SOUND ASSIMILATION IN AMANATUN DIALECT OF UAB METO

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Abstract
This study was conducted to identify and describe the kinds of assimilation in Amanatun Dialect of Uab Meto. Descriptive qualitative was used in conducting the study. The data were collected from Uab Meto native speaker’s speech transcription and analyzed using category identification and integration. The results of this study indicates that there are ten kinds of assimilation in Amanatun dialect of Uab Meto which are grouped into five classifiers. Phonological assimilation and morphophonemic assimilation are grouped into assimilation based on form, regressive assimilation and progressive assimilation are grouped into assimilation based on direction, contact assimilation and distance assimilation are grouped into assimilation based on distance, assimilation in word and assimilation at word boundary are grouped into assimilation based on position, and consonant assimilation and vowel-consonant assimilation are grouped into assimilation based on inventory of sound. Since the current study focuses on classifying the types of assimilation in Uab Meto and their occurences, it is recommended that the further study may concerns on each type of assimilation of Amanatun dialect of Uab Meto for deeper investigation.

Keywords: assimilation, Amanatun dialect, Uab Meto

Introduction
As one of phonological rules, assimilation is the change of a sound to be more like another sound under certain conditions. According to Akram and Qureshi (2014) assimilation occurs when there is a process of sound modification to be more similar to its neighboring sound. Dawood and Atawneh (2015, p. 79) adds that “assimilation occurs because two sounds share common features in place or manner.” Moreover, Khattab (2018) states that assimilation is a phonological process which produces new and similar sounds and happens in all languages of the world. In this case assimilation occurs on both major parts of sounds, consonants and vowels.

Types of assimilation has been classified by experts such as assimilation by process (vowel assimilates consonant feature, consonant assimilates vowel feature, consonant assimilates consonant features, and vowel assimilates vowel feature), assimilation by time (historical (diachronic) and contextual (synchronic) assimilation), assimilation by distance (contact and distance assimilation),
assimilation by direction (progressive and regressive assimilation), and assimilation by form (phonological and morphophonemic assimilation) (Muslich, 2011; Rose, 2011; Jurgec, 2013; Rezaei, Gowhary, and Azizifar, 2015; Vancova, 2016; Demirezen, 2016; Al-Deaibes (2016); Boersma, Baker, Rispens, and Weerman, 2018; Napitupulu, 2018).

As stated by Khattab (2018) assimilation occurs in all languages of the world. In English there is phonetic assimilation on voiceless alveolar stop sound /t/ in the word [top]. In this word the sound is aspirated and pronounced /thop/. It is different if the sound is in word [stop]. The word will become unaspirated and is pronounced /stop/. The change happens because of the influence of the voiceless alveolar fricative /s/ which precedes the voiceless stop alveolar /t/. Phonemic ‘assimilation also occurs in English, in the word [bad pain] which is pronounced /bappain/. Voiced alveolar stop sound /d/ in [bad] becomes voiceless bilabial stop unaspirated sound /p/ because of the influence of voiceless bilabial stop unaspirated sound /p/ in the following word [pain]. In Dutch, phonetic assimilation occurs in word [zakdoek] which is pronounced /zagdoek/. Voiceless velar stop unaspirated sound /k/ becomes voiced velar stop unaspirated sound /g/ because of the influence of voiced alveolar stop sound /d/ (Verhaar in Abidin, 2016: 169). In Iranian dialect, assimilation also occurs to the consonants for example in word [panbe] which means cotton is pronounced /pambe/. The voiced nasal alveolar sound /n/ becomes voiced nasal bilabial /m/ under the influence of the voiced stop bilabial /b/ (Hosseinzadeh, Ehsani, Shariati, and Sharifi, 2014).

As one of languages of the world, Uab Meto also possesses the process of sound assimilation. Uab Meto is a language which is used by Atoni Meto in Timor Island. Uab means language, Meto means dry, Atoni means man, and Timor Island is a dry island in East Nusa Tenggara. So Uab Meto is the language of man or people who live in a dry land that is Timor Island. Uab Meto or Dawan language is an Austronesian and a Central-Eastern Malayo-Polynesian language spoken by 700000 speaker (2009 census) in West Timor. (Bellamy and Metboki, 2014 and Benu, 2019). More specifically, Uab Meto is spoken in three dialects by three groups of people in South Middle Timor. The grouping is based on three historical kingdoms namely Amanatun, Amanuban, and Mollo kingdom.

Assimilation has been studied in a numerous ways. Zuraiq (2009) suggests that assimilation rules between Arabic and English are comparable but Arab learners of English did not produce anticipated patterns regarding consonantal assimilation. Nuhiu (2012) found assimilation as the cause of Albanian speakers’ difficulty in pronouncing English speech sound. Febriyanti (2015) analyses assimilation in the selected song lyrics of Avenged Sevenfold and found four kinds of assimilation consisting of nasalization, dentalization, rounding, and fronting in the first song and three kinds of assimilation consisting of nasalization, dentalization and fronting in the second song. Edwards (2018) conducted a study on Uab Meto which analyzes the morphology and phonology of metathesis in Amarasi, a region in Timor island. As one of the results, two types of vowel assimilation namely mid vowel assimilation and assimilation of /a/ are suggested.

There have been many studies on assimilation in languages and Uab Meto yet no one on assimilation in Uab Meto especially on Amanatun dialect. Hence the
current study aims at classifying the kinds of assimilation occur in Amanatun dialect of Uab Meto and describing the process of those kinds of assimilation.

Method
This study was descriptive qualitative. In collecting the data, the speech of Uab Meto native speakers (three native speakers) was recorded. Then it was transcribed and the transcription was analyzed using category identification and integration.

Finding and Discussion
Answering the research question, there are ten kinds of assimilation in Amanatun Dialect of Uab Meto. Those ten kinds of assimilation in Amanatun Dialect of Uab Meto are classified based on form, direction, distance, position, and inventory of sound. Below are the description of the kinds of assimilation in Amanatun dialect of Uab Meto and the process of their occurrences.

Assimilation Based on Form
The first two types of assimilation are classified based on the form. They are phonological assimilation and morphophonemic assimilation. Phonological assimilation in Amanatun dialect of Uab Meto occurs because of the same manner of articulation between the assimilated consonant and the resulted consonant and the close position of place of articulation between the resulted consonant and the assimilating consonant. In this case, phonological assimilation only affects pronunciation.

In Uab Meto, voiced alveolar nasal consonant /n/ assimilates into voiced bilabial nasal consonant /m/ under the condition before labial consonants (/p/, /b/, and /f/). Moreover, the voiced alveolar nasal consonant /n/ also assimilates into voiced velar nasal consonant /ŋ/ under the condition before voiceless velar stop consonant /k/. Below are examples of phonological assimilation in Uab Meto.

1. /im palen kau? he ?uhan/ becomes /im palen kau? he ?uhan/  
   3rd sg order 1st sg to cook 3rd sg order 1st sg to cook  
   S/He order me to cook S/He order me to cook  
   S/He orders me to cook S/He orders me to cook

2. /au? an boko na?ko kuan/ becomes /au? am boko na?ko kuan/  
   1st sg buy pumpkin from village 1st sg buy pumpkin from village  
   I buy pumpkin from village I buy pumpkin from village  
   I buy pumpkin from village I buy pumpkin from village

3. /Au? sos faun feu?/ becomes /Au? sos faum feu?/  
   1st sg buy shirt new 1st sg buy shirt new  
   I buy shirt new I buy shirt new  
   I buy new shirt I buy new shirt

4. /in main kun/ becomes /in mainŋ kun/
In contrast to phonological assimilation, morphophonemic assimilation affects the pronunciation as well as the meaning. This kind of assimilation is shown by cliticization in Amanatun Dialect of Uab Meto. The process of cliticization in Amanatun dialect of Uab Meto occurs by mixing process of shortening and assimilating sound. Shortening sound forms the first sound which signal pronoun as subject by taking the last consonant of pronoun. Then this consonant is placed on the beginning of adjective or verb. Since the adjective or verb is started with consonants, then vowel harmony is needed to break the cluster created by the addition. The resulted break is called epenthesis. Epenthesis is based on assimilation in form of vowel harmony.

<table>
<thead>
<tr>
<th>Persons</th>
<th>Pronouns</th>
<th>Clitics</th>
<th>Sample root</th>
<th>Derived Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sg</td>
<td>au?</td>
<td>?</td>
<td>niu?</td>
<td>?u niu?</td>
</tr>
<tr>
<td>1st pl(in)</td>
<td>Hit</td>
<td>T</td>
<td>niu?</td>
<td>taniu?</td>
</tr>
<tr>
<td>1st pl(ex)</td>
<td>Haim</td>
<td>M</td>
<td>niu?</td>
<td>miniu?</td>
</tr>
<tr>
<td>2nd sg</td>
<td>Hom</td>
<td>M</td>
<td>niu?</td>
<td>muniu?</td>
</tr>
<tr>
<td>2nd pl</td>
<td>Him</td>
<td>M</td>
<td>niu?</td>
<td>miniu?</td>
</tr>
<tr>
<td>3rd sg</td>
<td>In</td>
<td>N</td>
<td>niu?</td>
<td>naniu?</td>
</tr>
<tr>
<td>3rd pl</td>
<td>Sin</td>
<td>N</td>
<td>niu?</td>
<td>naniu?</td>
</tr>
</tbody>
</table>

In the table above high back rounded vowel /u/ is chosen as the connector because of the influence of the same vowel in the subject /au?/ and rounded vowel /o/ in the subject /hom/. Meanwhile high front unrounded vowel /i/ is chosen as the connector because it is affected by the same vowel /i/ and bilabial sound /m/ in the subject /him/ and /haim/. Moreover, open front unrounded /a/ is chosen as the connector because it is affected by the unrounded vowel /i/ and alveolar sounds /t/ and /n/ in the subject /hit/, /in/ and /sin/.

**Assimilation Based on Direction**

Regressive assimilation and progressive assimilation are the next types of assimilation which are grouped into assimilation based on direction. Regressive assimilation occurs when the preceded sound changes to match the following sound. In this case regressive assimilation occurs phonologically. Shortly, regressive assimilation in Amanatun dialect of Uab Meto is formulated as follows:

![AD → R / __ AG](image)

AD represents assimilated sound, R represents the result sound, and AG represents assimilating sound. The formula above involves the change of voiced alveolar nasal consonant /n/ as assimilated sound into voiced bilabial nasal consonant /m/ as the result sound under the influence of labial consonants as
assimilating sound. Below are the examples of regressive assimilation in Amanatun dialect of Uab Meto.

1. /hom muha\_n pena?/ becomes /hom muha\_m pena?/
   2\textsuperscript{nd} sg 2\textsuperscript{nd} sg cl-cook corn 2\textsuperscript{nd} sg 2\textsuperscript{nd} sg cl-cook corn
   You sg cook corn You sg cook corn
   You cook corn You cook corn

2. /in boin au? ?anah/ becomes /im boin au? ?anah/
   3\textsuperscript{rd} sg call 1\textsuperscript{st} sg poss child 3\textsuperscript{rd} sg call 1\textsuperscript{st} sg poss child
   S/He call my child s/he call my child
   S/He calls my child S/He calls my child

3. /him sosan fafi laku/ becomes /him sosan fafi laku/
   2\textsuperscript{nd} pl buy pig cassava 2\textsuperscript{nd} pl buy pig cassava
   You buy pig cassava You buy pig cassava
   You buy cassava for the pig You buy cassava for the pig

4. /sin ka nabua\_n fa?/ becomes /sin ka nabua\_m fa?/
   3\textsuperscript{rd} pl do not gather (do not) 3\textsuperscript{rd} pl do not gather (do not)
   They do not gather (do not) They do not gather (do not)
   They do not gather They do not gather

As shown in the examples, the consonant assimilated are those preceding the assimilating ones. The change happens by imitating the place and manner of articulation of the assimilating sound.

On the other side, progressive assimilation occurs when the following sound assimilates to match the preceded sound. It occurs through morphophonemic process in Uab Meto clitics. Below is the paradigm:

\[
\text{AD} \rightarrow \frac{R}{AG}
\]

AD represents assimilated sound, R represents the result sound, and AG represents assimilating sound. Followings are the examples of progressive assimilation in Amanatun dialect of Uab Meto.

1. a. /Au? ?u-mnah/  
   1\textsuperscript{st} sg 1\textsuperscript{st} sg.cl-hungry  
   I hungry  
   \textit{I am hungry}
   b. /?u-mnah/  
   1\textsuperscript{st} sg.cl-hungry  
   I hungry

2. a. /Hom mumas/  
   2\textsuperscript{nd} sg 2\textsuperscript{nd} sg.cl-beautiful  
   You beautiful  
   \textit{You are beautiful}
   b. /mumas/  
   2\textsuperscript{nd} sg.cl-beautiful  
   You beautiful
It is seen from the examples that the clitics is created on the following word is based on the sound possessed by the preceding word. This process proves the existence of progressive assimilation in Amanatun dialect of Uab Meto.

**Assimilation Based on Distance**

The next types of assimilation in Amanatun dialect of Uab Meto are contact assimilation and distance assimilation which are grouped into assimilation based on distance. Contact assimilation is assimilation which occurs between two closed sounds. Below is the paradigm.

\[
\text{Ad} \rightarrow \text{R} / \rightarrow \text{Ag}
\]
In the formula above $A_d$ represents the assimilated consonant, $R$ represents the result consonant, and $A_g$ represents the assimilating consonant. To be clearer, followings are examples of contact assimilation:

1. /Fun bo?es am nua?/ becomes /fum bo?es am nua?/
   Month ten and two   Month ten and two
   The twelfth month or December  The twelfth month or December

   \[ /n/ \rightarrow /m/ \rightarrow /b/ \] (bilabialization and nasalisation)

2. /in main kun/ becomes /in main g kun/
   3rd sg laugh 3rd sg ref 3rd sg laugh 3rd sg ref
   S/He laugh herself She/He laugh herself
   S/He herself laughs S/He herself laughs

   \[ /n/ \rightarrow /ŋ/ \rightarrow /k/ \] (velarization)

The examples above are included into contact assimilation because the assimilated consonant and the consonant influences it are close without any border. In the first example voiced alveolar nasal consonant $/n/$ changes into voiced bilabial nasal consonant $/m/$ directly before voiced bilabial stop consonant $/b/$ as assimilating sound. In the second example, voiced alveolar nasal consonant $/n/$ changes into voiced velar nasal consonant $/ŋ/$ directly before voiceless velar stop consonant $/k/$. There is no border between assimilated and assimilating sound. They are not separated by any vowel or consonant. That is why this kind of assimilation is called contact assimilation.

There is also distance assimilation in which the assimilating and assimilated sounds are not close. They are separated by some other consonants and vowels. This happens only on morphophonemic assimilation because there is morphological process. The formula which presents distance assimilation is:

$$ Ad \rightarrow R \rightarrow A_g \rightarrow V \rightarrow C $$

$A_d$ represents assimilated feature, $R$ represents result sound, $A_g$ represents assimilating sound, $V$ represents vowels, and $C$ represents consonants. Next are the examples of distance assimilation:

1. /au? nao kuk/
   1st sg go 1st sg refl
   I go myself
   I myself go

2. /hom muah kum/
   2nd sg 2nd sg cl-eat 2nd sg refl
   You eat yourself
   You yourself eat
3. /him mimolok kim/
   2nd pl 2nd pl.cl-talk 2nd pl refl
   You talk yourselves
   You yourselves talk

4. /in main kun/
   3rd sg 3rd sg.cl-laugh 3rd sg refl
   S/He laugh her/himself
   S/He her/himself laughs

5. haim mi?olo? kim/
   1st pl ex 1st pl.cl-hide 1st pl refl
   We hide ourselves
   We ourselves hide

6. /hit malin kuk/
   1st pl in happy 1st pl refl
   We happy ourselves
   We ourselves are happy

7. /sin kae kun/
   3rd pl cry 3rd pl refl
   They cry themselves
   They themselves cry

In examples above, the last consonant on every subject pronoun stimulates the forming of the same consonant or other consonant with similar feature at the end of each of the reflexive pronoun. The process on the examples above (on the bold characters) is called distance assimilation because the consonants have no direct contact but they are separated by word boundaries and some other consonants.

**Assimilation Based on Position**

The next types of assimilation which are group into assimilation based on position are assimilation in word and assimilation at word boundary. Assimilation in word occurs when the assimilated sound and assimilating sound are in the same word. Below is the paradigm:

```
  Ad ----> R --------- Ag
```

In the paradigm above, *Ad* represents assimilated sound, *R* represents the result sound, and *Ag* represents assimilating sound. Here are the examples of in word assimilation of Amanatun dialect of Uab Meto

1. /Anbi/ ----> /ambi/
in in

2. /anbai/ ----> /ambai
shout shout

3. /anfai/ ----> /amfai/
night night

In examples 1 and 2 voiced alveolar nasal consonant /n/ changes into voiced bilabial nasal consonant /m/ under the condition after voiced bilabial stop consonant /b/ which follows it directly in the same word. The same process also occurs on the third example in which voiced alveolar nasal consonant /n/ becomes
voiced bilabial nasal consonant /m/ under the influence of voiceless labiodental fricative consonant /f/.

Assimilation which occurs in the three examples is called assimilation in word because they occur when the assimilated sound and the assimilating sound are in the same word. In addition, assimilation in words in Amanatun dialect only occurs on the three words above.

In contrast, assimilation in word boundary happens to the sounds which are in close position but of two different words. Here is the paradigm:

$$Ad \rightarrow R / \# Ag$$

$Ad$ represents assimilated sound, $R$ represents the result sound, $Ag$ represents assimilating sound, and $#$ is word boundary. Below are the examples:

1. /haim fain fe?/ becomes /haim fain m fe?/  
   3rd pl go home first  
   we go home first  
   We go home first  

2. /in pules kau?/ becomes /im pules kau?/  
   3rd sg praise 1st sg  
   S/He praise me  
   S/He praises me  

3. /au? sen kiu/ becomes /au? seŋ kiu/  
   1st sg plant tamarin  
   I plant tamarin  
   I plant tamarin

As seen in the examples, the assimilated and assimilating sounds are not in the same word. They are separated by word boundary. However, since they have close point of articulation, assimilation may occur between them.

**Assimilation Based on Inventory of Sound**

The last types of assimilation in Amanatun dialect of Uab Meto are consonant assimilation and vowel-consonant assimilation which are grouped into assimilation based on inventory of sound. Consonant assimilation occurs when the change happens to a consonant because of the influence of another consonant. This occurs phonologically. Following is the paradigm.

$$\begin{align*}
\text{[+consonant]} & \rightarrow \text{[+consonant]} / \text{[+consonant]} \\
\end{align*}$$

The paradigm shows the process of consonant assimilation in which there is a change of consonant into another consonant because of the effect of a consonant. Here are some examples and explanation dealing with consonant assimilation.

$$/n/ \rightarrow /ŋ/ /k/ \text{ (phonological assimilation)}$$
The first and the second examples show that there is change from voiced alveolar nasal consonant /n/ into voiced velar nasal consonant /ŋ/ because of the influence of voiceless velar stop consonant /k/. The third example shows the change from voiced alveolar nasal consonant /n/ into voiced bilabial nasal consonant /m/ under the influence of voiceless labiodental fricative consonant /f/. The fourth example shows that there is a change of voiced alveolar nasal consonant /n/, into voiced bilabial nasal consonant /m/ because of the influence of voiceless bilabial stop consonant /p/. The fifth example shows a change on voiced alveolar nasal consonant /n/ into voiced bilabial nasal consonant /m/ because of the influence of voiced bilabial stop consonant /b/.
Meanwhile vowel-consonant assimilation occurs when the change occurs to a consonant and vowel because of the influence of a consonant and a vowel. This assimilation occurs in morphophonemic process. Below is the paradigm.

The paradigm shows the role of assimilation in epenthesis and cliticization. Here are the examples:

1. /hom mu-neuk in fanu?/ 2. /In na-mas/
   2nd pl 2pl cl-loose 3rd sg poss 3rd pl 3rd pl cl-beautiful
   shirt You loose his/her
   You lose his/her shirt
   She beautiful

   3. /haim mifaun/ 4. /Au? ?uniu?/
   1st pl ex 1st pl.cl-wash our hands 1st sg 1st sg.cl-take a bath
   We wash our hands I take a bath
   We wash our hands I take a bath

5. /Sin na?ko skol/ 6. /Him mi?sua?/
   3rd pl 3rd pl.cl from school 2nd pl 2nd pl.cl-naughty
   They from school You naughty
   They are from school You are naughty

From the examples it can be seen that vowels and consonants in the subject pronouns affect the forming of vowel and consonant as clitics in the following words. It is proven that there is vowel-consonant assimilation in Uab Meto.

Conclusion

There are ten kinds of assimilation in Amanatun dialect of Uab Meto which are grouped into five classifiers. Those belong to assimilation by form are phonological assimilation and morphophonemic assimilation. Phonological assimilation occurs on consonants especially alveolars, nasals, velars, and labials while morphophonemic assimilation occurs in cliticization covering vowels, labials, nasals, alveolars, and glottal. Those belong to assimilation by direction are regressive and progressive assimilation. Regressive assimilation occurs when labials, velars, alveolars, and nasals change to match their following sound while progressive assimilation occurs when vowels, labials, nasals, alveolars, and glottal change to match their preceding sound. Assimilation by distance are contact assimilation and distance assimilation. Contact assimilation occurs when two closed sounds are produced without any barrier while distance assimilation occurs between two sounds are separated by vowels and consonants. Next, assimilation in word and assimilation at word boundary are classified into assimilation by position. Assimilation in words occurs on the sounds located in the same word.
Assimilation at word boundary occurs in the sounds in different words and the words separated by word boundary. Last, assimilation by sound inventory includes consonant assimilation and vowel-consonant assimilation. Consonant assimilation occurs only on consonants. The assimilated sounds, result sounds, and the assimilating sounds are consonants, while vowel-consonant assimilation occurs between vowels and consonants. The existence of vowel and consonant in the subject pronoun stimulates the forming of similar vowels and consonants as clitic in the word following the subject. Since the current study focuses on classifying the types of assimilation in Uab Meto and their occurrences, it is recommended that the further study may concerns on each type of assimilation of Amanatun dialect of Uab Meto for deeper investigation.

References


