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PHONOLOGICAL STUDY OF MANDAILING AND ANGKOLA LANGUAGES IN NORTH SUMATRA

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ABSTRACT

This research aims to describe and also explain the study of phonology in the Mandailing and Angkola languages of North Sumatra. A qualitative descriptive research method was used in research on the phonology of the Angkola and Mandailing languages. Scientific steps were carried out by collecting data by preparing a basic vocabulary from Morris Swadesh of 200 words. Then the observation step of the data obtained, the feasibility test of the data as well as the transcription and also the feasibility test became one of the steps carried out in the research. In data analysis, there are several steps such as data comparison, data analysis and also sound changes that occur from the presentation of the analysis results. The theoretical study that forms the basis of this research is a comparative historical linguistic study which forms the basis of Keraf (1996). From these data, several sound changes were obtained which had the form of metathesis, syncope, apocope, apheresis, prosthesis, and also paragog and epenthesis.
Keywords: Phonology, Mandailing Language, Angkola

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INTRODUCTION

Phonology is a linguistic study that examines speech sounds from human speech organs which are used as tools for everyday communication. The sound of the utterance is the formation of phonemes which are then arranged into a word and also a sentence. This phonology can be studied from 2 kinds of viewpoints. The first is speech sounds which are considered as mere language just like objects and substances. This is of course considered as the raw material of a word or sentence. And phonology with this raw view of sounds is called phonetics.

While the second is the sound of speech which has a view as a system in a grammar. The sound of the utterance is of course the smallest element of language which is part of the words and also the structure of the sentence which can function to distinguish the meaning in each word. According to Muslich (2008: 2) phonology which views sound as a structure in sentences as well as language is also called phonemic.

The sound of speech that comes out of the human mouth has an infinite or unlimited amount. The sound of these utterances has a different quality due to differences in human anatomy. And this sound can be categorized into a sound that has a shape with an obstructing air current in the human mouth. This is known as a consonant sound. And sounds that are not obstructed by air currents from the human mouth are referred to as vowels.

According to Alwi, et al (2003: 49-52) these vowels and consonants fall into the category of phonemes. And every language has those phonemes that make up a word. The difference, of course, is the number and shape of the phonemes in the language. Including the Angkola and Mandailing languages.

The Mandailing and Angkola languages are languages in North Sumatra. There are 6 languages spoken in the province of North Sumatra. The Angkola and Mandailing languages are one of the identities in the language sector for the Angkola and Mandailing tribes. Language has added value in the quality of human life. And of course in order to improve the quality of life, language must be preserved as one of the highest honors for one's culture and local wisdom.

In the current era, where information technology spreads quickly and without any filter, regional languages, especially Angkola and Mandailing, are facing quite critical times. This is because the regional language in North Sumatra has experienced a shift due to developments in technology and information.

Language itself has a dynamic nature. Practically making absorption words and also other things that influence and cause problems in speech sounds, making the language experience a shift. And the problem with speech sounds, of course, can be the use of different words and also the use of different phonemes. This can be seen by the use of speech sounds in ancient people and also today's young people. So there is a difference and there is also a shift in terms of language.

These parents or elders in North Sumatra still use the original vocabulary and speech of the Angkola and Mandailing languages. Meanwhile, the younger generation in North Sumatra already uses speech sounds from regional languages that have experienced a shift in language. Of course this is due to the times and the acculturation or mixing of the languages that entered North Sumatra with the regional languages of Angkola and Mandailing. This phenomenon is one aspect of conducting phonological research.

The phonology research of the Mandailing and Angkola languages has 3 phases consisting of phrase structure, transformation and also morphophonemic phases. These three phases have formulas that can be applied to the language so that results can be obtained in the form of a series of phonological segments in the phonetic structure, namely the utterances heard by humans. There are 3 parts that have an important role in the sound in the Mandailing and Angkola languages that can be observed. This part has a fairly regular arrangement in the sound structure of the language. This bottom part is the smallest unit in sound analysis which is also known as a distinctive feature that has its own purpose.

Distinctive features have a role to distinguish significant language sounds from sounds from other languages. Especially in languages that have a fairly close kinship side. While this middle section is called a segment in the distinctive features. Then the top part of the sound structure is sound analysis which consists of syllables and is formed from various segments based on Schane's research (1992: 9).

Treat this distinctive feature of linguistic phonology by treating it as the smallest unit in the phonological analysis. This is what distinguishes phonology from structural theory in which the phoneme is the smallest unit in the structure of language. Based on the narrative of Halle (1964), it is shown that the morphemes in this grammar have distinctive features that do not prioritize phoneme elements.

In the study of phonology, the concept of significance is related to the differences in segments at the phonetic level. Either it has a phonemic or allophonic character. Segments in this phonology have similarities in structural phonology with phonemes. The segments in this phonology are reduced and condensed into derivation and origin segments. And of course the Mandailing and Angkola languages must be studied more deeply in order to find out the phonological characteristics.

The phonological process has a fairly close relationship with generative grammar which will experience a phonological process in each language due to interactions with sounds as well as morphological and syntactical aspects. The phonological process is at the level of phrases as well as words. The process at the word level has 1 free morpheme unit and also a combination of other morphemes. And there will be changes due to the influence of sound on other morphemes.

This phonological study has a fairly complex description. A number of word sounds in the vocabulary of the Angkola and Mandailing languages can be revealed clearly and deeply through detailed phonological studies. Like a vocal segment that has variations due to the origin segment which also has derivation segments in it.

This phonological study of the Mandailing and Angkola languages aims to describe the vocal segments as well as the consonants in the Angkola and Mandailing languages. Then the distribution of vocal and consonant segments and the variations of the segments in them is one of the objectives of the study. The rules of sound changes and shifts in the Angkola and Mandailing languages are one of the objectives of this phonological study.

According to Gleason (1955: 9) that the phoneme is also called the smallest element of language with a function that is able to distinguish meaning and also meaning. This function enters into the study of structural phonology and also becomes a research that underlies a structure in the sound of a

language. This definition, of course, has segmental and suprasegmental sides that can distinguish the meaning of each word. And that is what is also called a phoneme.

Every sound of language can be a phoneme and have the same chance. However, not all language sounds will become phonemes. The sound, of course, must be tested to determine a phoneme. The names and characteristics of the phonemes, the character of the phonemes also come from the sounds of the language. Sometimes the number of phonemes is the same as the number of speech sounds, although it will be quite rare.

Phonological studies that put forward this generative side will put forward the distinctive features which are the smallest part in terms of differences in meaning. Not the phoneme that is the smallest part. This distinctive feature is a new development in terms of phonology whose job is to analyze the sounds of a language up to certain stages. This is to distinguish a phoneme from other words.

This theory aims to find features that can be used to accurately determine the sound differences of a language. And of course this theory can be used to distinguish one language from another. Roman Jakobson uses subphonemic particles that have been standardized and cannot be parsed back to carry out this theory. So that this theory can be used to find out the differences in every word, sentence in a language.

Speech sounds have a form that is built naturally and in the human speech apparatus. These sounds will form and group with sound classes according to human natural language. Like vowels, nasals, obstacles, liquids and fricatives. And each of these groups has a sound that presents different characteristics among the others. Pronunciation of sounds as well as attention to layout which is supported by the nature and quality of these sounds, then there are several characteristics that can be a marker of the differences in each of these sounds. And this distinctive feature can be the smallest element in the study of phonology.

Although a distinctive feature is considered as the smallest unit, it does not mean that the phoneme is ignored. Phonemes are still one of the aspects used in these theories and studies. The phoneme becomes a part above the distinctive features which will then be segmented so that each of these phonemes has features and distinguishing features from the distinctive features themselves. And phonemes can be in the same position as segment designations.

As previously mentioned that language has 2 sounds consisting of vowels and consonants based on the obstacles to the human speech organ. This vowel sound is a sound that is issued without any obstruction or narrowing in the vocal tract. Vowels are the sounds of a language in which there are no obstacles or obstacles to the flow of air. So it comes out freely. While the consonant sound itself is a sound that is produced due to a narrowing of the airflow in the human speech organ or vocal tract. The definition of vowel and consonant sounds is in accordance with the narrative from Alwi et al (2003: 49 – 52).

Vowels and consonants are categorized into 2 sounds which consist of segmental and suprasegmental sounds. The stream of speech is a sequence of sounds that continues continuously and also has a short or slightly longer pause in the presence of a loud, soft sound. Then the role of high and low sounds, length and short sounds and streams of speech that can be segmented. This is what is known as a segmental sound. However, according to Chaer (2007: 120), sounds related to long, short, loud, soft and also pauses cannot be segmented and are referred to as prosody or suprasegmental.

At the phonemic level, the characteristics of the suprasegmental or prosody such as the presence of stress, duration and tone have properties that can distinguish meaning and are also functional. The difference in the location of the stress in these two words shows a segmental element that can give a difference to the two meanings in the word. With the difference in the location of the emphasis on a word, it will certainly display segmental elements that cause the meanings of the two words to have differences.

In order to determine a sound in grammar, one of the segments, namely consonants and vowels, can be tested with minimal pairs in these words. This of course has the goal of creating a contrast that will show different segments. If in the same framework there are 2 segments that replace each other then it is called a contrast if the results of these morphemes are also different. Like the letters /b/ and also /t/ in the words /bolu/ and also /tolu/

In the word segment, of course, it has a relationship in the environment or place where the segment is realized systematically. And the environment where the segment is realized is also called

distribution. Here it can be seen whether the segments expressed can be applied in all environments or only in certain situations. If it can be realized in all environments, then it is also called a segment with a complete distribution. Meanwhile, if only in certain environments, it is called an incomplete distribution.

Kridalaksana (2002) in his thinking in a linguistic dictionary, phonology is a field of linguistics which provides an investigation of the sounds of language according to their functions. Meanwhile Muslich (2008) states that phonology is a fairly in-depth study of the sounds of said speech. Then Schane (1992) states that phonology is a linguistic study that examines the structure of sounds in words as well as language.

Phonology has 2 branches consisting of phonetics which is used to study the phoneme sounds of a spoken and realized language. Phonetics will study the workings of the human vocal apparatus used for speaking. According to Chaer (2007), the sequence of language sound processes that occur is divided into 3 types of phonetics consisting of articulatory, organic and also physiological. This phonetics will study the mechanism of the human speech apparatus which will produce sounds from classified languages.

Meanwhile, acoustic phonetics will study the sound of language from natural phenomena based on vibrational frequency, amplitude and also the intensity that occurs. Then auditory phonetics will study the mechanism of receiving language sounds received by the human ear according to Dew and Jensen (1997: 3). The three types of phonetics that often deal with the world of linguistics are articulatory phonetics which are closely related to the language produced and spoken by humans. Meanwhile, acoustic phonetics is more related to the physics side. While auditory phonetics is more related to the field of medicine.

Based on Chaer's (2007) thought, phonemic is the smallest sound unit of a language that has the function of distinguishing meaning. Phonemics will study the sound of language which can function to distinguish the meaning of words. And syllables are phonemes or combinations of several phonemes that come out in just 1 beat and form words. In order to solve the syllable problem, sonority and prominence theory is used. This sonority theory will explain a series of sounds uttered by the speaker of the word. And it will be marked by a pulsating tone that makes the lungs expel air.

Meanwhile, the prominence theory will focus on combined and suprasegmental sonority. The series of sounds will be pronounced in addition to sound units and sound strength, will also issue a pause between the words. This pause is the silence between the words before and after the loudness. According to the theory of sonority and prominence, it will be found that this word structure consists of 1 sonor sound which consists of vowels and will be preceded by a consonant and also not preceded by a consonant.

Generative phonology is a fairly good theory and can be applied to any linguistic research. And this theory began to rise after the descriptive and structural phonological theory began to decline. This theory arose as a result of the logical consequences of linguistics which underwent evolution and development. This theory was coined by Noam Chomsky for the first time in 1957. The process of forming a sentence must be followed by 3 formulas consisting of phrase structure, transformation and also morphophonemic formulas. From these three formulas, the results will be obtained, namely a series of phonemes in a language that are related to each other in a phonetic structure. According to Chomsky, generative is only at the sentence level which is then changed into other arrangements such as phonology and morphology.

The difference between structural and generative phonology is that generative phonology will give a role to the phoneme as a part that can be reduced, namely a distinctive feature. While structural phonology considers that the phoneme is the smallest part of the word. And this distinctive feature can be understood as a unit segment that is built from a set of indivisible properties.

The concept of significance in phonology will provide different segments in the phonetic sector which have allophonic or phonemic properties. Segments that have differences in the phonemic sector will be categorized as original segments. In order to identify the original segment, you can use the mechanism from Pike (1961: 73) where segments will have a tendency to be modified by other segments in their environment.

There are 2 mechanism procedures that occur, among others 1) Segments with groups that enter into different classes if they are in a similar environment. 2) Segments that are phonetically similar are classified into different classes if they are in the same environment.

According to Lapoliwa (1991), said that Indonesian has 23 consonant sounds with 6 vowels contained therein. And there are 11 distinguishing characteristics that define the 29 segments. Then there are about 27 phonological rules consisting of degimination, released trills, insertion of glottal stops and their realization, as well as several nasal releases to assimilation.

The phonological segment has 2 representations consisting of phonemic and phonetic representations. Both of these representations have differences in the use of rotation and also the level of abstractness. The phonemic representation will be considered more abstract when compared to the phonetic representation because the detailed phonetic is more limited. To indicate a phonetic representation, it is displayed with the symbol (/ /), while to indicate a phonetic representation, it is displayed with the symbol [([ ]).

This representation is the process of deriving a segment based on Schane (1992: 43) where if the phonological process occurs, there will be 1 or more segments that will be affected. Then the affected segment will experience changes. And these changes will occur in certain environments. If this process occurs, it can be systematically calibrated through phonological rules with segment variants in different environments. And can be derived from the origin of the word segment. Schane (1993: 64) states that the description of the derivation of the segments will be mapped with 4 phonological rules consisting of 1) the rules of feature change which is the goal to find out which segments will change and how the process of change occurs, as well as the conditions when the segments change.

2) the detachment and insertion rules are expressed with ø or the zero symbol. The detached segment will appear to the left of an arrow with an ø symbol on the right. 3) rules for permutations and combinations of segments and 4) rules for variables.

Of the 4 rules, it is applied to segments in a morpheme and also the relationship between morphemes that are close to each other. In the phonological process there is a segment involved in it, it will be seen in the change. Schane (1992) states that this generative grammar has a relationship with phonological processes. Where every language will experience the phonological process where there is an interaction between other sounds which are also influenced by various syntactic and morphological aspects.

Phonology processes at the level of phrases as well as words. And this occurs at the word level which is in 1 free morpheme unit and also a combination of related morphemes and other morphemes. The process that occurs at the level of this phrase will occur when the sound changes due to syntactic factors. When a morpheme joins changes, it will occur in an environment that is also a meeting place for the two morphemes. Like the initial position and also the end of a word which is the relationship between segments and also vowels that have a changing stress.

Changes in the sound of this morpheme have a close relationship with the morphophonemic process. Namely the process of changing phonemic forms caused by segments that are around it and influenced by syntactic requirements or other conditions. Distinctive features are submorphemic particles that are unable to be broken down into smaller parts. This distinctive feature will be divided into 6 main characteristics consisting of 1) main group, 2) method of articulation, 3) based on the place of articulation, 4) characteristics of the tongue, 5) additional features and also 6) prosidiary features.

The six characteristics have 18 characteristics that serve as differentiators. And in Angkola and Mandailing languages, there are only 5 distinguishing features from the 6 characteristics described above. And there are 16 of these distinctive features.

Language is indeed a daily communication tool that is used as an expression of feelings and also thoughts. And of course language cannot be separated from humans which are always used in every activity. Aside from being a verbal communication tool, language is also used for non-verbal communication tools . Based on the thoughts of Samsuri (1987: 3) that language has a very close relationship with the users of that language. Because language is a very vital tool for human life.

Language is a tool that can be used to influence humans in forming desires, feelings, thoughts and actions. This is what makes language has a function that is deeply rooted in humans. Indonesia itself generally has 2 languages, which are also known as bilinguals. Namely Indonesian which is the national language and regional languages which are the mother tongues in their respective regions. The diversity of regional languages is of course one proof of cultural diversity and also the richness of local wisdom in Indonesia. Therefore, preserving culture is one of the things that must be done.

Regional languages in the archipelago do have quite an important position and are an element of national culture and must be protected by the state. In North Sumatra, for example, there are 6

languages spread across every corner of North Sumatra province. One of them is the Angkola and Mandailing languages. Of course, the existence of these two languages cannot be separated from the influence of the speakers of these languages.

In family line, the Angkola and Mandailing languages are included in the Malay language family. Meanwhile, if viewed from the protomalaya or Old Malay side of Dutoromalaya, the Angkola and Mandailing languages are branches of the Protomalaya language just like the Toraja and Javanese languages which are branches of Old Malay. The Mandailing and Angkola languages are indeed still a sub-family with the Toba, Pakpak, Simalungun languages and also other regional languages in the Malay family.

This language is used by the community to interact and also communicate with other people who live and live in North Sumatra. The Mandailing and Angkola languages are one of the regional languages in the archipelago which have their own grammatical characteristics as well as their own grammatical system and articulation. At first glance, the Mandailing and Angkola languages have similarities. You could even say the two languages are the same. The reason is from a geographical and cultural point of view, there is a very close affinity between the Mandailing tribe and also the Angkola.

The language mapping carried out by the Language Mapping Team at the Medan Language Center in 2007 showed that there were no significant differences between the Angkola and Mandailing languages. This is because the two tribes who use Angkola and also Mandailing languages can still communicate and interact well using the two regional languages. Although there are some words that have meanings that are not understood by each of these tribes.

Dialectometric calculations for these 2 languages will prove the use of language terms in the Mandailing and Angkola languages which have a percentage difference of around 48.75%. The difference that is quite striking from these two regional languages is in the subdialects. Based on Sibarani's thought (1997) it is said that the linguistic division of the Batak languages in North Sumatra consists of Toba Batak, Karo Batak, Simalungun, Pakpak Dairi and also Angkola - Mandailing. According to Sibarani, the Angkola and Mandailing languages have the presumption that they are the same language and belong to the same family and family. In line with Sibarani, Kozok (1999) also stated that the Angkola and Mandailing languages are 2 languages that have many similarities so they are not like two different languages.

METHODS

The research was conducted in North Sumatra to examine the phonological studies of the Mandailing and Angkola languages. Based on the narrative of Alwi (2005: 319), the data presented has a function as the main source for compiling an opinion, information and also material that can be used for reasoning and investigation. The data analysis in this study came from native speakers of the Mandailing language and also the Angkola language in North Sumatra. The segments taken from several of these lexicals have various possibilities of consonant and vowel variations.

The role of the respondent or informant has a very important function. These respondents will collect the necessary data to conduct a generative phonology study. According to Mahsun (1995: 106) that the informants or respondents in this study must be in the age range of 25 to 65 years. For respondents aged 60 years and over, did not experience senile disease. And the respondents had to live in the vicinity of their residence and grew up there without ever leaving their place for a long time. Physically and mentally healthy and can also speak Indonesian.

Because the method used is descriptive qualitative, according to Sudaryanto (1993: 54), this descriptive research is based on facts in the field with data processing tailored to the research objectives. While qualitative has a definition as research of a problem that is not designed to use statistical procedures. So that qualitative descriptive research is research that will describe and present data based on existing facts. The process of data analysis is not designed using statistical procedures. And this method is used to determine the phonological system in generative phonological theory.

The method of providing data is also known as the listening and speaking method, where the technique can be divided into 2 stages, namely basic and advanced techniques. Sima's basic technique is tapping technique, in which researchers will carry out wiretapping efforts to obtain data from respondents or informants. Meanwhile, advanced techniques for levels I and II are observing and recording techniques. The listening technique will involve direct dialogue and conversation between the researcher and the respondents. Then the recording technique is used to process the data to make

it more accurate through communication between the community. For advanced level III techniques, namely note-taking techniques. This technique is carried out by recording data, time and also the recording process so that it can provide convenience for the validity of the data obtained. Another method used is the articulatory phonetic method which uses speech organs or human speech organs that can produce word sounds and language.

RESULTS AND DISCUSSION

In the regional languages of Angkola and Mandailing, several vowel and consonant segments are used to form a word in the grammar. This segment consists of origin and derivation segments. The classification of the vocal segments is based on the articulatory position of the articulation points which are closely related to the tongue, lips, and muscles. This certainly affects the formation of consonant segments based on the obstacles in the process of forming the letters. Air that passes through the vocal cords will be passed on through the oral and/or nasal cavities which get resistance from places that present certain articulations. The category for this consonant segment is based on the way of articulation, the relationship between the active and passive articulators and the vibration of the vocal cords.

This segment of origin from the Mandailing and Angkola languages can be observed through the differences in phonemics. The origin of consonants and vowels from the Mandailing and Angkola languages is about 5 segments in the vocal segment. The segment consists of the vowels /a, i, u, e, o/. The vowels in the Angkola and Mandailing regional languages have gone through tests so that the differences between each vowel can be clearly seen so as not to cause confusion and doubt.

For the vocal segment /a/ this is evidenced by several linguistic vocabulary such as /basar/ which means "generous," and also /bosar/ which means "big." Then the difference between the vowels /a/ and /i/ found in the word /lida/ which means "tongue." And also /lidi/ which means "stick." Meanwhile, the sound differences /a/ and /e/ as well as /a/ and also /u/ occur in the origin of this vowel segment. The difference between /a/ and /e/ is found in the word /gala/ which means "gaff." Meanwhile, /gale/ means "weak." The vowel segments /a/ and /u/ are found in the word /tola/ which means "may," and also /tolu/ which means "three."

The vocal segment /i/ has equivalent words and differences with the letters /a/, /e/, /u/ and also /o/. For the letters /i/ and /a/, they are found in the words /gari/ and /gara/ which mean "if only" and "light on." The difference between the letters /i/ and /o/ is in the words /libas/ and /lobas/ which mean "slam" and also "able." Then the letters /i/ and /e/ are in the example of the words /rari/ and /rare/ which mean "problem" and "trouble." The difference between the letters /i/ and /u/ is in the example of the words /inan/ and /unan/. For the word /inan/ has the meaning as "mother." Meanwhile, /unan/ means "don't."

This originating segment of the vowel /u/ is usually realized for high, rounded back vowels. The vowel phonemic /u/ is phonetically related to the vowel [u]. for the difference between /u/ and /a/ there are words /tolu/ and /tola/. This word means "three" and also "permissible." Then the difference between /u/ and /o/ is in the words /gray/ and also /oban/. It means "gray hair" and "bring it." The difference between /u/ and /i/ is in "jangan" which means /unan/ and also "mother" which means /inan/.

Likewise with the vowel /e/ which has a partner in Angkola and Mandailing languages with other vowels namely /a/, /i/, /u/ and also /o/. as in the words /gale/ and /gala/, then in the words /rare/ and /rari/, /sega/ and /suga/ which mean "broken" and also "thorns", then the pairs of words /lage/ and /lago/ which means "mat" and "character." The segment from which the vowel /o/ originates also has many word pairs. It consists of the words /bosar/ and /basar/, then the words /lobas/ and /libas/, the words /lago/ and /lage/ and /lalo/ and /then/ which mean "earthquake" and "then. "

Meanwhile, for the segments of consonant origin, in Angkola and Mandailing languages, there are 18 origin segments for consonants. Which consists of / b, c, d, g, j, k, g, h, k, l, m, n, p, r, s, t, w, and y/. For the consonant segment /b/, it has an identity in pairs such as the words /tabu/ and /talu/ which mean "drum" and "lose". Then on the word /bonan/ and also /tonan/. These two words mean "thread" and "calm." The same goes for the words /bayo/ and /kayo/ which mean "youth" and also "rich."

For the consonant /c/ itself, it has a pair in the Angkola and Mandailing languages in the example of words such as /cap/ and /rap/ which mean "stamp" and "together." Then there are the words /lincat/ and /lindat/ which mean “swept” and “swaying water.” And also in the words /kaco/ and /kayo/. These two words have different meanings namely “glass” and also “rich.”

The consonant /d/ is realized as a voiced apico-dental stop consonant in which many word relations in Angkola Mandailing have similar articulations, but different meanings. For example in the words /sada/ and /saba/ where the two meanings of this word are different which means "one" and also "rice field." Then on the words /lidi/ and /ligi/. These two words have the meaning of "stick" and also "see.

The consonant /g/ has a combination or pair in Angkola and Mandailing languages with several consonants such as /b, d, h, k, l, m, p and r/. For example, the words /piga/ and /pira/ which mean "how much" and also "eggs." Then the word /piga/ and /pipa/ which means "how much" and "pipe."

For the consonant /h/ it also has pairs for words in Angkola and Mandailing languages for several consonants such as /d, g, k, n, p, y/. For example, the words /suha/ and /suga/ have different meanings, namely "result" and "thorn." Then there are the words /duhun/ and /duyun/ whose meanings are "bring all" and also "respect." And there are still some differences between other consonants that make the pronunciation similar but there are differences in the meaning of the word. And this is referred to as the origin of the Angkola and Mandailing languages.

Meanwhile, the derivation segment itself also occurs in the vowel and consonant derivation segments which can be found through differences on the phonetic side. For this vocal derivation segment there are 3 segments in the vowel derivation on the vowels /i, u and also o/. Vowels in the Angkola and Mandailing regional languages will be proven with other vowel pairs so that the different forms of these vowels can be seen. For example, the vowel /i/ combines with /u/ as in the words /tuhul/ and /tuhil/ which mean "rice measuring device" and "chisel."

This [I] derivation segment is realized with a high vowel sound, located in front and also not rounded and slack. This [I] derivation segment comes from /i/ which phonemically can be realized with /i/, and can function as [I] on the phonetic side. Meanwhile, the [U] derivation segment can be realized with a high vowel sound, backward position, moon and also slack. This derivation segment comes from the segment /u/ which can be realized as /u/ for the phonemic side and also [U] for the phonetic side.

The vocal /o/ also undergoes a derivation segment process. For example, the word /hapor/ which means “chaotic” and the word /hapar/ which means “dry leaves.” And also words like /sordu/ which means “spicy” and also /surdu/ which means “to offer.” This [O] derivation segment can be realized as a moderate vowel sound, located behind and also loose and rounded. This derivation segment can be realized as /o/ in the phonemic scheme, and also [O] in the phonetic scheme.

Apart from the vowel side, derivation segments also occur in consonants. And there is 1 consonant derivation segment that emerges from the original segment so that the difference between the words and their meaning can be seen. Like the words /rasuk/ and /rasun/ which mean “home pillar” and also “poison.”

Meanwhile, the syllables in the Angkola and Mandailing regional languages have a fairly simple variation structure. The syllable patterns presented are Vowels, Consonant Vowels, Consonant Vowels and Consonant Vowels. And variations of these syllable patterns will form words. As an example of the word pattern "spell" and "oji" which is a combination of Vowels + Consonant Vowels. Then the word "ihut" and also "abin" which is a combination of Vowel + Consonant Vocal Consonant.

The consonant vowel syllable pattern is one of the patterns found in the Angkola and Mandailing regional languages. This pattern is found in words like /beauty/ which consists of a pattern of Vowel Consonant + Consonant Vowel + Consonant Vowel Consonant. Then the word /orbuk/ which means "dust" with a Vowel Consonant + Consonant Vowel pattern. And the pattern of consonant vowels in the Angkola and Mandailing languages, vowels are referred to as nuclei. And the consonants are referred to as coda.

In addition to the Vowel Consonant pattern, the Vocal Consonant syllable pattern also occurs in the Angkola Mandailing language. This pattern can be found in words like /bako/ which means “character”, /tola/ which means “may ”, as well as several other words that have this syllable pattern. While the consonant vowel syllable pattern is also found in several words such as the word /obuk/

which combines the vowel + consonant vowel pattern, then the word /gupak/ which means "machete" with the vowel consonant + consonant vowel syllable pattern.

From the data obtained, there are changes in the phonological sector which have different phonological rules. Such as the rules for changing characteristics, the rules for releasing sounds, the rules for adding sounds and also changing sounds in the vocabulary of the Angkola and Mandailing languages. For phonological rules, changes in characteristics occur in 3 vowels that experience a decrease or relaxation in certain environmental areas. The vowels /i/, /u/u and also /o/ will loosen up in a closed environment. The same goes for the consonant /k/ which is relaxed.

As for the phonological rules for sound release, this can be seen in morphological aspects such as the consonants /p/ and also /t/ as in the word "manpio" which is pronounced /mamio/ which means to call. Then for the consonant /t/ can be seen in the word "mantiop" which is pronounced /maniop? Which means "to hold."

The rules for adding sound usually occur when adding semi-vowels in /w/ and also /y/. An example is the word /boan/ which is pronounced /bowan/ which means "bring". Then the word /siar/ which is pronounced becomes /siyar/ which means "angry." Meanwhile, the rules for changing the sound itself are caused by consonant sounds which are influenced by morphological aspects. For example, the letter /h/ will change to /k/ as in the words /manhais/ which are pronounced to become /mahkais/ which means "to wipe." Then the word /manhuran/ which will be called or pronounced becomes /mahkuran/ which means "to reduce."

CONCLUSION

From the research data that has been done, it is found that the Angkola and Mandailing languages have segments of origin from the vowels /a, i, u, e, o/ and also segments of vowel derivation in [I, U, and O]. And the Angkola and Mandailing languages have 8 vocal segment sounds consisting of a/[a], /i/[i], /i/[I], /u/[u], /u/[U], /e /[ɛ], /o/[o], and /o/[O] as well as segments of consonant origin which are divided into /b, c, d, g, h, j, k, l, m, n, p, r, s, t, w, and y/. Meanwhile, the derivation segment [ʔ] of the consonant also exists in the Angkola and Mandailing languages.

From this study, it was found that overall the vowels and consonants in the Angkola and Mandailing languages have 22 origin segments and also 5 derivation segments which present different systems. The vowel and consonant segments in these regional languages have a different system which is explained through the vowel and consonant mapping. This vowel mapping can contain 5 original segments consisting of 1) segment /a/ which has middle, low and non-round characteristics. 2) segment /i/ has a characteristic location in front, not rounded, tense and also high. 3) segment /e/ has the characteristics of being in front, not rounded, medium and also slack. 4) segment /u/ has a characteristic behind, round, high and tense. 5) segment /o/ has rounded characteristics, is located behind, is moderate and is also tense.

The mapping of the vocal derivation system also consists of 3 derivation segments consisting of 1) the [U] segment has the characteristics of being behind, tall, rounded and also slack. 2) segment [I] has the characteristics of being in front, not round, high and also slack. 3) segment [O] is behind, medium and loose and rounded.

In addition to vowel mapping, in Angkola and Mandailing languages, consonant mapping is also carried out in which there are 19 consonant segments. Based on the area of articulation, the consonants in the Angkola and Mandailing languages have a bilabial sound in the consonants p, b, m and w. While the dental sound in the consonants t, d and n. as well as alveolar sounds in the consonants s, r and also l. For other consonant sounds, there are palatal sounds in consonants c, j and n. Then the velar sound in the consonants k, g, ŋ, and also y. While the glottal sound in the consonant h.

Meanwhile, based on the way of articulation, the consonants in the Angkola and Mandailing regional languages consist of several stop sounds found in the consonants [b, c, d, g, k, j, t, ʔ]. Then

fricative sounds in consonants [s and h], nasal sounds in consonants [m, n and ŋ] and vibrating sounds in consonants [r], lateral in consonants [l] and also semivowels in consonants [w and y].

The vocal segments in Angkola and Mandailing languages can be positioned in various environments. For positions in all word environments, the vocal segments /a, i, u, e, o/ can be applied to that environment. While in the middle position of a word and can only be used in closed syllable positions, the vowels [U, I and O] can be used. For consonant segments, it can also be positioned in all word environments. Consonants that can be positioned in all environments occur in the segments /p, t, s, m, n, r and l/. Meanwhile, the position in the middle and the beginning of a word is usually for the consonants /b, c, d, g, h, j, and k/. For word midposition only, the /w and y/ segments will be used. And at the end of the word only the segment [ʔ].

In addition to initial segments and derivations, syllable patterns in Angkola and Mandailing languages have structural variations such as Vowels, Consonant Vowels, Consonant Vowels, Consonant Vowels. A fairly simple pattern is to use 1 pattern, namely Vocals only. And in a syllable there is only a vowel that is used as a pedestal. And this Consonant Vowel pattern consists of a Vowel + Consonant pattern. And this pattern serves as the onset for the Consonants, and the Vowels as the fulcrum.

Another syllable pattern in Angkola and Mandailing languages is Vocal Consonants consisting of Consonants + Vowels. The consonants will act as coda, and the vowels will act as fulcrums. Likewise with the Consonant + Vowel + Consonant pattern which will form the Consonant Vowel Consonant pattern. The initial consonant acts as a coda, the vowel as the fulcrum and the final consonant acts as the onset. This syllable pattern can be observed in the original lexicon of the Angkola and Mandailing languages without any influence from other borrowed lexicons.

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