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Batak Toba Language Analysis (Phonological Point of View)

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Abstract. Abstract Batak people speak a variety of closely related languages. The reason why the writers analyze Batak language is because the language is unique. The purpose is to find out the phonological similarities and differences between English and Batak Toba language also to conduct the premises of analyzing Batak Toba language to find out the existing and non-existing consonant and vowel sounds. The subject of the research is N.A.M. Silalahi. The subject acts as the primary data source. Secondary data is gained from books and internet articles. Batak Toba language is unique. The writers found out that for words with two syllables, if the end of the first syllable is a consonant, and the beginning of the second syllable is a consonant, the sound of the last consonant in the first syllable will be dropped; first second syllable will get more pressure in its pronunciation.

Keywords: batak toba, pronunciation, phonological similarities, consonant and vowel sounds

Introduction

Indonesia has many islands. There are certain communities which live in those islands and there are living languages in certain islands as well, spoken by the inhabitant of each island. One of the biggest islands is Sumatra. In the island, there are 49 living languages listed. There is a division living language used in that region, it is Batak. Batak has several subdivision; Batak Alas-Kluet, Batak Angkola, Batak Dairi, Batak Karo, Batak Mandailing, Batak Simalungun and Batak Toba. Batak Toba is a language used in Samosir Island and east, south, and west of Toba Lake in north Sumatra. Alternate names: Toba Batak, Batta. Dialects: Close Angkola Batak. Classification: Austronesian, Malayo-Polynesian, Sumatra, Batak, Southern. Language is an attractive science to analyze. Batak speak a variety of closely related languages, all members of the Austroneisan language family. There are two major branches, a northern branch comprising the Dairi, Alas-Kluet and Karo languages that are similar to each other but distinctly different from the languages of the southern branch comprising three mutually intelligible dialects: Toba, Angkola and Mandailing. Simalungun is an early offspring of the southern branch. Some Simalungun dialects can be understood by speakers of Batak Karowhereas other dialects of Simalungun can be understood by speakers of Toba. This is due to the existence of a linguistic continuum that often blurs the lines between the Batak dialects. The reasons why the writers want to analyze Batak language is because the language is unique and different from the native language spoken by the writer. Batak language exists in every part of island in Indonesia. Batak tribe communities spread all over Indonesia and people can meet Batak people talking in Batak language almost in every area of Indonesia.

Purpose

The purpose of this writing is to find out the phonological similarities and differences between English language and Batak Toba language. The second purpose of this writing is to conduct the premises of analyzing the Batak Toba language to find out the existing and non-existing consonant and vowel sounds in Batak Toba language

Data Source

Data Classification

According to Marzuki, data and information can be categorized based on the source; primary and secondary data source.

a. Primary Data

Primary data is gained first hand directly from the source; observed, and taken note for the first time. In this small research, the primary data source is gained from a native speaker of Batak Toba language. The subject of the research is named Netha Asy Miranda Silalahi, born and grew up in an area near Toba Lake. Then after graduating from high school the subject move to Bandung and Jakarta to work and study. In 2003 the subject moved to Semarang to work as a chemical engineer in a state-owned company.

b. Secondary Data

Secondary data is gained from a source other than the primary data source. It could be from a research result of other writers, statistic data from government office, books, reviews and many other sources. In this writing, the writer used books, and internet articles as the secondary data for the research.

d. Method of Data Collection

Common methods of data collection in research are: observation, interview and questionnaire (Sugiyono, 2002)

1. Interview

An interview is used to gain first hand data from the main source. An interview is a communication between two parties to get necessary information. In this writing, the writers interviewed the native speaker of Batak Toba language. The writers show the list of Indonesian words, and then asked the person to pronounce the words in Batak Language. The interview took about two hours to complete. Because the source is only one person, it didn't take a long time to finish. In this small research, method of data collection is interview in the beginning of the research to obtain necessary data.

Here are the steps conducted by the writers to obtain the data:

- 1. Make the list of Indonesian words
- 2. Voice recording with a native speaker of Batak Toba language.
- 3. Compare the words with Batak language
- 4. Make the phonetic transcription of the Batak Toba sounds from the recording
- 5. Premises analysis. This step is taken to find out the consonants and vowels in Batak Toba language

Phonetic Analysis Phonetic Theory Phonetics (from the Greek: φωνή, phōnē, "sound, voice") is the subfield of linguistics that comprises the study of the physical sounds of human speech. It is concerned with the physical properties of speech sounds (phones), and the processes of their physiological production, auditory reception, and neurophysiologic perception. http://en.wikipedia.org/wiki/Phonetic

i. Vowel

A vowel is a type of sound that comes out of the mouth without closing the throat or mouth at any point when the vowel occurs. Vowels can be contrasted with consonants. A consonant is a sound with one or more points where the air stops. In almost all languages, words must contain at least one vowel. Like I and way in English, words can be formed without consonants, but words without a cannot consist of only consonants. vowel. http://www.wisegeek.com/what-is-a-vowel.htm.

		Front	Central	Back
High	Tense	i (beat)		u (boot)
	Lax	I (bit)		V (book)
Mid	Tense	e (bait)		O (boat)
	Т		↑ (but)	
	Lax	€ (bet)	\varTheta (about)	o (paw)*
Low		CO (forth)		C (nat)
7000		æ (bat)		a (pot)

Diphthongs

[ai] bite

[au] cow

[oi] boy

Figure 1: English vowels

Here are the list of English vowels:

Sound

/i/ leak		keen	peat	beet	bee	
/I/ lick	lit	kin	pit	bit		
/ey/	lake	late	cane		bait	bay
/e/	1et	Ken	pet	bet		
"ae"	lack		can	pat	bet	baa
"ah"	lock		con	pot	bough	t
"uh"	luck			putt	but	

```
"oo"
           look
                                 put
/u/ Luke
           lute
                   coon
                                 boot
                                         boo
"er"
           lurk
                          Kern pert
                                         Bert
                                                burr
/o/
                   cone
                                 boat
                                         Bo
/ai/ like
                  kine
                                 bite
                                         by
/au/
                  lout
                                 pout
                                         bout
                                                bough
/oi/
                   coin
                                         boy
```

Some Generalizations (Not Rules) about English vowels and spelling. English vowels have "long" and "short" forms. The long form is the "name" of the letter: The short form is as follows:

A /ey/

E /i/

I /ai/

O /o/ or /ou/

U /u/ or /yu/

A "ae"

E i/I/

O "ah"

u "uh"

Long vowels are usually (but not always) indicated by a second (silent) vowel in the same syllable:

```
sheep
         bait
               heat
                      loaf
                             like
                                                           juice hoe
                                    mice
                                           tune
                                                  реасе
jay
        slow
               pony
(Sometimes "y" and "w" can function as a second vowel.)
Short vowels usually stand alone within a syllable and are often followed by
"double" consonants:
                        doll
                                      tick
                                             lamb witch fast hint
ran
          jet
                 cup
                               kiss
```

Consonants

In articulatory phonetics, a consonant is a speech sound that is articulated with complete or partial closure of the upper vocal tract, the upper vocal tract being defined as that part of the vocal tract that lies above the larynx. Consonants contrast with vowels. http://en.wikipedia.org/wiki/Consonant

Chart of English Consonants

(Sample words are given below the symbol with the relevant sound)

	Place of Articulation									
MANNER		Labial	Labiodental	Inter dental	Alveolar	Alveo-palatal	V e1ar	G1otta1		
Stop	voiceless	р			t		k	Ŷ		
		pill			till		kill	uh-oh		
	voiced	b			d		g			
		bi11			di 11		gi11			
F1ap/Tap	voiceless				r					
					butter					
Fricative	voiceless		f	θ	8	š/ S		h		
			fine	thin	ship	pressure		hi11		
	voiced		v	ð	z	ž/z				
			vine	then	zip	pleasure				
Affricate	voiceless					č/tʃ				
						choke				
	voiced					j/dz				
						joke				
N asal	voiced	m			n		ŋ			
		simme	er		sinner		singe	r		
Approximant	voiced	W			r	У				
		wore			roar	your				
Lateral	voiced				1					
					1ore					

Figure 2: English consonants

http://www.umanitoba.ca/faculties/arts/linguistics/russell/138/sec1/cons.htm

Phonemic Theory

A phoneme is the smallest contrasting unit in a language's phonetic system. Phonemes make sounds different, but only in one place. It usually occurs in minimal pairs like the /r/ and /l/ phonemes.

rest in peace lip

The sounds [r] and [l] are contrasting in the same environment and are considered distinct phonemes. The phonemes /r/ and /l/ are used to distinguish between the word rip and the word lip.

Identical contrast is the difference between two phonetically similar segments that occur in two distinct words and have the same adjacent phone. Segments are separate phonemes if neither segment is altered or affected by its environment. Segments [1] and [r] are symmetrical in identical environments for the following minimal pairs:

[lip]

[rest in peace]

This means that /l/ and /r/ are separate phonemes. Phonetically similar segments are two or more sounds that share phonetic characteristics and are often seen as variants of a single phonological unit within a language. Below is a table showing examples of phonetically similar segments and the differences between specific segments (Rensch, 1991). Examples:

The phonetically	Differ in
similar segments	
[p] and [b]	Voicing.
[p] and [f]	Place of articulation and manner of articulation.
[l] and [r]	Manner of articulation.
[p] and [t]	Place of articulation.

Tabel 1: Phonetic differences

Contrast in analogous environments is the difference between two phonetically similar segments that occur in two separate words and have similar adjacent sounds. If neither segment has been modified or affected by its environment, the segments are separate phonemes. (Kaiwa, Brazil) The segments [p] and [b] contrast in analogous environments in the following words:

[opa] 'It is finished'

[aba] 'place'

The implication is that /p/ and /b/ are separate phonemes. An environment is all the parts of an utterance that directly surround a given sound.

(http://www.ethnologue.com/ll docs/contents.asp)

Phoneme Identification

The list of words below is the words pronounced by the native speaker of Batak Toba language.

No	Vocabularies		Phonetic Transcription	Batak Toba Language
1	Jendela	:	[dCndɛla]	Jandela
2	Pintu	:	[pIntu]	Pintu
3	Lantai	:	[lat'aI]	Lantai
4	Piring	:	[pIrIŋ]	Piring
5	Gelas	:	[galas]	Golas
6	Sendok	:	[sɛndak]	Sendok
7	Wajan	:	[kualI]	Kuali
8	Kompor	:	[hp'r]	Hompor
9	Cobek + ulekan	:	[gIlIŋan]	Gilingan

10	Kursi	:	[hursI}	Hursi
11	Meja	:	[medCa]	Meja
12	Nampan	:	[nap'an]	Nampan
13	Pisau	:	[pIso]	Piso
14	Banta1	:	[bat'al]	Banta1
15	Guling		[gullŋ]	Guling
16	Selimut	:	[salImut]	Salimut
17	Tempat tidur	:	[podoman]	Podoman
18	Kaca	::	[hatCa]	Haca
19	Sisir		[sIsIr]	Sisir
20	Penghapus	:	[setIp]	Setip
21	Rambut		[obut]	Obut
22	Kepala	:	[ulu]	Ulu
23	Telinga	: .	[hupIŋ]	Huping
24	Mata		[mat'a]	Mata
25	Mulut	:	[bab'am]	Bambam
26	Gigi	:	[դ I դI]	Ngingi
27	Kumis		[humis]	Humis
28	Pergelangan tangan		[pargolaŋan taŋan]	Pargolangan tangan
29	Tangan	:	[taŋan]	Tangan
30	Jempo1	:	[dCəp'o1]	Jempo1
31	Dada	:	[dada]	Dada
32	Kaki		[pat]	Pat
33	Makan	:	[maŋan]	Mangan, mangalang
34	Tidur	:	[modom]	Modom
35	Bekerja	:	[karedCa]	Karejo
36	Duduk	:	[hud'ul]	Hundul
37	Melihat	:	[beren]	Bereng
38	Menatap	:	[tatap]	Tatap

39	Belajar	:	[marsiadCar]	Marsiajar
40	Berkedip	:	[hadlp]	Hodip
41	Kertas	:	[karotas]	Karotas
42	Arang	:	[agoŋ]	Agong
43	Sial	:	[agos]	Agos
44	Mengadopsi anak	:	[aIn]	Ain
45	Ya kan?	:	[aIŋ]	Aing
46	Harta benda		[arta']	Arta
47	Berbohong	:	[adCuk]	Ajuk
48	Percaya	:	[adCul]	Ajul
49	Bagan	:	[badCan]	Bajan
50	Anak bajang	:	[badCaŋ]	Bajang
51	Ayah	:	[amaŋ]	Amang
52	Ibu	:	[Inaŋ]	Inang
53	Kakak	:	[It @]	Ito
54	Adik	:	[It ❷]	Ito
55	Bungsu	:	[pudan]	Pudan
56	Sulung	:	[pardColo]	Parjolo
57	Kakak perempuan	:	[akaŋ boru]	Akang boru
58	Kakak laki-laki	:	[akaŋ bawa]	Akang bawa
59	Adik perempuan	:	[It @]	Ito
60	Adik laki-laki	:	[It @]	Ito
61	Kakek	:	[⊘ p'uŋ doli]	Ompung doli
62	Nenek	:	[⊘ p'uŋ baru]	Ompung boru
63	Paman	:	[tulaŋ/ uda]	Tulang/ uda
64	Bibi	:	[nantulaŋ/ naŋuda]	Nantulang/ nanguda
65	Pakde	:	[bapatua]	Bapatua
66	Budhe	:	[Inaŋ tua]	Inangtua/ matua
67	Sepupu	:	[ad s]/ [ɛda]/ [lae]	Eda/ ados/ lae

68	Keponakan	:	[bere]	Bere
69	Kakak ipar	:	[ɛda]	Eda
70	Adik ipar	:	[laɛ]	Lae
71	Ayah tiri	:	[ama panαronI]	Ama panoroni
72	Ibu tiri	:	[Ina panαronl]	Ina panoroni
73	Anak tiri	:	[anak panαronl]	Anak panoroni
74	Saudara tiri	:	[It ② panαronl]	Ito panoroni
75	Mandi	:	[marIdl]	Maridi
76	Meminta	:	[maŋIdo]	Mangido
77	Tidak terpelihara	:	[mllsopllsop]	Milsopilsop
78	Batin	:	[batIn]	Batin
79	Cerdik	:	[batIŋ]	Bating
80	Ingkar janji	:	[eŋkar]	Engkar
81	Pisau adap	:	[ek'at]	Engkat
82	Tertawa	:	[ek'el]	Engkel
83	Rambu-rambu	:	[hal 🗫	Halilit
84	Benar/ penuh	:	[tlk'os]	Tingkos
85	Dahulu/ atas	:	[gidZaŋ]	Ginjang
86	Pertengkaran	:	[bada]	Bada
87	Hadiah (yang buruk)	:	[gab'Ir]	Gambir
88	Lumpur	:	[gab'o]	Gambo
89	Compang-camping	:	[gad'al]	Gandal
90	Pipa besi	:	[gad'ar]	Gandar
91	Uang	:	[waŋ]	Wang
92	Goresan kayu/ anak tangga	:	[talha]	Talha
93	Tajam (pisau dl1)	:	[tadZm]	Tajom
94	Kata Seru (!)	:	[daba]	Daba
95	Perempuan	:	[dabo]	Dabo

From the list above, the writer did the preliminary procedures. First of all, a phonetic chart is created to define all the consonant and vowel sounds in Batak Toba language. These are the consonant sounds found in the list

		Place of Articulation									
Manner	В	Ld	D	Alv	Ps.Al	Pt	V	G			
Plosive Fricative	p, b	4	P	t,d	tC,	\supset	k.g	h			
Affricate				s							
Lateral		\cup	$^{\prime}$	\supset	1,r						
Nasal Sami	m		\geq	11	\supset	2					
Semi vowel	w										

The pairs of consonants that are phonetically similar are:

/p-b/

/t-d/

/tG-dG/

/k-g/

/1-1/

/m-n/

/n-♣/

The minimal pairs found on the list are:

[batIn] 'batin'

[batIŋ] 'cerdik'

[aIn] 'mengadopsi anak'

[aIn] 'ya kan?'

[agon] 'arang'

[agos] 'sial'

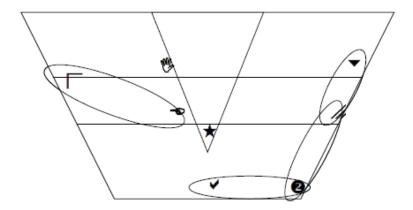
[eŋkar] 'ingkar janji'

[ek'at] 'pisau adat'

[gad'al] 'compang-camping'

[gad'ar] 'pipa besi'

After finishing the consonant segment, the writers continue to make the vowel segment as follows:



The pairs of consonants that are phonetically similar are:

In the list above, the writers did not find any words that are minimal pairs, especially for the vowels.

ii. Procedures → Separating

② For [n - ♣]

Environment: Identical

Evidence : [badCan] 'bagan'

[badCaŋ] 'anak bajang'

⑦ For [n - ♣]

Environment: Identical

Evidence : [aIn] 'mengadopsi anak'

[aln] 'ya kan?'

⑦ For [n - ♣]

Environment: Identical

Evidence : [batIn] 'batin'

[batIn] 'cerdik'

O For [1-r]

Environment: Identical

Evidence : [gad'al] 'compang-camping'

[gad'ar] 'pipa besin'

Preliminary → uniting Procedures

There are no uniting procedures found in this small research

Conclusion [12-bold]

Batak Toba is a very unique language. From the result of our small research, the writers found out that for words with two syllables, if the end of the first syllable is a consonant, and the beginning of the second syllable is also consonant, a unique thing occurs. The sound of the last consonant in the first syllable will be dropped, and the first second syllable will get more pressure in its pronunciation. It happened in several cases such as:

Lantai [lat'ai] Lantai

Kompor [hop'or] Hompor

Nampan [nap'an] Nampan

Bantal [bat'al] Bantal

Mulut [bab'am] Bambam

Jempol [djəp'ol] Jempol

Duduk [hud'ul] Hundul

Kakek [op'un doli] Ompung doli

Nenek [op'uη baru] Ompung boru

Hadiah [gab'Ir] Gambir

Lumpur [gab'o] Gambo

Compang-camping [gad'al] Gandal

Pipa besi [gad'ar] Gandar

Some words that have sound /e/ underwent phoneme transition due to the duration of staying in central java. It influences the pronunciation. Most batak people pronounce /e/ as /□/ but the subject in this small research has spent more than two years of staying in Semarang, so that her language is influenced by Javanese pronunciation.

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