



## **The Relationship of Proto Austronesian (PAN) and Minangkabau Languages (Comparative Historical Linguistic Studies)**

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### **Abstract**

This study was languages focused on comparative historical linguistics. The comparisons between two or more languages can be said to be age-appropriate with the emergence of linguistics itself. Understanding of a language is very interesting to know the extent to which there are similarities or similarities between aspects of the language that discussed the relationship of Proto Austronesian and Minangkabau. This study used the descriptive quantitative research design. These data were taken from the corpus (internet document) and also went to the field by interviewing the native speakers of the Minangkabau language. The researchers have found 97 related vocabularies that consist of 36 identical pairs, 27 pairs that had phonemic correspondences, 25 phonetic similarities, and 9 different phonemes. After calculating the percentage of kinship, the result of kinship is 49%. That means the kinship between the Proto-Austronesian language and the Minangkabau language is very close. From the findings of the related vocabularies, it could be explained that the Proto-Austronesian and Minangkabau languages are very close because they have had more than 20 % (twenty percent).

*Keywords: comparative, phonemic, proto-austronesian*

### **INTRODUCTION**

Language is as a communication means in the society. It means that a language is so important in a human life. Every language has special characteristics in this world even though the location is still the same province. It can be in one country or nation that has many different local languages. Indonesia has more than six hundred different local languages so that Indonesia has a richness of local languages. A linguist is expected to be able to receptively master one or more languages in addition to their own language. Researchers conducting language studies should not be cognate of the language mastered by the researchers themselves. Then Keraf (1990:1) in his book which has been quoted by some researchers, wrote that the comparison between two or more languages can be said to be age-appropriate with the emergence of linguistics itself. Understanding of a language is very interesting to know the extent to which there are similarities or similarities between aspects of the language (Novita & Widayati, 2018; Ringe & Eska, 2010; Sciences, 2020; Yuniawan et al., 2017). The approach starts with word elements,



slowly progressing toward more complex comparisons. In principle, comparative historical linguistics is tasked with describing the historical development of language and language kinship in the world (Dalimunthe, 2018a; Fatinah, 2017; Iran Adhiti, 2019; Widayati, 2019)

In this study, the researcher chose the Proto-Austronesian and Minangkabau languages as the object of his research because these two languages are unique even though they are not in the same country. The problem that arises is what is the form of vocabulary between the Proto-Austronesian (PAN) language and the Minangkabau language? What percentage of kinship forms are there between the two languages? The purpose of this research is to find out what the forms of vocabulary or a word exist in Proto-Austronesian (PAN) and Minangkabau languages and to find out what percentage of kinship forms exist in Proto-Austronesian and Minangkabau languages.

In a language, the existence of regularity in the sound of language is as well as contradictions with arbitrary terms or at will, because there is no relationship between the symbols (the signs) and what they symbolize (the symbol). Every sound of language is arbitrary, but language is a social property so that its use can be approved by the speaking community. If there is a habit (conventional), then arbitrary becomes a permanent rule and is a system. Thus it can be said that language is arbitrary, that is, language is conventional social and language is arbitrary and non-arbitrary (Crowley & Bowern, 2010; Novita & Widayati, 2018; Widayati, 2016; Widayati et al., 2016).

Inheritance elements found in proto or native languages, in principle, prove that there is a kinship between cognate languages that are studied in comparative historical studies. Several sound changes are able to occur, such as: the merger, the split, the monophonemization, the diphonemization, and the phonemic loss. Theoretically, the relationship of the languages have the same form and meaning in the form of a cognate set. The kin word sets are hypothesized to originate from the same protolanguage and are also hypothesized to be the forerunners of these languages. The similarity and resemblance of form and meaning is not due to borrowing and not due to chance, but because of passing on the same original characteristics (protolanguage). In addition, in the word relative, there are also regular sound equivalents in each position.

According to Widayati, Dwi (2018) in her writings, she has given the statements that this order was referred to by neo-grammarians as the law of sounds. Related languages have the same form characteristics and meaning in the form of cognate sets of words. The sets of related words are hypothesized to originate from the same protolanguage and are also hypothesized to be the forerunners of those languages. The similarity and similarity in form and meaning is not due to borrowing or coincidence, but due to the transmission of the same original characteristics (protolanguage). Apart from that, in the set of related words there are also regular sound equivalences in each position. This regularity is called the law of sound by the neogrammarian. The well-known laws of sound are Grimm's law and Verner's law. Grimm's law is the law of equivalence of sounds in Indo-European languages, and Verner's law is a law (Dalimunthe, 2018b; Dwi & Widayati, 2018; Surbakti, 2014). Then Tiani has ever stated (2010:2) in her writings that the similarity or sameness of form and meaning as a result of the same historical development or the development of the same Proto-Austronesian language. The languages that have the same kinship or come from the same proto language, then develop into new languages, then they are included in one language family, which means the form of relatives (Iran Adhiti,



2019; Musayyedah, 2015). In comparing two or more languages, lexicostatistics can be used. Lexicostatistics is a technique to determine the level of relationship between two languages by using a simple method, namely comparing the vocabulary contained in the language being compared and then seeing and determining the level of similarity of the vocabulary of the two languages (Crowley & Bowern, 2010; Ringe & Eska, 2010; Stevens & Nothofer, 1977). While Keraf (1991:121, 128) has explained and described which has been quoted by a few writings stated that lexicostatistics is a technique in language grouping that tends to prioritize statistical observation of words (lexicon), and then tries to determine the grouping based on the percentage of similarities and differences between a language and another language. A word pair will be declared a relative if it fulfills one of the conditions (a) the pair is identical, (b) the pair has a phonemic correspondence, (c) is phonetically similar, or (d) one phoneme is different.

There are some previous researches which have been done by some researchers related to this study. Sri Riska Dalimunthe (2018), her study explained about the *Family Relationship of Batak Mandailing Language and Tanah Ulu Language*. She elaborated that From the number of kinship percentages are gruped that Batak Mandailing and Tanah Ulu languages are families of stock. Next, the computation time of the two languages is compared and the result is 2419. This means that Batak Mandailing and Tanah Ulu languages are related languages and are one of the same languages around 2419 (two thousands four hundred nineteen) years ago or about 401 BC (calculated from 2018) (Dalimunthe, 2018a). Yundi Fitrah and RengkiAfria in their analysis *Kekerabatan Bahasa-Bahasa Etnis Melayu, Batak, Sunda, Bugis, dan Jawa Di Provinsi Jambi* (2017). They have explained that the lexicostatistic calculation that compare the similarity between ethnic languages from the data obtained percentage differences. The Malay language obtained 63 cognate data (31.5%) compared with Batak language, 30 data (15%) with Bugis language, fifty two data (26%) with Java language, and eighty eight data (44%) with Sundanese. Furthermore, Batak language compared with Buginesss language was found between twenty eight Bugis language data (14%), twenty six data (13%) with Java language, and fifty four data (27%) with Sundanese. Then the Bugis language compared with the Javanese language obtained twenty six data (13%) cognate language and thirty three data (16.5%) with the Sundanese language. Finally the Java language compared with Sundanese language obtained fifty three data of cognate (Fitrah & Afria, 2017).

The Proto-Austronesian language is an old language that has inherited a number of related languages has the largest distribution of speakers in the world, ranging from the Pacific Ocean, the Indian Ocean, even from the coast of Africa, Vietnam, Taiwan, Hawaii, Easter Island, to New Zealand (Adelaar 2000). The Proto-Austronesian language is a language family originating from mainland Asia. Archaeological evidence suggests that the first Proto-Austronesian speaking community lived around 8,000 years ago. The distribution of Proto-Austronesian languages in the archipelago is divided into two, namely the West Austronesian sub-group and Eastern Austronesian (Keraf 1996). The island of Sumatra, which is part of the West Austronesian sub-group, has several language variants including: a) Acehnese; b) Batak language (including Gayo); c) Malay language (eastern coast of Sumatra, central and western part) including Minangkabau, Kerinci, Bangka Island and Belitung Islands; d) Rejang language; e) Lampung language; f) the language of the border islands (spoken on the western islands of Sumatra including



Simeulue, Nias, and Siberut), and g) the Enggano language, which is located in the Indian Ocean (Bengkulu Province) (Nasoichah et al., 2021).

## **METHODS**

In this study, the researcher used the descriptive quantitative research design. The researcher went to the field and used the library document to collect the data to account the comparison of two different objective results (Apuke, 2017; Creswell, 2014; Disman et al., 2017; Elliott, 2005). The quantitative method is a research method that uses numbers to find out how many similarities or kinships occur in the languages of Proto-Austronesian (PAN) and Minangkabau languages. This study also used descriptive in explaining the numbers in the calculation of the total vocabulary of the two different languages. There are 200 (two hundreds) words or vocabularies which they are always called small swadesh of languages. In the Proto Austronesian, the researchers took the data from the corpus or library documents which have been saved by many linguists in the world for the Proto Austronesian vocabulary words.

### **Population and Samples**

The researchers conducted this research by going directly to the field to find people or people who understand the kinship relationship between the vocabulary of the Market Language, Kampung Language, and Sorkam Language. The researcher did the research in Medan especially in Kota Matsum area because there are so many Minangkabau people who are from West Sumatera and corpus (library) in finding the swadesh of Proto-Austronesian (PAN). There are more than 100 (one hundred) people or communities but the researcher only interviewed a few people who understand the topic of this research so that the data taken has an accuracy of 90 (ninety) percent.

### **Techniques of Collecting Data**

In this study, the researchers collected data in the following techniques:

- a. Researchers read books or references related to kinship research between 2 and 3 languages that are in journals.
- b. Researchers are able to read and comprehend the language swadeshes that have been discussed in previous studies.
- c. After that, the researchers visited the research location or place which there are some native speakers in Minangkabau Language in Medan
- d. The researchers interviewed or interviewed several reliable informants about swadesh or vocabulary in the three languages.
- e. After the researchers interviewed several informants, the researcher also had to look again at some of the vocabulary in the language dictionaries in the Central Tapanuli area, especially Sibolga Pasar, Sibolga Kampung, and Sibolga Sorkam languages.
- f. All interview results were recorded or rewritten into tables with 200 vocabularies from the three languages.

### **Analysis Data**

In this research or study, the researchers already have a way to analyze the data that has been obtained or obtained in the field / as for how to analyze the data as follows:



- a. The researchers will collect and document the vocabulary data of the two different languages in tabular form by means of the meanings in Indonesian, Proto Austronesian language and Minangkabau Language.
- b. The researchers have written down the vocabulary in the two languages one by one, complete with Indonesian meanings as a guideline for equating the meanings in Swadesh's 200 vocabularies.
- c. After that, the researchers extracted words that were totally similar or had no differences in their vocabulary, which were called identical similarities. Then count how many identical (identical) words there are.
- d. When the identical vocabulary from the three languages had been written down and counted, the researchers also wrote down words that had phonemic similarities or similarities that only had one or two letters that differed phonemically.
- e. After all phonemically written vocabulary was written in tabular form, the researchers also recalculated the number of phonemically similar vocabulary words.
- f. After identical vocabularies and phonemic correspondences have been found, written down, and counted, the researchers will calculate the total number of similar or related vocabularies of Proto Austronesian language and Minangkabau Language.
- g. after calculating the similar vocabularies of Proto Austronesian language, the researchers describe the results about the research.

$$\text{Kinship Percentage} = \frac{\text{Number of related vocabulary}}{\text{Number of basic vocabulary (200)}} \times 100 \%$$

## FINDINGS AND DISCUSSIONS

### Findings

In different language kinship, there are many words that have been registered because they are still related to the environment and body parts or related to the life that surrounds us as humans. We also often know this list as swadesh. In this discussion, there are only 200 (two hundred) swadesh vocabulary. We can see in the table below based on the opinion of Blust (1980).

In this research, the researchers have found some They are identical pairs, phonemic correspondence pairs, phonetic similarity, phonemic simlairty pairs.

#### a. Identical Pairs

*Table 1. identical pairs*

No.	Glossary	Proto-Austronesia (PAN)	Minangkabau Language
1	Abu	abu	abu
2	Anak	Anak	anak
3	Angin	Angin	Angin
4	Baru	Baru	Baru
5	batang	Batang	Batang
6	Batu	Batu	Batu
7	Buru	Buru	Buru
8.	Bintang	Bintang	Bintang
9.	Buah	Buah	Buah



10.	Bulan	Bulan	Bulan
11	rambut	Bulu	Bulu
12	Daun	Daun	Daun
13	Di	Di	Di
14	Dingin	Dingin	Dingin
15	Hati	Hati	Hati
16	Hujan	Hujan	Hujan
17	Ikan	Ikan	Ikan
18	Kaki	kaki	Kaki
19	Kayu	Kayu	Kayu
20	Kelambu	Kulambu	Kulambu
21	Kulit	Kulit	Kulit
22	Kutu	Kutu	Kutu
23	Lain	Lain	Lain
24	Malu	malu	Malu
25	Ludah	Ludah	ludah
26	tembak	Tembak	tembak
27	Timur	Timur	Timur
28	Rumput	Rumput	Rumput
29	Tahu	Tahu	tahu
30	Tahun	Tahun	Tahun
31	Tali	Tali	Tali
32	Tanah	Tanah	Tanah
33	Janji	Janji	Janji
34	Tikus	Tikus	Tikus
35	Tipis	Tipis	Tipis
36	Buka	Buka	Buka

b. Phonemic Correspondence Pairs

Table 2. Phonemic Correspondence Pairs

No	Glossary	PAN	Minangkabau Language	Korespondensi
1	Air	wai	Aie	(w ~ e)
2	awan	avan	awan	(v ~ w)
3	Bisul	bisul	Bisua	(l ~ a)
4	Darah	dayah	Darah	(y ~ r)
5	Baru	baRu	Baru	(R ~ r)
6	Basah	bat'ah	Basah	(t ~ s)
7	Jalan	dalan	Jalan	(e ~ a)
8	mimpi	[ <sup>h</sup> ]impi	Mimpi	( <sup>h</sup> ~ m)
9	Burung	burun	Buruŋ	(n ~ ŋ)
10	Danau	danaw	Danau	(w ~ u)
11	Darah	dayah	Darah	(y ~ r)
12	Atas	atas	Ateh	(s ~ h)
13	Duduk	dukduk	Duduak	(k ~ a)
14	Ekor	ikur	Ikua	(r ~ a)





15	Jarum	zarum	Jarum	(z ~ j)
16	Kanan	wanan	Kanan	(w ~ k)
17	Kiri	wiri	Kiri	(w ~ k)
18	Laba-laba	lawa	Laba-laba	(w ~ l)
19	Langit	langit	Langik	(t ~ k)
20	Leher	lihiy	lihia	(y ~ a)
21	Pilih	pilih	Pilia	(h ~ a)
22	Alir	aliy	Alia	(y ~ a)
23	Garuk	garut	Garuk	(t ~ k)
24	Ikat	iket	ike?	(t ~ ?)
25	Rumah	%umah	Rumah	(%~ r)
26	Sakit	sakit	Sakik	(t ~ k)
27	tajam	tazam	Tajam	(z ~ j)

c. Phonetic Similarity Pairs

Table 3. Phonetic Similarity Pairs

No	Glossary	Proto-Austronesia (PAN)	Minangkabau Language
1	Apa	Apa	Apo
2	Api	Apuy	Api
3	Bagi	Bagey	Bagi
4	Bunga	bunga	Bungo
5	Dua	Duwa	Duwo
6	Jahat	Jahat	Jahek
7	Kita	Kita	Kito
8	Lima	Lima	Limo
9	Mata	Mata	Mato
10	Mati	Matay	Mati
11	Tiup	Tiyup	Tiuk
12	Tua	Tuha	Tuwo
13	Pilih	Pilih	Pilia
14	Tiup	Tiyup	Tiuk
15	Payudara	Dada	Dado
16	Tua	Tuha	Tuo
17	Daging	Daging	Dagiang
18	Duduk	Dukduk	Duduk
19	Jahat	Jahat	Jahek
20	Jauh	Jawuh	Jauah
21	Bunuh	Bunuh	Bunuah
22	Cium	Ciyum	Cium
23	Naik	Naik	Naiak
24	Nyamuk	Nyamuk	Nyamuak
25	Tajam	Tazem	Tajam

d. Phonemical Similarity

Table 4. phonemical similarity



No	Glossary	Proto-Austronesia (PAN)	Minangkabau Language
1	Lima	Lima	limo
2	Malam	malem	Malam
3	Mata	Mata	Mato
4	Miring	Miriŋ	Miriaŋ
5	Belah	bI lah	balah
6	Beli	Beli	bali
7	Tanam	tan Im	tanam
8	Payudara	Dada	dado
9	Putih	Putih	putiah

### Discussions

In this study, the researchers found the *identical pairs* that are identical word pairs where all the phonemes were the same. In this study, there are only 36 words that are referred to as *identical pairs*. We can see from the existing table 1. Then the researchers also found *the phonemic changes* between the two different languages that occurred reciprocally and regularly, on the high frequency, then the balanced form between the two languages which were considered to be related. In this connection the occurrence of phonemes that show correspondence can be accompanied by other linguistic phenomena which are called co-occurrence. In this case, there are 27 (twenty seven) pairs that have phonemic correspondence in Proto and Minangkabau languages. It can be seen from the table 2.

After that, the researchers found the phonemic correspondence of the two languages; Proto Austronesian language and Minangkabau Language. It can be seen in the table 3 of findings. If it cannot be proven that a word pair in the two languages contains a phonemic correspondence, but the word pair turns out to be phonetically similar in the same articulatory position, then the pair can be considered related. What is meant by phonetically similar is that the phonetic features must be similar enough to be considered allophones. In this case, there are 25 words that are phonetically similar in these 2 (two) languages. The last findings is the phonemic similarity of words. If in one word pair, there is a difference of one phoneme, but it can be explained that the difference occurs due to the influence of the environment it enters, whereas in other languages the influence of the environment does not change the phoneme, then the pair can be designated as related words. In this case there are 9 (nine) different phonemes from *Proto-Austronesian* and *Minangkabau* languages.

After determining the relative words with the procedure as stated above, a quantitative approach is then used by using basic techniques to calculate the percentage of language kinship. By using the following formula:

$$\text{Kinship Percentage: } \frac{\text{Number of related vocabulary}}{\text{Number of basic vocabulary (200)}} \times 100 \%$$

$$\text{Kinship Percentage} = \frac{97}{197} \times 100 \%$$





$$= 0,49 \times 100 \% \\ = 49 \%$$

After calculating all the related vocabulary numbers divided by the basic vocabulary number (200) multiplied by 100 percent, the percentage of kinship obtained is 49% (forty nine percent). So the Proto-Austronesian Language and Minangkabau Language have a close kinship relationship because the percentage obtained is 49% so these two languages are very related.

## CONCLUSIONS

After the researcher analyzes the kinship of swadesh vocabulary from Proto-Austronesian and Minangkabau languages, the researcher can conclude that:

- a. Comparative historical linguistic studies are more focused on finding similarities and kinship in languages both in terms of phonetics, morphology, and syntax.
- b. In terms of language kinship, researchers have discussed kinship in Proto-Austronesian and Minangkabau languages by focusing on identical pairs, pairs that have phonemic correspondences, phonetic similarities, and one different phoneme.
- c. From the results of these two languages, the researcher found 97 related vocabularies consisting of 36 identical pairs, 27 pairs that had phonemic correspondences, 25 phonetic similarities, and 9 one different phoneme. After calculating the percentage of kinship, the result of kinship is 49%. That means the kinship between the Proto-Austronesian language and the Minang language is very close.

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