

# Phonological Evidences Which Separate and Unite Mamboro Language from Proto Wanokaka-Anakalang in Sumba Group of Languages

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## ABSTRACT

This article describes the separating and uniting phonological evidences of Proto Wanokaka-Anakalang (PWn-An) and Mamboro language (Mb) reflected from the phonological changes of the Proto Mamboro-Wanokaka-Anakalang (PMB-Wn-An) phonemes. The description is based on the types of phonological changes suggested by Jeffers and Lehiste (1979). This article shows that the three phonemes of PMB-Wn-An were found ‘*retention*’ in PWn-An, but underwent ‘*split*’ in Mb and one phoneme underwent ‘*monophthongization*’. One phoneme of PMB-Wn-An underwent ‘*substitution*’, in PWn-An, but ‘*retention*’ in Mb. One phoneme of PMB-Wn-An was found ‘*split*’ in PWn-An, but ‘*retention*’ in Mb. Whereas, the uniting evidences show that three PMB-Wn-An phonemes were found ‘*retention*’ both in PWn-An and Mb. One phoneme of PMB-Wn-An underwent ‘*split*’ both in PWn-An as well as in Mb.

**Key words:** Retention, split, monophthongization, substitution, retention, types of phonological changes.

## INTRODUCTION

Proto Sumba is the protolanguage\* of all seven languages of Sumba which form a group of languages under Central Malayoo Polynesia (Budasi, 2007). The seven languages which includes: Kodi (Kd), Wewewa, Laboya (Lb), Kambera (Km), Mamboro (Mb), Wanokaka (Wn), and Anakalang (An) languages are actively spoken at present by Sumbanese living in Sumba island East Nusa Tenggara (ENT). The proto-language was reconstructed in Budasi's study (2007) based on a comparative method. The quantitative data of the study was analyzed using lexicoststistic analysis and the qualitative in the forms of fonem corespondences and shared innovation were found to support the quantitive findings of the study. Quated from Budasi's study, the relatedness among the seven languages in Sumba and two languages outside Sumba as comparation is quantitatively presented as follows:

The Quatitative Relatedness among the Seven Languages of Sumba and Two Languages outside Sumba: Bima language (Bm) in West

Nusa Tenggara and Sawu language (Sw) in East  
Nusa Tenggara.

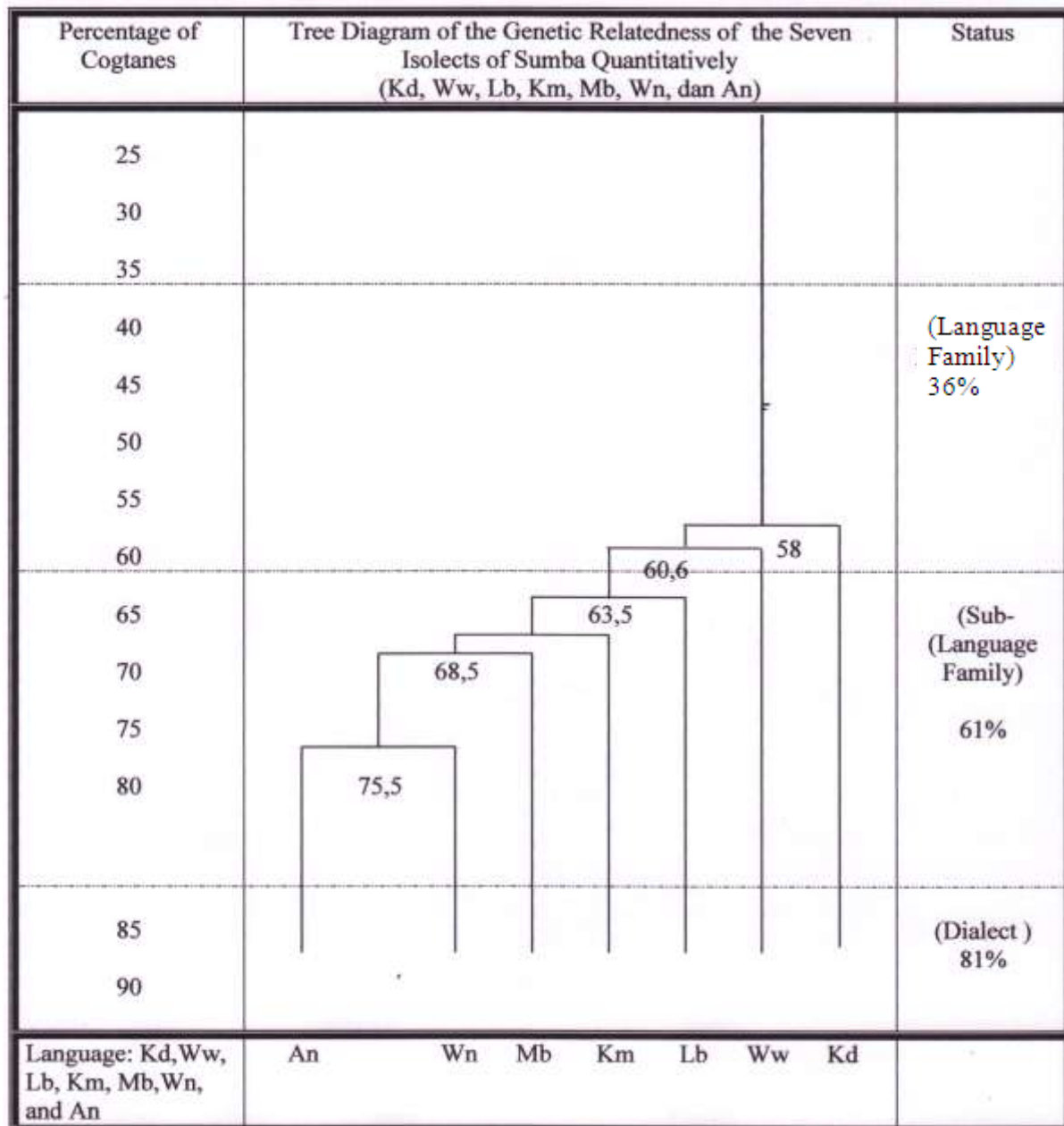
Km	-								
Kd	56								
Lb	58,5	59,5							
An	69	54	65,5						
Mb	69	57	67	70,5					
Ww	53	56	65,5	62	66				
Wn	60,5	66	65,5	75,5	66,5	56,5			
Sw	34	34	34,5	34,5	34	35	34		
Bm	31,5	27	32	31	32,5	32,5	27	26	-
	Km	Kd	Lb	An	Mb	Ww	Wn	Sw	Bm

Based on this table, a tree diagram of the seven languages have successfully been determined in Budasi's study (2007). Three diagram is as follows.

### Explanation of Diagram 1

- (1) Based on the diagram above, the seven languages in Sumba Island have formed a group of languages of Sumba. They are connected on 58% of cognate percentage reaching the cognate percentage limit for sub-group language for language family subgroup (lexicostatistic criteria determined by Swadesh (1952).
- (2) Sumba group of languages consists of two sub-groups language:
  - a) Kd
  - b) Ww, Lb, Km, Mb, Wn, and An

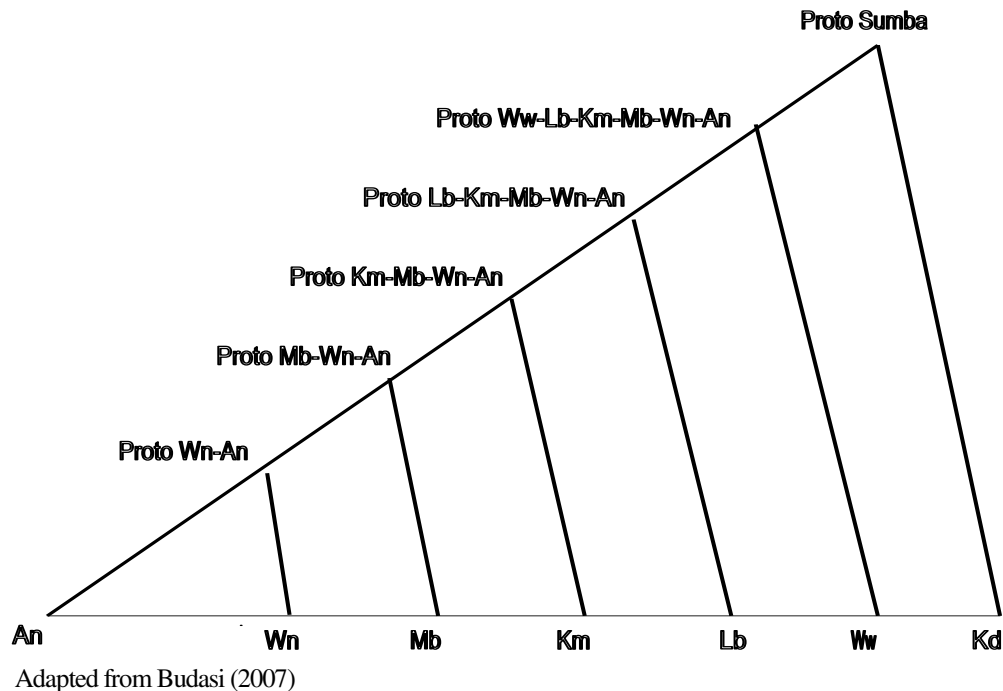
\* Protolanguage is not the real form of a language, but a language form which is constructed through theoretical hypothesis. It is a theoretical construction built through arranging language system that has historical relation, through the description of some simple principles which are built and reconstructed as the pictures of the history of a language (Bynon, 1979; Jeffers, 1979; Mbete, 1990).



Adapted from Budasi (2007).

**Diagram 1.** The Tree Diagram of the Genetic Relatedness of the Seven Languages (Kd, Ww, Lb, Km, Mb, Wn, and An) of Sumba Quantitatively. Note: (Bm and Sw are not included in this diagram, The two languages are belonged to Sumba Group of Languages).

- |  |   |
|--|---|
| <p>(3) Subgroup of (2) b above consists of 2 smaller sub-groups:</p> <p>a) Ww</p> <p>b) Lb, Km, Mb, Wn, and An</p> <p>(4) Subgroup (3) b above consists of 2 smaller sub-groups:</p> <p>a) Lb</p> <p>b) Km, Mb, Wn, and An</p> <p>(5) Subgroup (4) b above consists of 2 smaller sub-groups:</p> <p>a) Km</p> <p>b) Mb, Wn, and An</p> | <p>(6) Subgroups (5) b above consists of 2 smaller sub-groups:</p> <p>a) Mb</p> <p>b) Wn and An</p> <p>(7) Subgroup (6) b above has 2 languages, they are Wn and An</p> <p>Sub-group Kd and Ww, Lb, Km, Mb, Wn, An are connected on the average percentage 58%; sub-group Ww and Lb, Km, Mb, Wn, An are connected on 60.60 %; subgroup Lb and Km, Mb, Wn, An are connected on 63.50%; subgroup Km and Mb, Wn,</p> |
|--|---|



**Diagram 2.** Family Tree Diagram of Languages in Sumba in ENT Qualitatively

An are connected on 66.17; subgroup Mb and Wn, An are connected 68.5%; subgroup Wn and An are connected on 75.5%. Quantitatively, those seven languages are categorized in a language family.

The tree diagram of Sumba group of languages as the result of the qualitative analysis is also presented as follows (Diagram 2).

### Explanation of Diagram 2

- 1) Proto Sumba (PS) which developed into bipartite: Kd and PWw-Lb-Km-Mb-Wn-An.
- 2) PWw-Lb-Km-Mb-Wn-An which developed into bipartite: WW and PLb-Km-Mb-Wn-An.
- 3) PLb-Km-Mb-Wn-An which developed into bipartite: Lb and PKm-Mb-Wn-An.
- 4) PKm-Mb-Wn-An which developed into bipartite: Mb and PWn-An and Mb.
- 5) PWn-An which developed into bipartite: Wn and An.

Based on diagram 1 and 2, the diagram 1 and diagrams 2 mentioned above show that the quantitative findings confirm the quantitative findings.

PMb-Wn-An, which becomes the focus of discussion of this article, is one of the protolanguage under Proto Sumba. PMb-Wn-An is a mесо language which descended Mb and PWn-An. The differences between the two is that Mb is a real language which is actively spoken by its speakers in Sumba at the present time,

whereas PWn-An which descended Wn and An is not the real form of a language. The PWn-An is a language in the abstract form which was reconstructed through theoretical hypothesis based on the quantitative and qualitative approaches under the field of historical comparative linguistics (HCL) study. Mb and PWn-An are the two languages which were descended from PMb-Wn-An. Lexicostatistically, Mb and PWn-An are quantitatively related within 68.5%. Based on language classification suggested by Swadesh (1952), Mb and PWn-An can be classified as two different languages (Budasi, 2007). In relation to this, Fernandez (1988) mentions that if two different languages are classified based on lexicostatistic analysis, the classification must be supported by enough qualitative linguistic evidences. According to Fernandez (1988), the study on language subgrouping and language classification in HCL tradition can be considered complete if it provides quantitative and qualitative linguistic evidences. The question that may arise, is that, what qualitative phonological evidences which separate and unite the Mb and PWn-An as two different languages are?

This article raises the topic which is relevant to the qualitative evidences in an attempt to answer the question and limits its discussion only on the phonological evidences which separate and unite Mb and PWn-An. This article is a splinter of Budasi's research dissertation (2007) on the relatedness of the seven languages in Sumba island. The theoretical foundation grounding this study can be discussed in the following.

Experts in historical comparative linguistics (HCL) mention that the relatedness of languages in a language family can be proven through a comparative study. The study can be based on the generated elements from the protolanguage to the related languages (Adelaar, 1991; Sneddon, 1978; Fernandez, 1988; Hock, 1988). Actually, protolanguage is not the real form of a language, but a language form which is constructed through theoretical hypothesis. The construction is built through arranging language system that has historical relation and through the description of some simple principles which are built and reconstructed as the pictures of the history of a language (Bynon, 1979; Jeffers & Lehisté, 1979; Mbete, 1990).

The effort of classifying related languages also means an effort of placing the related languages to have clear relatedness or genetic structures to their protolanguage. Protolanguage reconstruction is not only an effort to conduct language grouping but also to clarify their family relatedness and their protolanguage. The relatedness can be seen from phoneme recurrences (the correspondences of phonemes) in the words which have related meaning. A genetic grouping is the hypothesis about the historical development of the related languages since the genetic language sub-grouping explains the similarity of the languages being compared. The similarities that can be observed are the linguistic features which have connection with their protolanguage. In this case, the features that can be observed are the characteristics of their similarities and their relationship to their protolanguage (Fernandez, 1988, 2010; Mbete 2000; Mandala, 2010).

The assumption which underlines this hypothesis, is that, if the condition of the relatedness among languages being compared is normal, the languages originally come from a protolanguage, and the relationship between languages can be stated in a family tree diagram which describes the connection of the parent languages within the era of historical development of the previous language in succession (Durasid, 1990). So, as an abstract system of the related languages, protolanguage becomes the reflection of historical development, that is, the related languages have passed the same development (Birnbaum, 1977).

There are two basis hypothesis in reconstructing protolanguage: relationship hypothesis and regularity hypothesis (Jeffers & Lehisté, 1979; Hock, 1988). The first hypothesis has the characteristics of the similarities. One of the forms of similarities being considered is the similarities in forms and the meaning of the words. The words which have similar or the same forms and meaning are called cognates.

Those words are not borrowing words but as the inheritances from the same source. The regular hypothesis is in the form of regular and systemic phonological changes that happen in languages descended from protolanguage.

In connection to this, Jeffers and Lehisté (1979) mention that the patterns of phoneme changes can be in the forms of *merger* (two phonemes or more to be one phoneme); *split* (one phoneme becomes two phonemes or more), *monophonemization* (a change of phoneme cluster to be a phoneme), *diphthongization* (the change of a phoneme to be two clustered phonemes), *phonemic loss* (the loss of phoneme), and *Lenition* (weakening phoneme), *substitution* (one phoneme is substituted by other phoneme), and *retention* (one phoneme is reflected exactly in the same form).

Hock (1988) states that the inheritance linguistic features from the related language can also be investigated through four linguistic levels: lexical, phonological, morphological, and syntactical. The first two levels are more common used in HCL study and mentions some reasons. Hock provides two reasons as follows: firstly, through lexical reconstruction, culture, social history, and geographical facts of certain language users can be identified; secondly, the most successful study in HCL is in the phonological level due to some factors: a) phonological element is the smallest part of a language, so that it is easy to understand, b) it is easier to find the relevant fact compared with other levels, c) phonology has been professionally studied in linguistic fields, thus it has been a comprehensive study, and d) the regular primary sound changes can indicate the diachronic relationship of the related languages being compared.

Lexical and phonological levels are considered as trivial aspects in comparative studies. This fact can be obviously seen in the studies done by Fernandez (1988); Durasid (1990); Mbete (1990); and Mandala (2010). In their studies, the preliminary observation in investigating the linguistic inheritances was conducted in the lexical level to classify the relationship among the related languages under the studies. In these studies, quantitative evidences focused at glance more on a number of basic vocabularies in order to see the percentage of the relatedness of the languages under studies. Following this was the studies in the phonological level to determine the reconstruction of the languages being observed and their analysis was based on the sound changes found in the languages. The results of the analysis were arranged based on the phoneme correspondence rules (see also Dyen, 1978, and Bynon, 1979).

Viewed from the effort to classify and reconstruct the related languages, the core problem in the studies is to gain the evidences that can be proved quantitatively and qualitatively (Dyen, 1978). The quantitative evidences can be a group of words that have closed relationship in linguistic features. While the qualitative evidences can be the phonological correspondences and shared innovations (Crowley, 1992). In figuring out the quantitative evidences, the linguistic features which are normally used are comparison of a number of basic vocabularies which contain retention words. The basic vocabularies are identified using Swadesh's list (the Blust's revision). The words in the list are believed to have universal characteristics. In HCL, Anceaux (1965) states that the study which makes use of the retention words belongs to quantitative approach (as cited in Fernandez, 1988).

In this case, the study through quantitative approach makes use of lexicostatistics in which the quantitative evidences is used as the basis to do preliminary classification of a language in its purpose of calculating the percentages of the relatedness of the languages being compared. The assumption which underlines this approach is that the vocabularies in a language can be distinguished into two major groups: a) the vocabularies that can not change easily, for instances: the ones which are related to the parts of the human bodies, pronouns, the vocabularies which state: feeling, number, nature, whether, and household equipments. Those vocabularies are considered to exist since the existence of the language. All those vocabularies are placed in a group which can be called basic vocabularies, b) the vocabularies that can change easily, for instance: borrowing words from other cultures. For example: table, chair, shirt, and lamp. These vocabularies are easily defused (as the effect of migration and the change of culture, especially through lexical borrowing and innovation). The next step is to calculate the separation periods of each language from the others by using glottochronology Dyen (1978); Swadesh (1952); Keraf (1991). While the assumption grounding the separation is the retention of a set of words which are universal in characters and constant forever (Dyen, 1978). There are several opinions about the percentages of vocabulary changes in their relation to the shared retention. Swadesh (1952), Hockett (1963), and Dyen (1975) state that the changes normally reach 19 % in a thousand year or can resist until 81%; Crowley (1992) argues 80%, while Keraf (1991) mentions 80,5%.

In brief, it can be concluded that both quantitative and qualitative evidences can be used to classify languages and sub-grouping them into related or non-

related languages. The quantitative approach makes use of static linguistic evidences based on the theoretical foundation that there are basic vocabularies, especially Swadesh' list, which are assumed to be difficult to change and they remain to exist (retention) in languages. The qualitative approach make use of the linguistic qualitative evidences which can be in the form the phonological correspondences and shared innovations (Crowley, 1992).

## METHOD

The present study employs a comparative method. The data of the study consisted of etimons of Proto Mb-Wn-An, PWn-A, and the lexicons of Mb identified in Budasi' study (2007). The procedures of data analysis were done as follows: 1) the phoneme correspondences between PMb-Wn-An and PWn-An reflected in the etimons of two protoes were compared and identified; 2) the phoneme correspondences between PMb-Wn-An and Mb reflected in the etimons of PMb-Wn-An and the lexicon of Mb were also compared and identified; 3) the reflects of the PMb-Wn-An phonemes in PWn-An were compared with the reflects of the PMb-Wn-An phonemes in Mb; and 4) the similarities and the differences of the reflects were identified and described based on the patterns of phonological changes suggested by Jeffers and Lehiste (1979) which include: *merger* (two phonemes or more to be one phoneme); *split* (one phoneme becomes two phonemes or more), *monophonemization* (a change of phoneme cluster to be a phoneme), *diphthongization* (the change of a phoneme to be two clustered phonemes), *phonemic loss* (the loss of phoneme), and *Lenition* (weakening phoneme), *substitution* (one phoneme is substituted by other phoneme), and *retention* (one phoneme is reflected exactly in the same form).

## FINDINGS AND DISCUSSION

In the tradition of HCL, a qualitative study can result the description of linguistic evidence, which separates or unites languages within a group of language family. The evidences of separation and union can be described phonologically and lexically. This article limits its discussion only on the phonological evidence which separates and unites Mb and PWn-An.

### Phonological Evidence Separating Mb Language and PWn-An

Phonological evidences separating the Mb language from PWn-A can be explained through the following examples.

Glos	PWn-An	Mb	PMb-Wn-An
'flow'	*la-i	le-i	*la-i
'female'	*ba-i	be-i	*ba-i
'wase'	*ta-i	te-i	*ta-i
'water'	*wa-i	we-i	*wa-i
'this'	*na-i	na-i	*na-i
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'pound'	*ba-i	mba-i	*(m)ba-i
'bring'	*pala-i	pala-i	*pala-i
'tree'	*ya-i	ya-i	*ya-i

A number of sample mentioned above show that diphtong PMb-Wn-An \*a-i in ultima underwent 'retention' in PWn-An, while in Mb language itself underwent innovation in the form of 'split' > Mb e-i, an a-i. PMb-Wn-An \*a-u in ultima and penultima underwent 'retention' in PWn-An, while in Mb underwent 'split' > Mb u and o-u. Diphtong PMb-Wn-An \*u-a in ultima underwent 'retention' in PWn-An, whereas in Mb underwent innovation > Mb a. A number of evidence which separated Mb and PWn-An can be seen in the following examples.

Glos	PWn-An	Mb	PMb-Wn-An
'tired'	*ja-uli	oja	*ja-uli
'swelling'	*ba-u	mbu	*(m)ba-u
'neck hair'	*kaha-uki	kasuki	*kasa-uki
'shining'	*la-uŋu	lo-uŋu	*la-uŋu
'acid'	*mara-u	maro-u	*mara-u

A number of example mentioned above show that diphtong PMb-Wn-An \*a-u in ultima and penultima positions underwent 'retention' in PWn-An, while in Mb underwent splite > Mb a, u, o-u, and a-i. A number of phonological evidences which separate Mb language and PWnn-An can be seen in the following examples:

Glos	PWn-An	Mb	PMb-Wn-An
'dig up'	*haka	saka	*saka
'foot'	*wihi	wisi	*wisi
'neck hair'	*kaha-uki	kasuki	*kasa-uki

In the first two examples above, PMb-Wn-An \*s in ultima and penultima position underwent innovation in the form of 'substitution' > PWn-An \*h, whereas in Mb underwent 'retention'. See also the following examples.

Glos	PWn-An	Mb	PMb-Wn-An
'spider'	*gegi	ge-ŋgi	*gegi
'hair'	*logi	lo-ŋgi	*logi

Dorsovelar stop voiced fonem PMb-Wn-An \*g in ultima underwent 'substitution' > cluster nasal consonat Mb \*ŋg, whereas underwent 'retention' in PWn-An. The evidence can be seen in the following examples.

Glos	PWn-An	Mb	PMb-Wn-An
'come back'	*(m)bali	mbali	*(m)bali
'broken'	*(m)bera	mbera	*(m)bera
'swelling'	*ba-u	mbu	*(m)ba-u
'pound'	*ba-i	mba-i	*(m)ba-i
'chilly'	*baku	mbaku	*(m)baku
'wash'	*basa	mbasa	*(m)basa
'knee'	*kabaku	ka-mbaku	*ka(m)baku
'smoke'	*sibu	ku-mbi-sa	*ku(m)bisa
'peanut'	*kaba-i	ka-mbu-a	*ka(m)ba-i

PMb-Wn-An \*(m)b in penultima and ultima position underwent 'split' > PWn-An \*b and \*(m)b. However in Mb it underwent 'retention'.

### Phonological Evidences Uniting Mb and PWn-An

Phonological evidences which united Mb language and PWn-An were found unique. The uniqueness can be seen in the following examples.

Glos	PWn-An	Mb	PMb-Wn-An
'medicine'	*moru	moru	*moru
'plant egg'	*toru	toru	*toru
'neck'	*koku	koku	*koku
'cat'	*wodu	wodu	*wodu
'uncle'	*boku	boku	*boku
'river'	*loku	loku	*loku

In the example above, PMb-Wn-An \*u within ultima underwent 'retention' > PWn-An \*u and Mb u. In the following examples, PMb-Wn-An \*i within ultima position also underwent 'retention' both in Mb and PWn-An.

Glos	PWn-An	Mb	PMb-Wn-An
'rice'	*pari	pari	*pari
'dry'	*daŋi	daŋi	*daŋi
'kill'	*pamati	pamati	*pamati
'ladder'	*pahari	pahari	*pahari
'white ant'	*ahi	ahi	*ahi
'case'	*rabi	rabi	*rabi
'heart'	*ati	ati	*ati
'peace'	*padami	nami	*padami
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'take'	*deki	deki	*deki
'swamp'	*redi	redi	*redi
'squit'	*kajeli	kajeli	*kajeli
'rich'	*dedi	dedi	*dedi
'talk'	*panewi	panewi	*panewi
'cuccumber'	*kareri	kareri	*kareri
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'friend'	*oli	oli	*oli
'vegetable'	*rowi	rowi	*rowi
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'roattan'	*uwi	uwi	*uwi
'saffron'	*kuŋi	kuŋi	*kuŋi
'nech hair)	*kaha-uki	kasuki	*kasa-uki

The following example which means ‘year’ shows that PMb-Wn-An \*a in penultima underwent ‘substitution’ > PWn-An \*a-u and Mb a-u.

Glos	PWn-An	Mb	PMb-Wn-An
‘year’	*(n)da-u-ηu	nda-uηu	*(n)daηu

In the example below, PMb-Wn-An \*s dan \*h, both ultima and penultima positions underwent ‘split’ > PWn-An \*s and \*h and > Mb s and h.

Glos	PWn-An	Mb	PMb-Wn-An
‘island’	*nusa	nuha	*nusa
‘beach’	*tahika	tahika	*tasika
‘net’	*kasosa	kasosa	*kasosa
‘wash’	*basa	mbasa	*(m)basa
‘dig up’	*haka	saka	*saka
‘foot’	*wisi	wisi	*wisi
‘neck hair’	*kaha-uki	kasuki	*kasa-uki
‘ladder’	*pahari	pahari	*pahari
‘whit ant’	*asi	ahi	*asi

The description of the study findings mentioned above show a number of phonological evidences which separate and unite Mb and PWn-An. The confirmation of the qualitative study findings mentioned above also means that both Mb and PWn-An can be determined as two different languages under Sumba group of languages. In this case, Mb is a living language which is actively spoken at the present time, while PWn-An is one of the protolanguages under Proto Sumba which descended Wn and An. This kind of classification is in relation to the HCL theoretical foundation hold in this study, that is, two or more languages can be classified as different languages if there are supporting quantitative and qualitative linguistic evidences that separate and unite the languages being compared in this disciplines. Based on this study findings, Mb and PWn-An can also be stated as different languages which were descended from their language proto, PMb-Wn-AN. In addition, they are grouped under Sumba group of languages.

In relation to the classification of languages in Sumba, following Uhlenbeck (1971), Dyen (1982) states that there is only one language in this island which he names Sumba language. So, the investigation of this study is quite different from Dyen’s opinion. If it is stated that in Sumba there is only one language, Dyen’s statement also means that all isolects of Sumba qualitatively determined in Budasi (2007) as different languages in Sumba-East Nusa Tenggara are considered as dialects of Sumba language. Therefore, this study findings are in contradictive to Dyen’s opinion which was based on the opinion of Uhlenbeck’s statement and was without in depth-field study. This study, however, supports the study done

by Grimes (1988) who states that there are seven languages in Sumba which include: An, Wn, Mb, Km, Ww, Lb, and Kd, inspite of the fact that Grimes and Grimes’ study was based on the opinion of the speakers of the seven languages.

To complete the language subgrouping of the eight Sumba languages, several other corresponding studies need to be done. Though in this study the phonological evidence that separates and unites Mb and PWn-An have been identified, other four linguistic levels: the morphological, syntactical, semantic, and sociolinguistic, also need to be indentified to complete the subgrouping languages.

## CONCLUSION

The description in the early section shows a number phonological evidences separating and uniting Mb and PWn-An. The evidences appear in the different reflects of PMb-Wn-An in Mb and in PWn-An. The phonological evidences separating Mb and PWn-An was found in the form of vocal fonemes as well as in the form of diphthongs, such as: a) PMb-Wn-An \*a-i in ultima position >PWn-An\*a-i, whereas underwent ‘split’>Mb e-i, and a-i; PMb-Wn-An \*a-u in ultima and penultima positions underwent ‘retention’ > PWn-An \*a-u, whereas underwent ‘split’ > Mb u and o-u; b) PMb-Wn-An \*a-u > PWn-An \*a-u, whereas underwent ‘split’ > Mb a, u, o-u, and a-i; c) PMb-Wn-An \*s in ultima and penultima underwent ‘split’ > PWn-An\*s and \*h, while ‘retention’ in Mb >Mb s; d) PMb-Wn-An \*g in ultima were ‘substitution’ > cluster nassal consonant Mb \*ηg, whereas ‘retention’ in PWn-An; and e) PMb-Wn-An \*(m)b in penultima and ultima underwent ‘split’ > PWn-An \*b and \*(m)b and ‘retention’ in Mb >Mb (m)b. The differences prove that Mb and PWn-An separated each other.

The phonological evidences which united Mb and PWn-An as two related languages are as follows: a) PMb-Wn-An \*u in ultima position underwent ‘retention’ in Mb and PWn-An; b) PMb-Wn-An \*i in ultima position underwent ‘retention’, both in Mb as well as in PWn-An. This does not occur in other Sumba languages; and c) PMb-Wn-An \*a in penultima underwent ‘retention’> PWn-An \*a-u and Mb a-u; and d) PMb-Wn-An \*s and \*h, both in ultima and penultima positions underwent ‘split’ > PWn-An \*s and \*h and > Mb s and h.

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