Inheritance of Consonant Phonemes from PAN to Mandailing Language

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ABSTRACT
This study aims to examine the inheritance of consonant phonemes from Proto-Austronesian (PAN) to Mandailing Language (BM), as part of the Austronesian language family. The method used is the comparative historical method with a focus on analyzing basic Swadesh vocabulary collected from native speakers in Panyabungan, Mandailing Natal. The diachronic analysis shows that BM preserved some phonemes from PAN while undergoing significant changes in some consonants. The results show patterns of phonetic changes of PAN to BM consonants, including changes of /b/ to /b/ or /m/, /k/ to /h/ in the penultima position, /z/ to /j/ in the ultima position, /l/ to /n/ in the ultima position, and changes of /h/ to missing in the ultima position. These changes provide deep insights into phonological evolution in BM, indicating a PAN linguistic heritage with innovative variations in word phonology and morphology. The findings support the theory of language evolution and make an important contribution to the understanding of Austronesian historical linguistics.

Keywords: Proto Austronesian, inheritance, Mandailing

1. Introduction
Language has evolved from Proto-language (ancient language) to the language we use today. Proto-language, as an old language, is the origin of various related languages, such as Proto-Austronesian which is the ancestor of the languages in Indonesia [1][2]. Proto-Austronesian is a term for a language family that originally developed in Southeast Asia. This language is known by the acronym PAN. The Austronesian language family is divided into two sub-compounds: Western Austronesian, which includes the languages of Indonesia or Malay, and Eastern Austronesian, which includes the languages of Oceania or Polynesia. The Western Indonesian group includes Malagasy, Formosan, Filipino, Minahasa, Aceh, Gayo, Batak, Malay, Javanese, Madurese, Sundanese, Nias, Minangkabau, while Eastern Indonesian includes languages from Timor, Ambon, Sula-Bacan, South Halmahera, and West Irian [2][3].

In Indonesia, people use two main languages to communicate: local languages and Indonesian. One of the regional languages that has become widespread is Batak, which is spoken by native speakers of Batak Toba, or BBT. BBT belongs to the Austronesian language family, having similarities and differences in
phonological, lexical, and grammatical aspects. Similarities in BBT are due to the inheritance of the Proto language, while differences occur due to the influence of external elements that add variations in the language.

To understand the origin and development of the language to date, the linguistic study used is Comparative Historical Linguistics or Historical Comparative Linguistics. Historical Comparative Linguistics is a field of linguistics that studies language from the perspective of time and the changes that occur in the language. General language changes can be seen through sound changes, which can be observed at the phonological level, which is the most basic and important linguistic aspect in the study of comparative linguistics. Humans use language as a tool to express their thoughts. Gorys Kerf supports this by stating that language is a means of communication between members of society in the form of sound symbols produced by human speech organs [4].

Sound changes in derived languages after separation from the parent language or proto-language are unique and independent [5]. Common sound change patterns include merger, split, monophonemization, diphonization, and phonemic loss [6]. The secondary form changes can occur in linear patterns, additions, or partial dating [7].

Some previous research on similar research has been conducted by [5] in her research entitled "Inheritance of Proto Austronesian Language Consonant Phonemes to Madurese". This research discusses the inheritance of Proto-Austronesian consonant phonemes into Madurese by utilizing oral and written data. Oral data collection involves conversation methods followed by stimulating, advancing/face-to-face conversation, tapping, and writing. Furthermore, the techniques used were followed by recording and note-taking techniques. Written data used the observation method followed by tapping and writing techniques. Data analysis involves a historical comparison method, followed by the matching method with the equivalence method plus techniques and determinant power of particular-specific elements of speech organ differentiation. Then followed by comparative equation technique and contrastive equation technique. From the analysis, phoneme reflection of linear consonants (retention) and phoneme innovation of consonants such as /*b/, /*c/, /*d/, /*g/, /*h/, /*j/, /*k/, /*l/, /*m/, /*n/, /*p/, /*r/, /*s/, /*t/, /*w/, /*y/, and /*ŋ/ are mirrored in Madurese from phoneme /b/ innovating into phoneme /*bh/ and phoneme /*h/ experiencing fusion into /*ø/. The phoneme /k/ changes into phonemes /*g/ and /*ø/.

Qualitative descriptive method was used in this study, with observation and recording techniques for data collection. The results of the analysis show that the inheritance of consonant phonemes occurs in a linear and innovative manner, with a similar distribution of phoneme changes in both languages. There are also more sporadic changes in consonant phonemes [8]. This study provides a deeper understanding of the phonological evolution and interlanguage relationships in the Austronesian language family, which serves as a basis for further research in historical linguistics. The limitations of this study include data coverage that is limited to Acehnese and Jamee, so further research can involve other Austronesian languages and sociolinguistic factors to gain broader insights [9].

Based on the above background, this study aims to look at the inheritance of Proto language into the derived language, in this case Mandailing language. One of the aspects observed in this reflection is the reconstruction of phonemes, especially consonant phonemes. In the reconstruction of Proto phonemes, there are phonemes that undergo changes and some that retain their original form. Inheritance that maintains its original form in derived languages is called linear inheritance, while inheritance that undergoes changes is called innovation [10].

2. Method
The comparative historical method is the method used for data analysis; the comparative method in reference refers to historical linguistics to the linguistic study of forms, particularly cognate pairs between Kin languages and other cognate languages and in this case, between Proto Austronesian (PAN) and Mandailing Language (BM) [11].

The data used in this study are basic Swadesh vocabulary obtained through interviews with native Mandailing speakers in Panyabungan, Mandailing Natal. The historical nature of this research lies in its use in Proto-Austronesian to find reflection in BM. After that, the equivalence method was applied and aimed at matching or harmonizing BM as a derived language with PAN as a determining element. This method was
then developed by articulatory phonetics, which is all human speech produced by the activity of the speech apparatus in the form of different sounds \([12][13]\). This method is then followed by the comparative equation technique and the contrastive equation technique. Thus, the results of the comparison are explained to find similarities and differences between the elements of PAN and BM.

3. Result and Discussion

Mandailing language (BM) as part of the language in the Austronesian family has a language inheritance from Proto Austronesian. It is proven that based on the results of diachronic analysis of BM the proto inheritance is very clear. PAN inheritance in BM can be described as follows:

1. *b>*b

   Evidensi:
   *baRuh > *baru ‘baru’
   *buru > *marburu ‘berburu’
   *bulan > *bulan ‘bulan’
   *buña > *buña ‘bunga’

   The PAN consonant */b/ remains /b or unchanged. The data shows that the consonant phoneme */b/ does not undergo innovation. The phoneme /b/ in BM is a reflex of PAN*b as seen in the example of PAN *baRuh becoming BM *ba

2. *k>*h

   Evidensi:
   *ko > *ho ‘kamu’
   *kulit > *hulikuli ‘kulit’
   *kaya > *haya ‘kering’
   *kuní > *humik ‘kuning’
   *kutu > *hutu ‘kutu’
   *kapal > *hapal ‘kapal’
   *kita > *hita ‘kita’
   *kayu > *hayu ‘kayu’

   The consonant PAN*/k/ becomes BM /h/ in the penultima position. It can be seen in the PAN word *kaya menjadi BM *haya meaning ‘dry’.

3. *z>*j

   Evidensi:
   *hizuR > *martijur ‘meludah’
   *tazom > *tajom ‘tajam’

   The PAN consonant */z/ changes into BM /j/. The change occurs in the ultimate position. This can be seen in PAN *tazom becoming BM *tajom which means ‘sharp’.

4. *b>*m

   Evidensi:
   *bunuh > *mamunu ‘bunuh’

   The PAN consonant */b/ changes into BM /m/. The change occurs in the penultima position. It can be seen in PAN *bunuh becomes BM *mamunu which means ‘kill’.

5. *l>*n

   Evidensi:
   *pelek > *menek ‘kecil’

   The PAN consonant */l/ changes into BM /n/. The change occurs in the ultima position. This can be seen in PAN *pelek becoming BM *menek which means ‘small’.

6. *n>*d

   Evidensi:
   *sana > *sada ‘satu’

   The PAN consonant */n/ changes into BM /d/. The change occurs in the ultima position. This can be seen in PAN *sana becoming BM *sada which means ‘one’.
7. *d > /t/  
Evidensi:  
*lawud > *lawut ‘laut’  
The PAN consonant *d/ changes into JW /t/. The change occurs in the ultima position. This can be seen in PAN *lawud becoming BM *lawut which means ‘sea’.

8. *h>Ø  
Evidensi:  
*hari > *ari ‘hari’  
The PAN consonant */h/ changes into BM /Ø/. The change occurs in the penultima position. This can be seen in PAN *day changing into BM *ari which means ‘day’.

9. *d > /j/  
Evidensi:  
*dahat > *jahat ‘jahat’  
The consonant PAN */d/ becomes BM /j/ in the penultima position. It can be seen in the PAN word *dahat which becomes BM *jahat meaning ‘evil’.

10. *m>Ø  
*h>Ø  
Evidensi:  
*tumbuh > *tubu ‘tumbuh’  
*dabuh > *madabu ‘jatuh’  
The PAN consonants */m/ and */h/ change to BM /Ø/. The change occurs in the penultima position. This can be seen in PAN *tumbuh changing into BM *tubu which means ultima. It can be seen in PAN *dabuh changing into BM *madabu which means ‘ash’.

11. *p > /h/  
Evidensi:  
*apa > *aha ‘apa’  
The PAN consonant */p/ changes into BM /h/ in the ultima position. This can be seen in PAN *apa becoming BM *aha which means ‘what’.

12. *Ø> /l/  
Evidensi:  
*mo > *molo ‘kalau’  
The consonant PAN */Ø/ changes into BM /l/. The change occurs in the ultima position. It can be seen in PAN *mo becomes BM *molo which means ‘if’.

13. *Ø> /w/  
Evidensi:  
*matua > *matuwa ‘tua’  
The consonant PAN */Ø/ changes into BM /w/. The change occurs in the ultima position. This can be seen in PAN *matua becoming BM *matuwa which means ‘old’.

14. *y> /s/  
Evidensi:  
*buyuk > *busuk ‘busuk’  
The PAN consonant */y/ changes into BM /s/. The change occurs in the ultima position. This can be seen in PAN *buyuk becoming BM *busuk which means ‘rotten’.

15. *k>Ø  
Evidensi:  
*abuk > *abu ‘abu’  
The PAN consonant */k/ changes into BM /Ø/. This can be seen in PAN *abuk becoming BM *abu which means ‘ashes’.

16. *y>Ø  
Evidensi:  
*hiyan > *nian ‘itu’  
The PAN consonant */y/ changes into BM /Ø/. The change occurs in the ultima position. This can be seen in PAN *hiyan changing into BM *nian which means ‘that’.
17. *p >h
Evidensi:
*apa > *aha ‘apa’
The PAN consonant *p/ changes into BM /h/. The change occurs in the ultima position. This can be seen in PAN *apa becoming BM *aha which means ‘what’.

18. *k >h
Evidensi:
*dukut > *duhut ‘rumput’
*rakut > *rahut ‘mengikat’
The PAN consonant */k/ changes into BM /h/. The change occurs in the ultimate position. This can be seen in PAN *rakut becoming BM *rahut which means ‘to bind’.

19. *r >t
Evidensi:
*pa?a > pat ‘kaki’
The PAN consonant */r/ changes into BM /t/. The change occurs in the ultima position. This can be seen in PAN *pa?a becoming BM *pat which means ‘foot’.

20. *h >Ø
Evidensi:
*dilah > *dila ‘lidah’
The PAN consonant */h/ changes to BM /Ø/. The change occurs in the ultima position. This can be seen in PAN *dilah changing into BM *dila which means ‘tongue’.

21. *y >Ø
Evidensi:
*mayam > *meam ‘main’
The PAN consonant */y/ changes into BM /Ø/. The change occurs in the ultima position. This can be seen in PAN *mayam changing into BM *meam which means ‘play’.

22. *p >m
Evidensi:
*makan ‘makan’
The consonant

23. *Ø >ib
Evidensi:
*bulu > *ibbulu ‘bulu’
The PAN consonant */Ø/ changes into BM /ib/. The change occurs in the ultimate position. It can be seen in PAN *bulu becomes BM *ibbulu which means ‘fur’.

24. *d >t
Evidensi:
*dano > *tao ‘danau’
The consonant PAN */d/ becomes BM /t/ in the penultima position. It can be seen in the PAN word *dano becomes BM *tao meaning ‘lake’.

25. *l >h
*Ø >ib
Evidensi:
*laya > *haba ‘terbang’
PAN consonant */l/ becomes BM /h/ in the penultima position and PAN consonant */y/ becomes */b/ in the ultima position. It can be seen in the PAN word *laya becomes BM *haba meaning ‘to fly’.

26. *h >m
Evidensi:
*hinum > *minum ‘minum’
The consonant PAN */h/ becomes BM /m/ in the penultima position. It can be seen in the PAN word *hinum becomes BM *drink which means ‘to drink’.

27. *m >d
Evidensi:
*moho > *modom ‘tidur’
The PAN consonant */h/ changes into BM /d/. The change occurs in the ultima position. This can be seen in PAN *moho becoming BM *modom which means 'sleep'.

28. *Ø>m

Evidensi:
*dabuh > *madabu ‘jatuh’

The consonant PAN*/Ø/ changes into BM /m/. The change occurs in the ultima position. This can be seen in PAN *dabuh becoming BM *madabu which means 'to fall'.

4. Conclusion

Mandailing language (BM) shows that BM is one of the branches of languages in the Austronesian family that shows traces of consonant inheritance from Proto-Austronesian (PAN). Some significant phonetic changes occur in BM, as follows:

1. Consonant /b/: Remains /b/ or undergoes minimal changes, as in PAN *baRuh becomes BM *baru.
2. Consonant /k/: Change to /h/ in the penultima position, as in PAN *kaya into BM *hayu.
3. Consonant /z/: Changes to /j/ in the ultimate position, for example from PAN *tazom to BM *tajom.
4. Consonant /l/: Changes to /m/ in the ultimate position, as in PAN *bunuh to BM *mamunu.
5. Consonant /l/: Changes to /n/ in the ultimate position, as in PAN *pelek becomes BM *menek.
6. Consonant /n/: Changes to /d/ in the ultimate position, as in PAN *sana becomes BM *sada.
7. Consonant /d/: Changes to /t/ in the ultimate position, as in PAN *lawud becomes BM *lawut.
8. Consonant /h/: Can be lost in the ultimate position, as in PAN *hari becomes BM *ari.
9. Consonant /d/: Changes to /j/ in the ultimate position, as in PAN *daht into BM *jahat.
10. Consonants /m/ and /h/: Can be lost in the penultimate position, as in PAN *grow into BM *tubu.
11. Consonant /p/: Changes to /h/ in the ultimate position, as in PAN *apa becomes BM *aha.
12. Consonant /Ø/: Change to /l/ or /w/ in the ultimate position, as in PAN *mo becomes BM *molo.
13. Consonant /y/: Changes to /s/ or is lost in the ultimate position, as in PAN *buyuk to BM *busuk.

These changes illustrate the significant phonetic evolution in Mandailing that influenced consonants from Austronesian proto-languages. This provides strong evidence of linguistic inheritance from PAN to BM. These changes generally occur at certain positions in the word, namely at the penultima and ultima, affecting the phonology and morphology of Mandailing words.

References