. Fromkin and Rodman, (1993: 231) said that the constraints of a series of segments are called the phonotactic boundaries of that language. If we check English phonotactics, we find that the phonotactic of a word is basically based on syllable phonotactic. That is, only a consonant group that begin with a syllable starting with a word, and only a consonant group that can end a syllable can end a word. Hyman, (1975: 10) said that there are also segmental boundaries which characterize phonetic levels which refer to phonetic segmental boundaries, where such boundaries are called segmental boundaries and in addition to segmental boundaries, there are also phonotactic boundaries (sequential constraints) and which can allude to a phonetic level or a phonological level, or both.

If we discuss the problem of phonological phonotactic boundaries and phonetic constraints, it means that in both levels, there are limits on how segments (sounds) can be combined sequentially. This can be mean that words or syllables can only start with certain segments or certain segments cannot occur before or after other segments (sounds). O'Grady, and friends (1989: 76-77) said that phonotactic is a set of constraints on how the pattern of rows of sounds is form, forming part of the phonological abilities and knowledge possessed by speakers of that language. Syllables consist of two phonetic parts, such as: 1. The consonant before the vowel is called Onset (O), 2. Rhyme (R). Rhyme consists of two parts, such as: a. Inti (Nucleus) or 'Peak' Hyman (1975: 188), b. Consonants that follow the vowel are called coda.

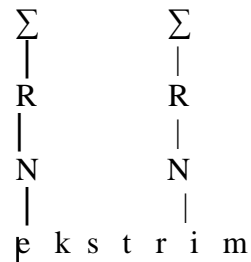
Example:



Describing the books in two or more syllables in the Toba Batak dialect is guided by the four steps of the opinion of O'Grady, and others (1989: 79-80) said:

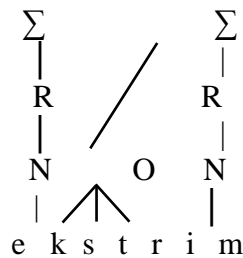
The first step, because the syllable nucleus is a mandatory constituent of a syllable, then the syllable nucleus is first determined in each tribe which is usually vocal, and on top of each nucleus symbol (N) is placed Rhyme (R) , and above each Rhyme (R) is placed the sigma symbol (Σ) for the syllable delimiter.

Example:



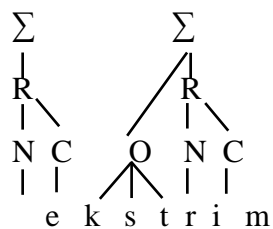
The second step, the longest consonant row to the left of each nucleus (N) that does not violate the phonotactic boundaries of a language is called the onset (O) of the syllable.

Example:



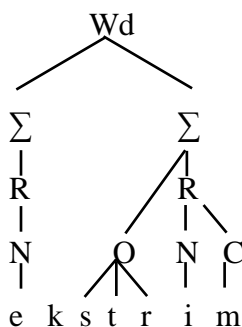
The third step, this means that each remaining consonant to the right of each (N) forms a coda (C). This coda is combined with the syllable nucleus to the left of the rhyme (R). Syllables that end with coda (C) in this case are called closed syllables.

Example:



The fourth step, connect the two syllables to form the word (Wd),

Example:



he barriers of integrating some language sounds in one language are not necessarily obstacles for other languages, and in this case researchers are more like to follow O'Grady, and friends.

### Vowel Sequences

Vowel sequences are two or more parallel vowels found in different syllables when pronounced as given from the definition of vowel series quoted from some linguist opinions below:

Aminoedin, and friends (1984: 140) said "vowel series are two or more vowels in line, but each is the peak of loudness of speech. It means different tribe. Alwi, and friends (1998: 52) said "vowel series is the same or almost the same breath, both vowels are included in different syllables." Example: series / -ao- /, and / -ae- / in the word / taon / 'year' and / maen / 'cousin' is a vowel series because each consists of two syllables: [ta-on] and [ma-En]. From the theory, it can be concluded that the vowel sequence is the same or almost the same where both vowels are included in different syllables. Researchers also agree with (Alwi, et al 1998: 52) and (Aminoedin, and friends. 1984: 40) said that vowel series are two or more vowels in line but each is the peak of loudness of speech.

Example: The word *saok* 'fry' with a row /-ao-/ in the middle.

The word *nuaeng* 'now' with a row /-uae-/ and the word *saok* 'fry' with a row /-ao-/ in the middle of the word.

Consonant row is the combination of two consonants in different syllable although they are side by side as it is guided by the writer, Pulgram (1970:79) who says that the combination of two or more consonants occurs in different syllables although they are side by side which are called a row.

Example: The word *masarsar* "crumble" with a row /-rs-/ in the middle.

The word *bondut* "swallow" with a row /-nd-/ in the the middle.

### III. Research Methods

The research used descriptive linguistic approach. There were three parts of the strategic stages to get the data: 1) data gathering method, 2) data analysis method, and 3) method of presenting the result of the analysis or method of presenting the result of explaining the data. The stages were done because the gathering of the data was the first strategic stage in linguistics while the analysis of the data and the presentation of the result of the analysis consecutively were the second and the third strategic stages. It means that

when a linguist wants to do a research on a language, he has to begin strategic step in gathering certain data, analyze them, and present the result (Sudaryanto 1992:57).

The data from the three strategic stages were obtained from the native speakers of Batak Toba dialect in which the respondents were taken according to their location, social status, age, and experience.

#### IV. Discussion

Syllables in Batak Toba dialect consist of:

1. Word which consists on one syllable /i/ “that” vc
2. Word which consists on two syllables /saba/ “wet rice field” cv-cv
3. Word which consists on three syllables /nasida/ “they” cv-cv-cv
4. Word which consists on four syllables /hariara/ “banyan tree” cv-cv-v-cv
5. Word which consists on five syllables /simaremare/ “clan” cv-cv-cv-cv-cv
6. Word which consists on six syllables /sibualbuali/ “name of bus” cv-cv-vc-cv-v-cv
7. Word which consists on seven syllables /sisingamangaraja/ “name of a kingdom” cv-cv-ccv-cv-ccv-cv-cv

**Table 1.** Syllables in Batak Toba Dialect

Number of Syllables	Word	Sound	Syllable Structure	Meaning
1	/i/	[i]	vc	‘that’
1	/ho/	[ho]	cv	‘you’
2	/hail/	[ha-il]	cv-ck	‘fishhook’
3	/butuha/	[bu-tu-ha]	cv-cv-cv-cv	‘stomach’
4	/hariara/	[ha-ri-a-ra]	cv-cv-v-cv	‘banyan tree’
5	/simaremare/	[si-ma-re-ma-re]	cv-cv-cvcv-cv	‘clan’
6	/sibualbuali/	[si-bu-al-bu-a-li]	cv-cv-vc-cv-v-cv	‘name of bus’
7	/sisingamangaraja/	[si-si-nga-ma-nga-ra-ja]	cv-cv-cv-cv-cv-cv-cv	‘name of kingdom’

**Table 2.** Onset (Consonant) in Batak Toba Dialect

Onset (Consonant)	Word	Meaning
/b/	/bodat/ → [bodat]	‘monkey’
/d/	/deba/ → [deba]	‘a part’
/j/	/jongjong/ → [joŋjoŋ]	‘stand’
/g/	/piga/ → [piga]	‘how many’
/p/	/lompa/ → [lompa]	‘cook’
/t/	/taltal/ → [taltal]	‘chop’
/k/	/halak/ → [halak]	‘people’
/m/	/mangan/ → [maŋan]	‘eat’
/n/	/bondut/ → [bondut]	‘swallow’
/ŋ/	/ngangang/ → [ŋaŋaŋ]	‘open’
/s/	/sabe/ → [sabe]	‘chili’
/h/	/hosa/ → [hosa]	‘breath’
/l/	/lomo/ → [lomo]	‘like’
/r/	/rara/ → [rara]	‘red’

**Table 3.** Coda (Consonant) in Batak Toba Dialect

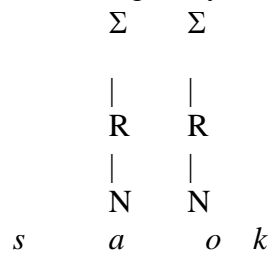
Onset (Consonant)	Word	Meaning
/p/	/salap/ → [salap]	‘salve’
/t/	/pat/ → [pat]	‘leg’
/k/	/lambok/ → [lambok]	‘soft’
/m/	/modom/ → [modom]	‘sleep’
/n/	/mangan/ → [maŋan]	‘eat’
/ŋ/	/tangkang/ → [taŋkaŋ]	‘tajat’
/s/	/malas/ → [malas]	‘lazy’
/l/	/bantal/ → [bantal]	‘pillow’
/r/	/garar/ → [garar]	‘pay’

### 4.1 Vowel Sequences

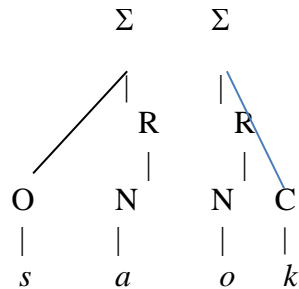
#### 1. Vowel sequence / -ao- /

There are 4 steps that must be follow in determining the structure of the wordtelling in the Toba Batak dialect. Example: *saok* ‘fried’

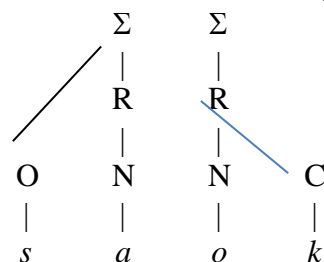
The first step, because the main syllable of the Toba dialect is a mandatory constituent of a syllable, then the syllable nucleus is first determined for each tribe that is usually vowel, and on top of each nucleus symbol (N) is placed Rhyme ( R), and above each Rhyme (R) is placed the sigma symbol (Σ) for the syllable delimiter.



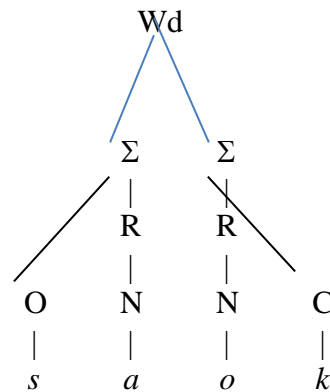
The second step, Onset before code: The longest consonant sequence to the left of each nucleus (N) that does not violate the phonotactic boundaries of a language is call the onset (O) of the syllable.



The third step, every consonant on the right side of each nucleus (N) forms a coda (C). Syllables ending in coda (C) in this case call closed syllables.



The fourth step, connect the two syllables to form words. (Wd)

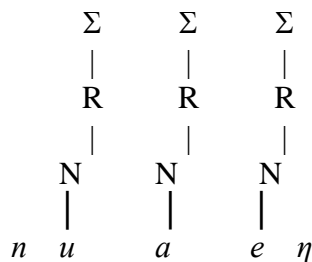


According to the steps above, bookkeeping from *naek* consists of two syllables, such as *sa-ok*.

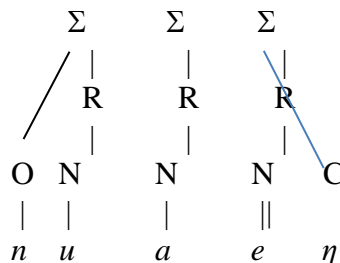
## 2. Vowel sequence /-uae-/

There are 4 steps must be follow in the structure of the wordtelling in the Toba Batak dialect. Example: *nuaeng* ‘now’

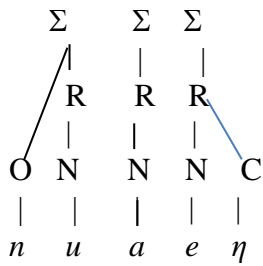
The first step, because the main syllable of the Toba dialect is a must constituent of a syllable, then the syllable nucleus is first determined for each tribe that is usually vocal, and on top of each nucleus symbol (N) is placed Rhyme ( R), and above each Rhyme (R) is placed the sigma symbol (Σ) for the syllable delimiter.



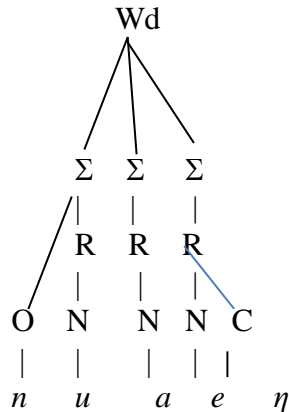
The second step, onset before coda: The longest consonant sequence to the left of each nucleus (N) does not violate the phonotactic boundaries of a language is call the onset (O) of the syllable.



The third step, every consonant on the right side of each nucleus (N) forms a coda (C).This coda is combined with the syllable ucleus to the left of the rhyme (R). The end syllables with coda (C) in this case are call closed syllables.



The fourth step, connect the two syllables to form words(Wd)



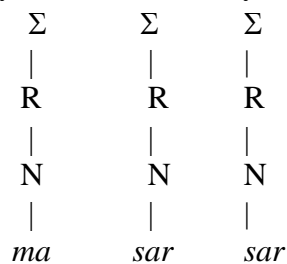
According to the steps above, bookkeeping from *nuaeng* ‘now’ consist of three syllables, such as: *nu-a-eng*

## 4.2 Consonant Sequence

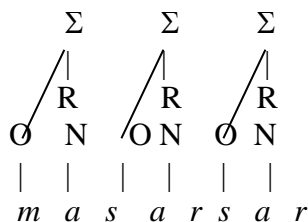
### 1. Consonant sequence /-rs-/

There are 4 steps must be follow in structure of the word telling in the Toba Batak language. Example: *masarsar* ‘destroyed’

The first step, because the main syllable of the Toba dialect is a must constituent of a syllable, then the syllable nucleus is first determined for each tribe that is usually vocal, and on top of each nucleus symbol (N) is placed Rhyme ( R ), and above each Rhyme ( R ) is placed the sigma symbol (  $\Sigma$  ) for the syllable delimiter.

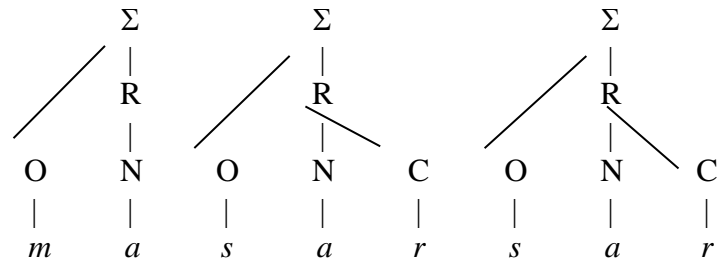


The second step, onset before coda: The longest consonant sequence to the left of each nucleus (N) does not violate the phonotactic boundaries of a language is call the onset (O) of the syllable.

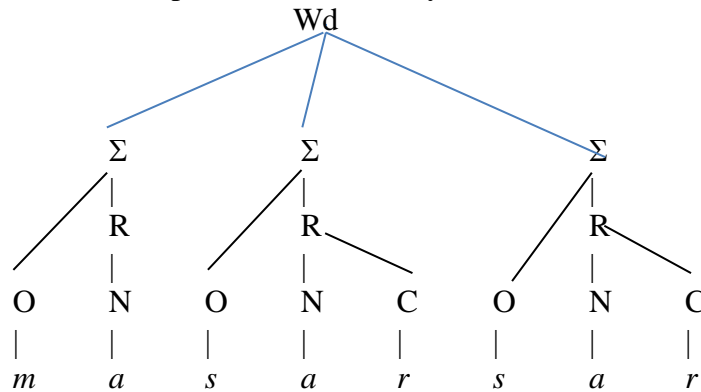




The third step, every consonant on the left of each nucleus (N) form coda (C). This coda is combined with the syllable to the left of the rhyme (R). The syllable ending with coda (C) in this case is call a closed syllable.



The fourth step, connect the two syllables to form words (Wd).

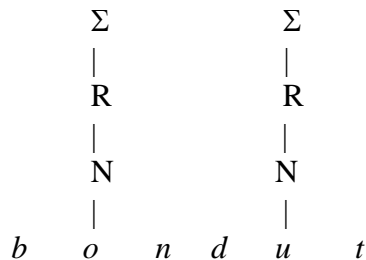


According to the steps above, bookkeeping from the *maklukluk* 'curly' consist of 3 syllables, such as: *ma-sar-sar*.

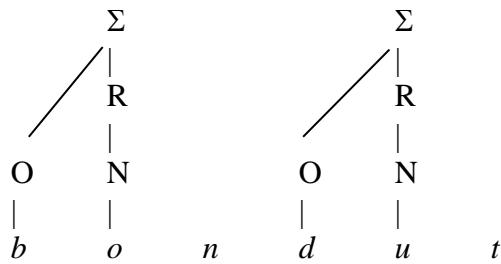
## 2. Consonant sequence /-nd-/

There are 4 steps must be follow in the structure of the wordtelling in the Toba Batak language. Example: *bondut* 'swallow'

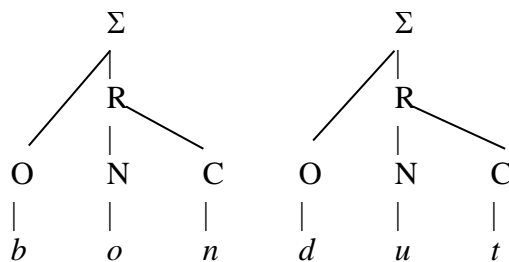
The first step, because the main syllable of the Toba language is a must constituent of a syllable, then the syllable nucleus is first determined for each tribe that is usually vocal, and on top of each nucleus symbol (N) is placed Rhyme ( R), and above each Rhyme (R) is placed the sigma symbol (Σ) for the syllable delimiter.



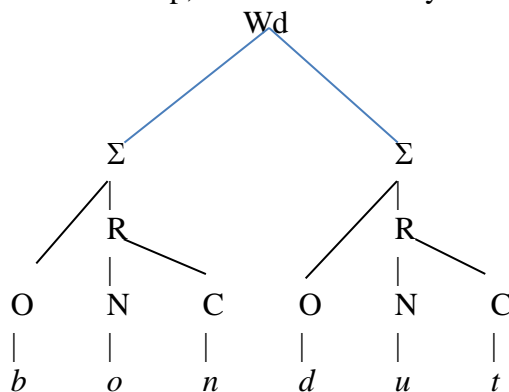
The second step, onset before coda: The longest consonant sequence to the left of each nucleus (N) does not violate the phonotactic boundaries of a language is call the onset (O) of the syllable.



The third step, every consonant on the left of each nucleus (N) form coda (C). This coda is combined with the syllable to the left of the rhyme (R). The syllable ending with coda (C) in this case is call a closed syllable.



The fourth step, connect the two syllables to form words (Wd).



According to the steps above, bookkeeping from telan‘swallow’ consist of two swallow, such as: *bon-dut*.

## V. Conclusion

The form of syllables in Batak Toba dialect consists of 3 parts: Nucleus (N), Coda (C), and Onset (O).

Examples: Nucleus: a, i, u, e, o

Onset: b,d,j,g,p,t,k,m,n,η,s,h,l,r

Coda: p,t,k,m,n,η,s,l,r.

The structure of syllables is : cv, cv-cv, cv-cv-cv, cv-cv-v-cv, cv- cv-cv-cv-cv, cv-cv-cv-cv-cv, cv-cv-ccv-cv-ccv-cv-cv. Meanwhile, the other syllable strutures are:

1. Vowel row in the middle of a word in this research: /-ao-/, /-aoa-/.
2. Consonant row in the middle of a word in this research:
  - a) Consonat row which begins with the sound /n/ is /-nd-/.
  - b) Consonat row which begins with the sound /r/ is /-rd-/.

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