GENETIC RELATIONSHIP BETWEEN TORAJANESE LANGUAGE AND MANDARESE LANGUAGE

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Abstract

Some codices state that ancestors of South and West Sulawesi people come from Toraja area. It drives to a logic thinking that Torajanese is protolanguage of other local languages such as Makassarese. Buginese and Mandarese. This research is aimed to investigate the genetic relationship between Torajanese and Mandarese and to identify kinds of sound change happening from Torajanese into Mandarese. The method used in this paper is lexicostatistics by comparing 200 Swadesh basic vocabulary of Torajanese and Mandarese. The result shows that Torajanese and Mandarese can be categorized as two relative languages with kinship percentage rate of 49%. The second finding is that there are eight patterns of sound changes; they are apharesis, syncope, lenition, fortition, assimilitaion, vowel breaking, metathesis and prosthesis.

Keywords: genetic relationship, Torajanese, Mandarese

Abstrak

Beberapa naskah kuno menyatakan bahwa nenek moyang berbagai suku yang berada di wilayah Sulawesi Selatan dan Sulawesi Barat berasl dari Toraja. Hal tersebut melahirkan sebuah pemikiran logis bahwa bahasa Toraja merupakan bahasa proto dari bahasa local lainnya seperti Makassar, Bugis dan Mandar. Penelitian ini bertujuan untuk mengetahui hubungan genetik antara bahasa Toraja dan bahasa Mandar dan untu mengidentifikasi perubahan bunyi dari bahasa Toraja dan bahasa Mandar. Penelitian ini menggunakan metode leksikostatistik dengan membandingkan 200 kata dasar Swadesh dari kedua bahasa tersebut. Hasil penelitian menujukkan bahwa bahasa Toraja dan bahasa Mandar dapat dikategorisasikan sebagai bahasa yang berkerabat dengan persentasi kemiripan sebesar 49% atau memiliki perbedaan sebesar 51% saja. Kedua, terdapat delapan jenis perubahan bunyi pada dua bahasa tersebut yakni syncope, lenition, fortition, assimilitaion, vowel breaking, metathesis *dan* prosthesis.

***Kata kunci**: hubungan genetic, Toraja, Mandar*

RESEARCH BACKGROUND

Languages belonging to the Austronesian language family have long been an interesting field of study for experts in the field of comparative historical linguistics. The vast languages of its spreading in the world have invited the curiosity of linguists from different parts of the world to further explore its origins. Even Samantho (2015) relates the findings of Austronesian language as a proto-language proposed by Keraf (1991) with the assumption that Austronesian society is occupant of the lost Atlantis.

Although the existence of Austronesian society is still debated between fact and fiction (Masinambouw, et al, 2004: 447), but the study of genealogy and kinship and its traces in the languages of the archipelago is experiencing rapid development. Some words are equally stable, for example the word for eyes in many Austronesian languages is "eye" also starting from the northernmost language in Taiwan to the southernmost language in Aotearoa.

In support of the above discovery, in specific way some ancient manuscripts also state that the ancestors of various tribes in the region of South Sulawesi and West Sulawesi came from Toraja. It gave birth to a logical thinking that the Toraja language is a proto language of other local languages such as Makassar, Bugis and Mandar. Not only that, the inhabitants of most areas of Central Sulawesi are also believed to have originated from Toraja (Salombe in Yatim and Machmoed, 9999). Then, the Toraja is classified into some types: Eastern Toraja settled in Poso; West Toraja settled in Parigi; and South Toraja or known as Toraja Saqdan settled in the area of South Sulawesi and West Sulawesi as areas along the Saqdan river. Darmawati (2014) has proved that Kaili as local language in Parigi has kinship percentage rate of 42.5% with Torajanese. Based on these findings, the researchers also are interested in tracking Toraja language in Mandar language using 200 Swadesh vocabulary. The researchers hope that the result of this research could be a reference to keep maintaining the kinship between Mandarese and Torajanese in order to avoid any conflict in society.

REVIEW OF HISTORICAL COMPARATIVE LINGUISTICS

Historical Comparative Linguistics is a branch of linguistic science that examines language development from one time to another, looking at the ways in which languages change, studying the causes and effects of discussion and revealing the relationships of languages both within the same family and the clump different.

In general, there are two methods that can be used in Historical Linguistics Comparative research. The first is the quantitative method with the lexicostatistic technique. This method is used to find or determine the kinship of the language. Thus, the results will show a glimpse of the historical relation rankings of kinship relationships. In this quantitative method, the instrument is the 200 basic vocabulary that Swadesh has formulated.

The second method is qualitative using reconstruction techniques. The second method aims to group or classify languages by finding correspondence between languages that are related. Reconstruction can be done internally to search for proto-language from branches of languages. Meanwhile, external reconstruction is performed after obtaining the results of quantitative lexicostatistic research.

One of the changes that can become an object in this study is the change that occurs in the sound of the language. Crowley (1997) categorizes sound languages into nine types. They are:

Types of Changes	Definiton	Example
Lenition	Lenition is a kind of changes from the stronger sounds into the weaker sounds. Related to vibrate systems in sounds producing, lenition may happen from voiced sound into voiceless sounds. Crowley (1997) designs a generalization of lenition forms, namely; a > e > o > i > u > rhotics > laterals> nasals> voiced fricatives > voiceless fricatives > voiced stops > voiceless stops.	*Stronger Weaker* b p p f f h x h b w v w a ə d l s r k ʔ i ɨ
Fortition	Fortition is the opposite of lenition. It covers the change from weaker sounds into stronger sound.	*EnglishTokPisin* Nai**f** ⟶ Nai**p**
Aphaeresis	Aphaeresis is a kind of changes where initial segments are dropped.	Angkamuthi *maji ⟶ aji 'food' *nani ⟶ ani 'ground'
Apocope	Apocope is the term for a change where word final segments are dropped.	Southeast Ambryn *utu ⟶ ut 'lice' *use ⟶ us 'rain'
Syncope	Syncope refers to the loss of segments in the middle of words.	Lenakel *nalimana ⟶ nelmin 'hand' *masa ⟶ mha 'tide'
Cluster Reduction	Consonant cluster is when consonats stand side by side without any vowels between them. Sometime people delete one of those consonants, and it is called as cluster reduction.	Cluster reduction takes place from Old English into Modern English. For instace, *bomb* used to be pronunced with [mb] in word ending; but today it is pronunced with [bɒm].

Haplology	Haplology refers to the loss of an entire syllable when that syllable is identic with the next syllable.	The word *England* come from the word *Anglaland* (land of Angles, group of people who settled in Britain over 1000 years ago). There two identical syllables namely *la,* and one of them was reduced.
Excrescence	Excrencence is a change when a consonant is put between two consonant cluster.	English *æmtig ⟶ ɛmpti *Ɵymle ⟶ Ɵimbl
Ephenthesis	Ephenhesis refers to a change when putting a vowel between two consonants in a cluster.	English Tok Pisin blæk ⟶ bilak 'black' blu: ⟶ bulu 'blue'
Prothesis	Prothesis is another term used to refer to a particular type of addition. The addition of sound at the beginning od a word.	Motu *api ⟶ lahi 'fire' *au ⟶ lau "I, me"
Metathesis	Methatesis is a fairly uncommon kind of change. It does not involve either the loss or addition of sounds or a change in the appearance of a particular sound; it is simply a change in the order of the sounds.	Tagalog Ilokano Tamis ⟶ samqit 'sweet' Tubus ⟶ sabut 'redeem' Tigis ⟶ si:git 'decant'
Fusion	Fusion is a fairly frequent kind of siund change, in which two originally separate sounds become a single sound. The resulting single sound carries some of the features of both of the original sounds.	Attic Greek *gʷous ⟶ bous 'cow' *gʷatis ⟶ basis 'going'

Unpacking	Unpacking is a phonetic process that is just the opposite of phonetic fusion. from a single original sound, a sequence of two sounds may develop, each with some of the features of the original sound.	nasalized vowel > vowel + nasal French Bislama kamiɔ̃ ⟶ kamioŋ 'truck' aksidã ⟶ aksidoŋ 'accident' kaʁtɔ̃ ⟶ kartoŋ 'cardboard box' kalsɔ̃ ⟶ kalsoŋ 'underpants'
Vowel Breaking	Vowel breaking in the change known a vowel breaking, a singe vowel changes to become a diphtong, with the original vowel remaining the some but with a glide of some kind being added, either before or after it.	Kairiru *pale ⟶ pial 'house' *manuk ⟶ mian 'bird' *ranum ⟶ rian 'water' *lako ⟶ liak 'go'
Assimilation	When one sound causes another sound to change so that the two sounds end up being more similiar to each other in some way, we call this assimilation	Icelandic *findan ⟶ finna 'find' *gulθ ⟶ gull 'gold' *halθ ⟶ hall 'inclined'
Dissimilation	Dissimilation means that one sound changes to become less like some other nearby sound.	Afrikaans *sxo:n ⟶ sko:n 'clean' *sxælt ⟶ skælt 'debt'
Abnormal Changes	Abnormal changes is a linguistic change which is both rare hard to imagine a motivation or pathway for.	*km̩ tom ⟶ sã '100' *km̩ tom > *kemtom unpacking > *kentom assimilation > *kent syllable loss > *tsent palatalization > *sent lenition > *sen C deletion > *sẽ fusion > sã V lowering

HISTORICAL RELATIONSHIP OF TORAJANESE AND MANDARESE

According to folklore, Tana Toraja is considered the oldest inhabitants of Sulawesi. From the transliteration of the old text or codices such as *Pattodioloang* and *Lagaligo* (Digital Version from Leiden University, 2017), it can be drawn a similarity of the story of the origin of Toraja, Mandar, Bugis and Makassar as cultures. *Puang Matoa* (The supreme God) in the heavens first sent *Tamboro-Langi* to rule human life on this world. *Tamboro Langi* is trusted by Torajans as a mover "Aluk Tudolo" (the rules of the ancients considered as religions). *Tamboro 'Langi* arrived at the summit of *Lantimojong*, narrated that at that time the largest part of the mainland of South Sulawesi was still inundated with water. What appears at sea level is just the top of *Bawakaraeng* mountain in the south. Next, *Tamboro Langi* mates with a woman from the Sa'dan river named *Lando Belua*. The descendants of *Tamboro-Langi* and *Lando Belua* then spread to various regions of South Sulawesi and West Sulawesi, and formed a group now known as Mandar, Bugis and Makassar.

METHODOLOGY

This research used descriptive quantitative method. To collect the data, the researchers used interview technique. The researchers interviewed someone who uses Mandarese as her daily language and another one who uses Torajanese as her daily language too. They should be adult, and live in their hometown.

To analyze the data, the researchers used Lexicostatistic technique by Keraf (1991) and categories of sound changes by Crowley (1997). Lexicostatistics is an approach to comparative linguistics that involves quantitative comparison of lexical cognates. According to Keraf (1991) Lexicostatistic is a grouping technique that is more likely to give priority to observation of the words (Lexicon) as statistisc for then trying to assign the grouping was based on the presentation of the similarities and differences of one language with another language. The formula of lexicostatistics as:

D = S/N x 100%

Where:

D= Lexicon difference
S= The number of diferent lexicon
N= Number of words compared

After finding the total of lexicon differences, the researchers will measure the kinship of Mandarese and Torajanese based on these criteria:

81% to up	: Language differences
51—80%	: Dialect differences
31—50%	: Subdialect differences
21—30%	: Speech differences
below 20%	: There is no difference

FINDINGS

a. Pair of Identical Words

Number	Code	English	Indonesian	Torajanese	Mandarese
1	1	Ashes	Abu	Abu	Abu
2	2	Water	Air	Uai	Wai
3	3	Root	Akar	Waka'	Uwake'
4	4	I	Aku	Aku'	Iau
5	5	Flow	Alir (meng-)	Lolong	Lolong
6	7	Wind	Angin	Angin	Anging
7	8	Dog	Anjing	Asu	Asu
8	12	Smoke	Asap	Rambu	Rumbu
9	13	Cloud	Awan	Awan	Awang
10	16	Burn	Bakar	Tunu	Tunu
11	17	Return	Balik	Balik	B(/w/)ali'
12	21	New	Baru	Barrung	B(/w/)aru
13	23	Stone	Batu	Batu	Batu
14	26	Correct	Benar	Tongan	Tongang
15	27	Seed	Bibit	Banne	Bine
16	28	Swollen	Bengkak	Kambang	Kambang
17	34	If	Bilamana	Kenna	Tenna
18	36	Star	Bintang	Bintoen	Bittoeng
19	38	Moon	Bulan	Bulan	Bulang
20	39	Feather	Bulu	Bulu	Bulu
21	40	Flower	Bunga	Bunga	Bunga
22	41	Kill	Bunuh	Patei	Patei
23	43	Bad	Buruk	Kadake	Arae
24	45	Putrid	Busuk	Bosi	Bosi
25	47	Kiss	Cium	Udung	Urung
26	48	Wash	Cuci	Sassak	Sassa
27	50	And	Dan	Na	Anna
28	52	Blood	Darah	Rara	Cera'
29	55	Leaf	Daun	Daun	Daung
30	57	With	Dengan	Sola	Siola
31	58	Listen	Dengar	Parrangngi	Irrangngi
32	63	Stand	Diri (Ber)	Ke'dek	Ke'de'
33	66	Push	Dorong	Sorong	Sorong

34	67	Two	Dua	Dua	Da'dua
35	70	Four	Empat	A'pa'	Appe'
36	73	Salt	Garam	Sia	Sia
37	75	Fat	Gemuk	Malompo	Marumbo
38	79	Mountain	Gunung	Buntu	Buttu
39	84	Life	Hidup	Tuo	Tuo
40	87	Black	Hitam	Lotong	Lotong
41	88	Account	Hitung	Reken	Rekeng
42	89	Rain	Hujan	Uran	Urang
43	91	He/She	Ia	Ia	Ia
44	92	Mother	Ibu	Indo	Kindo
45	95	Wife	Istri	Baine	Baine
46	104	Foot	Kaki	Le'te	Lette
47	107	You	Kamu	Iko	I'o
48	108	Right	Kanan	Kanan	Kanang
49	109	Because	Karena	Saba'	Saba'
50	110	Say	Kata (ber)	Nakua	Ma'ua
51	113	Head	Kepala	Ulu	Ulu
52	115	Left	Kiri	Kiri	Kaeri
53	117	Nail	Kuku	Kuku	Kanuku
54	118	Skin	Kulit	Kuli'	Uli'
55	119	Yellow	Kuning	Mariri	Mariri
56	120	Louse	Kutu	Kutu	Utu
57	122	Sky	Langit	Langi'	Langi'
58	123	Sea	Laut	Tasi'	Sasi'
59	126	Man	Lelaki	Muane	Naimuane
60	129	Tongue	Lidah	Lila	Lila
61	130	See	Lihat	Kitai	Ma'ita
62	131	Five	Lima	Lima	Lima
63	133	Straight	Lurus	Maruru	Maroro
64	135	Play	Main	Maningo	Mangino
65	136	Eat	Makan	Kumande	Umande
66	137	Night	Malam	Bongi	Bongi
67	138	Eyes	Mata	Mata	Mata
68	139	Sun	Matahari	Mata Allo	Mata Allo
69	140	Die	Mati	Mate	Mate

70	146	Vomit	Muntah	Lua	Tilua
71	147	Name	Nama	Sanga	Sanga
72	148	Breath	Nafas	Nawa	Nawa
73	150	Human	Orang	Tau	Tau
74	156	Squeeze	Peras	Parra	Perre'
75	157	Woman	Perempuan	Baine	Naiwaine
76	159	Think	Pikir	Pikkiri	Pikkiri
77	163	Navel	Pusar	Posi'	Posi'
78	165	Hair	Rambut	Belua	Bilua'
79	167	One	Satu	Misa'	Mesa
80	170	Day	Siang	Allo	Allo
81	172	Narrow	Sempit	Sippik	Sippi'
82	173	All	Semua	Yanasang	Nasang
83	174	Husband	Suami	Muane	Muane
84	175	River	Sungai	Salu'	Salu'
85	176	Sharp	Tajam	Matarang	Matarang
86	178	Year	Tahun	Tahun	Taung
87	181	Land	Tanah	Lita'	Lita'
88	182	Hand	Tangan	Lima	Lima
89	184	Thick	Tebal	Makambang	Maumbang
90	185	Ear	Telinga	Talinga	Talinga
91	186	Egg	Telur	Tallo	Tallo
92	188	Laugh	Tertawa	Metawa	Micawa
93	189	Breast	Tetek	Susu	Susu
94	192	Three	Tiga	Tallu	Tallu
95	194	Thin	Tipis	Manipping	Manipis
96	196	Cane	Tongkat	Tekken	Te'eng
97	198	Bone	Tulang	Buku	Buku (-buku)
98	200	Snake	Ular	Ulak	Ular

b. Percentage of Kinship between Torajanese and Mandarese

Based on the data, the researher found there are 98 cognates. Besides, there are 102 difference words. So, the presentation of differences between Torajanese and Mandarese is as below:

$$D = 102/200 \times 100\%$$
$$= 51\%$$

Based on lexicostatistic, the researchers categorized these languages into "Dialect differences". Although they have some differences, Torajanese and Mandarese still shared many same words. That is why Torajanese can understand Mandarese from listening to its utterances and vice versa.

c. Particular Sound Change from Torajanese Language to Mandarese Language

There are some particular sound changes from Torajanese as proto-language into Mandarese as branch of Torajanese language. They change automatically as adaptation process toward the vocal cord and nature of Mandarese. Here are the lists of that sound changes:

1) Apharesis

Number	Code	English	Indonesian	Torajanese	Mandarese
1	43	Bad	Buruk	Kadake	Arae'
2	118	Skin	Kulit	Kuli'	Uli'
3	120	Louse	Kutu	Kutu	Utu
4	134	Knee	Lutut	Guntu	Utti'
5	136	Eat	Makan	Kumande	Umande

2) Syncope

Number	Code	English	Indonesian	Torajanese	Mandarese
1	4	I	Aku	Aku'	Iau
2	43	Bad	Buruk	Kadake	Arae'
3	110	Say	Kata (ber)	Nakua	Maua
4	184	Thick	Tebal	Makambang	Maumbang

3) Lenition

Number	Code	English	Indonesian	Torajanese	Mandarese
1	56	Near	Dekat	Mandappik	Kareppu'
2	63	Stand	Diri (ber)	Ke'dek	Ke'de'
3	71	You	Engkau	Iko	I'o
4	110	Say	Kata (ber)	Nakua	Ma'ua
5	130	See	Lihat	Kita	Ma'ita
6	196	Cane	Tongkat	Tekken	Te'eng
7	21	New	Baru	Barrung	Baru
8	17	Return	Balik	Balik	Bali'
9	109	Because	Karena	Saba'	Saba'

10	157	Woman	Perempuan	Baine	Naiwaine
11	34	If	Bilamana	Kenna	Tenna
12	12	Smoke	Asap	Rambu	Rumbu
13	184	Thick	Tebal	Makambang	Maumbang
14	3	Root	Akar	Waka'	Uwake'
15	52	Blood	Darah	Rara	Cera'
16	70	Four	Empat	A'pa'	Appe
17	95	Wife	Istri	Baira	Baine
18	156	Squeeze	Peras	Parra'	Perre'
19	75	Fat	Gemuk	Malompo	Marumbo
20	27	Seed	Benih	Banne	Bine

4) Fortition

Number	Code	English	Indonesian	Torajanese	Mandarese
1	75	Fat	Gemuk	Malompo	Marumbo
2	133	Straight	Lurus	Maruru	Maroro
3	197	Old	Tua	Matua	Toa
4	43	Bad	Buruk	Kadake	Arae
5	47	Kiss	Cium	Udung	Urung
6	56	Near	Dekat	Madappik	Kareppu

5) Prothesis

Number	Code	English	Indonesian	Torajanese	Mandarese
1	29	Swim	Berenang	Norong	Ummmorong
2	50	And	Dan	Na	Anna
3	59	In	Di dalam	Lan	Dilalang
4	67	Two	Dua	Dua	Da'dua
5	126	Man	Lelaki	Muane	Naimuane
6	157	Woman	Perempuan	Baine	Naiwaine
7	146	Vomit	Muntah	Lua	Tilua

6) Vowel Breaking

Number	Code	English	Indonesian	Torajanese	Mandarese
1	57	With	Dengan	Sola	Siola
2	72	Dig	Gali	Kali'	Karoi
3	115	Left	Kiri	Kiri	Kaeri

7) Assimilation

Number	Code	English	Indonesian	Torajanese	Mandarese
1	36	Star	Bintang	Bintoen	Bittoeng
2	79	Mountain	Gunung	Buntu	Buttu
3	134	Knee	Lutut	Guntu'	Utti'
4	104	Foot	Kaki	Le'te	Lette
5	70	Four	Empat	A'pa'	Appe'
6	29	Swim	Berenang	Norong	Ummorong
7	126	Man	Lelaki	Muane	Naimuane
8	157	Woman	Perempuan	Baine	Naiwaine

Some of the above tables show that the change of voice from Torajanes to Mandarese occurs in several types of changes with varying amounts. The most dominant change is the lenition where some strong sounds is changed to weaker sound such as /k/ to /ʔ/. The examples are in the words *ke'dek* to *ke'de'*; *iko* to *i'o*; *nakua* to *ma'ua*; *kita* to *ma'ita*; *tekken* to te'eng; and *balik* to *bali '*. Besides, lenition also occurs in vowel sounds such as /a/ to /e/ in the words *rara* to *cera'*; *a'pa '* to *appe'*; and *parra'* to *perre'*.

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