Phonology Process Analysis in Proto Tolaki - Moronene - Wawonii – Landawe

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ABSTRACT

Based on the evidence quantitatively with the lexicostatistic technique that utilizes a list of 200 basic Swadesh vocabulary and a list of basic culture vocabulary, then the percentage of Tolaki - Moronene language cognates is 72% and Landawe - Wawonii 72%. The Tolaki - Landawe language is 76%, Tolaki - Wawonii language 69%, Moronene - Landawe language 68%, Moronene - Wawonii language 65%, kinship percentage 36 - 81% indicating the level of language family relations. The method used in phonological change analysis is the generative phonological method by applying the following techniques; a. Determine the morpheme in the body of data; b. register variations. 3. Write rules. 4. Combining standards. 5. Assess the practices written on whether the state is acceptable. 6. Arrange regulations according to their order. The phonological processes and rules found in this study are split, retardation and vocal elevation, vocal lowering, voiceless change, addition of syllables, phonemic loss, voicing, insertion, and metathesis.

Key word: Phonology process, language family, grouping.

INTRODUCTION

Speakers of the Tolaki language spread throughout most of Southeast Sulawesi Province, however, the majority of speakers reside in Konawe District, an area of 679,425 ha. Moronene is one of the many indigenous groups, and it used to be misinterpreted as an isolated tribe in
Southeast Sulawesi. Moronene speakers generally live in the mainland of Bombana Regency and on the island of Kabaena. The Wawonii tribe is one of the tribes in Southeast Sulawesi that inhabits a small island namely Wawonii Island, an island area of 89,758 ha and still included in the administrative area of Konawe Regency. Wawonii Island is administratively made up of four sub-districts, three sub-districts and 36 villages. The population of the Wawonii tribe is relatively small with a low level of cultural adaptation and far from the information center. In general, the Wawonii tribe works as fishermen and farming.

Landawe speakers live in the Konawe Utara District area. This district is a division of Konawe Regency. Administratively, the Konawe Utara District government area.

Based on the evidence quantitatively with the lexicostatistic technique that utilizes a list of 200 basic Swadesh vocabulary and a list of Basic Culture vocabulary, then the percentage of Tolaki - Moronene language cognates is 72% and Landawe - Wawonii language 72%. The Tolaki - landawe language is 76%, Tolaki - Wawonii language 69%, Moronene - Landawe language 68%, Moronene - Wawonii language 65%, kinship percentage 36 - 81% indicates the level of language family relations.

Qualitative analysis shows evidence that PTMR proto-language, PTMRWn proto-language, and PTMrWnLd proto-language analyzed by reconstructing phonological and lexical aspects. Based on the reconstruction carried out in three stages, namely the first to reconstruct the Tolaki - Moronene (PTMr) proto-language, which based on quantitative and qualitative evidence has a very close relationship; secondly, the reconstruction of the PTMR language in the Wawonii language (PTlMrWn), the third, the result of reconstructing PTlMrWn reconstructed back into the Landawe language. The four languages are hypothesized to originate from the ancestors of the same language namely PTMrWnLd.

Associated with the evidence of the separator of the Tolaki-Moronene group (* TlMr), it is found that there are 13 phonological separator rules, namely 1) *(i,e) - *(i,e) – Tl: i, Mr: e. 2). *(i,o) - *(i,o) – Tl: i, Mr: o. 3) *(u,i) - *(u,i ) – Tl: u, Mr: i. 4) *(e,u) - *(e,u) – Tl: e, Mr: u. 5).*(e,a) - *(e,a) – Tl: e, Mr: a. 6) *(o, u) - *(o, u) – Tl: o, Mr: u. 7) *(o, a) - *(o, a) – Tl: o, Mr: a. 8). *(mb,mp) - *(mb,mp) – Tl: mb, Mr: mp. 9. *(b, w) - *(b, w) – Tl: b, Mr: w. 10) *(b, w) - *(b, w) – Tl: b, Mr: w. 11) *(d,t) - *(d,t) – Tl: d, Mr: t. 12) *(g, c) - *(g,c) – Tl: g, Mr: c. 13). *(g,k) - *(g,k) – Tl: g, Mr: k. The dividing dividend of the Tolaki-Moronene-Wawonii group
(* TlMrWn) found that there are 8 separate rules, namely:

1) \( \text{TlMrWn} *d \rightarrow \text{Wn} b/\# [+ \text{Sil}] \),
2) \( \text{TlMrWn} *k \rightarrow \text{Wn} /g/ [+\text{sil}] [+ \text{Sil}] \),
3) \( \text{TlMrWn} *k \rightarrow \text{Wn} /g-/\# [+ \text{Sil}] \),
4) \( \text{TlMrWn} *l \rightarrow \text{Wn} /r/[+\text{sil}] [+ \text{Sil}] \),
5) \( \text{TlMrWn} *r \rightarrow \text{Wn} /mb//+\text{sil} [+ \text{Sil}] \),
6) \( \text{TlMrWn} *w \rightarrow \text{Wn} /b/ [+\text{sil}] [+ \text{Sil}] \),
7) \( \text{TlMrWn} *n \rightarrow \text{Wn} /nd/ [+\text{sil}] [+ \text{Sil}] \),
8) \( \text{TlMrWn} *o \rightarrow \text{Wn} /a/ [+\text{sil}] [+ \text{Sil}] \).

Furthermore, the dividend of the Tolaki-Moronene-Wawonii-Landawe group (* PtMrWnLd) was found to have 5 separate rules namely:

1) \( \text{PtMrWnLd} *u \rightarrow \text{Ld} /i/[+\text{sil}] [- \text{Sil}] \),
2) \( \text{PtMrWnLd} *o \rightarrow \text{Ld} /a/[+\text{sil}] [- \text{Sil}] \),
3) \( \text{PtMrWnLd} *a \rightarrow \text{Ld} /a/[+\text{sil}] [- \text{Sil}] \),
4) \( \text{PtMrWnLd} *t \rightarrow \text{Ld} /c/[+\text{sil}] [+ \text{Sil}] \),
5) \( \text{PtMrWnLd} *s \rightarrow \text{Ld} /t/ [+\text{sil}] [-+\text{Sil}] \).

Based on the results of the reconstruction and the discovery of the unifying and separating groups of these languages, what must be done is analyzing the pattern of phonological changes in the proto of Tolaki, Moronene, Wawonii, and Landawe languages as follows.

**Theoretical Approach**

The kinship of languages or cognates is a language originating from the same family, having the same elements of language such as phonology and morphology which can prove through comparison or reconstruction. The main objective in the study of the kinship of a word is to obtain convincing evidence, both quantitatively and evidence qualitatively (Dyen 1975). Quantitative evidence can be in the form of several relatives' words relating to shared retention, whereas qualitative evidence can be phonological correspondence and joint innovation (Fox 1995: 220). Grouping is an effort to determine the position of languages in a family tree (Dyen, 1975: 52-53).

According to Bynon (1979: 25), phonology applied as a study in classifying a proto-language based on regular sound changes found in each of the related languages and can arrange according to the phoneme rules of correspondence.

The phonological process is a change caused by the merging of morphemes to form words; segments of adjacent morphemes are lined up and sometimes experience changes. There are four categories in the phonological process, namely assimilation - sections become increasingly similar; syllable structure - there are alternations in a consonant and vocal distributions; attenuation and reinforcement - segments modified according to their position in the word; and neutralization - the segment
joined in a particular environment. Examples of this process are taken from synchronic descriptions and also from historical changes. (Schane, 1973; 51).

Generative phonology according to Bynon (1977: 110), aims to be generalize the structure of language, both specifically and publicly, in synchronous and diachronic dimensions. The differences found in generative phonology are systematic phonemic and systematic phonetic representations.

**RESEARCH METHODS**

Research instruments were a list of 200 basic Swadesh vocabulary and a list of basic cultural vocabulary. The Swadesh basic vocabulary questions include (1) Nouns: Human and kinship, Pronominal, Members and body parts, Animals and Animals, Plants and Plants, Houses and Parts, Objects, tools and nature, Numeral, Interrogative, Demonstrative, Conjugation, articulate Nominative. (2) Verbs: Transitive verbs, intransitive verbs. (3) Adjectives: Adverbs. List of basic cultural vocabulary questions according to field covers, consist of body parts, pronouns, greetings and references, kinship systems, village and community life, house and its components, equipment and supplies, food and drinks, yard plants and trees, animals, Season, natural conditions, natural objects and directions, Diseases and treatment, temperament, adjectives and colors, Eyes livelihood, Clothing and jewelry, Games, Motion and work, Numbers, and task Words.

The method used in phonological change analysis is the generative phonological method by applying the following techniques; a. determines the morpheme in the body of data. b. Register variations. 3. Write the rules. 4. Combining standards. 5. Assess the practices written on whether the state is acceptable. 6. Arrange regulations according to their order.

**DISCUSSION**

Based on the analysis in Tolaki - Moronene - Wawonii - Landawe languages sound changes found. The sound changes presented as follows.

**Split**

Sound changes in the form of cracking (split) are symptoms of phoneme changes dividing into two or more phonemes. Cracks (split) in ProtobahasaTolaki, Moronene, Wawonii, and Landawe can be presented in the following data.
The data above show the split of segments *N\text{g} alternated to *N\text{g} /Nk/, /nt/ dan /k/.
Data 51 and 126 show the segment *N\text{g} (T\text{im}r\text{Wn}) alternated to /Nk/ in the middle position of the word. Segments *N\text{g} /Ng/ as a distinctive sound characterized by +consonantal, +coronal, -anterior, -sonoran, -kont, +nasal, +voiced alternated into segments /Nk/ which is + consonant, + corona, + anterior, -sonoran, -kont, -nasal, -voiced in the position of the penultima before and after [+ sil]. The 181 data shows the segment *N\text{g} (T\text{im}r\text{Wn}) alternated to /Nt/ in the middle position of the word. The segments *N\text{g} as a distinctive sound characterized by +consonantal, -coronal, -anterior, -sonoran, -kont, +nasal, +voiced alternated into segments /Nt/ which is + consonant, + corona, + anterior, -sonoran, -kont, +nasal, -voiced in the position of the penultima before and after [+ sil]. Data of 106 segments *N\text{g} (T\text{im}r\text{Wn}) alternated to /k/ in the initial position of the word. Segments *N\text{g}/ as a distinctive characterized by +consonantal, +coronal, -anterior, -sonoran, -kont, +nasal, +voiced alternated to segment /k/ which is the characterized by +consonantal, +coronal, -anterior , -sonoran, +high, -kont, -nasal, -voiced in the ultima position before [+ sil].

Sound Backwardness and Sound Elevation

Other sound changes are also found in the form of sound elevation and vocal backwardness as in the following data.

The data above shows a change in backwardness and vocal elevation that is segment /e/ alternated to /u/. In the data 19 segments /e/ are characterized +sil, -high, +back, -low, -round turns into segments /u/ which are characterized +sil, +high, back, -low, +round at the end of the word after [+ cons].

The phonological process in the form of sound elevation also occurs in consonant segments as in the following data.

Data 49 and 66 show segments *t (T\text{im}r\text{Wn}) alternated to /c/ in the position of the penultima. Segments /t/ as distinctive sound characterized by +consonantal, +corona, +anterior, -sonoran, -high alternated to segment /c/ which is distinctive sound characterized by +consonantal +character, +corona, -anterior, -sonoran, + high in position penultima before and after [+ si]

Vocal Lowering
The phonological process was also found in the form of vocal lowering as in the following data:

\[
\begin{array}{c}
\text{[low + round]} \\
\text{[+ low - round]}
\end{array} 
\rightarrow \left[ \begin{array}{c}
\text{[+ cons]} \\
\#
\end{array} \right]
\]

The data above shows that there has been a change in the form of vocal lowering namely segment /o/ alternated to /a/ in data 90 and 176 segments /o/ which are characterized by +sil, +hight, +back, +low, -round alternated to segment /a/ which is characterized by +sil, -high, +back, -low, +round at the end position word after [+cons].

**Devoicing**

Sound changes from voiced to voiceless are found in the form of devoicing on consonant segments as in the following data.

\[
\begin{array}{l}
\text{PTLMrWnLd} \quad *mb >mp \quad / \quad V \_ V \\
\text{PTLMrWnLd} \quad \text{PTLMrWn} \quad \text{Ld} \quad \text{Gloss} \\
\quad *ko^mbo \quad *ko^mbo \quad /ko^mpo/ \quad \text{‘usus’} \quad 23
\end{array}
\]

The rule formulation

\[
\left[+\text{voiced} \right] \rightarrow \left[ -\text{voiced} \right] / \left[ +\text{sil} \right] \quad \left[ +\text{sil} \right]
\]

Data 23 shows the segment *m\text{b}(\text{TLMrWn}) alternated to /m\text{p}/ in the position of the cultivator. Segment segmen /m\text{b}/ as a distinctive sound characterized by +consonantal, +corona, +anterior, -sonorant, +sound transforms into a segment /m\text{p}/ which is a consonant with +consonantal, +corona, + anterior, -sonorant, -voiced in position cultivator before and after [+sil].

**Prosthesis**

In addition to changes that occur in the form of sound changes also occur changes that are caused by the addition or subtraction of syllables. Changes found only occur at the beginning of the word or called prosthesis. The process can be presented in the following data.
Added syllables [te]  $O \rightarrow [\text{te}] / \#$

\begin{tabular}{llll}
PTIMrWnLd & PTIMrWn & Ld & Gloss \\
\hline
*i''pia & *impia & /tei''pia/ & ‘kapan’ 93 \\
\end{tabular}

Data 93 shows the addition of syllables [te] in the initial position of the word.

Added syllables [mo]  $O \rightarrow [\text{mo}] / \#$

\begin{tabular}{llll}
PTIMrWnLd & PTIMrWn & Ld & Gloss \\
\hline
*oli & *oli & /mo?oli/ & ‘membeli’ 125 \\
\end{tabular}

Data 125 shows the addition of the syllable [mo] in the initial position of the word.

1) Added syllables [po]  $O \rightarrow [\text{po}] / \#$

\begin{tabular}{llll}
PTIMrWnLd & PTIMrWn & Ld & Gloss \\
\hline
*pate & *pate & /popate/ & ‘membunuh’ 136 \\
\end{tabular}

Data 136 shows the addition of syllables [po] in the initial position of the word.

**Phonemic Loss**

Sound leaching is a sound change in the form of loss of phonemes, both in the first place (apharesis), middle position (syncope), and the final position (apacope). Sound pulses in the form of phoneme removal in Proto-language Tolaki, Moronene, Wawonii, and Landawe can be presented in the following data.

Phonemic loss [mo]  [mo]  $\rightarrow O / \#$

\begin{tabular}{llll}
PTIMrWnLd & PTIMrWn & Ld & Gloss \\
\hline
*motuo & *motuo & /cua/ & ‘tua’ 176 \\
\end{tabular}
Data 176 and 106 indicate an omission of the syllable [mo] in the initial position of the word. 

**Successive rule**

Several words experience several rules as a result of segment meeting with another, or as a result of attending one morpheme with another. Between states one with the other regulations in the process is successive (Pastika, 2005: 115). The process can be seen in the following data.

<table>
<thead>
<tr>
<th>PTIMrWnLd</th>
<th>PTIMrWn</th>
<th>Ld</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>hana</em></td>
<td><em>hana</em></td>
<td>/roana/</td>
<td>‘kiri’</td>
</tr>
</tbody>
</table>

In 193 data found segment /h/ [+kon, -son, -kor, -high, +mal] segments experience changes in voicing to /r/ [+kon, +son, +kor, +high, -mal] at the beginning. In addition it also found the addition of vowel /o/ [-low, +round] in the position of the cultivator. This refers to the successive rules of the successive rules in 193 data, so that the following rules can be formulated as follows.

**Voicing rule**

\[ \begin{align*} &[- \text{ sonoran}] \\
&[- \text{ corona}] \\
&[- \text{ high}] \\
&[+ \text{ mal}] \quad \rightarrow \quad [\text{#}] \\
\end{align*} \]

**Insertion Rule**

\[ \begin{align*} &[- \text{ low}] \\
&[+ \text{ round}] \\
&[- \text{ cons}] \\
&[- \text{ sil}] \quad \rightarrow \quad \emptyset \\
\end{align*} \]

Furthermore, phonological processes are also found which show the existence of other successive rules. As in the following data.

<table>
<thead>
<tr>
<th>PTIMrWnLd</th>
<th>PTIMrWn</th>
<th>Ld</th>
<th>Gloss</th>
</tr>
</thead>
</table>

From data 126 above, there is an exchange of segment /h/ at the beginning of the word from the first syllable (PTLMrWnLd) changing to the fifth position (Ld). Based on these data can be linked as follows.

Methathesis rule

\[
\begin{array}{c}
* h u \gamma a i
\end{array} \rightarrow \begin{array}{c}
* u \kappa a i o
\end{array}
\]

Then from the data also seen a change in the nasal voiceless \( /\gamma g/ \) \([-\text{ant, -kor, +high, +strid}]\) alternated to \( /\kappa k/ \) \([+\text{ant, +kor, -high, -strid}]\). The process can be explained as follows.

The rules of nasal voiced

\[
\begin{array}{c}
-\text{ anterior} \\
-\text{ cor} \\
+\text{ high} \\
+\text{ striden}
\end{array} \rightarrow \begin{array}{c}
+\text{ anterior} \\
+\text{ cor} \\
-\text{ high} \\
-\text{ striden}
\end{array}
\]

Furthermore, still in data 126, there is a final process, namely the addition of vowels \( /\circ o/ \) \([+\text{sil, +high, +back, +low, -round}]\) at the end of the word that can be assigned as follows.

\[
\begin{array}{c}
\varnothing
\end{array} \rightarrow \begin{array}{c}
-\text{ high} \\
-\text{ low} \\
+\text{ back} \\
+\text{ round}
\end{array}
\]

**FINDING**

The phonological processes and rules found in this study are split, sound backwardness and vocal elevation, vocal lowering, voiceless change, addition of syllables, phonemic loss, voicing, insertion and metathesis.

**BIBLIOGRAPHY**


Phonology Process Analysis in Proto Tolaki - Moronene - Wawonii – Landawe