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# A Grammar of Biloxi 

Paula Ferris Einaudi



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And finally, thanks go to my husband, Franco, and to my many friends whose encouragement and confidence gave me the strength to reach a long sought goal.
000. Introduction

Biloxi is a member of the Southeastern branch of Siouan along with Ofo and Tutelo (Haas 1968:84). It was first discovered to be Siouan by Alfred S. Gatschet in 1886 after very little field work. As he wrote to the Director of the Bureau of Ethnology:

During the few days of my presence here (Lecompte, Rapides Parish, La.), I have had the good fortune of discovering two languages unknown to science up to the present: the Biloxi and the Tuni'hka... I do not hesitate to declare the former to be a Dakota dialect and you will see this confirmed by the extract below... (Gatschet: Oct. 24, 1886:1)

It was not quite true that Biloxi was 'unknown' before that: James O. Dorsey (1893:268) says that previously it was supposed to belong to the 'Muskhogean stock', and Haas (1969:286) says that it was considered an independent stock. Nonetheless, Gatschet's discovery was an important one, and solid linguistic knowledge on Biloxi can be said to date from 1886.

Geographically, the Biloxi were first reported to be on Biloxi Bay, Mississippi, in the mid-17th century. The French historian Margry (De couvertes, IV, 172) reported that they were on the Pascoboula River, about 40 miles further east, by 1699. In the 18 th century they settled in central Louisiana, first in Avoyelles Parish and then in Bayou Rapides, near Alexandria.

By the early 19th century, there were only about 30 Biloxi left in Louisiana. Dorsey reports that according to the Sociedad Mexicana Geográfica (1870), there were also about 20 Biloxi families living on the east bank of the Neches River, in southeast Texas.

By the time Dorsey did his field work in 1892 and 1893, there were no more Biloxis in Avoyelles Parish, Louisiana; the few surviving members of the tribe were in nearby Lecompte, Rapides Parish. The last speaker of Biloxi was in her late 80 's when Mary Haas and Morris Swadesh discovered her in 1934.

Dorsey's two trips to Louisiana (Jan. -Feb., 1892, and Feb. 1893) resulted in a respectable amount of material: 31 texts with both interlinear and free translations, as well as 50 pages of separately elicited utterances. Dorsey worked extensively on this material and had 5,000 entries of words for a Biloxi-English dictionary before he died in 1895. John R. Swanton took over the project of organizing the material, and in 1912 the texts, utterances, and dictionary were published as part of Bulletin 47 of the Bureau of American Ethnology. This Dictionary of the Biloxi and Ofo Languages has been the main source of information on Biloxi ever since.

In the ensuing years, Carl Voegelin (1939 and 1941), Hans Wolff (1950), G. Hubert Matthews (1958), and Mary Haas (1968 and 1969) have all published on Biloxi, although only Haas and Swadesh
have used material other than the Dictionary. For the present analysis of Biloxi, Dorsey's texts, elicited utterances and dictionary entries serve as the bulk of the corpus. In addition, I have also used most of the articles, letters, jottings, etc. available on Biloxi at the Smithsonian Institution. Some of these were very useful; others were not. The bibliography on pages 4-10 may help others to separate the useful from the rest.

Writing a grammar of any language is an important linguistic endeavor, I think, because it will add to our knowledge of the languages of the world. But the main reason I decided to write a grammar of Biloxi was to synthesize Dorsey's data, and to get it into a form where it could be used by other Siouanists for comparative work. There has been some solid headway made on ProtoSiouan (notably by Wolff and Matthews), but since every fragment of Siouan material is of potential importance, every effort must be made to be as complete as possible. It is hoped that the following grammar of Biloxi will be a step in that direction.
050. Bibliography

The following is an annotated list of the material available on Biloxi at the Smithsonian Institution in Washington. The Smithsonian catalog numbers are listed at the end of each entry. Items marked with an asterisk are those not seen by the author. 1. Dorsey, J. Owen.[n.d.] Biloxi and Hidatsa lexical comparisons. 3 pp. 4800:343.

A list of about 30 items cognate in the two languages.
2. $\qquad$ . 1893.*Biloxi-English vocabulary.

Approx. 500 slips. 4800:357.
Indexes lexical items in notebooks 4 and 5 (see 15 below).
3. $\qquad$ . [n.d.] Biloxi grammatical notes. 4 pp. 4800:353.

Miscellaneous verbal conjugations. Contains information covered elsewhere.
4. $\qquad$ . [n. d.] Biloxi kinship groups. 7 pp. 4800:345.

An exhaustive list of 54 kin groups of Biloxi, inflected in each case in the lst person singular. Dorsey also marks the groups that have cognate forms in other Siouan languages.

4800:345.
Almost identical to 4 above, although it does not contain the information on cognates.
6. $\qquad$ . [n.d.] Biloxi linguistic notes. Approx.

75 pages and slips. 4800:341.
Deals mostly with verbs, and seems to contain material present elsewhere. Unarranged, hard-to-follow, often illegible.
7. $\qquad$ . [n. d.] Biloxi linguistic notes and texts.

Approx. 93 pages. 4800:351
Labelled by Dorsey, "Biloxi notes which have been copied on slips for the Biloxi-English Dictionary." This is fortunate since the entire document is illegible. Dorsey must have crossed out each item here as he copied it onto other slips.
8. $\qquad$ . [n.d.] Biloxi onomatology. 2 pp . 4800:349.

Very short and incomplete, although it contains some noteworthy information on derivation.
9. - [n.d.] Biloxi phonology with notes on comparative Siouan. 6 pp. 4800:339.

Alphabet used for recording Biloxi. Identical to pp. 271-274 of Dorsey (1893).
10. $\qquad$ - 1893. *Biloxi texts, with interlinear translations. Approx. 150 pp. $4800: 338$.

Printed in Dorsey and Swanton (1912).
11.
12. $\qquad$ . 1884. Biloxi Verbal endings in 'ai-a'. 3 pp.

A very curious item, since there are no verbs in Biloxi that end in ai-a. This is labelled as part of a report made by Dorsey to the Director of the Bureau of Ethnology in 1884. This in itself is probably enough to prove that it is not Biloxi, since Dorsey had almost no information on Biloxi until two years later.
13. $\qquad$ . [n.d.] Biloxi verbs. 30 pp. 4800:342.

Very clear conjugation of many verbs. Dorsey outlines what he considers to be 14 separate conjugations and 35 verbs that were unclassifiable. A very poor job of analyzing the verbs from a modern viewpoint, but nevertheless very useful.
14. $\qquad$ . 1892-93. Biloxi vocabulary and notes. Rapides Parish, La., Jan. 21-Feb., 1892, Feb. 4-25, 1893. Approx. 100 pp. 4800:348.

Fairly extensive vocabulary; includes comments regarding place names in the Rapides Parish, La. area, animal and plant names, body parts, kin terms, tools, etc. Also contains some verbal conjugations.
15. . 1892-1893. *Biloxi vocabulary, phrases and miscellaneous notes, Lecompte, Rapides Parish, La. Approx. 750 pp. in 5 notebooks. 4800:356.
16. $\qquad$ . [n.d.] Gatschet's Biloxi vocabulary compared with Siouan dialects. 2 pp. 4800:347.

Of little help, since Dorsey filled in cognate forms for only 4 items.
17. $\qquad$ . [n. d.] Notes on Biloxi phonology. 18 pp. 4800:340.

Quite disorganized and not very useful.
18. Dorsey, James Owen, and Swanton, John R. [n. d.] *BiloxiEnglish dictionary. Approx. 3,155 cards. 4800:358.

Printer's copy for Dorsey and Swanton (1912), pp. 169318. Most of the cards are by Dorsey, with additions and revisions by Swanton, including revision of the phonetic symbols.
19. $\qquad$ . 1892-1908. *Biloxi texts and phrases with interlinear and free translations and notes.

Identical to Dorsey and Swanton (1912), pp. 1-167. 4800:354.
20. Gatschet, Albert S. 1886. Biloxi vocabulary. (collected Oct. -Nov., 1886) with some cognate forms in Catawba, Santee, Yanktonand Teton Dakota, Hidatsa, Kansas, and Tutelo. 8 pp .933 -b.

A basic vocabulary. Clear, easy-to-read. Given its nature, there is little here that is not in the dictionary. Good as a check on Dorsey's forms, however, and includes many cognates from other Siouan languages.
21. $\qquad$ . [n. d.] Biloxi vocabulary, recorded in 1886. 17 pp. 3436.

This peculiar list is copied on Smithsonian Institution Comparative Vocabulary form 170, and thus contains cognate forms in French, English, Spanish, and Latin. Gatschet has added in his own writing the forms from Biloxi, Chilkat (Tlingit), Chilean, and Allentiac (also called Huarpe or Guarpe, an extinct South American isolate which is possibly related to Arancanian).
22. $\qquad$ . Oct. 24, 1886. Letter to the director of the Bureau of Ethnology, announcing the discovery of the Biloxi and Tunica languages, and enclosing brief vocabularies. Lecompte, Rapides Parish, La. 7 pp. 1347.

Interesting, and of obvious value in the history of the classification of North American Indian languages.
23. $\qquad$ . Oct. -Nov., 1886. Words and sentences of the Biloxi language. Lecompte, Rapides Parish, La. 68 pp. 933 a.

Useful, although it contains a good deal of information available elsewhere. It is always interesting, however, to compare Gatschet's forms to Dorsey's:

1. What Dorsey writes as 7 ( $t$ in the Dictionary),

Gatschet renders as d :
Dor. topi $=$ Gat. dopi $\quad$ young'
2. Dorsey's $x$ ( $k$ in Dict.) $=$ Gat. $g:$

Dor. yinkón ${ }^{n i}=G a t$. yingóni $\quad$ 'married man'
3. Gatschet often hears initial /h/ where Dorsey hears nothing:

Gat. hiptcóne $=$ Dor. iptcone 'your nose'
4. Gatschet hears far fewer nasal vowels than Dorsey:

Gat. háxti $=$ Dor. ${ }^{\prime} n^{x t i} \quad$ 'woman'

The following articles are also available at the Smithsonian Institution. They are listed separately because they contain no linguistic information.

1. Dorsey, James Owen. [n.d.] Biloxi myths. 8 pp. 4800:350. These are abstracts, and according to the Smithsonian, probably intended for publication in JAFL.
2. . [n.d.] Historical sketch of the Biloxi.

6 pp. 4800:346.
Identical to Dorsey (1893), pp. 267-271.
3. Porter, Kenneth W. Jan. 3, 1944. Letter to John R. Swanton, enclosing an account of Biloxi history based on field work in Texas and Mexico. Vassar College, Poughkeepsie, New York. 7 pp. 4195.
4. Speck, Frank G. [n.d.] Note on the location of the Biloxi Indians. 1 p. 4231.

The following articles represent the major published sources of information on Biloxi:

1. Dorsey, James O. 1893. The Biloxi Indians of Louisiana. Proceedings of the American Association for the Advancement of Science. 43. 267-287.

Contains a short historical sketch of the Biloxi, as well as a brief grammar.
2. Dorsey, James O. and Swanton, John R. 1912. A Dictionary of the Biloxi and Ofo Languages. BBAE 47. Washington.

The basic source of information on Biloxi.
3. Haas, Mary R. 1968. The last words of Biloxi. IJAL 34. 77-84.

An account of field work done by Haas and Swadesh in 1934 with the last known speaker of Biloxi, Mrs. Emma Jackson. Contains a comparison of their forms with Dorsey's, followed by a phonemic analysis of Biloxi, and reconstructions of Ohio Valley Siouan (Biloxi, Ofo and Tutelo) which she proposes to rename Southeastern Siouan.
4. Haas, Mary R. 1969. Swanton and the Biloxi and Ofo Dictionaries. IJAL 35. 286-90.

Points out the difficulties of working with Dorsey's dictionary, and consequently how many people (e.g. Matthews and Wolff) have overlooked or misinterpreted information which it contains.
5. Matthews, G. Hubert. 1958. Handbook of Siouan Languages. University of Pennsylvania dissertation (Ms.).

Contains much information in Biloxi, but also leaves much unsaid, due to the difficulties pointed out in Haas (1969). Contains also innumerable typing errors, skipped
lines, omitted charts, etc., making it a difficult manuscript to follow.
6. Voegelin, C. F. 1939. Ofo-Biloxi sound correspondences. Proceedings of the Indiana Academy of Science. 48. 23-26.

Shows how Biloxi and Ofo are closer to one another than they are to Tutelo. Also claims that of the two, Ofo contains more archaic forms.
7. $\qquad$ - 1941. Internal relationships of Siouan languages. AA 43. 246-249.

Shows how Biloxi, Ofo, and Tutelo all form their own group within Siouan, which he proposes to call Ohio Valley Siouan.
8. Wolff, Hans. 1950, 1951. Comparative Siouan I, II, III, IV. IJAL 26. 61-66, 113-21, 168-78; 27. 197-204.

The most comprehensive treatment to date of ProtoSiouan.

## Note

Almost every example of Biloxi in this thesis is accompanied by a page reference. The large majority of these comes from Dorsey and Swanton (1912). When both the page and line are indicated (e. g. 135-21), the quote comes from either a text or from the elicited utterances. If the reference is to a page and column (e.g. 178a), it means that the information was obtained
from the dictionary. References beginning with 4800: indicate one of the Smithsonian documents; individual articles and page numbers are also given with these references.

There are a few examples that are not accompanied by page references; these are one word entries, however, and can be found simply in the dictionary.

## CHAPTER I

## PHONOLOGY

100. Introduction
101. In his Vice-Presidential address to the American Association for the Advancement of Science, Dorsey gave a list of the graphs which he used for writing Biloxi. These are as follows: $a$, ä, â, b, c, d, dł, e, é, f, g, h, ч, i, í, j, k, Y, $1, m, n, \tilde{n}$, ${ }^{-n}, o, p, d, q, r, s, t, f, t^{f}, u, u, h, u, w, y$

John R. Swanton did considerable editing of Dorsey's work, and in preparing the Dictionary (1912), he changed some of Dorsey's graphs. His transcriptional system is as follows:
$a, ~ a, ~ a ̂, ~ ̆ a, ~ b, ~ c, ~ d, ~ d \not \subset, ~ d j, ~ e, ~ e ̌, ~ e ̀ ~ e ̂, ~ f, ~ g, ~ h, ~ i, ~ i ́, ~ i, ~ j, ~ k, ~ x, ~$ $\underset{\sim}{x}, \mathrm{k}, 1, \mathrm{~m}, \mathrm{n}, \tilde{\mathrm{n}},{ }^{-\mathrm{n}}, \mathrm{o}, \bar{o}, \mathrm{p}, \mathrm{p}, \mathrm{r}, \mathrm{s}, \mathrm{t}, \mathrm{t}, \mathrm{tc}, \mathrm{t} \subset, \mathrm{u}, \hat{\mathrm{u}}, \mathrm{u}, \bar{u}, \mathrm{u}$, ü, w, y

Judging from Swanton's description of these sounds, and taking into consideration also J. W. Powell's 1880 proposals for an alphabet to be used in working with American Indian languages ${ }^{1}$,
${ }^{1}$ John Wesley Powell. 1880. Introduction to the Study of Indian Languages. 1-16. Washington.

I assume that these graphs have approximately the following phonetic values:

```
            labial dental mid-palatal velar post-velar
stops
    vls. p t c (tc) k
    med.vce. p
    t
    d j (dj)
    t
    d
fricatives f
    s
    n
    r
    l
glides
        w
            y
                                    h
vowels
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{front back} \\
\hline i, \(\bar{i}\) & & \(\mathrm{u}, \overline{\mathrm{u}}\) \\
\hline I (1) & \(\partial(\mathrm{a}, \hat{\mathrm{u}}, \mathrm{u})\) & U ( \({ }_{\text {u }}\) ) \\
\hline e, \(\overline{\mathrm{e}}\) & \(\wedge(\mathrm{u})\) & o, о̄ \\
\hline \multicolumn{3}{|l|}{\(\varepsilon(\hat{e}, \check{e})\)} \\
\hline \(\mathscr{L}\) (a) & & \(O(\hat{a})\) \\
\hline
\end{tabular}
                a,\overline{a}
                +nasalization
```

120. Anyone who has worked at all with the Dorsey/Swanton texts will realize that the above list is far too extensive. Indeed, Dorsey himself pointed out the marginal value of the following phones: (Dorsey and Swanton 1912: 2):
b occurs only once, in a proper name
d rarely used (see $t$ and $t$ )
f. rarely used, and then owing probably to faulty hearing
g as in go, seldom heard

1 occurs only in two modern names
$r \quad$ occurs in one proper name

It is puzzling that Dorsey claimed that [d] is 'rarely used', since it is a very common graph throughout the corpus. This characterization cannot be an oversight since he mentioned it both here and in his Vice-Presidential address (1893: 271), and since in both cases he added '(see $t$ and $t$ )'. I assume that he is here referring to the endless number of cases in which [d] seems to alternate freely with $[t]$ and $[t]$, e. g. topi $\sim$ dopi $\sim$ atopi, 'new'. All of this seems to point to a sizeable amount of mishearing on Dorsey's part together with a lack of normalization.
130. G. Hubert Matthews recognized these shortcomings and postulated the following phonemic analysis for Biloxi based on Dorsey's corpus (1958: 12):

$m \quad n$
a $\stackrel{a}{6}$
w y
Besides collapsing the stops into a single series, and eliminating the marginal consonants, the most obvious change Matthews made was to propose nasal vowels instead of Dorsey's $\left[^{-n}\right]$ and [n]. In addition, he suggested that what Dorsey wrote as $\hat{u}$ or $\breve{u} / \ldots k$ should actually be rendered as [a]. Of course, these differences represented no basic change in the system, but only a change in representation. Nonetheless, it was a fundamental step forward in normalizing Biloxi phonology.

Matthews' analysis seems accurate, except for his postulation of both $/ q /$ and $/ \mathrm{q} / . / \mathrm{q} /$ occurs in the corpus far more than $/ \mu /$, and almost all entries showing $/ \varphi /$ have variant forms with $/ q /$, e.g. $o^{n_{n i}} \sim u^{n_{n i}}$, 'mother'. I therefore would posit only three phonemic nasal vowels: $/ \dot{q} /$, $/ \underset{q}{ } /$, and $/ q /$.
140. Mary Haas gave the following phonemic inventory for Biloxi, based on her own brief field work on the language (1968: 80):

of marginal status:
b
$f(\phi)$
š
As can be seen easily, Haas gives marginal status to /b/, /f/, and /ss/, whereas Matthews did not include them at all. She also posits three nasal vowels instead of four, and includes /a/ and vowel length which Matthews did not. Haas' inventory seems to me the preferable one, and I will be following it throughout the dissertation with the minimal substitution of /c/for /č/.
141. The following comparative list shows the differences between the Dorsey, Swanton and Haas transcriptions of Biloxi. Page references are for Dorsey (1893), Dorsey-Swanton (1912) and Haas (1968).

| Dorsey | Swanton | Haas |  |
| :---: | :---: | :---: | :---: |
| tohoqka 276 | tohoxka 278a | toho( $)$ xka 79b | 'horse' |
| tcuñ ${ }^{\text {ri }} 276$ | tcựñki 267 b | čopki 79a | 'dog' |
| ayeki 281 | ayeki 291b | aye.ki 78b | 'corn' |
| $\mathrm{a}^{\text {n }}$ ti 279 | $\mathrm{a}^{\mathrm{n} x t_{1}^{\prime}} 177 \mathrm{~b}$ | apxti 80b | 'woman' |
| kcicka, kciqka 283 | kcicka, kcixka 213b | kšixka 79b | 'hog' |
| qkǐdédi 277 | xYǐdédi 182 b | xkide.di 79a | 'I'm going home' |
| $\mathrm{a}^{\mathrm{n}_{\text {yadi }} 267}$ | $\mathrm{a}^{\text {n yádi }} 179 \mathrm{a}$ | acya.di 796 | 'person' (with np, - ${ }^{\text {di }}$ ) |
| ita 270 | itá 268a | ita. 78 b | 'deer' |
| anahi ${ }^{\text {n }} 275$ | ánahi ${ }^{\text {n }} 172 \mathrm{~b}$ | ana\#hi 79a | 'human hair' |
| ayepi 273 | ăyepi 176 b | ayepi 79a | 'door' |
| tckuyě 274 | tckuyés 265b | と̌ku• ye 80b | 'sweet' |

150. There are two points which Haas makes, however, that I have not been able to verify from the corpus. The first concerns vowel length. Since she actually heard Biloxi spoken, we must take her word for its existence. Dorsey unfortunately is far too erratic in his rendering of length for us to make any firm conclusions about it. For example, a brief look at the /a-/ entries in the dictionary reveals the following discrepancies: adé, ade", 'burn'
ahi', ahé, ahé, 'skin' akidi, akǐdi, 'insects' axoki', axók, axóg, axokyán, 'canes' anisti, anǐsti, 'sure enough' atxé, atxé, 'ice, frozen' atǔksé, aduksě, atkse, 'cover, lid'
ăyepi, ayéwi, 'door'.
The second point concerns the existence of $/ \partial /$. Judging from the Dorsey/Swanton descriptions of English equivalents ["á as in final, $\hat{u}$ as in foot, ŭ as in but" (Dorsey-Swanton 1912:2), I think Dorsey probably heard a [ə]. However, he has used at least three graphs for it, and sometimes gives alternating forms including a lengthened form of the same vowel, e. g. tutúxka ~ tưduxká, 'short'. In addition he has not always heard [ $\partial$ ] where Haas has, e.g. 'horse' above. It thus seems almost impossible to come to any firm conclusions about it, and I have therefore
decided to normalize as follows: $D / S a=a ; D / S \hat{u}, \stackrel{u}{u}=u . \quad$ Readers are advised to check $D / S$ for the original citations regarding / / / as well as length and stress.
151. Dorsey is as inconsistent in his rendering of stress as he is with length. For example:

$$
\begin{array}{ll}
a^{n} \text { ya xohi } & \text { 'old woman' 44-1 } \\
\text { a n yá xóhi }^{\text {n old woman' } 44-2}
\end{array}
$$

hư hakánaki 'he was coming out in sight' 62-28
hú akanáx 'he was coming out in sight' 95-239
hú ákanakí 'he came out in sight' 156-25
tǐdupí hánde 'he was alighting' 47-16
tídupi há 'he alighted, and' 90-123
tídúpi ha 'he came down, and' 92-169.
In view of the erratic transcriptions of length and stress, no attempt will be made to deal with suprasegmental features.
170. Another problem in normalizing the Biloxi material has to do with Dorsey's an and añ: it is often difficult to tell whether we are dealing with /ą/ or/an/. Sometimes, as in mañki, 'he is reclining', the morphophonemic alternations of the word indicate that it was most likely /mąki/. In other cases, e.g. ande, 'he is', there are no such morphophonemic clues to go on, and I have thus
had to make some admittedly arbitrary decisions in this regard. Readers are again advised to check the original citations for /a/ and /an/.
200. In sum we will be using the following phonological inventory:

b
f
s
210. The following minimal pairs support the above analysis:

$$
\begin{array}{lll}
\mathrm{p} & \mathrm{pa} & \text { 'head' } \\
\mathrm{m} & \mathrm{ma} & \text { 'ground' } \\
\mathrm{w} & \mathrm{wa} & \text { 'very' } \\
\mathrm{t} & \mathrm{ti} & \text { 'house' } \\
\mathrm{c} & \mathrm{ci} & \text { 'they lie down' } \\
\mathrm{s} & \mathrm{si} & \text { 'yellow' }
\end{array}
$$

| k | ka | 'when' |
| :---: | :---: | :---: |
| x | xa | 'where' |
| h | ha | 'and' |
| t | tedi | 'he is dead' |
| d | dedi | 'he went' |
| d | de | 'he went' |
| n | ne | 'he stands' |
| m | $\operatorname{maki}_{6}$ | 'he is lying down' |
| n | nąki | 'he is sitting' |
| w | wahe | 'he cries out' |
| y | yahe | 'this' |
| w | wa | 'very' |
| h | ha | 'or' |
| i | ani | 'water' |
| e | ane | 'louse' |
| a | ha | 'or' |
| u | hu | 'he comes' |
| 0 | ko | 'nominal particle' |
| u | ku | 'he gives' |


| a | adi | 'he climbed' |
| :--- | :--- | :--- |
| o | odi | 'he shot' |
| i | kiya | 'again' |
| u | kuya | 'under' |
| i | ti | 'house' |
| y | tyi | 'medicine' |
| u | xudedike | 'that way' |
| w | xwudike | 'loosely' |
| i | ide | 'it falls' |
| i | ide | 'dung, manure' |
| a | da | 'he gathers' |
| a | da | 'he holds' |
| o | dohi | 'anything rubbed or smeared' |
| o dohi | 'he sees' |  |

300. Phonotactics
301. Biloxi allows the following consonant clusters ${ }^{2}$ :
${ }^{2}$ Clusters including a juncture are not included here.
```
                            2nd
1st member
member
\(\begin{array}{lllllllllll}\mathrm{p} & \mathrm{t} & \mathrm{d} & \mathrm{c} & \mathrm{k} & \mathrm{s} & \mathrm{x} & \mathrm{h} & \mathrm{m} & \mathrm{n} & \mathrm{w} \\ \mathrm{y}\end{array}\)
\(\begin{array}{lllllll}\mathrm{x} & \mathrm{x} & \mathrm{x} & \mathrm{x} & \mathrm{x} & \text { ? }\end{array}\)
\(\mathbf{x} \quad \begin{array}{llllllll} & \mathbf{x} & \mathrm{x} & \mathrm{x} & \mathbf{?} & \mathrm{x} & \mathbf{x}\end{array}\)
d
c \(\quad \mathbf{x} \quad \mathbf{x}\)
\(\begin{array}{lllllllllllll}\mathbf{k} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x} & \mathbf{x}\end{array}\)
s
x
h
m
n
w
y
x = clusters verified
? = clusters attested in rare and/or suspect examples
```

320. Based on the above chart, we can make the following observations about consonant clusters:
321. $C_{1} C_{1}$ never occurs.
322. While /d/ is a very common phoneme, there is only one example of it as the first member of a cluster, and that example is itself suspect. On the other hand, it often
appears as a second member of a cluster, making its patterning more like that of a sonorant than of an obstruent.
323. With the exception of $n+C$, sonorants are never the first members of clusters, and never combine with other sonorants.
324. With the exception of 2 suspect examples, $/ \mathrm{h} /$ and $/ \mathrm{m} /$ never appear as the 2 nd member of clusters.
325. Two fricatives never appear together.
326. Examples of these clusters are as follows:
p $t$ akiptaye 'she caught both in one hand'
k kdopka 'deep dish or soup plate'
c pce 'nose'
s psi 'night'
$x$ pxidi 'he cheats'
n appni 'something worn from the neck'
(also attested: ąpuni)

| $t$ | $p$ | tpahi |
| :--- | :--- | :--- |$\quad$ 'any soft part of the body'


| d h | hadhi | 'he begs' (not in a text; provenience unknown) |
| :---: | :---: | :---: |
| c p | jcpe | 'he laughs at him' |
| t | cti | 'red' |
| k | ckane | 'nine' |
| $\mathrm{k} \quad \mathrm{p}$ | yukpe | 'his or her legs' |
| t | ktu | 'cat' |
| d | kdexi | 'spotted' |
| c | kca | 'he chops' |
| s | ksedi | 'he breaks' |
| x | hakxidi | 'he gets angry' |
| n | ikne | 'he vomits' |
| w | ${ }_{\text {kwihi }}$ | 'valley' |
| y | kyąhi | 'he scolds' |
| s p | $i_{\text {ispe }}$ | 'he knows how to' |
| t | stahic | 'he cuts with scissors' |
| d | pesdoti | 'he plays on a flute' |
| c | scuki | 'it is tough' |
| k | skuti | 'deep' |
| n | snihi | 'it is cold' |


| x | p | doxpe 'co | 'coat' |
| :---: | :---: | :---: | :---: |
|  | $t$ | pixti ' | 'she is very good' |
|  | d | dixdo 'h | 'he hulls beans' |
|  | c | yaxci cukoni | i 'midriff' |
|  | k | exka 'b | 'buzzard' |
|  | w | xwitka 'r | 'muddy' |
|  | y | xyepi 's | 'shallow' |
| n | t | nanteke 'r | 'nearly' |
|  | d | ande 'h | 'he is' |
|  | S | nsuki 's | 'squirrel' |
|  | x | nxodohi 's | 'species of garfish' |
|  | y | apenyikyahayi | yi 'goldfinch' |

340. Further restrictions on segmental sequences.

Three consonant clusters are relatively rare in Biloxi. All of the examples verified in the corpus are either:
a. $C+s+$ stop or
b. $C+x+$ glide

In addition, some of these words are attested in alternate forms, with a vowel after the first or second consonant, e.g. pstuki ~ pastuki, ' she sews'.

The following is a list of all the three consonant clusters:
pst pstuki ~pastuki 'she sews'
psd psdehi ~psudehi 'knife' (also attested as spdehi)

| tsp | atspari | 'it adheres' (Gatschet: |
| :---: | :---: | :---: |
|  |  | hadespapahi, 281a) |
| tsk | kutska ~ kudeska | a 'fly' |
|  | atska | 'infant' |
| kst | aksteke | 'he is stingy' |
| nsk | apadenska | 'butterfly' |
| pxw | pxwe $\sim$ pxe | 'he punches' |
| txy | akutxyi | 'letter' |
| kxw | xoxo kxwehe | 'he sits on a swing' |
|  | jkxwe | 'always' |
| kxy | pukxyi | 'loop' |

350. The syllable canon seems to be as follows:
(C)(C)(C)V(C)
or $\quad(C) V(C)(C)$
(The onsets and codas of syllables are based on what can occur initially and finally.)

From this it follows that:
a. Only one consonant cluster is allowed per syllable.
b. $\mathrm{V}_{1} \mathrm{~V}_{1}$
$\left.\mathrm{V}_{1} \mathrm{~V}_{2}\right\}$ never occur in the same syllable.
c. Three consonant clusters may begin a syllable, but they never end a syllable.
351. Consonant clusters rarely end syllables. When they do, it is almost certainly a case of vowel deletion, e.g. tohoxk from tohoxka, 'horse'.
352. Almost all words end in a vowel. Of those that do not, most end in $/ \mathrm{k} /$ or $/ \mathrm{x} /$, and here, as with clusters, the examples are usually shortened forms, e.g. tox from toho, 'he fell'.
400. Morphophonemics

1. There are numerous verb roots and two mode markers in Biloxi with an e~a~i alternation. This alternation is conditioned by the following morpheme. Morphophonemically, I represent these verbs as ending in $\|E\|$ since /e/ occurs much more often than the others. The most common among these verbs are:

| dE | 'go' |
| :--- | :--- |
| tE | 'die' |
| andE, yukE | 'be' |
| uwE | 'enter' |
| nondE | 'throw away' |
| yE | 'cause' |
| ksE | 'break' |
| nE | 'stand' |
| akuwE | 'take along' |
| idE | 'fall' |


| tucE | 'touch' |
| :--- | :--- |
| picE | 'leap' |
| ktE | 'hit' |
| $E$ | 'say' |
| towE | 'be full' |
| naxE | 'hear' |
| xkE | 'peel' |
| ispe | 'know how to' |

The mode markers are:
tE $\quad$ 'optative mode marker'
dand $E \quad$ 'potential mode marker'

The morphemes governing the alternations are as follows:
$\|E\| \rightarrow \mid a / /$ $\qquad$ :
hi, hortatory mode marker
dandE, potential mode marker
ni, negative imperative mode;
embedded negative
mode marker
$\emptyset$, imperative mode marker
(female to female)
te, imperative mode marker
(female to male)
xo, subjunctive mode marker

$$
\|E\| \rightarrow|a| /
$$ :

$\|E\| \rightarrow i / /$ $\qquad$ $: \quad\|E\| \rightarrow / e / /$ elsewhere
na, strong negative imperative mode marker
xą, ?
Q, qni, completive mode marker
Examples:
$\|E\| \rightarrow / a /$
$\|$ adE + hi $\| \rightarrow$ ada hi/ 'they will go' 75-69/70
$\| n k+d E+$ dand $E\|\rightarrow\| n d e+$ dand $E \|$
$\rightarrow$ /nda dande/ 'I will go' 137-3
$\| d E+$ ni kiyuhi $\| \rightarrow / d a$ ni kiyuhi/ 'he wished he would go
(but he did not)' 163-2
$\|$ yukE $+\emptyset \| \rightarrow$ /yuka/ 'you all stay here!' 157-29
$\|\mathrm{dE}+\mathrm{te}\| \rightarrow / \mathrm{da}$ te/ 'go!' (fem. to male) 46-12
$\|n k+a y+n a x t E+x o\| \rightarrow\|n k+a y+n a x t a x o\|$
$\rightarrow$ /inaxta xo/
'I will kick you if...' 13-12
$\|$ ay $+\operatorname{adE}+n a\|\rightarrow\|$ ay + ada na $\| \rightarrow /$ yada na/
'do not go!' (pl.) 112-8
$\|$ ąyato nkandE + xa\| $\|$ /ąyato nkanda xa/ 'I am a man'
160-8
$\|$ adE $+q^{n i} \| \rightarrow /$ ada ọni/ 'they were going' (in the past)
68-19
$\|E\| \rightarrow / i /:$
$\|$ ca $y E+x t i$ ande $\| \rightarrow /$ ca yixti ande/ 'he was killing all'
33-1

$$
\|\mathrm{E}\| \rightarrow / \mathrm{e} /:
$$

$$
\|n k+d E+n i\| \quad \text { /nde ni/ 'I did not go' } 25-17
$$

(see Rule 16)
$\|$ tahi $d E+d i \| \rightarrow /$ tahi $d e d i / \quad$ she went running' $\quad 92-153$
$\|$ ad $E+\# \| \rightarrow$ /ade/ 'they went' 75-72
There is evidence that this e~a~i alternation once existed in the connective eke as well (see 950), although by the late 19th century it was clearly an unproductive rule. The following forms support this conclusion:

| eke | 'well' |
| :--- | :--- |
| eka | 'well' |
| ekahą | 'and then' |
| ekeką | 'and then' |
| ekika | 'whereupon' |

2. Nouns and verbs whose stems end in -Vhi or -Vhi undergo the following changes when followed by the plural marker -tu
3. $\left.\begin{array}{ll}i \\ & \\ i\end{array}\right\} \rightarrow \emptyset$
4. $h \rightarrow x$

Examples:
$\|a n a h i ̀ t u\| \rightarrow$ /anaxtu/ 'their hair' l72b
$\|a y+\underset{c}{a h i}+t u\| \rightarrow$ /ayąxtu/ 'you pl. cry' $177 a$
$\|$ dohi $+\mathrm{tu} \| \rightarrow /$ d $\boldsymbol{q}^{x t u} /$ 'they see' 184 b

$$
\begin{align*}
& \left\|\mathrm{i}_{\mathrm{f}} \mathrm{i}_{\mathrm{c}}+\mathrm{tu}\right\| \rightarrow \text { /ixtu/ 'they arrive' 197a } \\
& \| \text { idahi }+\mathrm{tu} \| \rightarrow \text { /idaxtu/ 'they seek' 201b } \\
& \| \text { asąhị }+ \text { tu\| } \| \text { /asąxtu/ 'their arms' 251b } \\
& \| \text { yuhi }+ \text { tu } \| \rightarrow \text { /yuxtu/ 'they think' 292a } \\
& \| n k+\text { duyuhi }+ \text { tu }\|\rightarrow\| n k+\text { duyuxtu } \| \rightarrow \text { /nduyuxtu/ } \tag{16}
\end{align*}
$$

'we shake off the fruit from the tree' 295a
2.1 This rule is optional for the root duti 'eat' as well: $\|$ duti $+\mathrm{tu} \| \rightarrow /$ dutitu $/ \sim /$ duxtu/ 'they eat' 31-5; 4800:342:10
2. 2 This same $\mathrm{hi} / \mathrm{hi} \rightarrow \mathrm{h} \rightarrow \mathrm{x}$ rule applies optionally in compounds and across word boundaries when the following element begins with CV:

$$
\begin{array}{llll}
\| \text { aya }+ \text { sahi }+ \text { ti } \| \rightarrow / \text { ąyasaxti/ } & \text { 'Indian house' } & 179 b \\
\| \text { ayohi }+ \text { keci\| } \rightarrow / \text { ayox keci/ } & \text { 'Crooked Lake' } & 207 \mathrm{~b} \\
\| \text { asahị }+ \text { nǫpa\| } \| / \text { /asą nǫpa/ } & \text { 'both arms' } & 251 \mathrm{~b}
\end{array}
$$

3. Nouns ending in -di that are subject to pluralization (see 610) undergo the following changes:
$\begin{array}{ll}\text { 1. } & \mathrm{i} \rightarrow \emptyset \\ \text { 2. } & \mathrm{d} \rightarrow \mathrm{x}\end{array} / \square^{\mathrm{tu}}$
Examples:

$$
\| \text { adi }+ \text { tu } \| \rightarrow \text { /axtu/ 'their father' }
$$

$$
\begin{aligned}
& \| \text { dodi }+ \text { tu } \| \rightarrow / \text { doxtu/ 'their throats' } \\
& \| \text { indi }+ \text { tu } \| \rightarrow \text { /ixtu/ 'they' }
\end{aligned}
$$

4. Verbs whose stems end in -Vki, -Vpi or -si optionally drop the final - $\underline{\text { i }}$ before the plural marker -tu:
-Vki:

$$
\begin{array}{ll}
\| \text { pastuki }+ \text { tu } \| \rightarrow \text { /pastuktu/ } & \text { 'they sew' } \\
& 142-6 \\
\| \text { duksuki }+ \text { tu } \| \rightarrow / \text { duksuktu/ } & \text { 'they broke the cord by }
\end{array}
$$ pulling' 213a

$\|\mathrm{nk}+\mathrm{apsuki}+\mathrm{tu}\| \rightarrow / \mathrm{nk}$ apsuktu/ 'we surrounded' 248a
$\|$ akipupsuki + tu $\| \rightarrow$ /akipupsuktu/ 'they intercepted it' 4800:342:3

But:

$$
\| \text { haiki }+ \text { tu } \| \rightarrow / \text { haikitu/ 'they are related' } 4800: 342: 5
$$

-Vpi:

$$
\begin{aligned}
\| \text { daksupi }+ \text { tu } \| & \rightarrow \text { /daksuptu/ 'they got the juice out by } \\
& \text { chewing' } 4800: 342: 8 \\
\| \text { duhapi }+\mathrm{tu} \| \rightarrow & \text { /duhaptu/ 'they pulled it off her head' } \\
& 4800: 342: 9
\end{aligned}
$$

But:

$$
\|n k+\underset{<}{i p i}+t u\| \rightarrow / n k i p i t u / \quad \text { 'we put down a large }
$$

$$
\text { horizontal object on something' } 202 \mathrm{~b}
$$

-si:

$$
\|d u s i+t u\| \rightarrow / \text { dustu/ 'they grabbed' 254a }
$$

$\|$ akidisi $+\mathrm{tu} \| \rightarrow /$ akidistu/ $\quad$ they aid him' (masc. stem ) 4800:342:2
$\|$ akitsi $+\mathrm{tu} \| \rightarrow /$ akitstu/ 'they aid him' (fem. stem) 4800:342:2

But:

$$
\begin{aligned}
& \| \text { ahi }+ \text { atsi }+ \text { tu } \| \rightarrow / \text { ahịatsitu/ 'they sell' } 4800: 342: 4 \\
& \| \text { misi }+ \text { tu } \| \rightarrow / \text { misitu/ } \quad \text { they sneeze' } 4800: 342: 17
\end{aligned}
$$

5. $\|k(i)\| \rightarrow x / \ldots k$ This rule applies across morpheme boundaries as well as across word boundaries. It is always optional.

Examples:
$\|$ ay $+\mathrm{nk}+$ kiduwe $\|\rightarrow\|$ yą + kiduwe $\|$
$\rightarrow$ /yąxkiduwe/ 'you untie me' 62-22
$\|$ uxtaki ką\| $\rightarrow$ /uxtax ką/ 'when he pushed her' $93-177$
$\|$ akanaki $k \underset{\text { a }}{ } \| \rightarrow$ /akanax $k \underset{6}{ } / \quad$ 'when he was coming in sight' 95-239
 149-10
$\|$ mąki $k \underset{\varsigma}{ } \| \rightarrow / \max k \underset{̨}{/} \quad$ 'when it was reclining' $\quad$ 149-1l
The following example shows that this rule is optional:

$$
\begin{equation*}
\| \text { yą }+ \text { kinitą }+ \text { xti } \| \rightarrow \text { /yąkinitą xti/ } \tag{10}
\end{equation*}
$$

'it is too large for me' 134-18
5.1 There are various instances where the nasalization of the previous vowel is lost after this rule:

$$
\begin{gathered}
\| \text { ay }+ \text { nk }+ \text { kica daha }\|\rightarrow\| \text { yak }+ \text { kica daha } \| \\
\rightarrow / \text { yaxkica daha } /
\end{gathered}
$$

'you have not forgotten us' 21-2 $\|$ maki kide $\| \rightarrow /$ max kide/ 'he sat until' $52-2,3$

6. Verbs whose stems end in -ti or -hi optionally undergo the following change when followed by the negative mode marker ni.

$$
\begin{align*}
& \text { i } \rightarrow \emptyset \\
& \left.\begin{array}{l}
t \\
h
\end{array}\right\} \rightarrow x \\
& \| \text { kohi }+ \text { ni } \| \rightarrow / \text { kox ni/ 'they were unwilling' } 28-7 \\
& \| n k+\text { duti }+n i\|\rightarrow\| \text { nduti }+n i \|  \tag{16}\\
& \rightarrow \text { /ndux ni/ 'I do not eat' } \\
& \| n k+\text { dọhi }+n i\|\rightarrow\| n d \text { qhi }+n i \|  \tag{16}\\
& \rightarrow \text { /ndox ni/ 'I do not see' } 109-30 \\
& \| k u+\text { cuti }+ \text { ni } \| \rightarrow / \text { kucux ni/ 'he was not red' } 114-40 \\
& \|k u+a y+y u h i+n i\| \rightarrow\|k a y+y u h i+n i\|  \tag{8}\\
& \rightarrow \| \text { kayuhi }+ \text { ni\| }  \tag{10}\\
& \rightarrow \text { /kayux ni/ 'you do not think' 160-11 }
\end{align*}
$$

But:
$\|$ duti + ni $\| \rightarrow /$ duti ni/ 'he did not eat it' $144-12$

Stems ending in -si optionally undergo only the first step in this rule:

$$
\begin{aligned}
\| \mathrm{i} \rightarrow \emptyset / \ldots & \mathrm{ni} \\
\| \mathrm{nk}+\emptyset+\text { kidusi } & +\mathrm{ni}\|\rightarrow\| \text { axkidusi }+ \text { ni } \| \\
& \rightarrow / \text { axkidus ni/ 'I did not take it from him' } \\
& 141-27
\end{aligned}
$$

But:

$$
\|k u+s i+n i\| \rightarrow / k u s i n i / \quad \text { 'he did not step in it' } 71-2
$$

7. The dative marker ki (see 743.2) is subject to the following rule:

$$
\begin{align*}
& \| \text { ki } \| \rightarrow / \text { kiy/ /___V } \\
& \|k i+E+t u\| \rightarrow / \text { kiyetu/ 'they said to him' 37-7 } \\
& \|a y+n k+k i+o x p a\| \rightarrow \| a y+n k+\text { kiyoxpa } \| \\
& \rightarrow \| y a k+\text { kiyoxpa } \|  \tag{24}\\
& \rightarrow \text { /yąkiyoxpa/ }  \tag{10}\\
& \text { '(they) drank it for me' 69-4 } \\
& \|a y+n k+k i+o+t u+t e\| \rightarrow \| a y+n k+\text { kiyotu te\|} \\
& \rightarrow \| \text { yą }+ \text { kiyotu te\| } \\
& \rightarrow \text { /yaxkiyotu te/ }
\end{align*}
$$

'shoot at it for me!' 85-3
There is one counter-example to this rule; I suspect a glottal stop was inserted before the root:

$$
\|\mathrm{ki}+\underset{1}{\mathrm{i} \|}\| \rightarrow / \mathrm{kij} / \quad \text { 'they were drinking it for him' } \quad 69-2
$$

8. $\quad \mathrm{V}_{1} \mathrm{~V}_{1} \rightarrow \mathrm{~V}_{1}$
$\mathrm{V}_{1} \mathrm{~V}_{2} \rightarrow \mathrm{~V}_{2}$
This rule is optional with compounds and across word boundaries, and mandatory otherwise.

Examples:
 24-16
$\|$ soppi $+\underset{\varsigma}{ }$ ni $\| \rightarrow$ /soppopni/ 'it makes flour' (=wheat) 257b
$\|$ ohi sosa + axehe $\| \rightarrow$ /ohi sosaxehe/ 'one sitting on ten' (=11) 240a
$\|$ ohi dani + axehe $\| \rightarrow$ /ohi danaxehe/ 'three sitting on ten' (=13) 240a

$$
\| \text { tato }+ \text { ahi } \| \rightarrow / \text { tatahi/ 'panther skin' } 272 b
$$

8.1 There are a few words where two vowels are adjacent to each other in apparent contradiction to this rule. I have no explanation for them, except that since they are all short words, dropping one of the vowels might have led to unwanted ambiguities.

$$
\begin{aligned}
& \text { naq 'day' } \\
& \text { yaq 'sing' } \\
& \text { hauti 'be sick' } \\
& \text { ndao 'here' }
\end{aligned}
$$

9. With the exception of reduplicated stems and the reciprocal kiki (see 743.3), two morphophonemically identical syllables can never be adjacent to each other. It appears that it is the first morpheme which is dropped, since less vital information is lost this way:
|| noxe yukedi dixyal| $\rightarrow$ /noxe yuke dixya/
'whenever they chase them' 17-31
$\|\mathrm{ku}+\mathrm{ku} \mathrm{ni}\| \rightarrow / \mathrm{ku} \mathrm{ni} /$ 'she does not give' $\quad 43-6$
$\|$ tehi $+\mathrm{yE}+\mathrm{ni}+\mathrm{ni} \| \rightarrow /$ tehiya ni/ 'you must not kill him'
(fem.) 155-31
$\|k u+\operatorname{atamini} n i\| \rightarrow \|$ katamini $n i \|$
$\rightarrow /$ katami ni/ 'he never works' 166-20
One counter-example needs to be noted:
$\|$ kite + te $\| \rightarrow /$ kite te/ 'she wanted to hit him' $94-200$
10. $\left\|C_{1} C_{1}\right\| \rightarrow / C_{1} /$
$\|k u+p a n i h a+a y+Y E\| \rightarrow \| k u p a n i$ hay $+Y E \|$
$\rightarrow /$ kupani haye/ 'did you lose it?' $132-20$
$\|c a h a+a y+Y E\| \rightarrow \| c a$ hay $+Y E \|$
$\rightarrow$ /ca haye/ 'you kill' 141-4
$\|$ ay $+n k+$ kiputka $\|\rightarrow\|$ yak + kiputka $\|$
$\rightarrow$ /yakiputka/ 'you are sitting by me'
143-6

$$
\left.\begin{array}{rl}
\| k u+a y+y u h i & n i \|
\end{array}\right) \| \text { kay }+ \text { yuhi ni } \| \text { (8) }
$$

## 11. XV\#CY $\rightarrow \mathrm{XCY}$

This optional rule deals with final vowel deletion in compounds.

$$
\begin{align*}
\| \text { ina }+ \text { toho } \| \rightarrow & \| \text { intoho } \| \rightarrow \text { /itoho/ (12) }  \tag{12}\\
& \text { 'sun }+ \text { falls' }=\text { 'sunset' } 52-2
\end{align*}
$$

$\|$ kąxi + koniška\| $\| /$ kąxkoniška/ 'bee + bottle' =
'hornet's nest' 206a
$\|$ cake + pocka $\| \rightarrow /$ cakpocka/ $\quad$ 'hand + round' $=$ 'fist' $260 b$
Rule 10 often leads to some unexpected clusters:
a. geminates:
|| ąsepi + poxka\| $\rightarrow$ / ąseppoxka/ 'axe + round' =
'sledge hammer' 93-193
$\|$ ayapi $+\mathrm{pa}+\mathrm{sa} \| \rightarrow$ /ayappasa/ $/$ 'eagle + head + white $^{\prime}=$
'bald eagle' 88-78
b. others:
$\|$ ndesi + xidi $\| \rightarrow /$ ndesxidi/ $\quad$ snake + chief' = 'rattlesnake' 86-23
$\|$ tohoxka + waxi $\| \rightarrow /$ tohoxkwaxi/ 'horse + shoe $^{\prime}=$
'horseshoe' 121-2

$$
\begin{aligned}
\| \text { cake }+ \text { ptaxe } \| & \rightarrow \text { /cakptaxe } / \quad \text { 'hand }+ \text { flat' }= \\
& \text { 'palm of the hand' } 260 \mathrm{~b} \\
\| t i+\text { itka }+ \text { saheic } \| & \rightarrow \text { /titksahị } / \quad \text { 'house }+ \text { in + other side }(?)^{\prime} \\
& =\text { 'ceiling' } 276 \mathrm{~b}
\end{aligned}
$$

12. $\mathrm{Vn} \mathrm{\# C} \rightarrow \mathrm{VC}$

This rule deals with the nasalization of vowels in morpheme final position and the subsequent loss of $/ \mathrm{n} /$. It applies to compounds.

$$
\begin{aligned}
& \| \text { ina }+ \text { toho }\|\rightarrow\| \text { in }+ \text { toho } \| \quad \text { (11) } \rightarrow \text { /itoho/ 'sunset' } \\
& \\
& \text { } 52-2 \\
& \| \text { dani }+ \text { hudi }\|\rightarrow\| \text { dan }+ \text { hudi } \| \quad \text { (11) } \rightarrow \text { /dąhudi/ 'eight' }
\end{aligned}
$$

180b

The following rules deal with person markers for both nouns and verbs. (For their discussion, see 610 and 630.)
13. All stems beginning with /h/and certain stems beginning with /y/ (morphophonemically represented by \|Y\|) are subject to the following rule. It is mandatory for stems beginning with $/ \mathrm{h} /$, and optional for those beginning with / $\mathrm{y} /$.


## Examples:

$$
\begin{aligned}
& \|\mathrm{nk}+\mathrm{Yeh} ̣+\mathrm{ni}\| \rightarrow / \text { nkehọni/ } \text { 'I know' 117-6-11 } \\
& \| n k+\text { hauti }+x t i \| \rightarrow / n k a u t i x t i / \text { 'I am very ill' } \quad \text { 143-11 } \\
& \|\mathrm{nk}+\mathrm{Yihi}\| \rightarrow / \mathrm{nkihi} / \quad \text { I think' } \quad \text { 143-20-33 } \\
& \|k u h i+y a ̨ k+Y E+t e\| \rightarrow / \text { kuhi yąke te/ } \\
& \text { 'he wishes to raise me' } 156-5 \\
& \| n k+\text { hamaki } \| \rightarrow \text { /nkamaki/ 'we are (standing)' } \quad 164-8 \\
& \|n k+h u+d i\| \rightarrow / n k u d i / \text { 'I come from' } 198 \mathrm{~b} \\
& \| \text { ay }+ \text { hamaki } \| \rightarrow \text { /ayamaki/ 'you pl. are (sitting)' } 133-23 \\
& \| \text { ay + hauti\| } \rightarrow \text { /ayauti/ 'you are sick' 195b } \\
& \| \text { ay }+\mathrm{Yeho}+\mathrm{ni} \| \rightarrow \text { /ayehọni/ 'you know' 291a } \\
& \text { (see also rule } 10 \text { ) } \\
& \| \text { ay }+ \text { Yihi } \| \rightarrow \text { /ayihi/ 'you think' 292a (see also rule 10) }
\end{aligned}
$$

It should be stressed that not all roots beginning with / y/ are subject to this rule. Only those undergoing the change are marked by a capital.

## Counter-examples:

$$
\begin{aligned}
& \| n k+\text { yaoni } \| \rightarrow / n k y a o ̣ n i / \quad \text { 'I sing' } \quad 166-17 \\
& \| n k+\text { yąni } \| \rightarrow / n k y a ̨ n i / \quad \text { I sleep' } 290 b
\end{aligned}
$$

The first person morpheme nk is subject to the following rules:
14. $\|\mathrm{nk}\| \rightarrow / \mathrm{x} /$ /__k. This rule applies before roots as well as before the dative marker /ki/.

$$
\begin{aligned}
& \|n k+k u\| \rightarrow / x k u / \quad \text { 'I come back hither' } 113-23 \\
& \| n k+\text { kidi } \| \rightarrow / x k i d i / \quad \text { 'I come home' } 75-60 \\
& \| n k+\text { kaha } \| \rightarrow / x k a h a / \quad \text { 'I mean' } 156-15 \\
& \| n k+\text { kici } \| \rightarrow / x k i c i / \quad \text { I am unwilling' } 159-5 \\
& \| n k+\text { kite } \| \rightarrow / x k i t e / ~ ' I ~ s h o o t ~ a t ' ~ \\
& \| 5-22 \\
& \|n k+k u\| \rightarrow / x k u / \quad \text { 'I give' } 75-66
\end{aligned}
$$

and:

$$
\begin{aligned}
& \|n k+k i+y o h a ̨+n i\| \rightarrow / x k i y o h a ̨ n i / \text { 'I wish for him....not' } \\
& \qquad 165-10 \\
& \|n k+k i+k u\| \rightarrow / x k i k u / \quad \text { 'I gave him' } 147-32 \\
& \|n k+\emptyset+k i+E+d i\| \rightarrow \text { /axkiyedi/ 'I told him' } 144-23
\end{aligned}
$$

15. nk: $\rightarrow / \rho / / \ldots n$, and optionally before $/ \mathrm{m} /$ and $/ \mathrm{p} /$.

$$
\begin{aligned}
& \| n k+\text { naki } \| \rightarrow \text { /onąki/ 'I sit' 109-37 } \\
& \|\mathrm{nk}+\mathrm{ne}+\mathrm{ni}\| \rightarrow \text { /ọne ni/ } \quad \text { I do not stand' 164-14 } \\
& \| n k+\text { naxe } \| \rightarrow \text { /onaxe/ 'I hear' 231b } \\
& \| n k+\text { nayetu } \| \rightarrow \text { /onayetu/ 'we swallow' 233b } \\
& \|n k+n i\| \rightarrow / \text { oni/ 'I walk' } 236 \text { a } \\
& \|n k+\operatorname{misitu}\| \rightarrow \text { \&qmisitu/ 'we sneeze' 230b } \\
& \| n k+\text { mixkite }+ \text { di } \| \rightarrow \text { /omixktedi/ I perspire' }
\end{aligned}
$$ 4800:342:17

$\|\mathrm{nk}+\mathrm{pxitu}\| \rightarrow / \rho p x i t u / \quad$ 'we cheat' 246 a
$\|\mathrm{nk}+\mathrm{pxatu}\| \rightarrow$ / ppxatu/ 'we swim' 246a

But:

$$
\| n k+\text { pastuki } \| \rightarrow / \text { nkpastuki/ 'I sew' } 142-5
$$

16. $\|\mathrm{nk}\| \rightarrow / \mathrm{n} / /$ other consonants

$$
\| n k+\text { yą ni\| } \| \text { /nyą ni/ 'I hate him' } 19-11
$$

$$
\|n k+t E+h i\| \rightarrow \| n k \text { ta hi } \|
$$

$$
\rightarrow \text { /nta hi/ 'I shall die' 61-18 }
$$

$$
\| n k+\text { de } \| \rightarrow / n d e / \quad \text { I go' } 147-32
$$

$$
\begin{equation*}
\| n k+\text { duti }+t u\|\rightarrow\| n k+\text { duxtu } \| \tag{2}
\end{equation*}
$$

$\rightarrow$ /nduxtu/ 'we ate' 162-23
$\| \mathrm{nk}+$ cude $\| \rightarrow /$ ncude / 'I empty' $166-31$
$\|n k+m i x y i\| \rightarrow / n m i x y i / \quad$ I move in a circle' 230a
$\|n k+s i h u+t u\| \rightarrow / n s i h u t u /$ 'we are barefooted' $254 b$
The following examples show that this rule is optional before all consonants except / / /for which it is mandatory), and $/ \mathrm{m} /$ which will either require rule 15 or 16 .

$$
\begin{aligned}
& \| n k+\text { sito } \| \rightarrow / n k s j t o / \quad \text { 'I am a boy' } \quad 129-5 \\
& \| n k+\text { Yehǫ } \| \rightarrow / n k y e h o / \quad \text { 'I know' } \quad 149-15 \\
& \|n k+t E n i\| \rightarrow / n k t a n i / \quad \text { (l) } \quad \text { I (will) not die' } 162-25 \\
& \|n k+\mathrm{cu}\| \rightarrow / \mathrm{nkcu} / \quad \text { 'I planted' } \quad 266 \mathrm{~b}
\end{aligned}
$$

17. $\|n k\| \rightarrow / n k / / \ldots V$
$\|n k+q\| \rightarrow / n k o / \quad$ 'I make' $\quad$ 127-11
$\|n k+\underset{6}{a x t i}\| \rightarrow / n k a ̨ x t i /{ }^{2} I$ am a woman' $128-20$
$\| n k+i$ ispe $\| \rightarrow /$ nkispe/ 'I know how' 138-17

$$
\begin{aligned}
& \| n k+\text { atamini } \| \rightarrow / \text { nkatamini/ 'I work' } 146-2 \\
& \|n k+\underset{c}{i}\| \rightarrow / n k i / \quad \text { 'I drink' } 158-9 \\
& \| n k+\text { uma } \| \rightarrow / n k u m a / \quad \text { '(we) bathe' } 283 b
\end{aligned}
$$

The second person morpheme $\|$ ay $\|$ is subject to the following rules:
18. (opt.) $\|$ ay $\| \rightarrow /$ aya $\sim y a / / \ldots k, x$
$\|$ ay $\| \rightarrow /$ ya/:
$\|$ ay + kide $\| \rightarrow /$ yakide $/ \quad$ you go home' 161-13
$\|a y+k i\| \rightarrow / y a k i / \quad$ 'you carry on your back' $\quad$ 161-17
$\| \mathrm{ku}+\mathrm{ay}+\mathrm{ki}+$ yohą $+\mathrm{ni} \| \rightarrow /$ kuyakiyohą ni/
'she does not wish for him...' 165-9
$\|a y+k u\| \rightarrow /$ yaku/ 'you come back' $\quad 166$-9
$\|$ ay $\| \rightarrow$ /aya/:
$\|$ ay + kitupe $\| \rightarrow$ /ayakitupe/ 'you carry on your shoulder' 150-26
$\|$ ay + kihǫ $\| \rightarrow$ /ayakihǫ/ 'you have brought it back' $\quad$ 153-15
19. $\|$ ay $\| \rightarrow / \mathrm{i} /$ /___C
$\|a y+d u t i+t u\| \rightarrow\|a y+d u x t u\|$
$\rightarrow$ /iduxtu/ 'you pl. eat' 31-4
$\|$ ay + dophi $\| \rightarrow$ /idǫhi/ 'you see' $50-6$
$\|a y+d a l\| / i d a / \quad$ 'you take' $\quad 92-160$
$\|a y+s a \underset{i}{ } k\| \rightarrow /$ isąki/ 'you are a girl' $\quad$ 129-14
$\|$ ay + pastuki $\| \rightarrow$ /ipastuki/ 'you sew' $142-4$
$\|$ ay + toho $\| \rightarrow$ /itoho/ 'you fall' $153-28$
$\|$ ay + kaha $\| \rightarrow$ /ikaha/ 'you mean' $156-13$
$\|$ ay $+\mathrm{ni}+\mathrm{tu} \| \rightarrow$ /initu/ 'you pl. walk' $\quad$ 161-ll
$\|$ ay + mixyi $\| \rightarrow /$ imixyi/ 'you move in a circle' 230a
$\|a y+y u h i+t u\| \rightarrow$ /iyuxtu/ 'you pl. thought' 292a
20. \|ay\| $\rightarrow$ /ay $\sim y \sim i y / / \ldots V$
$\|$ ay $\| \rightarrow$ /ay/:
$\|$ ay $+\underset{c}{i} s i h i+x t i \| \rightarrow /$ ayis sihi $x t i / \quad$ 'you fear greatly' $\quad 13-17$
$\|$ ay + ande $\| \rightarrow$ /ayande/ 'you are' 57-46
$\|$ ay + ihị $\| \rightarrow /$ ayihị/ $\quad$ you arrived' $\quad$ 125-13
$\|$ ay $+\underset{i k x i h i}{ } \| \rightarrow$ /ayįkxihi/ 'you laugh' 146-18
$\|$ ay $+\underset{i}{\text { ahi }} \| \rightarrow$ /ayahị / 'you cry' 177a
$\|$ ay $\| \rightarrow / y /:$
$\|$ ay + andE hini\| $\rightarrow$ /yanda hini/ 'you shall be so' 56-42/3
$\|$ ay $+o \| \rightarrow /$ yo/ 'you shoot' 65-4
$\|$ ay $+\underset{i}{a h i ̣} \| \rightarrow / y_{i} a h i \underset{i}{ } / \quad$ 'you cry' $68-16$
$\|$ ay + akanaki $\| \rightarrow /$ yakanaki/ 'you got out' $\quad$ 85-14
$\|$ ay $+\mathfrak{i s p E} \| \rightarrow /$ yispe/ 'you know how' 138-15
$\|$ ay $\| \rightarrow$ /iy/:
$\|$ ay $+E \| \rightarrow$ /iye/ 'you say' 67-13
$\|$ ay + ihị $\| \rightarrow$ /iyịịí $\quad$ 'you arrive' $108-20$
$\|$ ay $+\underset{i}{a h i} \| \rightarrow / i y a h_{i} / \quad$ 'you cry' $\quad 146-17$

Some examples in the data have these allomorphs in free variation:
xaha: 'sit down'
eke xyi di yaxaha hi ko 'well, why don't you sit down (you have been talking about it so long without doing it)?' 160-26
eke xyi di ixaha hi ko 'well, why don't you sit down (you have been talking about it so long without doing it)?' 160-27
ihi: 'arrive at a place'
eyą iyịiç ką 'when you go there' 108-20
heyą ayịhi ko 'when you arrive there' 92-171
p: 'do, make'
kak ayo 'what are you doing?' 68-16
kawak iyq 'what are you doing?' 85-20
E: 'say'
kawak iye 'what are you saying?' 66-7
kak aye 'what are you saying?' 67-10
See also \|ay + ahil $\|$ 'you cry' in the immediately preceding group.

Rules 21-24 deal with combinations of personal affixes (e.g. 'first person acting on second'), and as such refer only to verbs.

1st person acting on 2nd: $\|n k+a y\|$
21. $\|n k+a y\| \rightarrow /_{6}^{i} / / \ldots C$

$$
\begin{aligned}
& \|n k+a y+n a x t E\| \rightarrow \text { /inaxte/ } \quad \text { I kick you' } 13-12 \\
& \|n k+a y+n o d e\| \rightarrow \text { /inǫde/ } \quad \text { I throw you away' } 86-33 \\
& \| n k+a y+\text { do̧hi } \| \rightarrow \text { /idơhi/ 'I see you' } 137-8 \\
& \| n k+\text { ay }+ \text { kyahi daha dand } E \| \rightarrow \text { /ikyąhi daha dande/ }
\end{aligned}
$$

'I will scold you all' 139-31
$\| n k+a y+k a h a$ daha $\| \rightarrow$ /ikaha daha/ 'I mean you (pl.)'
156-18
There is one major exception to rule 21:
$\|n k+a y+k u\|$ does not generate /iku/ as expected, but instead gives/nyiku/ 'I give you' (76-86-, 124-24, 129-18, 160-16, etc.).
22. $\|n k+a y\| \rightarrow / n y / / \ldots V$
$\|n k+a y+\underset{c}{\text { idahi }}\| \rightarrow /$ nyiciahi/ $I$ seek you' 17-29 (note)
$\| n k+$ ay $+E$ di\| $\rightarrow$ /nye di/ 'I say to you' 145-27
$\| n k+a y+a k u w E$ dande $\|\rightarrow\| n k+a y+$ akuwa dande\| (1)
$\rightarrow$ /nyakuwa dande/ 'I will take you along' 150-33
$\|$ heti $n k+a y+q \| \rightarrow /$ heti nyǫ/ 'I am doing so to you'
154-27
23. lst person on $3 \mathrm{rd}:\|\mathrm{nk}+\emptyset\| \rightarrow\|\mathrm{nk}\|$ Subject to rules 13-17
with the following addition:

$$
\|\mathrm{nk}+\emptyset+\mathrm{ki}+\mathrm{ku}\| \rightarrow \text { /axkiku/ 'I got it for him' } 147-32
$$

24. nd person on 1st: $\|a y+n k\|$
$\|a y+n k\| \rightarrow / y a k /$. This morpheme is subject to
rules 13-17.

$$
147-13
$$

25. The subjunctive mode marker $\|$ wo\| (see 635) is subject to the following rule:

$$
\|x o\| \rightarrow / x y o / / L_{i}^{i}
$$

$$
\begin{aligned}
& \| \text { by }+\mathrm{nk}+\mathrm{dusi} \| \rightarrow \text { /yandusi/ 'you take me' } \quad 72-8 \\
& \| \text { midi }+a y+n k+q \| \rightarrow / \text { cid yak/ } \\
& \text { 'you do anything for me' 89-94 } \\
& \|\mathrm{ku}+\mathrm{ay}+\mathrm{nk}+\mathrm{Yeho} \mathrm{ni}\| \rightarrow / \text { kuyąkyeho ni/ } \\
& \text { 'don't you know me?' 122-9 } \\
& \|a y+n k+k u\| / y a x k u / \quad \text { 'you give to me' } \quad 129-19 \\
& \| \text { \|y + pk + ice\| /yąkicpe/ 'you laughed at me' } 162-5 \\
& \|a y+n k+\underset{<}{i p} p u d a h i\| \rightarrow / \text { yącipudahi/ } \quad \text { you protect } m e^{\prime}
\end{aligned}
$$

$$
\begin{align*}
& \|n k+\emptyset\| \rightarrow / a x / / \ldots k \\
& \|\mathrm{nk}+\emptyset+\mathrm{kte}\| \rightarrow \text { /axkte/ 'I hit him' 140-21 } \\
& \|\mathrm{nk}+\emptyset+\mathrm{kte}+\mathrm{tu}\| \rightarrow \text { /axktetu/ 'we hit him' } \quad 140-26 \\
& \|n k+\emptyset+k i+e d i\| \rightarrow \| n k+\emptyset+\text { kine di } \|  \tag{7}\\
& \rightarrow \text { /axkiye di/ 'I told her' }
\end{align*}
$$

Examples:
$\left\|\|_{i}\right.$ nani $\left.x o\right\| \rightarrow / \rho$ nani xyo/ 'she must have done it' 44-6/7 $\|$ ande xa xti $x o \| \rightarrow$ /ande xya xti xyo/ 'he shall always live, provided...' 158-11 (see also rule 26) $\| n k+$ ay + kte $x o \| \rightarrow$ /ikte xo/ 'I will hit you if' 13-11 (see also rule 21)
$\| n k+$ te sqsa xo\| $\| /$ nkte sǫsa xo/ 'I will die once' 62-20
26. The habitual mode marker \|xa\| (see 635) is subject to the following optional rule:

$$
\|x a\| \rightarrow / x y a / / V^{f}
$$

$\|$ ande $x a \| \rightarrow$ /ande xya/ 'she is always so' $\quad$ 109-41
$\|$ supi nąki xa\| $\| \rightarrow$ supi nąki xya/ 'he usually has a black spot (sitting)' 111-3
$\| k u+$ cuti ni xa\| $\| /$ kucux ni xya/ 'it is not usually red' 114-40 (see also rule 6)
$\|$ catu $+x a \| \rightarrow /$ catu $x a / \quad$ they die regularly' $\quad 38-5$ $\|$ oyihi xti tu xa\| $\|$ /oyihi xti tu xa/ 'they always want it badly' 88-79

The following examples show that this rule is optional: $\|$ kasatu ni xa\| $\| \rightarrow$ kascatu ni $x a / \quad$ 'they are not usually white' 31-13
$\|$ ahisketa yuke xa $\| \rightarrow /$ ahisketa yuke xa/ 'they are usually covetous' 52-18

$$
\| \text { nkaduti te } x a \| \rightarrow / n k a d u t i \text { te } x a / \quad \text { 'I am still hungry' }
$$

27. The auxiliary ande (see 941.1) is subject to the following rule:

$$
\begin{array}{lll}
\|\mathrm{e}\| & \rightarrow \emptyset \\
\|\mathrm{d}\| & \rightarrow \mathrm{t}
\end{array}
$$

## CHAPTER II

## MORPHOLOGY

500. Introduction

There are three word classes in Biloxi: verbs, substantives (nouns and pronouns), and particles. The first two classes are identifiable in that they are formed by the juxtaposition of a stem plus affixes. Particles, on the other hand, are negatively defined as elements to which inflectional affixes cannot be added.

Verbs can be defined morphologically since they are characterized by the numerous affixes which may accompany them. In addition to the person and number markers which are always present, verbs may also be marked as dative, reciprocal, reflexive, and/or instrumental constructions. They may also be marked by the presence of mode markers, the object specifier, and auxiliaries. Syntactically, they are the last or the next-to-last element within a clause.

Verbs are inflected for person, number, and mode. There are three persons (lst, 2nd, and 3 rd ) and two numbers (singular and plural). Although Dorsey occasionally glosses forms as 'dual', there is no solid evidence in the corpus of a dual form in

Biloxi. There are numerous mode markers, some of which are very easy to define, others whose meaning remains elusive.

The basic order of morphemes within a verb is as follows:

| (ku) <br> (see <br> $635.8)$ | person <br> prefixes | thematic <br> prefixes | dative <br> reciprocal, <br> reflexive <br> prefixes | instru- <br> mentals |
| :---: | :---: | :---: | :---: | :---: |
| $\qquad$root | number <br> suffixes | mode <br> markers |  |  |

The tense of a verb may be indicated either through a mode marker or an auxiliary, but it is not a necessary part of any verbal construction. Thus de can mean either 'he is going' or 'he went'. To be more specific one can say de ande, 'he is going'or da $g$, 'he went'.

Verbs are divided into two groups: classificatory verbs and normal verbs. The classificatory verbs serve an almost auxiliary function to normal verbs, and specify the axis of the subject: standing, sitting, reclining, etc. All three persons are inflected for number in classificatory verbs, but curiously, only the second and third persons are inflected for person.

Normal verbs, meaning all others, can have either an active or a stative meaning. There are no morphological grounds for separating active and stative verbs, but there is a syntactic idiosyncrasy that points to the probability that they were once two
different categories, viz. ko is the nominal particle used when the main verb of the sentence is stative (see 934):
ayą sịhị ne ko te di 'the standing tree is dead' $118-5$ ayewi ko udunahi 'he faces the door' 136-20 cf. ayewi ( $\emptyset$ ) uwe dedi 'he entered at the door' 138-21. Nouns are more difficult to define than verbs, since there are no nominal affixes which cannot also be verbal affixes. We thus have to define them negatively as those inflectable elements which cannot be marked as dative, reciprocal, reflexive and/or instrumental. In addition, they are not marked by mode markers or auxiliaries. Syntactically, they usually appear as the first or second element of a sentence.

Nouns are divided into two groups: those which are inflected, and others--the large majority--which are not. The first group is inflected for person and number; nominal person and number markers are identical to verbal ones.

Nouns can be derived from verbs, or from the juxtaposition of a noun $+\left\{\begin{array}{l}\text { noun } \\ \text { verb }\end{array}\right\}$ stem.

Personal pronouns are based on the root indi, and are inflected for person and number. There is evidence that the demonstrative pronouns he and de were once inflected for number, although since the plural forms are found very rarely in the corpus, it is probable that they were obsolescent when Dorsey was collecting his data.

Particles are extremely numerous and serve varied syntactic functions: noun phrase markers, connectives, interjections, adverbials, etc. Some adverbials are derived and are discussed in the second half of this chapter. Other particles will be discussed at greater length under syntax.

The following working definitions may be helpful for the discussion of morphology:
root: a monomorphemic base.
stem: anything that can occur with inflectional affixes. It may be simply a root, or it may be a root with several derivational affixes.
affix:
construction:
a bound morpheme; may be $\emptyset$.
forms containing at least one root and one affix.
kernel verb: a verbal stem + person and number markers.
all verbal affixes except person and number markers.
600. Inflection
610. Nouns

Biloxi nouns are divided into two classes: those which are inflected for possession and those which are not. The first class
is composed of body parts and kin terms which are obligatorily inflected, and a few intimate personal possessions which are optionally inflected. All other nouns are uninflected.

The person markers for inflected nouns are as follows:

| nk- | 1st person |
| :--- | :--- |
| ay- | 2nd person |
| $\emptyset-$ | 3rd person |

-tu pluralizes the personal prefix. The number of the noun is expressed only syntactically.

For the morphophonemic rules regarding person and number markers, see rules $2,3,13-20$.
611. Examples of inflected nouns follow.
611.1 Body parts
dodi 'throat'
ndodi 'my throat' 133-9-11
idodi 'your throat' 133-15
dodi 'his, her throat' 133-17
ndoxtu 'our throat' 133-12-14
idoxtu 'your (pl) throats' 133-16
doxtu 'their throats' 133-18
cake 'hand'
nkcake 'my hand' 153-24
icake 'your hand' 153-25
cake 'his hand' $260 b$
nkcaktu 'our hands' 260b
icaktu 'your (pl.) hands' 260b
caktu 'their hands' 149-22
ihi 'mouth' ${ }^{1}$
nkihi 'my mouth' 199b
yihi 'your mouth' 138-23
ihi 'his mouth' 138-24
nkihitu 'our mouths' 199b
yihitu 'your (pl.) mouths' 199b
ihitu 'their mouths' 199b
isu 'teeth'
nkisu 'my teeth' 140-17
ayisu 'your teeth' 140-16
isu 'his teeth' 140-18
nkisutu 'our teeth' 203a
ayisutu 'your (pl.) teeth' 203a
isutu 'their teeth' 203a
${ }^{1}$ This root is an exception to morphophonemic rule 2.

```
sponi 'ankle'
    nksponi 'my ankle' 96-247
    isponi 'your ankle' 254b
    sponi 'his, her ankle' 254b
    nksponitu 'our ankles' 254b
    isponitu 'your (pl.) ankles' 254b
    sponitu 'their ankles' 254b
yatka 'jaw'
    nyatka 'my jaw' 289a
    iyatka 'your jaw' 289a
    yatka 'his, her jaw' 289a
    nyatkatu 'our jaws' 289a
    iyatkatu 'your jaws' 289a
    yatkatu 'their jaws' 289a
```

The following is a complete list of the names of body parts that Dorsey collected; for further reference, see 4800:348, p. 78 ff .
adohị 'face'
ahi 'skin'
ahudi ~ ahodi 'bone'
amanki 'chest of man or
woman'
anahi 'hair'
asahi $\quad$ 'arm'
asahi spewa 'right arm'
asạhị kaskani 'left arm'
asoti 'shoulder blade'
axe 'shoulder'
ayixi 'stomach'
ayitpahi ${ }_{6}$ 'soft part of abdomen'
cake 'hand'
cakahi 'fingernail'
cakponi 'wrist'

| cakptaxe 'palm of hand' | doti 'neck' (dodi??) |
| :---: | :---: |
| cakeyati 'middle of palm' | doxtątka 'adam's apple' |
| (='heart of palm') | hadixi 'urine' |
| caktapi 'back of hand' | hai $\sim$ haidi 'blood' |
| cakowusi 'fingers' | haidixci 'bladder' |
| cakxohi 'thumb' (='old hand') | haiti 'artery, vein' |
| cakamihi 'lst finger' | (='blood house') |
| caknantenedi '2nd finger' | haikinedi 'spleen' |
| cakayika ikcahi '3rd finger' | ihi 'mouth' |
| (='next to 4th finger') | ihi yapi 'lips' |
| cakayika '4th finger' | ihi yapi tawi 'upper lip' |
| cakahudi 'space between | ihi yapi xwuhi 'lower lip' |
| knuckles' | isi 'foot' |
| cindaho 'hip bone' | isi ahi 'toenail' |
| cindi 'hips' | isi axohi 'big toe' |
| cinąki 'knee' | isi ikcahi axohi '2nd toe' |
| cinanta waxehe 'kneepan' | isi nantenedi '3rd toe' |
| ciwi 'intestines' | isi ayika if ikcahi '4th toe' |
| cipo 'navel' | isi ayijka '5th toe' |
| cọditi 'penis' | isi mayini 'sole of foot' |
| daswa 'back' | ite 'face, forehead' |
| docaxka 'tonsils' |  |
| dodi 'throat' | ${ }_{6}^{\text {ika }}$ ( muscle' |
| dokoxe 'hard palate' | istodi 'elbow' |


| isu 'teeth' |  |
| :---: | :---: |
| kipate 'knuckle | 'knuckles' |
| nato 'brain' | 'brain' |
| naxko 'sidebur | 'sideburns' |
| nindi 'rump' | 'rump' |
| nixta 'breath' | 'breath' |
| nixuxwi 'ear' | i 'ear' |
| nixuxwi ahudi 'upper part |  |
| of earlobe' |  |
| nixuxwi siopi | vi siopi 'earwax' |
| nixuxwi tpahi | wi tpahi ${ }_{\substack{e}}$ 'soft part |
| of earlobe' |  |
| nixuxwokpe 'perforation |  |
| in ear ${ }^{\prime}$ |  |
| nixuxtitpe 'external opening |  |
| of ear ${ }^{1}$ |  |
| pa 'head' |  |
| pa aho 'skull' |  |
| pa tawi 'crown of head' |  |
| $p_{¢}{ }_{\text {ahic }}$ oqni 'beard' |  |
| $p_{¢}^{\text {ahi }}$ ctawi 'mustache' |  |
| pco 'nose' |  |
| pco ahudi tpahiof nose' |  |
|  |  |

pco ahudi tpahi okpe
'perforation of septum
of nose'
pco putsi 'ridge of nose'
pcotpe 'nostril'
pi 'liver'
pkanaxexe 'lock of hair'
sponi 'ankle'
sponi ahudi 'ankle bone'
spudaxi 'instep'
stuti 'heel of foot'
tacke 'saliva'
taki 'thigh'
tasi 'female breasts'
tasi pudi 'nipples'
taxpadi 'temples'
taxoxka 'rib'
tayo 'cheek'
taihudi 'spine'
te uso 'eyebrows'
tiamhi 'eyelashes'
tiska 'windpipe, back of neck'
tucp 'eyes'
tucq ahi tawi 'upper eyelid'


```
yilkati 'husband'
    nyịkati 'my husband' 4800:345-6
    iyikati 'your husband' 293b
    yikati 'her husband' 38-9
kaxo 'grandfather'
    xkaxo 'my grandfather' 4800:345-1
    kaxo 'his grandfather' 75-78
yi̇ki 'son'
    nyiki 'my son' 4800:345-2
    iyikki 'your son' 294a
    yiki 'his son' 149-17
yilkadodi 'grandson'
    nyįkadodi 'my grandson' 20-25
    iyįkadodi 'your grandson' 294a
    yîkadodi 'his grandson' 294a
tando 'younger brother' (female speaker)
    nktando 'my younger brother' 269b
    itando 'your younger brother' 269b
    tando 'her younger brother' 38-8
    nktandotu 'our younger brother' 269b
    itandotu 'your(pl.) younger brother' 269b
    tandotu 'their younger brother' 269b
```

```
sotkaka 'younger brother' (male speaker)
    nksotkaka 'my younger brother' 257b
    isqtkaka 'your younger brother' 257b
    sptkaka 'his younger brother' 130-15
    nksotkakatu 'our younger brother' 257b
    isotkakatu 'your (pl.) younger brother' 257b
    sqtkakatu 'their younger brother' 257b
kgni ~ ¢qni 'mother'
    nkǫni 'my mother' 4800:345-1
    ayǫni 'your mother' 130-12, 13
    koni 'his mother' 93-179
    qni 'his, her mother' 284b
yịkq̣ni 'wife' (='little mother')
    nyilkqqui 'my wife' 4800:345-6
    yịkǫ 'his wife' 85-2
kokof 'grandmother'
    xkoko, 'my grandmother' 4800:345-1
    ikokop 'your grandmother' 217b
    koko 'his grandmother' 19-16
yoki 'daughter'
    nkiyǫki 'my daughter' 159-5
    nyqki 'my daughter' 4800:345-2
    iyoki 'your daughter' 296a
    ypqki 'his or her daughter' 296a
```

yôkadodi 'granddaughter' (son's daughter')
nyokadodi 'my granddaughter' 4800:345-2
iyokadodi 'your granddaughter' 296b
yọkadodi 'his or her son's daughter' 296b
$\underset{\text { taki }}{ }$ 'elder sister' (male speaker)
ntaki 'my elder sister' 4800:345-4
yatạki 'your elder sister' 272a
taki 'his sister' 50-7
tąska 'younger sister' (female speaker)
nktąska 'my younger sister' 272a, 4800:345-5
yitąska 'your younger sister' 272a
tąska 'her younger sister' 130-14
The following is a list of all the kin terms that Dorsey collected. The glosses given are the basic ones: for further semantic information on them, readers are advised to check 4800:345.
adi 'father'
acki 'his or her father's younger brother'
aduwo 'his or her father's elder brother'
ckąni 'sister-in-law'
ini 'his elder brother'
inọ. ${ }^{\text {in }}$ 'her elder sister'
kąxo 'grandfather'
kaxo akitkoxi 'great grandfather'
kaxo kitko akitkoxi 'great great grandfather'
kaxo kitko kitko akitkoxi 'great great great grandfather' koko 'grandmother, mother-in-law' kqko akitkoxi 'great grandmother' koko kitko akitkoxi 'great great grandmother' koko kitko kitko akitkoxi 'great great great grandmother' kyako yjki 'son's son's son' kyako akitkoxi yiki 'son's son's son's son' kyako yikakitkoxi 'daughter's daughter's son's son' kyako yoki 'son's son's daughter' kyako akitkoxi yoki 'son's son's son's daughter' kyako yokakitkoxi 'daughter's daughter's son's daughter' oni $\sim$ kqni 'mother' ©ni uwo 'mother's elder sister' sǫtkaka 'his younger brother'
tahą ${ }^{\text {n }}$ 'wife's brother'
tando $\sim$ tando aka 'her younger brother'
tando noxti 'her elder brother'
takaka 'his younger sister'
tąki ~ tąkxohi 'his elder sister'
taska 'her younger sister'
tohǫni 'daughter-in-law'
tohqnoxti 'father-in-law' tondi 'son-in-law'
toni 'his or her father's elder sister'

```
toni aka 'his or her father's younger sister'
tukani 'mother's brother'
tukaninoxti 'his or her mother's elder brother'
tukani aka 'his or her mother's younger brother'
tuksiki 'elder sister's son'
tuksiki aka 'younger sister's son'
tusoki 'elder sister's daughter'
tusq\mp@code{i aka 'younger sister's daughter'}
yịki 'his or her son'
yikadodi 'his or her son's son'
yikakitkoxi 'daughter's son's son'
yikati 'husband
yikonni 'wife'
yikayiki 'husband's brother' (='potential husband')
yqki 'daughter'
yokadodi 'son's daughter'
yokado yilki 'son's daughter's son'
yokado yoki 'son's daughter's daughter'
yokayiki 'daughter's son'
yokayokki 'daughter's daughter'
yokakitkoxi 'daughter's son's daughter'
```

611.3 Intimate personal possessions. This group is only
optionally inflected.

```
ti ~ ati 'house'
    nkti 'my house' 22-5
    nkati 'my house' 275a
    iti 'your house' 73-17
    ayati 'your house' 275a
    ati 'his house' 275a
    nkatitu 'our house' 275a
    ayatitu (?) 'your (pl.) house' 275a
    atitu (?) 'their house' 275a
doxpe 'shirt'
    idoxpe 'your shirt' 140-33
uduxpe 'clothing' (generic term)
    nkuduxpe 'my clothing' 138-19
    uduxpe 'his or her clothing' 138-18
manki 'dress'
    imanki 'your dress' 140-32
```

620. Pronouns
621. Independent personal pronouns.

Non-affixal personal pronouns are always optional, and as such seem to be used for emphatic purposes only. In the singular, they can be used either as subjects or objects, while in the plural they are used only as subjects. [The suffix - daha (see 633.3)
marks plural objects.] These pronouns are based on the root indi, to which are added the normal person and number markers. (See 610 above.)

| nkindi 'I' | nkixtu 'we' |
| :--- | :--- | :--- |
| ayindi 'you' | ayịxtu 'you all' |
| indi 'he, she, it' | ixtu 'they' |

Morphophonemic rule 3 accounts for the changes in the plural forms. Singular indi has free variants ind and int before /h/ and /k/. Likewise, plural $\underline{j x t u}$ can be shortened to $\underline{j x t}$ under the same conditions.

## 622. Demonstrative pronouns

There are two common demonstrative pronouns in Biloxi; de, 'this', and he, 'that'. Their plural forms are denani and henani respectively. Both plural forms are very rare, and it would seem that they are used only when the plurality is not obvious from the rest of the phrase. In noun phrases containing classificatory verbs, for example (see 941.2), plurality is marked in the verb, and thus the demonstrative is rendered in the singular:

| aya atahi ama de | 'these running men' 48 | 4800:348; 198+ |
| :---: | :---: | :---: |
| colki xaxaxa amą de | 'these standing dogs' | ' 4800:348; 198+ |

630. Verbs

Biloxi verbs are inflected for person, number, and mode. The person and number markers are the same as those used in inflected nouns (see 610):

| nk- | 1st person |
| :--- | :--- |
| ay- | 2nd person |
| ด- | 3rd person |
| -tu pluralizes the prefix |  |

Verbs with inanimate nouns as subjects are not pluralized.
For the morphophonemic rules regarding verbal person and number markers, see rules $2,4,9,13-24$. Further allomorphy is described under section 632.
631. Representative examples:

I nkcudi 'I planted' 22-3,4
nkq 'I make (it)' 151-12
you yaku 'you are coming back' 92-158
ayatamini 'you work' 146-1
he, cacake 'he hung up' 15-3
she de 'she went' 76-89
we ndoxtu 'we see' 184a
nkixtu. 'we reached' 148-28
you aygtu 'you (pl.) did it' 150-17
ayakixtu 'have you (pl.) brought it back?' 153-18
they hetu 'they say it' 156-12
akuwetu 'they came out in sight' 156-28
632. In addition, the person markers combine in the following ways:

1st person on 2nd: $\|n k+a y\| \rightarrow / n y \sim i_{<} /$
(see rules 21 and 22 )
jkikta dande 'I will hit your...' 125-2
idunamni 'I bother you' 150-13
heti nye nyukedi ' 'we do so to you' 154-28
nyinkowa 'I depend on you for protection' 155-2
lst person on $3 \mathrm{rd}:\|n k+\emptyset\| \rightarrow\|n k\| \rightarrow / n k \sim x \sim n \sim a x /$
(see rules $13-17,23$ )
ndoxtu 'we saw her' 126-7
axkiyedi 'I told her' 143-17
ca haxkiya dande 'I will kill him for him' 146-13
nkjcpe 'I laugh at him' 162-3
2nd person on lst: $\|a y+n k\| \rightarrow / y a ̨ /$
(see rules 13-17, 24)
etiki yąko 'you treated me so' 24-19
yaxkikq daha 'you do it for us' 55-20
yaxkitetu 'you (pl.) hit me' 61-17/18
de hiyake te 'you wish to send me' 156-8
yaxku 'you give it to me' 160-3
2nd person on 3rd: $\|$ ay $+\emptyset\|\rightarrow\|$ ay $\| \rightarrow / i \sim$ ay $\sim$ ya $\sim$ aya/
(see rules $18-20$ )
idohi 'you see it' 50-6
yakte 'you hit him' 140-22
ay9 'you did it' 150-15
ayakixtu 'have you (pl.) brought it back?' 153-18
ayakuwex 'you (pl.) took him along' 154-33
3rd person on 1st: $\| \emptyset+$ yąk $\| \rightarrow /$ yak/
(see rules $13-17$ )
eti yakoni 'he did thus to me' 33-6
yakyeho 'he knows me' 122-10
yaxkisine 'he stole it from me' 132-2
yadoxpituni 'they do not look at me well' 134-18
3rd person on 2nd: $\| \emptyset+$ ay $\|\rightarrow\|$ ay $\|$
(see rules $18-20$ )
jdqxtu 'they see you' 88-75
iyanox tedi 'she wishes to chase you' 93-183
iyetu 'they say to you' 108-16
ikudutatu 'they urged you on' 159-17
3rd person on 3rd: $\|\emptyset+\emptyset\| \rightarrow \emptyset$
ku 'he gave him' 15-9hane 'he found him' 26-3
kiyedi 'he told her 28-19
kyahi 'he scolded him' 33-3duti 'he ate it' 85-19ca yetu 'they killed them' 141-2

### 632.1 Ambiguous forms:

1. The surface manifestations of the 2nd person on lst forms are the same as the 3 rd person on lst forms. In fact, we have the following identical forms:

> yaxtedi $\quad$ you hit me, he hit me' 214 b
> yądohi $\quad$ 'you see me, he sees me' $184 b$
2. In addition, the surface manifestations for 2 nd person subj., 2 nd person on 3 rd , and 3 rd person on 2 nd, are all identical. We have the following examples:

> idohi 'you see' (184a) 'you see him' $126-5$ and 'they see you' (87-59)
iyąhi 'you love him, he loves you' 4800:344-1

## 633. Number markers

633.1 -tu is used to mark animate plural subjects with all verbs except some verbs of motion (see 633.2 below). Representative
examples:
ikcatu ni 'we have not forgotten you' 21-3 nkyehotu ni 'we did not know' 22-8
nkịxtu dande 'we will reach there' 126-2
iksixtu 'you (pl.) are crazy' 93-195
yaktetu 'you (pl.) hit him' 140-25
kiyetu 'they said to him' 37-7
akitatu xa 'they follow it regularly' 38-7
yihixtitu ha ni 'they may have the most'
(fem. sp.) 40-16
-tu is not used in the following three situations:
a. when the auxiliary yuke, 'are', is present, already marking the verb as plural (see 941.1).
dehi yuke 'they were looking at it' 50-12
b. when the plurality of the sentence has been established elsewhere in the sentence:
aditu ką, hidedi nedi 'they climbed up, and were falling continually' $\quad 40-22$
(aditu is already plural, and therefore hidedi need not be).
c. when the immediately following verb is one of motion, and already pluralized:
dą kahi hạ 'they took it and were returning' 52-16 (kahi is plural; therefore dą need not be).

Although -tu almost always immediately follows the stem, and is therefore classifiable as a suffix, there is some evidence that it is an enclitic along with the mode markers. Very occasionally, it follows rather than precedes a mode marker:
supi xti tu 'they are very black' 32-16
yihi xti tu ha ni 'they may have the most' $40-16$
te ye te tu ką 'when they wished to kill him' 61-17
The examples with xti are not necessarily significant because its position within a verb is freer than that of other modes (see 635:15 below). The third example, however, remains unexplainable.

### 633.2 Verbs of motion

Some verbs of motion use the prefix a- instead of the suffix -tu to mark plurality. It is inserted immediately before the root. Representative examples:

1. de 'he goes' 181a
nkade 'we go' 148-28
ayade 'you (pl.) go' 147-28
ade 'they go' 148-6
2. kide 'he goes homeward' 182a
xkade 'we go homeward' $\|n k+k i+a+d e\|$
ikade 'you (pl.) go homeward'
kade 'they go homeward'
3. hu 'he comes' 149-6
nkahu 'we come' 149-5
ayahu 'you (pl.) come' 149-4
ahu 'they come' 149-3
4. hi $\sim h i \underset{i}{ }$ 'he arrives' 197a
nkahi 'we arrive' 156-30
ayahi 'you (pl.) arrive' 156-29
ahi~ ahi 'they arrive' 55-23
ahi te 'come ye!' $56-40$
However, other verbs of motion (including some based on these same roots) have -tu as their plural marker:
5. ịhị 'he arrives' 197a
nkjxtu 'we arrive'
ayixtu 'you (pl.) arrive'
ixtu 'they arrive'
6. tahi 'he runs' 271b
nktapxu 'we run'
itạxu 'you (pl.) run'
taxtu 'they run'
7. akuwe 'he comes out' 55-14
nkakuwetu 'we came out in sight' 156-30
ayakuwetu 'you (pl.) came out in sight' 156-29
akuwetu 61-15
8. kade 'he goes thither' 182a
xkadetu 'we go thither' ikadetu 'you (pl.) go thither' kadetu 'they go thither'

### 633.3 Plural object marker: daha

daha is used for 1 st, 2 nd, and 3 rd person plural objects. However, it is necessary only when the plurality of the object has not already been specified. It follows -tu, and precedes all mode markers.

Examples:
de yedaha 'he sent them' 52-13
yaç daha oni 'she named them (in the past)' 57-52
te yąka daha 'he killed us' 62-35
yąxku daha te 'give it back to us!'
(female speaker to male addressee) 81-4
ikyahi daha dande 'I will scold you' (pl.) 139-31 nkakixtu daha 'we brought them' 147-29
daha is reduced to ha in two examples:
ikte ha dande 'I will kick you' (pl.) 124-23
nyiku ha dande 'I give it to you' (pl.) 124-25
634. Indefinite object marker: a-

Some verb roots take a prefix a- to indicate an otherwise unspecified indefinite object.

## Examples:

```
ki 'carry on the back'
nkaki 'I carried something on my back' 28-12
da 'gather'
nkada 'I gather things' 40-17
kikahí 'tell him'
akikahiz 'he told him (the news)' 70-12
    pstuki 'sew'
    apstuki 'sew it' 53-12
    pehe 'pound'
    apehe 'pound something' 75-77
    duti 'eat'
    aduti 'eat something' 133-5-8
```

635. Mode markers

There is a large number of mode markers in Biloxi. Some are extremely common, and present no problems of analysis. Others, instead, appear so rarely that it is difficult to determine their semantic force. The following is a fairly exhaustive list of Biloxi modes, beginning with those most frequently used.

1. The declarative mode: na, male speaker ni, female speaker

This is always the last morpheme of any given verbal construction.
na:
nka dandena 'I will say it' 47-22 hetinyq nyukedi na 'we are just going to do so to you' 55-7
nkudi na 'I have been coming back' 108-17, 21 iyadi ya ${ }_{6}$ eti na 'this is your father' $158-18$ aya tohi yate yuke na 'Negroes are all about' 162-16 kuti mąkdeyate ande na 'God is everywhere' 162-18 ni: nkadutedą ni 'I have finished eating' 39-10 jkowa idahi otu ni 'they themselves hunt and shoot it' 55-19
eti ni 'this is it' 73-17/18
cicapi xtini 'it is too slippery' 73-29
yasi xtini 'he smells so bad' 108-4
Declarative sentences need not end in na or ni. Indeed, there are many unmarked declaratives throughout the corpus:

$$
\begin{aligned}
& \text { taneks nkaxti } \begin{array}{l}
\text { 'I am a Biloxi woman' } 129-2 \\
\text { coki itak naki } \\
\text { 'your dog sits' (= 'you have a dog') } \\
\text { 131-3 } \\
\text { nkapstuki nkispe } \quad \text { 'I know how to sew' } 138-17
\end{array} .
\end{aligned}
$$

2. The interrogative mode: wo, male speaker
$\emptyset$, female speaker

This morpheme also appears as the last one in any given verbal construction. It never appears with the declarative mode. There may have been an intonational clue to distinguish otherwise unmarked interrogative sentences from unmarked declarative ones, but it is impossible to determine this from the data.

## wo:

etikinyoni wo 'did I do that to you?' 16-15
iyixo wo 'have you enough?' 24-9
kawak iye yande wo 'what are you saying?' 61-7
aya ade wo 'does the wood burn?' 138-5 cidike ayaọhiinaki wo 'why do you sit there
singing?' 146-19
iyakakaha daha wo 'do you mean us?' 156-20
$\emptyset:$
kihaki cidike yukedi 'what kin are they two?' 138-2
aya ade 'does the wood burn?' 138-4 (cf. above)
ayakixtu 'have you (pl.) brought it back?' 153-18
kawake nąki 'what is he saying (as he sits)?' 155-9
ipastuki yande 'were you sewing on it?' 158-22
3. Hortatory mode: hi. This mode marker never appears by itself as part of the principal verb in the sentence. Instead it is almost invariably used in conjunction with the declarative na/ni:

> te hiyetu hi na 'you must all kill him'
> 62-37 (masc. sp.)
> iduti hi na 'you shall eat it' 68-18 inixyi hi na 'he shall play with it roughly' 87-61
> nyiku hi na 'I must give it to you' 160-15
> nyiku hi ni 'I shall give it to you' 76-86 (fem. sp.)
> idoxtu hi ni 'they shall see you' $88-75$
> taotu hi ni 'they will shoot deer' 93-182
> anda hi ni 'he will be so' 155-25

There is also one example of it with the interrogative wo:
kawa nko ta hi wo 'what will (we) wish to do?' 113-21
When used in an embedded sentence, however, hi need not be accompanied by another mode marker:
ani ndẹ ni nkanda hi yihi 'he thought I should not see the water' 33-5/6
yao hi kiyetu 'they told her to sing' 50-15
uto hi kiyedi 'he told him to lie in it' 113-38
4. Potential mode: dande. Follows: tu precedes: na daha
xe
adutik kikǫ daha dande 'he will make food for
them' 31-2/3
nka dande na 'I will say it' 47-22
idohi dande 'you shall see it' 50-6
ta dande 'he will die' 124-13
ndoxtu uxwi dande 'our throats will be dry'
$=$ 'we will be thirsty' 133-14
ixtu dande 'they will arrive' 135-17
nda dande xye 'I will go (whether he wishes or not)'
137-22
nyakuwa dande 'I will take you along' 150-33
xohi dande 'it will rain' 151-1
kupi ni xti dande 'there will be very bad weather'
151-5
5. The optative mode: tE Follows: tu precedes: dande daha

안
wo
hi
ni
yąkiyoxpa te yayukedi 'you (pl.) are wishing to drink it up for me' 69-5
pis te xti ande 'she strongly desires to suckle'
74-58
ku te niki 'she does not want to come back' 75-68 kite te hande 'she wanted to hit him' 94-200
ca ye daha te 'he wished to kill them' 112-12 kawa nko ta hi wo 'what will we wish to do?' 113-21 (see morph. rule 1)
ca hanke te nkamaki na 'we wish to kill them'

> 113-22 (masc.)
nkaduti ta dande 'I shall wish to eat' 133-8
(see morph. rule 1 )
nkyehọ te 'I wish to know' 149-15
ayadutitu te ho 'you (pl.) wish to eat' 275 b
While te almost always follows the number markers, we do have the following counter-example:
te ye te tu ka 'when they wished to kill him' 61-17 cf. te hiyetu te ko 'when they wish to kill you'

95-231
6. The subjunctive mode: xo $\sim$ xyo. Dorsey claims that these two morphs are different (1912:221), but actually their choice depends on morphophonemic rule 25:

$$
\|x o\| \rightarrow / x y o / /]_{i}^{i}
$$

The semantic force of the morpheme is in question, however. The idea of potentiality is involved, as well as contingency. ('I will hit you if,' 'I will come home provided,' etc.). It always appears as the last morpheme within a given verb.

## Examples:

kedi xyo 'he must (?) dig it alone' 13-5

$$
\begin{array}{lll}
\text { inaxta xo }_{6} & \text { 'I will kick you, if' } & 13-12,13 \\
\text { nkihi xyo } & \text { 'I will (?) reach' } 19-4
\end{array}
$$

ita xo 'you shall die, if' 70-9
yande xyaxti xyo 'you will always live, if' 70-10 ma sa yate yuka xo 'white turkeys will be all about, provided' 86-37

> nde ịdohi xyo 'I will see you tomorrow (will, contingency)' $137-8$

There are a few examples of xyo appearing with nani which seems to mean 'can'. Together they take on the meaning of 'must' or 'must have':
© nani xyo 'she must have done it' 44-7
ede te yake daha yandi nani xyo 'this must be the one who killed us' 61-15/16
ayindi ayo nani xyo 'you must have done it' 150-15
ixtu otu nani xyo 'they must have done it' 150-16
ayixtu ayǫtu nani xyo 'you (pl.) must have done it' 150-17
7. The habitual mode: xa $\sim$ xya Follows everything but:

$$
\underline{\mathrm{na} / \underline{n i}}
$$

Dorsey lists two homophonous morphemes here (p. 218), one being a 'sign of past action', and the other meaning 'customary or usual action'. I think that there is only one morpheme and that it denotes customary action.

The choice between the two forms is governed by morphophonemic rule 26 which is optional:

$$
\mathrm{xa} \rightarrow \mathrm{xya} / \mathrm{V}^{\mathrm{f}}
$$

Examples:
supixtitu xa 'they are usually very black' 32-17
tiduwi xa 'he alights' 33-12/13
akuwetu xa 'they come out regularly 38-6
akitatu xa 'they follow it' 38-7
awahe yuke xya 'they are crying out as they move' 38-11
nduti xya 'I usually eat' 55-13
etu xa 'they say always' $96-255$, etc.
sindo ande xya 'he is always using his tail' $96-16 / 17$
katamini hande xa 'he never works' 166-20
kowohik naki xya 'he always sits up above' 111-2
While xa usually appears as the last morpheme of a verb, it can be followed by the declarative marker na/ni:
nkakiyasixa na 'I always liked it' (masc.) 16-9/10
nkiyą nkanąpini xa na 'I never sleep until day' (masc.) 26-6
nkint ko yinisa ndux ni xa ni 'I never eat buffalo meat' (fem.) 55-12
aka ande dedi ${ }_{c}$ adute xa ni 'this youngest one is always hungry' (fem.) 88-71
etike ko ndux ri xa na 'I never eat such (things)' (masc.) 91-138
kanaxtetu ni xa na 'they never kicked' 128-3
There are various cases where the combination of the habitual and the declarative mode is glossed as 'can':
tahi xa na 'he can run' (if he wishes) 218a
akutxyi nkg xa na 'I can write' 218a
akutxyi nkukade xa na 'I can read' 218a
eyą nde xa na 'I can go thither' (if I wish) 218a
8. The negative mode: (ku)...ni. It is not clear when ku is necessary, and when ni alone will suffice. We have, for example, de ni, 'he did not go, 144-20, and kude ni, 'it did not go', 28-8; ide ni, 'you did not go', 145-28, and kide ni, 'you did not go', 141-31. ku is never used, however, when the following person marker is nk, 'I'. ku seems to be needed with stems ending in -ni, as well as with the feminine declarative mode marker ni in order to avoid ambiguity. [This is because $\|n i+n i\| \rightarrow / n i /$ (see morphophonemic rule 9).]

Examples of ku...ni:
kudęxtu ni xti 'they could not see them at all' 50-14
kute ni 'he did not die' 82-16
kustahici ni 'he could not reach it' 89-90
kupi ni xti 'it is so bad' (=not good) 91-140
kunyikte ni 'I do not hit you' 136-19
kuyakiyohą ni 'you do not wish for him' 165-9
Morphophonemic rule 8 accounts for the reduction of $/ \mathrm{ku} /$ to / $k$ / in the following examples:


There are various examples in the data of kdux ni, 'he did not eat' (23-7, 15-17, 24-17, 146-10), and none of kudux ni. Since this does not happen to other verbs whose stems begin with /d/, I assume that the reduction has to do with something inherent in the verb duti.

Examples of ni are as follows:

$$
\begin{array}{lll}
\text { ayi ni dande } \quad \text { 'you shall not drink' } & 13-6 \\
\text { de kox ni } \quad \text { 'he did not want to go' } & 76-79 \\
\text { pice ni ande 'he was not leaping' } & 82-11 \\
\text { ndux ni xa na } \quad \text { 'I do not ever eat it' (masc.) } & 91-138
\end{array}
$$

duti ni 'he does not eat it' 144-12
ide ni 'you do not go' $145-28$
nde ni nkande 'I am not going' $151-9$
9. The imperative mode

In his Vice Presidential address to the American Association for the Advancement of Science (1893), Dorsey claims that there are more imperative forms in Biloxi than in other Siouan
languages. That may be true, although some of the forms he lists in that address are nowhere to be found in the texts or dictionary. The most common forms found are listed below. It will be noted that when the addressee is plural, the plural marker -tu (or $\underline{a}_{-}$) is used. Except for 2nd person negative imperatives, person markers are used only to mark objects.

The formula for the imperative is:
stem + (number marker) + imperative mode marker
All imperative forms but one (see 9.4 below) are marked.
One problem in working on the imperative forms is that in the folk tales, the addressees of imperatives are always listed or traceable. In the elicited data, however, where many of the less common forms are found, the addressees are often not listed, thus making it sometimes impossible to pin down their exact meaning.
9.1. ta; male speaker to male addressee
eyąhị ta 'come!' 23-2
adọxtu ta 'look!' (you all) 52-10

```
datu ta 'you all take (it)!' 52-15
te yetu ta 'you all kill him!' 62-32
yakutiki ta 'tell me!' 75-67
eki yąk̨̨ ta 'do so for me!' 89-94
kida ta 'go home!' 94-204
ku ta 'come back!' 160-2
```

There are a few instances where Dorsey glosses these ta imperatives as 'male to male, first time'. It is not clear what he meant by this: there are no instances of 'second time' imperatives, and indeed many imperatives are repeated over and over again in the tales with the same ta ending.
9.2. di; male speaker to female addressee akanaki daca di 'come out and gnaw on it!' 29-28 dupaxi di 'open the door!' 33-8 umaki di 'go and bathe!' 34-31 ndao ku di 'come back here!' 95-231 nksponi dusi di 'grasp my ankle!' 96-247/8 o di 'shoot!' 127-2
9.3. te; female speaker to male addressee dęxtu te 'you all look!' $40-16,18$
dq̣ te 'look at him!' 47-16
aksotu te 'you all make arrows!' 55-20
ahi te 'you all come this way!' 56-40
yąxku daha te 'give it back to us!' 81-4
kute 'come back!' 92-162
ate 'say!' 108-17
toho te 'lie down!' 109-34
9.4. @. There are numerous imperative forms without an overt marker. Since the majority of these cases are from the second half of the corpus, it is impossible to tell who the speaker is and who the addressee is. Dorsey claims that these forms are used when addressing children (p. 3), and I suppose we will have to take his word for it. However, there is one clear instance where a female is addressing another female ( $76-46,49$ ), and there are others where children are addressed with the same forms used for adults (72-7, 113-19/20, etc. ). I assume therefore that this is an optional manner of addressing children. It may well also be the usual form of females addressing females.
yąxkiduwa 'untie me!' (sun to child) 20-21 ndao hu hą sinihọ duti hąca 'come here and eat mush with me!' (female to female) 74-46, 49 ihi akititu ya 'tell him to shut his mouth!' 138-24 de hą kihaku 'go and get it for him!' 147-30 eke yako 'do so to me!' 157-14, 15
handa 'stay here!' 157-28
yuka 'you all stay here!' 157-29
yąxku 'give it to me!' 160-3
9.5. xye na, first person plural imperative.
te ye xye na 'let us kill her!' 150-18, 44-7
te ye ni xye na 'let us not kill her!' 150-19
kutiki xye na 'let us tell it!' 150-20
kutiki ni xye na 'let us not tell it!' 150-21
aku xye na 'let us feed him!' 150-22
akitupe xye na 'let us carry them on our shoulders!'
150-23
atamini xye na 'let us work!' 150-24
Dorsey also lists eya nkade xye (150-28) as an imperative: 'let us go there!'. Given the presence of the person marker, I doubt that this is an imperative, and suspect that it means 'we are going there'.
9.6. na; second person strong negative imperative. Person markers are used here:
yada na $\quad$ 'beware lest you all go!' $112-4,8$
ayic na $\quad$ 'do not drink it!' $142-35$
itahi na $\quad$ 'do not run!' $142-36$
yade na $\quad$ 'do not talk!' $142-37$
yahi na $\quad$ 'do not cry!' $143-1$
akohi ine na 'beware lest you stand in the yard!'
9.61. (ku)...ni. For less strong negative imperatives, the regular indicative forms are used:
ayikktu ni 'do not (ye) let him go!' 90-119
akohi ina ni 'do not stand in the yard!' 93-184
tuca ya ni 'do not touch it!' 93-189
te hiyąka ni 'you must not kill me' 155-30
There is one instance where the person marker is omitted:
kaha ni 'do not cry!' (Dorsey indicates that this is not a'warning') 143-2

The remaining imperatives listed here are found only rarely in the Biloxi corpus. The examples of hi ko and tki are almost all from pages 160-161 of the Dictionary, which in itself points to their restricted use.
9.7. hi ko; the person marker is needed here. Since hi alone is a potential mode marker, perhaps hi ko is a sort of 'deferential imperative'.
eke xyi di ini hi ko 'well, why don't you walk (as you have been talking about it for so long! )' 160-29
eke xyi $\mathrm{di}_{\mathrm{i}} \mathrm{i}$ q hi ko 'well, why don't you make it (as you have been talking about it for so long! )' 160-32
ayixtu ikada hi ko 'you go home yourselves (instead of telling us to do so!)' 161-1
ayindi iku hi ko 'you come back yourself (instead of telling him!)' 161-3
ayade te xti ko yada hi ko 'you (pl.) have been so anxious to go, now go!' 161-20 xaxatu te xti ko,ixaxatu hi ko 'you (pl.) have been so anxious to stand, now stand!' 161-22
etikayotu te xti ko, etikayotu hi ko 'you (pl.) have been so anxious to do so, now do so!' 161-23
9. 8. dki $\sim$ tki. In the introduction to the Dictionary (1912:3) Dorsey claims that these forms are used by both males and females addressing females. At present I see no conclusive proof of this. Stems ending in - di drop the final vowel and add -ki. Others add tki. There are very few examples of this form in the data, and it may be significant that they are all preceded by te xti ko.
ayindi ded ki 'you go yourself!' (male to female)
76-79
yakide te xti ko, kided ki 'well, you go home (as you have been so anxious!)' 161-13
ini te xti ko, nit ki 'well, walk (as you are so persistent!)' 161-15
yaki te xti ko, kit ki 'well, you carry it on your back (as you are so persistent!)' 161-17
yatoho te xti ko, toho tki 'well, lie down (as you are so persistent!)' 161-18
itahi te xti ko, tahi tki 'well, you run (as you are so persistent!)' 161-19
9. 9. ka. There are three examples in the corpus of ka used as an imperative marker. Dorsey claims that it is the form for female speakers addressing other females (1893:178). Unfortunately, in the two cases in which the identity of the people involved is known, the addressees are male. It may be important that in all 3 cases, 2 verbs are involved.
duxta aku kap 'pull it and bring it here!' (old woman to son) 91-146
de dọx ką cidike yuke 'go and see how they are!' (female to male) 92-164
nkpan ndox ką 'let me see and smell it!' 154-10 (interlocutors not identified)

Dorsey also claims (1912:205) that this form is used with verbs ending in -di, -ye, or -uni. This can only be a very ad hoc observation since neither aku or dohi, used above, fits that description.
9.10. kako. There are only two cases of this form in the data, and I suspect that they represent two morphemes (ką + ko) rather than one. Again, Dorsey claims that it is used by males addressing males [he even specifies second time in his AAAS address (1893:178)], but I see no proof of it.

> witedi ewa ko yą, hu kako 'come day after
tomorrow!' 137-9
yahede dawo hu kako, 'come hither now!' 137-11
9.11. There are a few other imperative suffixes that Dorsey lists in the Dictionary and in his AAAS address: tuki male or female to female 'you too...'
(same as tki above?) tatka male or female to male 'you too...'

$$
(t a+t k a ?)
$$

tate 'female to male'
Since there are no examples of these forms in the entire corpus, I assume that they were obsolescent by the time Dorsey was collecting his data.
10. ha; the dubitative mode. Precedes: na/ni

The precise meaning of this mode is uncertain given the limited number of examples available. Like hi (see 3. above) it is found finally only in conjunction with the declarative na/ni. Unlike hi, however, it does not appear by itself in embedded sentences.

Examples:
yihixtitu ha ni 'they might have the most'
(fem.) 40-16
cidike ha ni 'how would it be?'
(fem.) 73-29, 31, 34
etike ha ni, nkedi nixki 'I said it is so because...' (fem.) 76-87
yahedi ha ni nkedi nixki 'I said this is the way because...' (fem.) 92-154
te hiye iyuhi ha ni 'you thought you killed her'
(fem.) 94-205
kiyetu kaca ha na 'they must have told her' 95-233
11. Strong declarative mode:

| xye, masc. speaker | Follows: dande |
| :--- | :--- |
| xe, female speaker | Precedes: xo |

The semantic force of this mode seems to be stronger than that of the simple declarative mode na/ni (see l. above). Examples:
xye:
nitani xye 'it is large' 136-1
yiki xye 'it is small' 136-2
anahic asa xye 'her hair is white' $136-9$
nda dande xye 'I will go, whether he wishes or not' 137-22
ade ixyotu xye 'they talk very rapidly' 164-20
xe:
itoho ko nitani xe 'the log is large' 118-8 ti nopa xaxa maki ko cti xe 'the two standing houses are red' 118-9
tohoxk atahị amaki ko kdexi xe 'the running horses are spotted' 119-15
nkapa nedi xe 'my head aches' 136-3
xye/xe is sometimes followed by xo (see 6. above). It is not clear whether there is any resulting change in meaning (see especially the second example below).
ti ne ko sa xye xo 'the house is white' (masc.)
117-18
nda dande xye xo 'I will go whether he wishes or not'
(masc.) 137-22 (cf. above)
ewe yuke pa nitatani xye xo 'their heads are large'

$$
\text { (masc.) } \quad 136-5
$$

kawa ksixtu xe xo 'they are very foolish or crazy'

$$
164-16^{2}
$$

[^0]12. Yeke marks an inferential mode. It is most frequently used together with a simple declarative marker:

Follows: dande

Precedes: na
anik wahetu yeke 'they must have gone into the water $\quad 50-13$
kide yeke na 'he must have gone home' (masc.) 88-83
xohi dande yeke na 'it must be going to rain' 151-1 wahu dande yeke na 'it must be going to snow' 151-2 taya kida dande yeke na 'he must be about to return' 151-6
hauti hąca yeke na 'he must be sick' 161-26
13. wa is a mode marking intensification. It seems to have a meaning similar to that of the superlative xti (see 15 . below), although it is used far less frequently. It is not that xti is used for some verbs and wa for others, since they are both found with the same stems:
snihi xti 'it was very cold' 38-4
sni wa 'it is so cold' 149-21
yao saha $\underset{\iota}{ } \underline{x}$. he 'she sang, making it very loud' 50-17
$\operatorname{saha}_{\ell}$ wa 'he was very strong' 46-12

Perhaps the glosses in the first two examples give us a clue to the difference between the two suffixes: xti meaning 'very' and wa meaning 'so'. Other examples are as follows:
ahiske wa ande 'he was very greedy' 65-7
kinepi wa di 'he is very glad' 71-6/7
kinepi wa 'he is very glad' 88-68
ksixtu wa 'they are very crazy' 113-22
wa is often glossed as 'always':
nkaduti wa nkande 'I am ever eating' 149-26 atamini wa kande ni 'he is not always working' 149-28
nkatamini wa nkande ni 'I am not always working' 149-30
ayade wa di 'you are always talking' 285a
ayaduti wa di 'you are always eating' 285a
14. $q \sim$ qni, the completive mode. This mode is used to emphasize that the action of the verb took place in the past.
eyąhị $\underset{\sim}{ }$ 'he got there (long ago)' 26-2 atuka kitani 9 'the raccoon was first (in the past)' 26-9
kiye $\underline{\underline{q}} \quad$ 'he said to her (in the past)' 33-8 nkaduti te xti 9 'I wished to eat (in the past)' 133-6 ndoxtu uxw 9 'our throats were dry'
(='we were thirsty') 133-13
oni:
kitsaya ya tanaki utoho oni 'the American first lay in it (in the past)' 31-11/12
ąxti yą int ką ku qni 'he gave the woman to him (in the past)' $34-28$
aya de ca oni 'these people died (in the past)' 42-1
ani yą hu ̧̣ni 'the water was coming' 50-8/9
Q is often followed by xa; the combination is sometimes glossed as
'regularly in the past' [which would be expected (see 635:7)] or 'in the remote past'.
ąya di o ca yixti ande $\underline{Q}$ xa 'a man was killing all the fish (in the past)' 33-1
amawo de $2 \times \mathrm{xa}$ 'he went to another land (in the remote past)' 33-6
kide $\mathcal{Q}$ xa 'she went home (in the remote past)'
34-34
etikotu $\underline{q}$ xa $\quad$ 'they did so (regularly in the past)' 53-22
kokta de $\underline{q}$ xa 'he went and ran off (in the remote past)' 71-4
tao yuke 9 xa 'they were killing deer (regularly in the past)' $82-27$
15. The superlative mode: xti.

This mode marker has been listed last because of its quasi lexical overtones, as opposed to the others which are purely grammatical. That is, its position within the verb is freer than that of other modes; rather than have a set position, xti immediately follows whatever it is intensifying.

Examples:
supi xti tu 'they are very black' 32-16
tca yi xti ande 'he was killing all' 33-1
eta nkq xti ni 'I do just so' (fem.) 67-4
yande xya xti xyo 'you will always live, if. . ' $\quad$ 70-10
wahe xti 'she screamed exceedingly' 75-60
kiktu ni xti 'they did not let her go at all' 90-122
kupini xtini $n$ 'it is so bad' (fem.) 91-140
iyąsi xti 'you smell so strong' 108-5,11
nkaduti te xti o 'I wished to eat very much'
(='I was very hungry') 133-6
ti yiki xti 'the house is very small' 134-15
ikinitą xti 'it is too large for you' 134-17
xuxwe xti dande yeke na 'it must be going to blow very hard' 151-4

The following are examples of xti with adverbs:
ewite xti 'very early in the morning' 19-5
kuhi xti 'very high' 26-8
yatana xti 'very soon' 70-9
jxyq xti 'very quickly' $160-1,2,3$
There are a few cases in which 'very small' is written yik sti (112-10, 109-25, etc.) rather than yiki xti. Since there are no examples of yik xti, I assume this shows a regular change of $x \rightarrow s$ following vowel syncope.
700. Derivation
710. Nouns

There are two basic types of derived nouns in Biloxi: nominalized verbs and compound nouns.

Nominalized verbs are formed by prefixing /a-/ to the verb root.

Representative examples:
sq 'sharp at all ends'
aso 'briar' 13-16
duti 'eat'
aduti 'food' 16-21


```
duksa 'cut with a knife'
aduksa 'woodrat' 39-2
wude 'burn bright'
awode 'sunshine' 54-1
kudexyi 'striped, spotted'
akudixyi 'letter' 207a
asne 'steal'
|a + asne| | /asne/ 'thief' 254b (see rule 8)
ci 'be fat'
a_cini 'grease' 264b
```

711. Compound nouns fall into two categories: noun + noun, and noun + verb. For the morphophonemic rules regarding compounds, see rules 8 and 11.

Representative examples:

$$
\begin{aligned}
& \frac{\text { noun }+ \text { noun }}{\| \text { lcindi }+ \text { ahol } \rightarrow / \text { cindaho/ 'hip + bone' 'hip bone' }} \\
& 29-28 \\
& \| \text { tato }+ \text { ahi } \| \rightarrow / \text { tątahi/ 'panther + skin' 'panther skin' } \\
& 76-83 \\
& \| \text { peti }+ \text { ti } \| \rightarrow / \text { petiti/ 'fire + house' 'fireplace' } \\
& 140-6,7
\end{aligned}
$$

$$
\begin{aligned}
& \| k \underset{i}{x i}+\text { konixkal } \rightarrow / \text { kąxkonixka/ 'bee + bottle' } \\
& \text { 'hornet's nest' 206a } \\
& \| p s i+\text { aduti } \| \rightarrow / \text { psaduti/ } \text { 'night }+ \text { food' 'supper' } \\
& \text { 248a } \\
& \text { noun }+\underline{\text { verb }} \\
& \| \text { sǫpxi }+\underset{\prec}{ } \text { ni } \| \rightarrow \text { /sǫpxǫni/ 'flour + make' 'wheat' } \\
& \text { 22-3 } \\
& \| \text { ina }+ \text { toho } \| \rightarrow \text { /itoho/ } \quad \text { 'sun }+ \text { fall' 'sunset' 52-2 } \\
& \| \text { exka + naska\| } \rightarrow \text { /exkanaska/ 'buzzard + long' } \\
& \text { 'long-necked buzzard' 95-240 } \\
& \| \text { masa }+\underset{6}{i k t e} \| \rightarrow / \text { masikte/ } \quad \text { iron }+ \text { hit with }{ }^{\prime} \\
& \text { 'hammer' 177a } \\
& \| \text { ayadi }+ \text { ade } \| \rightarrow \text { /ayadiade/ 'people }+ \text { talk' } \\
& \text { 'language' 190a } \\
& \| \text { cake }+ \text { pocka } \| \rightarrow \text { /cakpocka/ 'hand + round' } \\
& \text { 'fist' 260b } \\
& \| \text { cake }+ \text { xohi } \| \rightarrow \text { /cakxohi/ 'hand + old' 'thumb' } \\
& \text { 260b }
\end{aligned}
$$

## 720. Pronouns

The personal pronoun indi has already been discussed under inflection (see 621). Another personal pronoun is ikowa, which is not inflected, but which denotes action done by oneself. (For examples of its usage see 933.) A case can be made, I think, for
the personal pronoun root being in with two derivational suffixes: -di to emphasize the subject or the object of the verb; -kowa to underline that the action was done by oneself.

It is interesting to note that the reflexive pronoun - $\mathrm{j}_{\mathrm{x} k \mathrm{ki}}$ (see 743.4) would also fit this pattern (in + xki) except that it only appears as a verbal prefix.

## 730. Interrogatives

731. Many interrogatives are derived from the prefix ca-- The following is a partial list of them; morphophonemic rule 8 accounts for the vowel elision in some forms.
```
cak ~ caka, 'where?' 75-67
cane 'where (stands)?' 93-196
canaska 'how long?' 95-229
cehedą 'how high, tall, deep?' 123-13, 18
cidike 'which, how,why?' 147-1
cina ~ cinani 'how many?' 122-21,22
```

732. Some pronouns have a derived form for interrogative usage:
```
kawa 'something, anything'
kawak 'what?'
cina 'a few, many'
cinani 'how many?'
```

740. Verbs

There are two basic types of verbal derivation in Biloxi: derivation of the root (including reduplication and compounding) and derivation of the stem (including thematic prefixes, dative markers, reciprocals, reflexives, and instrumentals).
741. Reduplication

Root reduplication is a fairly common phenomenon in Biloxi. It is used either to show intensification of the action or, more commonly, a distributive sense of that action. In polysyllabic roots, the final vowel is usually dropped before the reduplication, resulting in a CVCCVCV pattern. However, there are certain cases where only the first $C V$ of the root is reduplicated, resulting in a CVCVCV pattern.

Examples:
cakcake 'he hung up a lot' 15-3; cake 'hang up on a nail or post'
tixtixye '(his heart) was beating' 16-25;
tix 'beat'
supsupi 'black here and there' 28-17;
supi 'black'
sosoti 'it is sharp at all ends' 43-9;
soti 'sharp'
unakcikci 'he dodges all about' 44-8;
kci
(?)
xoxoki 'he broke it here and there' 46-6;
xoki 'break'
xoxohitu 'they are old' 49-1;
xohi 'old'
cecehi 'it dripped off him' 52-11; cehi 'drip'
duxtuxtą 'he pulled them out (one after another?)' 52-13; xtą 'pull'
anixanixye 'he plays here and there' 61-5; anixye 'play'
kuku daha 'she gave to each of them' 67-5;
ku 'give'
$\mathrm{c}_{\mathrm{c}} \mathrm{ixkidusasa}$ 'she scratched herself often' 85-10; sa 'tear'
wudwude 'it lightened' 90-127;
wude 'burn bright'; given as widwide in 52-12
onacpicpi 'my feet are slipping' 153-33;
cpi 'slip'
742. Compound stems

There are two types of compound stems: noun + verb and verb + verb. It is interesting that of the ten examples we have of
noun-verb compounds, only 3 are formed with a verbal root other than /o/, 'do, make':

$$
\begin{aligned}
& \| \text { aya }+\frac{i}{l}+\text { duko } \| \rightarrow \text { /ayiduko/ } \quad \text { 'tree }+ \text { with }+ \text { whip' } \\
& \\
& \text { 'whip against a tree' } 46-9 \\
& \| \text { ta }+ \text { o } \| \rightarrow \text { /tao/ 'deer }+ \text { shoot' 'shoot deer' } 65-1 \\
& \| \text { he }+ \text { e } \| \rightarrow / \text { he } / \quad \text { 'that }+ \text { say' 'say that' } 37-8
\end{aligned}
$$

All of the others follow the pattern:

$$
\left\{\begin{array}{l}
\text { noun } \\
\text { pronoun }
\end{array}\right\}+\text { e }
$$

with three variations:

$$
\begin{aligned}
& \text { 1. noun }+y(\text { glide })+\text { ? } \\
& \| \text { aksi }+\mathrm{y}+\mathrm{o} \| \rightarrow / \text { aksiyo/ } \quad \text { 'arrow }+ \text { make' } \\
& \text { 'make arrows' 113-29 } \\
& \text { 2. }\left\{\begin{array}{l}
\text { noun } \\
\text { pronoun }
\end{array}\right\}^{+-\underline{k} \text { (obj. marker, see } 934)+ \text { o }} \\
& \left\|\left\|_{6} d a s+k+o\right\| \rightarrow / i d a s k o / \quad ' \text { with back }+\right. \text { do' } \\
& \text { 'sit with one's back to...' 54-1 } \\
& \left\|k_{i}+k+\underset{\imath}{0}\right\| \rightarrow / k_{i} k_{\imath} / \quad \text { 'string }+ \text { make' } \text { 'trap' } 86-30 \\
& \| \text { kawa }+\mathrm{k}+\mathrm{o} \| \rightarrow / \text { kawako/ 'what }+ \text { do' 'what to do' } \\
& \text { 93-190 } \\
& \text { 3. }\left\{\begin{array}{l}
\text { noun } \\
\text { pronoun }
\end{array}\right\}^{+i} \\
& \| \text { cidike }+\mathbb{q} \| \rightarrow / \text { cidikq/ 'which }+ \text { do' }^{\prime} \\
& \text { 'which to do' (how) 44-1 }
\end{aligned}
$$ 142-13

Verb-verb compounds are as follows:

| hane $+o$ | /haneotu/ | 'they find and shoot' | 17-31 |
| :--- | :--- | :--- | :--- |
| kte $+q^{n i}$ | /ikteopni/ | 'with + hit + do' 'to hit with' |  | 176b

$$
\begin{gathered}
\text { ayị }+\operatorname{naxE} \quad \text { /nkayịnaxe/ } \quad I+?+\text { hear' } \\
\text { 'I ask a question' } 195 b
\end{gathered}
$$

$$
\begin{array}{cc}
\text { naxte }+ \text { kide di /naxtekidedi/ } & \text { 'kick + go home' } \\
\text { 'kick and send flying' } & 224 a
\end{array}
$$

uxtaki + taho /uxtaktaho/ 'push + fall'

$$
\text { 'to make fall by pushing' } 224 \mathrm{~b}
$$

It should be remembered that morphophonemic rules 8 and 11 are optional for compounds. This explains why some compounds have two adjacent vowels and others have no vowel syncope where we might expect it.
743. Derivational prefixes
743.1. Thematic prefixes follow person markers (see 630) and precede dative markers (743.2) and instrumentals (743.5). Their meanings are not always easy to specify.

$$
\begin{aligned}
& \| \text { amihi }+q \| \rightarrow / \text { amihq/ 'summer, warm weather } \\
& + \text { make' 'have fever' 141-16 } \\
& \| \text { ha }+\rho \| \rightarrow / \text { haǫ } \quad \text { 'hominy }+ \text { make' 'cook hominy' }
\end{aligned}
$$

1. a- seems to have three basic meanings:
a. habitual action:
do 'see'
kado ni 'he never sees' (=blind) 126-5
duse 'bite'
aduse 'he bites habitually' 127-16
pxu 'gore'
apxu ye di 'she gores habitually' 127-18
naxte 'kick'
anaxtetu 'they kick habitually' 128-10
b. directional indicator: 'there, on'
dohi 'look'
adoxtu ta 'look!' (male to males) 52-10
yihi 'think'
ayihi 'he thought' 62-38
noxe 'chase'
akikinoxe 'they chased it one after another' 88-77
xehe 'sit'
axehe ye 'he set it on' 90-114
```
kite 'shoot'
akite 'he shot (there)' 95-220
ni 'walk'
akini 'walking on them' 95-241
toho 'lie down'
atoho 'he laid on it' 109-27
c. transitivizer
```

    \(h_{i}\) 'arrive'
    ahitu 'they took her there' 50-15
    kihi \(_{i}\) 'arrive home'
    \(\underset{\zeta}{\operatorname{akihi}}{ }_{\zeta}\) (they) took her home' 55-8
        kuhi 'high'
        akuhitu 'they raised it' 95-239
    2. i- instrumental prefix, 'with'. The forms here are given morphophonemically due to their relative complexity.

$$
\begin{aligned}
& \| \text { aya }+\underset{l}{i}+\text { duko } \| \rightarrow \text { /ayiduko/ (8) } \quad \text { 'tree }+ \text { with }+ \text { whip' } \\
& \quad \text { 'whip against a tree' } 46-9 \\
& \| \underset{l}{ }+\text { das }+k+\underset{l}{o} \| \rightarrow \text { /idasko/ 'with }+ \text { back }+ \text { obj. }+ \text { do' } \\
& \text { 'sit with one's back to' } 54-1 \\
& \| \underset{i}{ }+\text { nixye } \| \rightarrow \text { /inixye/ 'with }+ \text { play' 'play with' } \\
& 87-64
\end{aligned}
$$

3. $\underline{u}-$; 'within a given area'
yihi 'think'

$$
\text { uyihi 'he thought' } 19-4
$$

toho 'lie down'

$$
\text { utoho 'he lay in it' } 27-2
$$

kci 'dodge about' unakcikcide 'he went dodging about (the house)'

44-8
si 'step'
usi 'he steps in it' 71-6
xwehe ye 'set'
uxwehe ye 'she set it in' 95-237
wahe 'enter'
uwahetu 'they went into' 113-31
743.2. The dative marker ki- follows the thematic prefixes. Morphophonemic rule 7 accounts for the presence of $/ \mathrm{y} /$ in stems beginning with vowels.

$$
\begin{aligned}
& \| \text { tasi }+\underset{l}{i}+c a+y e \| \rightarrow / t \not a s i c a y e /(8) \quad \text { 'grass }+ \text { with }+ \\
& \text { expend + cause' 'cut grass' } \\
& \text { (also 'scythe') 176b }
\end{aligned}
$$

kiyetu 'they said to him' 37-7
kidohi ye daha 'he showed it to them' 52-4 yaxkiyoxpa '(they) drink it up for me' 69-4
ikikahic 'you tell about it' $70-9$
yąxkiyotu te 'shoot at it for me!' (female to males) 85-3
kinita $x$ ti 'it is very large for him' 134-16
axkidustu ni 'we did not take it from him' 141-28
ikipukta nąki 'you are sitting by him' 143-4
yąkipukta inąki 'you are sitting by me' 143-6
yakinaxtetu 'you (pl.) kick one another' 224a
kiduxtuki 'he pushed it for him' 4800:342:15
kiducadi 'he washed it for him' 4800:342:15
The following examples of ki- show that it is also used when the direct object is either a body part or an animal belonging to someone: this is the so-called dative of possession.

$$
\begin{aligned}
& \text { kiduxtac 'they pulled his (tail)' 62-40 } \\
& \text { kihanetu 'they found his (tail)' 66-14 } \\
& \text { kidohi '(they) saw his (shadow)' 91-132 } \\
& \text { kidohi 'she looked at her (head)' 94-207 } \\
& \text { ¡kikta dande 'I will hit your (horse)' 125-2 } \\
& \text { ikidusi 'I hold your (hand)' 125-4 } \\
& \text { te hikiye 'he killed your (dog)' 139-23 } \\
& \text { te hikiyetu 'we killed your (dog)' 139-26 }
\end{aligned}
$$

Two pecularities of ki- need mentioning at this point:

1. it is almost never used with ku, 'give'; indirect objects are an inherent feature of this verb.
2. when used with 9 , 'do, make', it becomes kik- without assuming any meaning of reciprocity (see 743.3).

$$
\begin{aligned}
& \text { kiko daha 'he made for them' } 31-2 / 3 \\
& \text { kikotu 'they made for him' } 37-6 \\
& \text { yaxkiko daha 'you do it for us' } 55-20 \\
& \text { kikg 'she was making it for him' } 109-25
\end{aligned}
$$

Although the glosses here might lead one to expect kik- to be a benefactive prefix, this cannot be the case, since we find kikonly with the verb 9.
743.3. When reduplicated, kiki- assumes the meaning of reciprocity. Since any verb with this prefix must inherently be plural, the -tu plural marker is optional.
kikiyoho 'they were calling to one another' 56-31
kikidqhi 'they were looking at one another' 56-39
akikinoxwe 'they ran after one another' 86-23
ca kikitudaha nanteke 'they nearly killed each other'
$141-8^{3}$
ca yazkikitu nanteke 'we nearly killed each other'
$141-9^{3}$

[^1]743.4. The reflexive prefix
jxki- is the reflexive form in Biloxi; it is found immediately following the person markers, although there are certain 3 rd person cases where ki- is allowed to precede the reflexive. Morphophonemic rule 8 accounts for the form ixk in stems beginning with a vowel.

Examples:
jxkiyadu ye ande 'he was wrapping it around himself' 66-13
nkịxkukade 'I speak to myself' 191a vixkukade 'you speak to yourself' 191a
hịxkukade 'he speaks to himself' 191a
nkixkiyahic 'I love myself' 201a
yixkiyąhị 'you love yourself' 201a
ixkiyahi ${ }_{\epsilon}$ 'he loves himself' 201a
nkixkiktetu 'we hit ourselves' 215a
yixkiktetu 'you hit yourselves' 215a
kixkiktetu 'they hit themselves' 215a
nkixkidicatu 'we wash ourselves' 260a
yixkidicatu 'you wash yourselves' 260a
kixkidicatu 'they wash themselves' 260a
I have no explanation for why the vowel is sometimes nasalized and sometimes not, although we have seen denasalization take place under similar circumstances in morphophonemic rule 5.
743.5. Instrumental prefixes are used to show by what means the action of the root was carried out. There are five main instrumentals in Biloxi, and traces of two residual ones. They are always found immediately preceding the root, and are as follows:

1. da-; 'with the mouth or teeth'
dasi 'he (turkey) took it with his mouth' 37-3
dauxitu 'they bite it off' $143-33^{4}$
dadeni 'he did not chew' 144-13
ndaksuki 'I bit it in two' 213b
adaxke 'he gnaws' 221b
dacpi 'he missed grasping an object with his mouth' 267a
2. du-; 'with the hand(s), claws, etc.'
iduwe 'you untie it' 28-12
kiduptasi ye 'he caused it to become flat for him' 32-16
duca 'he washed' 32-17
dusi 'he took it' 37-5
adusudu ye 'she was singeing 39-5
dustuki 'he grasped with his claws' 43-7
dupaxi 'he opened the door' 52-6
nducke 'I pull out' 55-23
${ }^{4} \mathrm{~V}_{1} \mathrm{~V}_{2}$ is probably allowed here to avoid ambiguity.
ducpi 'she dropped her' 56-38
duksetu 'they clean it up' 57-46
3. duk(u)-; 'by hitting or punching'
dukxoxoki '(they) knocked it to pieces' 113-31
adukuxke 'he peels vegetables' 221 b
dukuxuki 'he crushed it by hitting or punching it' 225a
dukuputwi 'he made it crumble by hitting it' 250 b dukuckati 'he mashed the fruit by sitting on it or hitting it' 265 a
spdehi dukucpi 'the knife slipped' 267a
4. na-; 'with the foot'
naxte 'he kicked it' 13-13
naksedi 'he broke (a stick) with his foot' 213a
Qnaputwi 'I make an object crumble by kicking it' 250b
inackati 'you crush it with your feet' 265a
nacpi 'her foot slipped' 267a
5. pa-; 'by pushing'
paya 'she was plowing' 73-23
pawehi 'he knocked them' 87-47
nkpani 'I knock him' 90-118
npaxtani 'I move an object by pushing it with a stick' 223b
6. pu-; 'pushing or punching' pucpi 'he failed in pushing or punching' 267a given as a synonym for dukucpi
7. di-; 'by rubbing or pressing between the hands'
diputwi 'he made it crumble by pressing it between his hands ${ }^{\prime}$ 250b
kixkidica 'he washes himself' 260a
8. Adverbs

Many adverbs are derived from connectives, pronouns, and verbs and particles. A partial list follows.
751. Derivation by prefix:
e-, 'and (?), the aforesaid (?)' ede $\|e+d e\|$ 'just now' 151-22 ewa $\|e+w a\|$ 'in that direction' $135-18$ ewitexti $\| e+$ wite + xti\| 'very early in the morning' 19-1,2 ema $\| \mathrm{e}+\mathrm{ma} \mathrm{\|}$ 'right there' 61-6 ke-(?)
kecana \|ke + cana\| 'again' 46-10 kecumana \|ke + cumana\| 'again' 108-6 kuhi- 'high'
kuhadi $\|$ kuhi + adi\| 'upstairs' 150-2

```
ndo- 'hither'
    ndao |ndo + ao| (?) 'hither' 95-231
    ndosahil il |ndo + sąhici| 'on this side of' 127-18
    ndoku |ndo + ku| 'back hither' 67-7
    ndowa |ndo + wa| 'this way' 56-40
ewa- 'there'
    eusahi
```

752. Derivation by suffix


## 760. Connectives

There are various derived connectives in the data; all of them have at least one connective within them.
e-, 'and (?), the aforesaid (?)'

$$
\begin{array}{llll}
\text { ehą } & \|\mathrm{e}+\mathrm{hą}\| & \text { 'and then' } & 28-13 \\
\text { eka } & \|\mathrm{e}+\mathrm{ka}\| & \text { 'and then' } & 44-1 \\
\text { eke } & \|\mathrm{e}+\mathrm{ke}\|(?) \text { 'and so' } & 112-11
\end{array}
$$

eke, 'so' (eke itself is probably a derived connective, cf. above.)

$$
\begin{aligned}
& \text { ekedi } \| \text { eke + di\| 'that is why' 37-10 } \\
& \text { ekeha } \| \text { eke + hą \| 'and then' 89-97 } \\
& \text { ekeką \|eke + ką\| 'and then' 74-39 } \\
& \text { ekeko \|eke + ko\| 'well' 55-20 } \\
& \text { ekeọnidi } \| \text { eke }+\underset{i}{o n i}+\text { di\| 'therefore' } 40-28
\end{aligned}
$$

770. Numerals
771. Cardinal numerals

For some reason, there are no numbers above 'four' in all of the texts and elicited utterances; in fact, there are relatively few numerical constructions at all in the corpus. The following list is taken from Smithsonian entry $4800: 348$, p. 97 ff and can be found under various headings in the dictionary. Morphophonemic rule 8 accounts for the vowel elision in the derived numbers.

```
sosa 'one'
nopa 'two'
dani 'three'
topa 'four'
ksani 'five'
akuxpe 'six'
nąpahudi 'seven''5
dahudi 'eight' }\mp@subsup{}{}{5
ckane 'nine'
ohi 'ten'
ohi sp्saxehe 'eleven' (='one sitting on ten')
ohi nopaxehe 'twelve'
ohi danaxehe 'thirteen'
ohi topaxehe 'fourteen'
ohi ksanaxehe 'fifteen'
ohi akuxpaxehe 'sixteen'
ohi nąpahu axehe 'seventeen'
ohi dahu axehe 'eighteen'
ohi ckanaxehe 'nineteen'
ohi nopa 'twenty'
```

${ }^{5}$ Dorsey claims that '7' and '8' may be derived from $\|$ nepa + ahudi\| 'two + bones' and $\|$ dani + ahudi $\|$ 'three + bones' (238b).

```
    ohi nopa sqsaxehe '21' ('one sitting on two tens')
    ohi nopa noppaxehe '22'
    ohi nopa danaxehe '23'
    ohi nopa topaxehe '24'
    ohi noppa ksanaxehe '25'
    ohi nǫpa akuxpaxehe '26'
    ohi noppa nąpahu axehe '27'
    ohi noppa dahu axehe '28'
    ohi nopa ckanaxehe '29'
    ohi dani '30'
    ohi dani sosaxehe '31', etc.
    ohi topa '40'
    ohi ksani '50'
    ohi akuxpe '60'
    ohi nąpahudi '70'
    ohi dąhudi '80'
    ohi ckane '90'
    tsipa '100'
tsipa sqsaxehe '101' ('one sitting on 100')
tsipa nqpaxehe '102'
tsipa danaxehe '103'
tsipa ohi sosaxehe '111', etc.
```


772. Ordinal numerals are nowhere to be found in the corpus. Even in the Smithsonian material they are surprisingly omitted. On the page entitled 'Ordinal numbers' (in 4800:348, a booklet by Powell of phrases to be elicited), Dorsey has crossed out the English glosses ('lst, 2nd, 3rd, etc.') and inserted 'once, twice, three times, etc.'. Such adverbial phrases consist of the verb de 'to go' followed by the cardinal number:

```
de sǫsa 'once' 4800:348,99
de noppa 'twice'
de dani 'three times'
de topa 'four times'
de ksani 'five times'
```

773. Multiplicatives are derived from akipta, 'to double' followed by the cardinal number:
akipta nqpa
'twofold' $4800: 348,101$
akipta dani
akipta topa
'threefold'
akipta ohi $\quad$ 'tourfold'
akipta tsipa
'one hundredfold'

## CHAPTER III

## SYNTAX

800. Introduction

Biloxi is a post-posing SOV language. Its tactic units include interjections (I), adverbials (A), subjects (S), objects (O), verbs (V), and connectives (C).

It must be stressed that we are at the mercy of Dorsey, Swanton and their typesetter in defining the major syntactic components which are phrases, clauses and sentences; all of our definitions are perforce based on their punctuation.

There are three types of phrases in Biloxi; they are as follows:

1. interjectory phrase: any I preceded and followed by a pause. (See 910 below.)
```
tenaxi 'Oh friend!' 21-1
```

2. postpositional phrase: $\mathrm{pp} \mathrm{N} \begin{aligned} & (\mathrm{y} \text { (q) } \\ & (\mathrm{de})\end{aligned}$ (See 922 below.) doxpe itka 'inside a coat' 139-6
3. noun phrase: any $S$ or O. (See 931 below.) $^{\text {O }}$ (Sel ayek ita 'your corn' 139-1

Clauses may be either dependent or independent, sentences
either major or minor. They are discussed at greater length under 1000 and 1100.
900. The tactic units

1. Interjections

The following are typical representatives of this class.
911. Interjectory particles such as:

1. human cries:
aci 'o no!'
aci aci 'ouch!'
he ha 'hello!'
ida 'well!'
ko 'oh yes!'
m: 'oh!'
nu: 'help!'
ux 'pshaw!'
xo xo 'oh! oh!'
2. animal cries:
a: a: 'caw'
pes pes 'cry of the tiny frog'
tao 'cry of the squealer duck'
ti. 'cry of the sapsucker'

## 912. Vocatives

With three exceptions, vocative forms in Biloxi are unmarked:
kqkq 'O grandmother!' $19-16,17$
tenaxi 'Oh friend!' $21-1$
kqni $\quad$ 'O mother!' $29-27$
kąxo 'Oh grandfather!' $76-84$
cidikuna 'Oh Cidikuna!' $91-146,156$
takaka 'Oh younger sister!' (male speaker) 272a
The three exceptions are:
tata 'Oh father!' 170a
nyąxohi 'Oh wife!' 293b
nyąicya 'Oh husband!' 293b
tata is interesting in that the normal stem for 'father' is adi. nyaxohi and nyaicya, on the other hand, are noteworthy because they include the first person morpheme, and mean, literally, 'my old lady', and 'my old man'.
913. Within the corpus, interjections are used only at the beginning of quotes, as follows:
"aci!", edi '"oh no!", he said' 13-18
"ahą, nkiyandipi na" "'yes, I am satisfied"" (masc.) 24-9
"kaxo, kawa ahi" '" grandfather, what kind of skin?"'
76-84
"kpni, kupi ni xti ni" '"Oh mother, it is so bad"'
(fem.) 91-139/40
"cidikuna, xapxotka yą duxtą aku ką" '"Oh Cidikuna, pull down the empty box and bring it here!"'

91-146
"ko, yịstitu ha xą" '"oh yes! you are all scared, eh? '" 93-175
"ux! sịt kudi ni ha" '"pshaw! that ugly boy!"' 109-31

## 920. Adverbials

The following belong to the adverbial class:

1. adverbial particles

> tohanak 'yesterday'
ema 'right there'
eya 'there'
kiya 'again'
yąxa 'almost'
(see 750 for further examples)

## 2. postpositional phrases

3. a number preceded by de, 'go'
de nq̧pa 'twice'
de dani 'three times'
de topa 'four times'

Although adverbials are most commonly found immediately preceding the verb, they can appear also before subjects and objects. They never follow verbs, however, and they never precede sentence initial connectives.
921. Adverbial particles

Examples:
skakanadi ewitexti eyahic yuhi 'the Ancient of Opossums thought he would reach there very early in the morning' 26-1 ewitexti exka pockana hane 'very early in the morning the buzzard found the old short one' 34-17
ekeką kiya dedi 'and then he went again' 46-6 ndao ku di 'come back here!' (male to female) 95-231 tohanak wahu 'yesterday it snowed' 135-3
922. Postpositional phrases. (See morphophonemic rule 8 for cases of vowel elision.)

1. itka 'in, among'
hawitka de nąki dande na 'I will sit here among the leaves' 47-18
titka de ye '(they) put him in the house' 112-10 doxpe itka xahe ye 'to put a bottle, etc., inside a coat' 139-6
ti itka de 'inside this house' 152-6 ti itka ya 'inside yonder house' 152-7
akutxyi itka yą 'under or within yonder book' 139-11 hama itka yą 'under or in the ground' 139-13
2. kuya ~ okaya 'under'
ayahi kuya 'under the bed' 139-9
yaxo kuya 'under the chair' 139-10
aduhi kuya 'under the fence' 139-12
itkap kuya 'under the board' 139-14
yaxo okaya 'underneath the chair' 142-21
adito okaya 'under the table' 142-22
ayahi okaya 'under the bed' 142-23
3. nata 'middle of'
ani nata akuwe 'they came forth from the middle of

$$
\text { the water' } 50-15 / 16
$$

ani nata xti yą ande 'she was in the very middle of the water $\quad 56-32 / 3$
ti nata 'middle of a house' 153-20
cake nata 'middle of a hand' 153-21
akutxyi nata 'middle of a book' 153-22
4. (u)wa 'into, towards'
aspwą 'into the brier' ${ }^{1}$ 13-20, 139-27, 28

I have no explanation for the $/ a /$ here except perhaps overhearing.
ikanak wa de 'toward sunrise' 40-25 ${ }_{c}^{i k a n a k i ~ u w a ~ d e ~ u d u n a h i ~ ' s h e ~ t u r n e d ~ t o w a r d s ~ s u n r i s e ' ~}$

$$
46-2
$$

kusihị wa yac 'towards evening' 158-15
pusi wa yq̨ 'towards night' 158-16
5. yaskiya 'under' (I suspect this has a base form of yaski, but I cannot confirm this because there is only one example in the data.)
ti yaskiya 'under the house' 139-8
6. yehi $\sim y$ yehi $\underset{t}{\text { ka }} \sim$ yehi yat ${ }_{L}$ 'close to'
ani yehi da pqi 'he was going to the edge of the water' 75-62
ani kyaho yehi ką 'close to the well' 13-8
paxka isi yehi ką 'the mole (was) close to her feet' 73-23
 the water ${ }^{\prime} \quad 88-85,88-87,89-89$
petuxte yehi ką xex nąx ką 'when she was sitting close to the fire' 109-28
ayohi yehi yą 'close to the lake' 50-7, 152-30-33
inqni yandi yahi yehi yą tox max ką 'when her elder sister was lying close to the bed' $74-40 / 1$
petaxti yehi yą toho hą 'and she lay close to the fireplace' $85-11$
ani yehi ya ihi 'he arrived close to the water' 94-213
7. acka 'near'
axu acka xti 'by the stone' (very near) 4800:348:219, 174b
axu acka yą 'near the stone' $4800: 348: 219,174 b$
ti acka yą 'near the house' 174b
 but it is a shortened form of ewa, 'there')
${ }_{6}^{a x u}$ eusahi 'on the other side of the stone' 4800:348:219
axu eusahi ya 'on the other side of the stone' 4800:348:219
aduhi eusąhi 'on that side of the fence' 127-19 ani tac sąhi yą hahi 'he brought him on the other side of the great water $\quad 88-81$
yix sahi yą de 'he went on the other side of the bayou' 112-12
kudupi sąhi yąkudeska o di 'shoot at the bird at the other side of the ditch!' (male to female) 127-2
aduhi sahi yą 'on the other side of the fence' 127-4
9. ndosąhi 'on this side of'
${\underset{c}{a}}_{\text {axu ndosahi }}$ 'on this side of the stone' 4800:348:219 aduhi ndosahi 'on this side of the fence' 127-18 yaduxtą tahi natkohi ndosahi yą 'on this side of the railroad' 252 a
10. tawi 'on, on top of'
axu tawi ya 'on the stone' 4800:348:219, 270b pahi tawi ya 'mustache' (on top of the beard) 270 b ti tawi ya 'upon the house' 270b
11. $\quad$ o $\sim$ gha 'with'
cakik qha ktedi 'he hit him with his hand' 13-10/11 cakik $\perp_{1}^{i k a h i c}$ 'he dipped up (blood) with his hand' 113-39
taneks ayadi ade yg 'with the Biloxi language' 242b
922.1. Almost all of the above postpositions seem to allow de or ya to follow them. de retains its usual meaning of 'here' or'this'. ya is sometimes glossed as 'the' and other times has a quasi demonstrative force to it, meaning 'yonder'.
922.2. Postpositions used alone as adverbials.

The following are examples of postpositions used without a preceding noun. Their value becomes thus adverbial:
sahi yą kiya nko 'I do it again on the other side' 13-13
sahị ya kihị 'he reached the other side' $86-38 / 9$
sąhi yax de six ką 'when this one stood on the other side' 93-176
sahi ya akanaki 'he got over to the other side' 95-221
itka yą ustki 'to stand a tall object in something' 200b
itka ya cudi 'to put a number of small objects (e. g. seeds) in something' 200 b
kuya kedi 'to dig under, undermine' 217a
923. Some interrogatives

1. cidike $\sim$ cidiki 'how? why?'
how:
cidike ha ni 'how would it be?' $73-29,31,34$ cidike de nkadi nani wo 'how can I climb this?' 89-95 de dọ ką cidike yuke 'go see how they are!' (said to child) 92-164
why:

| cidike etikayo | 'why do you do thus?' | $19-10$ |
| :--- | :--- | :--- |
| cidike kadeni | 'why does it not burn?' | $138-8$ |

cidike iyahic hi inąki wo 'why do you sit there crying?' 146-17
cidike "kok ayudi" hecǫtu 'why do they call the magnolia by that name?' 147-1
2. $\underset{\text { cak }}{\sim} \underset{\text { caka }}{\text { cal }}$ 'where'

It is not clear what governs the choice between these two forms. The difference is not phonological:
cak naki ha 'where is the sitting (man)?' 121-5
caka naki 'where is the sitting (pine forest)?'
121-18
Nor is it due to animate vs. inanimate subjects:
cak naki hą 'where is the sitting (man)?' 121-5
caką maki hą 'where is the reclining (man)?' 121-6
I assume therefore that cakag is the base form and that it alternates freely with cak. Other examples:
cak tiduwi xa wo 'where does he usually land?' 33-12/13
cak ande ko yakutiki ta 'tell me where she is!' (male to male) 75-67
ąya xehe naki ko cak nakki hą 'where is the sitting man? ${ }^{\prime}$ 121-5
caką ne kuqni ko 'where he stood before starting
back hither' 166-4
cak one xkuni ko 'where I stood before I started back hither' 166-5
3. cina 'some, many'

This particle has a base form for indefinite use and a derived form for interrogative use:
cina 'some, many, a few'
cinani 'how many?'
cina:
axok kiduni cina yizki da 'he gathered a few small canes' 16-18
cina psohe cucuk max 'there were a few things piled here and there in the corners' 40-18
cina ayoyuxtu ko dątu ta 'take as much as you (pl.) please' (male to males) 52-15
koniška yą kutu dixyí cina oni ko henani xya nedi 'when they gave him the bottle, it had as much in it as before' $\quad$ 70-7
cina nkoyihi ko nda dande 'I will take as many as I please' 153-31
cinani:
tohoxka ko cinani yukedi 'how many horses are
there?' 122-4
kssixka ko cinani yukedi 'how many hogs are there?'
122-7
cinan yuk nkyeho ni 'I do not know how many there are' 122-11

There are a few examples of cinani where it does not seem to be an interrogative. I have no explanation for this:
anahick cinani kiduwe 'he untied some hair for her' 56-34
tą yiki yą ti cinani ko etike na bayus yac 'there are as many houses in Lecompte as there are in Bunkie' 122-21
tą yą aya cinani ko tą yiki yą àl ya e kunatu ni 'there are not as many people in Lecompte as there are in Alexandria' $122-22$
930. Subjects and Objects

These two units will be discussed together because their syntactic makeup (that of a noun phrase) is for the most part identical. There is strong evidence that they are separate units since ką, a nominal particle, is used only for objects (see 934 below). Otherwise what is valid for subjects is also valid for objects.
931. Subjects and objects can consist of simple nouns (N) (see 610 and 710), but they can also be expanded in numerous ways:

1. they can include a verb (V)
2. they can include a nominal particle (np)
3. they can include a demonstrative pronoun (dp).

This can be abbreviated as follows: $\begin{gathered}\mathrm{S}\end{gathered} \mathrm{N}$ (V) (np) (dp). There is no freedom in the order of these elements: a noun is always the first element, and the other elements, if present, follow in the order given above.

NP's in which the noun is a personal pronoun are defined as follows: NP: $\mathrm{N}_{\text {pro }}$ ( dp )

If the pronoun is any other type of pronoun, e.g. de, 'this', the NP consists solely of that pronoun.

Examples:
S: N
ąya... 'people' 57-46
$\mathrm{O}: \mathrm{N}$
ąya... 'people' (obj.) 155-27
S: N V
aya xohi... 'the old woman' 44-6
$\mathrm{O}: \mathrm{N} \mathrm{V}$
S: N V np
$O: N V n p$
aya dusi yą '(the one who) arrested the man' (obj.) 156-33

S: N V np dp
$O: N$ Vp dp
S: $N$ np dp
oti yą he 'the bear, too' 53-20
O: $N \operatorname{np} d p$
ti yą he 'the house, too' (obj.) 72-5
S: $N$ np
aya di 'the person' 109-30

| $\mathrm{O}: \mathrm{N} \mathrm{np}$ | aya k 'man' (obj.) 71-4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| S: N dp | aya de | 'these people' | e' 42-1 |  |
| O: N dp | tando he 'her younger brother, too' |  |  |  |
|  | (obj.) 72-6 |  |  |  |
| S: N V dp | aya nopa amakide 'these two men' 127-5 |  |  |  |
| O: N V dp | aya tahic andede 'this running man' (obj.) |  |  |  |
|  | 126-17 |  |  |  |
| S: $\mathrm{N}_{\mathrm{pro}}$ | nkindi 'I' 89-93 |  |  |  |
| O: $\mathrm{N}_{\text {pro }}$ | ayit 'you' 136-19 |  |  |  |
| S: $N_{\text {pro }} n p$ | nkint ko 'I' 55-12 |  |  |  |
| $\mathrm{O}: \mathrm{N}_{\text {pro }} \mathrm{np}$ | int ka 'her' 56-25 |  |  |  |
| S: $N_{\text {pro }} \mathrm{dp}$ | nkind he 'I, too' 72-7 |  |  |  |
| $\mathrm{O}: \mathrm{N}_{\text {pro }} \mathrm{dp}$ | nkind he 'me, too' 33-12 |  |  |  |

932. The above discussion takes care of the large percentage of S's and O's. In addition, four other possible expansions need be mentioned:
933. $S^{\prime} s$ and $O^{\prime}$ s involving possession often necessitate having two nouns. In these cases, the possessor is always named first, and $n \mathrm{n}$ 's follow the second noun.

$$
\begin{aligned}
& \text { ąya anahị ką 'people's hair' (obj.) } \quad 36-1 / 2 \\
& \text { aya ca uxek 'people's fingernails' (obj.) } 37-3 \\
& \text { aya tik 'the man's house' (obj.) } 71-3
\end{aligned}
$$

tuhe tukani yandi 'Tuhe's uncle' (subj.) 85-1 aya iticya ti ya 'the old man's house' 86-43 ama tupe ka 'the ground's hole' (obj.) 92-171
2. In sentences whose verbs include reciprocity, $S$ can expand to S S: cetkana oti kitenaxtu xa 'the rabbit and the bear were friends to one another 15-1
3. Additive phrases ${ }^{2}$ (e.g. 'a cow and a horse') are formed by the juxtaposition of the two nouns followed by the np ya:
tohoxk wak yą ndo̧ho 'I saw a horse and a cow' 289b wak tohoxk yą ndǫhọ 'I saw a cow and a horse' 289b ąyato ącti yą ndọḩ̣ 'I saw a man and a woman' 289b $\underset{\iota}{\text { ayato }} \underset{\iota}{a x t i}$ yą ahi hamaki 'a man and a woman are coming ${ }^{\prime}$ 289b

This construction is relatively rare in the data; since it parallels the construction of possessed nouns (see l. above), the first three sentences are conceivably ambiguous.
4. "Alternative" phrases ${ }^{2}$ (e.g. 'a cow or a horse') necessitate having $2 \mathrm{~N}^{\prime} \mathrm{s}$ within an S or an O as well. The nouns are followed by ha in this case, which does not otherwise function as an np. Here again, there are very few examples in the data, so it is impossible to tell if there are other ways of saying the same thing:
${ }^{2}$ See Charles F. Hockett. 1958. 185-6.
sito saki ha hanq 'is that a boy or a girl?' 129-21 tohoxk waka ha hanq 'is that a horse or a cow?'

129-22
taneks ąya di mamo ąya di ha hang 'is he a Biloxi or an Alibamu man? ' 129-23
932.1. $S^{\prime} s$ and $O^{\prime}$ s sometimes contain no $N$ as such but instead (A) $V \mathrm{np}$ which functions as S or O :
te ye ande yaka idahi yetu 'they sent for the one who had killed him' 34-22/3 pusi adadi yuke ko yihixtitu ha ni 'those who gather
things at night ought to have the most' $40-16$ xoxohi yandi qdadade $^{\text {'the old people went to hunt' }}$

50-10

## 933. Pronouns

The following are examples of personal pronouns in context.
See 620 and 720 for more information on them.
nkint he eta nko 'I do so, too' 22-2
nkindi nkoni na xo 'I did it (in the past)' 62-38/9
ayint kunyikte nidande 'I will not hit you' 136-19
ayindi yaxkte 'you hit me' 140-20
int ką kite 'he hit her' 94-202
ind he kidedi 'he too went home' 113-26
nkjxtu ko îkcatu ni 'we have not forgotten you' 2l-2 nkixtu he ąksi nkotu hi na 'we too must make arrows' 113-27/8
ayixtu ikihi hi ko 'you all be coming home yourselves!' 161-5
ayjxtu itatu na 'it is yours' (pl.) 164-28
ixt he uci 'they too lie in it' 28-5
jxtu Qtu nani xyo 'they must have done it' 150-16
933.1. ikowa is a pronoun used to denote action done by oneself:
ikowa atamini aduti yane 'you work by yourself and find food' 31-7
ikowa idahi otu ni 'they hunt by themselves and shoot it' 55-19
ikowa kipude hinke 'I joined them (by?) myself' 140-15
jkowa putwi hide 'it crumbled and fell of its own accord' 202b
933.2. kawa is an indefinite pronoun, whose derived form kawak serves as an interrogative pronoun:
kawa:

| kawa nkyehqtu ni | 'we did not know anything' $22-8$ |
| :--- | :--- |
| kawa nkakix kidi | 'I have carried something home on |

my back' 28-11/12
kawa xidi kohidi hu 'something strange comes from far above' 33-11
kawa katohoni 'he was lying on nothing' 52-11 kawa pastuki nax ką 'she sat sewing something' 73-22
kawak:
kawak iye yande wo 'what are you saying?' 6l-7 kawak iyg yayukedi wo 'what are you (pl.) doing?' 62-34
kawak iyayukuni ha yu 'what did you roast before you came?' 112-14/15
kawak etike 'what is that?' 128-8
kawak $q$ ne di 'what is he or she doing?' 137-25
kawak is sometimes shortened to kak:
kak iyq etike inąki ha 'what are you doing as you sit?' 72-16
kak iyp ini yande wo 'what are you doing as you walk?' 86-34
kak cidike yaku 'what is the reason you have come back?' 108-10/11
933.3. cidike sometimes serves as an interrogative adverbial (see 923), but it can also be an interrogative pronoun as well:

$$
\begin{aligned}
& \text { cidike andede 'which of the two?' } 26-4 \\
& \text { tohoxka cidiki } \\
& \qquad 131-24 \\
& \text { kihaki cidike yukedi 'which horse is yours?' } \\
& \text { 'what kin are they?' 138-2 }
\end{aligned}
$$

934. Nominal particles (np)

The nominal particles are numerous, and it must be admitted that their syntactic usage has defied precise explanation. Among the most common are:

> yą
di
yandi
ka
-k
yąką
ko
$\emptyset$
The following sentences demonstrate the heart of the problem in that identical $S^{\prime} s$ can be marked by different $n p$ 's:

1. edi ąya xohi ya 'said the old woman' 67-10/11 (for word order in this example cf. 1030 below)
ąya xohi yą hux nąkedi 'the old woman was coming in the distance' $\quad 89-98,107$
aya xohi yą ema kidi ką 'when the old woman came right there again' $93-176 / 7$
2. Kiye daha a̧ya xohi (@) 'the old woman said to them' 39-10
$\underset{\substack{\text { a }}}{\text { aya }}$ xohi ( $\emptyset$ ) $\dot{j} k x i h i$ hande 'the old woman was
laughing' 67-8
hux nąkedi aya xohi (Q) 'the old woman was coming
in the distance' $90-116$
3. aya xohi di ąya ca xti 'the old woman killed many

$$
\text { people' } 44-1
$$

4. ąya xohi yandi yįki ksowo 'the old woman raised her

$$
\text { sons' } \quad 39-1
$$

kidi aya xohi yandi 'the old woman came back'

$$
91-141
$$

The following sentences show that the same problem exists for $0^{\prime} s$ ' as well:

1. ąya xohi yą te ye 'he killed the old woman' 44-2 aya xohi yac he dustu ką 'when they seized the old woman, too' 87-45
2. aya xohi ką akuwe hą 'she was carrying the old woman along and' 50-14
3. Zya xohi (ø) kyehqtu ni 'they did not know the old woman' 44-6
ąya xohi ( $\emptyset$ ) tukpe 'he changed into an old woman' 44-2

Judging from these examples, we can make the following statements about the np's:

1. They do not distinguish animate from inanimate nouns.
2. They do not distinguish specific from generic nouns.
3. They do not distinguish human from non-human nouns.
4. They do not distinguish masculine from feminine nouns.
5. They do not distinguish topics from comments.
6. They are not classificatory with respect to shape. ${ }^{3}$
7. yac, yandi, and $\emptyset$ can be used for both $S^{\prime}$ s and $O$ 's.
8. The choice of $n \mathrm{p}$ does not depend on the position of the $S$ or $O$ within the sentence.

In the midst of such uncertainties, however, we can be reasonably sure about a few things:

1. ką, as well as - $\underline{k}$, yąk, and yaką, are used only for $O^{\prime} s$. kas:
ani yiki nax ką eyihic 'they reached the small (sitting) stream' 34-30/31
ąsuna acu ayihixti ką pawehi 'he knocked down a great deal of dried duck meat' $87-46 / 7$
${ }^{3}$ cf. this function of equivalent particles in Ponka.
tidupi ne kac hane 'they found the (standing) ford' 90-129/30
int ką kite teye hą 'he hit her and killed her and' 94-202

- k :
anik dophi nedi 'he stood looking at the water' 50-8 ek wata 'he watched it' 71-2 ayak isihi $x t i$ 'he is very much afraid of the man' 71-4/5
yaką ~yąka:
ayaxi yandi acti yąka cetkanak ku ką 'when the chief gave the woman to the rabbit' 44-12/13 ta xi yaką kiyotu 'they shot the mystery deer for him' 82-22
asewi yaka akyąhi 'he took the ax from her' 94-202 yąk:
tunaci yak kidq̧hi hą 'they saw his shadow and' 91-132
ci yak xkida 'I gather the fat' 96-249
ama yąk toho 'she fell on the ground' 109-35

2. With two exceptions, yandi is used exclusively for human N's.
xoxohi yandi indahade 'the old people went to hunt' 50-10
sito yandi ksix wadi dupax $k{ }_{c}^{a}$ ' when the boy who was very bad opened the door' 53-19
ayihic yandi $k_{<} i_{c} i_{c}{ }_{c} \quad$ 'the wolf people came home and' 62-27
edi aya xi yandi 'said the chief' 82-24 axtu yandi kidi hą 'their father came home and' 112-11

The two exceptions are:
ani yandi xwitka xti ką 'as the water was very muddy' 31-14
cok ta yandi asuna duktax ką 'when his dog scared them off ${ }^{\prime} \quad 86-30 / 31$
3. ko is used in the following three definable situations: when the $N$ is a pronoun:
ayindi ko iyąkaku yą 'what you fed me' $16-22$ nkjxtu ko ikcatu ni 'we have not forgotten you' 2l-2 int ko akiya ade ye 'he was burning it behind him'

$$
88-82
$$

when the main verb of the sentence is stative:
ti ne ko sa na 'that is a white house' (masc.) 118-1
aya sihi ne ko te di 'the standing tree is dead' 118-5
doxpe naske naki ko sade 'the coat hanging up is torn' 120-14
ayewi ko udunahi 'he faces the door' 136-20
when a question word is involved:
cak ande ko yąkutiki ta 'tell me where she is!'

$$
\text { (male to male) } \quad 75-67
$$

ayadi mąki ko kawakg te aksiyo hamaki wo 'what are those people wishing to do by making arrows?' 113-18/19
laci ko ceheda 'how tall is Charlie?' 123-2 cina nkoyihi ko nda dande 'I will take as many as I please' 153-31
a subgroup here involves comparisons:
tą yiki yą canaska ko enaska bayus yą 'Lecompte is as large as Bunkie' 122-15
ǩixka nedi ko canaska ukikike ko skane enaska na 'this hog is half as large as that one' 122-20
tąyą ąya cinani ko tą yiki yaç àya e kunatu ni 'there are not as many people in Lecompte as there are in Alexandria' $122-22$
ti ne ko dehedą 'that house is as high as this one' 123-6

In sum, the nominal particles remain the thorniest problem of Biloxi syntax.
935. Demonstrative particles (dp)

There are two common demonstratives in Biloxi: de, 'this' and he, 'that'. Technically they are pronouns, since they can be inflected (see 622) and since they can substitute for nouns:
de yaxkiyoxpa te yukedi 'they wish to drink this for me' 69-4
de oxpa 'he swallowed this' 113-18
he eyą yakidi 'you reach home' 87-59
935.1. However, I have decided to treat them on the same level with np's since they are so often found at the end of $S^{\prime} s$ and $O^{\prime}$ s. In this usage they serve as reinforcers of the noun.

## de:

ąya de ca qni 'these people died in the past' 42-1 ąya ņpa amąki de 'these two standing (sitting, reclining, etc.) men' 127-5
ti itka de 'inside this house' 152-6
he:
skakana he 'the Ancient of Opossums, too' 26-6 $q^{\text {ti yą he }}$ 'the bear, he too' 53-20/21
ti yą he dusi 'he took the house, too' 72-5 nkind he yandusi 'you take me, too' 72-7/8
ind he aksiyq 'he too was making arrows' 94-212
935.2. Along with he and de, yą should also be mentioned. Semantically yaz often has the value of 'that', although it usually has a neutral meaning 'the'. Morphologically it is quite different from he and de because it can never appear alone and is never inflected. Since its usage often parallels that of de, perhaps a few examples are in order:

$$
\begin{aligned}
& \text { ąya siçic ne yą 'that standing man' } 126-8 \\
& \text { aya xehe nąki yą 'that sitting man' } 126-9 \\
& \text { psdehi ņ̧pa mąki yą indikta ni 'those two knives are } \\
& \text { not his' } 129-9 \\
& \text { tohoxk nqpa xaxa amąki yą 'those two standing } \\
& \text { horses' } 4800: 348: 198+
\end{aligned}
$$

940. Verbs
941. Simple verbs [as opposed to the causative construction (942) and expanded verbs (943)] consist of an obligatory person marker, root, and number marker, and the following optional markers: Prefixes:
thematic prefixes (see 743.1)
reciprocals, dative markers, reflexives (see 743.2;
743.3; 743.4)
instrumental markers (see 743.5)

Suffixes:
mode markers (see 635)
object markers (see 633.3)
Auxiliaries or classificatory verbs (see 941.1)

### 941.1. Auxiliary: (h)andE/yukE

The auxiliary in Biloxi is a defective verb: ande is used for the singular, yuke for the plural. By itself, it functions as the verb 'to be' or 'to stay': hande, 'he stayed here', 157-26. Together with another stem, it lends a durative quality to that stem. Auxiliary constructions are different from compound verb constructions (see 742) and expanded verb constructions (see 943 below) in that both the stem and the auxiliary are inflected. Examples:
ande
de ande 'he was departing' 44-9
ikane ye hande $\mathcal{Q}^{\text {di }}$ 'she was making him vomit'
(in the past) $46-1$
icpe daha ande 'he was laughing at them' 52-13
iduti ayande 'you are eating' 56-44
kawak iye yande wo 'what are you saying?' 61-7
nkap te nkande ni 'I wish to make hominy' (fem.)
95-228
ndusi nkapunu nkande 'I hugged him or her' 150-7 nkanda dande 'I shall be so' 155-22
(see morphophonemic rule 1)
te ye ande 'he was killing' 156-32
yuke:
iduti yayuke 'you (pl.) are eating' 31-7
dqhi yuke 'they were looking at it' 52-5
uxte yuke hą 'they were making a fire, and' 65-1 eyą kihi yuke dixyį 'when they were arriving there' 65-1/2
wata yuke hą 'they were watching and' 82-21/22 tao yuke gxa 'they were shooting a deer in the past' 82-27
hetikayg yayuke di 'you (pl.) are doing just so'
154-25
hetąko nyuke di 'we are doing just so' 154-26 The plural marker -tu is not needed with the stem since yuke itself signifies plurality.
941.11. In the negative forms, usually the stem is negated:

| kox ni yuke di | 'they were unwilling' $28-7$ |  |
| :--- | :--- | :--- | :--- |
| kukuhi ni yuke | 'they could not raise (it)' | $55-24$ |
| kukikahị ni hande $\quad$ 'he was not telling about it' | $70-11$ |  |
| nde ni nkande $\quad$ 'I am not going' | $151-9$ |  |

But there are two cases in which ni is found after the auxiliary:

> atamini wa kande ni 'he is not always working' $149-28$ nkatamini wa nkande ni 'I am not always working' 149-30

I suspect this is due to the fact that the negative form of atamini is atamini, due to morphophonemic rule 9. ni may thus be placed after the auxiliary to avoid ambiguity.
941.2. Classificatory verbs

There are five classificatory verbs in Biloxi which, in addition to denoting duration, also designate the position of the subject. They are:

$$
\begin{aligned}
& \text { nąki 'sitting' } \\
& \text { mąki 'reclining', 'in a horizontal position' } \\
& \text { ne 'upright' } \\
& \text { hine 'walking' } \\
& \text { ande 'running' }
\end{aligned}
$$

Although classificatory verbs can be used as independent stems (kuhik mąx ką, 'when it was lying high', 149-11), it is interesting to note that they often occur with roots that mean the same thing that they do:

| xe nąki | 'she is sitting (sitting)' | $86-40$ |
| :--- | :--- | :---: |
| tox mąki | 'he was lying (lying)' | $52-11$ |

sihịx ne 'it was standing (standing)' 149-9 ąya ni hine ayehǫ ni 'do you know the walking (walking) man?' 117-4 aya tąhị yande ayehg ni 'do you know the running (running) man?' 117-5

Although these verbs are used mainly with animate nouns, there are occasional examples of nąki, mąki and ne being used with inanimate nouns as well:
ani yiki nax ką eyịhi 'they reached the small (sitting)
stream' 34-30/31
ayą ade mąki 'the wood lies burning' 138-3
One other idiosyncrasy of these verbs needs to be mentioned here: when used as auxiliaries, they are inflected for the 2nd person, but not for the first.

See morphophonemic rule 5 regarding nąki and mąki.

1. nąki 'sitting'
kak ayqk yąhi inąki wo 'what have you suffered that causes you to sit and cry?' 68-16 pa kidọhi nąki 'she sat looking at her head' 94-207 ptaskq̨ni nduti nąki 'I am sitting eating bread' 133-19
ptaskq̨ni iduti inąki 'you are sitting eating bread'
133-20
ptaskoni duti naki 'he is sitting eating bread' 133-21
nke ni nąki 'I have not said it (while sitting)' 158-29
2. maki 'reclining'

There are no examples of maki used in the second person, so it is impossible to tell whether or not it functions as the others do in this respect.
idahi ye daha max 'he continually sent for them' 52-2, 3
naxe maki 'he listened (reclining)' 70-12
kinaye ni max ka 'when he did not move' 109-34
ayą ade maki 'the wood lies burning' 138-3
plural form: maktu ~ amąki; see also 941.21 below
do̧hi amax ka 'while they were looking at him' 52-12
akikahi maktu 'they were telling news to one another' $\quad 70-12,158-13$
3. ne 'upright'
ta duxke ne ka 'he stood slaying the deer' 66-13
kawak iye inedi wo 'what were you saying as you stood?' 67-12/13
kuhi de te ne hą 'he stood wishing to go upward' 96-244
tasi wak duti ne 'the cow is standing eating grass' 134-4
nkikxihi ne di 'I am laughing as I stand' 134-6
plural form: ne; see also 941.21 below
ade ne di 'they were moving' 50-11
4. hine 'walking'
aya ni hine ayeho ni 'do you know the walking man?'
117-4
tohoxk ni hine ko toxka xe 'the walking horse is
gray' (fem.) 119-3
5. ande 'running'
mani ande yą 'the (running) wild turkey' 36-1 ąya tąhị yande ayehq ni 'do you know the running $\operatorname{man} ?^{\prime} \quad 117-5$
941. 21. Plural forms of classificatory verbs

While maki and ne have plural forms, none of the other classificatory forms do. In fact, hamaki serves as the plural form for all five verbs. Dorsey sometimes writes this as amaki, but I believe the two forms are identical. hamaki is inflected for all three persons.
aksiyp yamaki wo 'are you all making arrows?' 113-20/21
ca hanke te nkamaki na 'we wish to kill them' (masc.) 113-22
ąya ņpa ci hamaki nkehq ni 'I know the two reclining men' 117-8
àya nopa ni hamaki nkeḩ ni 'I know the two walking men' 117-9
aya xaxaxa hamaki ayehq ni 'do you know all the standing men?' 117-12
àya nopa tahị amaki nkehǫ ni 'I know the two running men' 117-11
tohoxk noppa nini amąki ko toxka xe 'the two walking horses are gray' (fem.) 119-9
ptaskqni duti hamaki 'they are sitting eating bread' 133-22
ptaskǫni iduti ayamaki 'you all are sitting eating bread' 133-23
ptaskọni nduti nkamaki 'we are sitting eating bread' 134-1
942. The causative construction

YE, the causative verb, combines with other stems to make causative constructions. It is different from compound constructions or expanded verb constructions in that the stem preceding YE is never inflected and YE always is.

Morphophonemic rules $1,8,10$, and 13 are responsible for changes seen in causative constructions, as well as rules 14-24
for the person markers.
The third person forms are quite regular:

> te ye 'he killed her' 44-2
> kidohi ye daha 'he showed it to them' 52-4
> de ye daha 'he sent them' 52-13
> te xkiyetu 'they killed it for me' 139-17
> te kiyetu 'they killed it for him' 139-22
> de yąke te 'he wishes to send me' 156-7
> adukce yetu 'they make so much noise' 165-27

The first and second person forms are slightly different in that ha is inserted between the first stem and the person marker for YE. Morphophonemic rule 8 accounts for ha being reduced sometimes to $\underline{h}$.
first person:
axehe hanke naki na 'I have stuck it in (as I sit)'
(masc.) 90-115
ca haxkiya dande 'I will kill him for him' 146-13
kakuduksa hinye ni 'I did not peep at you' 146-16
cece hinke 'I make it drip' 153-24
utoho hinya dande 'I will follow (your trail)' 157-24
adukce hanketu ni 'we do not make too much noise'
second person:
ca hiyetu 'you kill them all' 55-22
te hiyaxkiyetu 'you (pl.) killed my...' 139-18
nepi haye 'did you do it correctly?' 142-4
cecehi haye 'you made it drip' 153-25
te hiya ni 'you must not kill him' $155-31$
de hiyake te 'you wish to send me' 156-8
adukce hiyetu 'you (pl.) make too much noise' 165-26
943. Expanded verbs

Expanded verbs consist of one obligatory verb and one or two optional verbs in the same person and number. Only the final stem of an expanded verb contains any suffixes.
V: V
hedi 'he said it'
13-13

V: V V nko ike xo 'I do it, I will hit you if ...'
13-11

V: V V V hane dusi duxke 'he found her, took her, and skinned her' 76-81
950. Connectives

There are two kinds of connectives, coordinating and subordinating:

## 951. Coordinating connectives

951.1. Clause final coordinating connectives:
hą 'and'
haca 'but, and subsequently'
Examples:
e hą kidedi 'he said, and went home' 15-2 oti yandi iske hą yahe yą de 'the bear was scared and went away' 15-5/6
cu hą kustuki 'he filled it and set it down before him' 23-6
$q^{\text {ti }}$ yandi hedi haca te ye te cetkana ka ${ }_{c}$ 'the bear said that, but he wished to kill the rabbit'

16-23/24
apad $\frac{Q}{\text { h haca }}$ kiya dedi 'she wrapped it up, and subsequently went on' 74-47
nda dande hąca nde ni nkande 'I will go, but I have not yet gone' 151-9
951.2. Sentence initial coordinating connectives:
ekeką 'and then'
ekehą 'and then'
ekeko 'well'
eką 'well'
eke 'well'
ekedi 'that is why'
ekeonidi 'therefore'
Examples:
ekas towe ya aki ya toho 'and then the Frenchman lay next' 31-12
ekeka wax ade ąyato yą 'and so the men went hunting' 39-2/3
ekeqnidi ąya anitkak yuke xa 'therefore, there are people under the water' 50-18/19
ekeko aksotu te 'well, make arrows!' (fem. to males) 55-20
ekehą kuhi ya ${ }_{l}$ adi 'and then, he climbed up there' 89-97/8
eke he eyąhi hą 'well, she arrived there, and' 89-98/9
952. Subordinating connectives

All of these connectives are clause final, although they can never be sentence final. ką, 'when', is by far the most common of this group. A case can be made for ką being identical to the objectivizing particle ką (see 934).
de hed ha (see 952.1 below)
dixyic 'when, if'
dixya ${ }_{6}$ 'whenever, when, if'
ka 'when'
kne 'just as, as soon as'
ko 'when, as,since'
kike 'although'
xyeni 'although'
Examples:
yaxkica dahaxyeni nkjxtu ko ĵkcatu ni 'although you have forgotten us, we have not forgotten you' 21-2/3
kiyetu dixyi. 'whenever they said (that) to him' 50-3 ayohik sahi xti watatu kike kudoxto ni xti 'although they watched the pond for a long time, they saw nothing at all $50-13 / 14$
axikiye hande ką 'when he was treating him' 85-1 ani akuditu ką, tunaci yąk kidohi ... 'when they peeped down into the water, they saw his shadow' 91-131/2
ekedị pusi dixyą 'therefore, when it is nighttime ...'
111-4
952.1. de hed hą. This is a clause in itself, meaning 'this finished and'; it is used as a connective phrase, marking the action of the previous verb as past perfect:
dukucke de hed hą tumockanadi xaninati kde
'when he had tied it, the Ancient of Wildcats rolled it along for some time' 27-4
duti de hed hac, max ka kidi 'after they had eaten, when they two sat, he came back' 31-5/6 itamino ye de hed hat anahi yą kidakacke de hed hac 'when she had dressed her (and) tied her hair for her' 73-36/7
1000. The clause

Based on Dorsey's punctuation, the clause is any string of tactic units which includes all of the following properties:

1. It is both preceded and followed by a pause.
2. It contains at least one non-embedded verb.
3. It contains from $\emptyset$ to 2 subjects. ( 2 S 's are in fact rare.)
4. It contains from $\emptyset$ to 2 objects.
5. It contains from $\emptyset$ to 2 adverbials.
6. It may contain one and only one clause final connective.
7. Dependent vs. independent clauses

Dependent clauses ( dCL ) are those ending in a subordinating connective (see 952). All other clauses are independent.
1020. Although there is some freedom as to the order of the tactic units within a clause, certain tendencies are apparent:

1. S usually precedes $O$.
2. O almost always precedes V .
3. $C$ is either clause initial or clause final.
4. A usually appears immediately preceding $V$.

The constituent structure of the clause can thus be summarized as follows:
CL: (C) (S) (O) (A) V (C)

Examples:
CL: V etu xa 'so they say' (= they say/usually) 68-23
CL: CV ekeha wahe xti 'and then it screamed exceedingly' (= and then/it screamed/ very much) 75-60

CL: AV kuhik adoxtu ta 'look up!' (male to males) (= up/look!) 52-10

CL: SV ${ }_{6}^{a}$ ckana de kake ni 'the Ancient of Crows said nothing' (= crow/head/this/did not say it) $\quad 73-34 / 35$

CL: OV ątatka cudetu 'they abandoned the child' (= child/they abandoned) 72-1

CL: VC e ha 'she said, and' (= she said/and) 72-2 CL: CAV ekehą îkanak wade udunahi 'and then he went towards sunrise' (= and then/sunrise/toward/he went) 40-25/6
$\begin{aligned} & C L: C S V ~ e k e k a ̨ ~ y i n i s a d i ~ a y i h i ~ x t i ~ k i ̣ h i c ~ \text { 'and then many } \\ & \text { buffaloes came' (= and then/buffaloes/ } \\ & \text { they were very many/they came) } 55-9 / 10\end{aligned}$
CL:COV ekeką tando he dusi 'and then, she took her brother, too' (= and then/her younger brother/ that one/she took) 72-6

CL:CVC ekedị pusi dixyą 'therefore when it is night' (= therefore/it is night/whenever) lll-4

CL:SAV

CL:OAV akutxyi uksanihuyaxkiye 'you will send me a letter very soon' (= letter/very soon/here/you will send me) $21-5$

CL:AVC eyąkidihą 'and she got home' (= there/she got home/and) 72-2

CL:SOV tohoxka ayeki duti na 'the horse eats the corn' (= horse/corn/he eats it) 137-17

CL:SVC anacidi eyịịi hą 'the ghost came there and' (= ghost/came there/and) 69-1

CL:OVC ahi yą kidusi hą 'she took the skin from her, and' (= the skin/she took from her/and) 112-15/6
eka towe ya akiya toho 'and then the Frenchman lay next' (= and then/the Frenchman/next/he
1ay) $31-12$

CL:CAOV ekąhą kiya yeki kicutu 'and they planted corn again' ( $=$ and then/again/corn/they planted) 13-2

CL:CAVC ekeǫniką nawunde uksi hande dixyị 'therefore, today, whenever it is smokey' (= therefore/ today/smokey/itis/whenever) 57-48/9

CL:CSOV ekeka ąxti sosa ątatka nqpayedac 'and then one woman took two children' (= and then/woman/one/ child/she made two/she took) 42-1/2

CL:CSVC ekika ọ oti yandi ịske hą 'whereupon the bear was scared, and' (= whereupon/bear/the/was scared/and) 15-5

CL:COVC ekehą akidi xaxahi dusi hą 'and then she took an insect with a rough body, and' (= and then/ insect/rough skin/she took/and) $\quad 40-26 / 7$

CL:SOAC tuhe tukani yandi tuhe titka de ye 'Tuhe's uncle sent him into the house' (= Tuhe/his mother's brother/the/Tuhe/into the house/to go/he caused him) 85-1

CL:SAVC anedi ti ci ne ka 'when lice were lying in the house' ( $=$ lice/in the house/they were lying/ upright/when) 112-1

CL:OAVC isu ya kiya kihanetu hą 'they found his teeth on him again' (= teeth/the/again/they found his/ and) 61-16

CL:SOVC ąya xohi di ąya ca xti kę 'when the old woman killed many people' (= person/old/the/people/ killed/many/when) 44-1

CL:CSOAV (theoretically possible, but no example has been found.) CL:CSAVC ekeǫnika yinisa ti ci nąki dande ǫni xyeni 'therefore, although there were going to be buffaloes in the house' (= therefore/buffalo/house/ lying/to be/were/although) 52-18/19

CL:COAVC (theoretically possible, but no example has been found.) CL:SCOVC eǫnidi côki cetkak noxe yuke dixyạ 'therefore whenever dogs are chasing rabbits' (= therefore/dogs/rabbits/chase/they are/ whenever) 17-30/31

CL:SOAVC (theoretically possible, but no example has been found.) CL:CSOAVC (theoretically possible, but no example has been found.)
1030. Position of $S^{\prime} s$ and $O^{\prime} s$ within the clause.

1. Normally $S^{\prime} s$ and $\mathrm{O}^{\prime}$ 's precede verbs, as has been seen in 1020. However, there are numerous examples in the tales
where they follow the verb. Since there are no such examples in elicited data, I presume this was a stylistic device. It is almost always used after a quote when the speaker is identified. Moreover, the nouns involved are always animate.

Extraposed S's:
'aso nkisihi xti" edi cetkana di '"I greatly fear the brier' ${ }^{\prime \prime}$, said the Ancient of Rabbits' $\quad$ 13-19
yecpi wadi skakana di 'the Ancient of Opossums is always lying' 26-15
eyąhic dusi yikadi yandi 'her husband arrived there and took her' 75-76
tao yuke of xa aya saha di 'the Indians were shooting deer (in the past)' 82-27

Extraposed $\mathrm{O}^{\prime} \mathrm{s}$ :
sosa kuku daha ta yą 'she gave one to each of the deer' 67-5
copk ta yandi dustu int kag 'his dogs seized her' 90-121

Extraposed $S$ and $O$ :
"witedi ko eyąhị ta" kiye di xyinixkaka pudedna di
"'Get there tomorrow!" said the Ancient of Brants to the Ancient of Otters' 24-11/12
2. S's usually precede $\mathrm{O}^{\prime} \mathrm{s}$, as stated in 1020. However, there are a few cases where this order is reversed. I presume that this was done for emphasis, and that the potential ambiguity involved was eliminated by a special intonation, or simply by context or by semantic probabilities.
peska na koko yandi axiki ye 'his grandmother shut up the Ancient of Tiny Frogs to make him mysterious' 46-1
nahite altana $^{\text {tatka }}$ apux 'the child felt the moon person' 111-1
tapsi tohoxka duti ne 'the horse is standing eating grass' 134-3
ayek maxi yąki duti ne 'the hen is standing eating corn' 134-5
3. In the few sentences containing both a direct and an indirect object, the direct object is always first:
ąya xi yandi ạxti yą int ką ku 'the chief gave him the woman' $\quad 34-27 / 28$
spsa ąckahq na ku 'he gave one to the Ancient of Crows' 39-1
nasuki ackaho na ku 'he gave the squirrel to the Ancient of Crows' 39-4/5
ąya xi yandi axti yaka cetka nak ku 'the chief gave the woman to the Ancient of Rabbits 44-12/13
1100. The sentence

Since we do not know anything certain about Biloxi intonation, we can only discuss the syntactic constituents of a sentence according to Dorsey's own interpretation of it.
1110. The minor sentence ( mSEN ): any phrase (see 800) which is preceded and followed by a pause. Here again, as with other syntactic definitions, we are dependent on Dorsey's punctuation. Examples:
koko 'O grandmother' 19-16
ke 'nonsense' 24-19
xo xo 'Oh! oh!' 66-14
kudeska dahayi na ko 'the Ancient of Blue Darters'
57-49
ti yaski yą 'under the house' 139-8
tkana xohi 'old peaches' (= 'apples') 276b
1120. The major sentence (SEN): any construction containing at least one independent clause, with optional minor sentences and dependent clauses. There is never more than one minor sentence in any given major one, and it always appears initially. There is
rarely more than one dependent clause; the final element within any major sentence is an independent clause. Sentences containing a dependent clause (dCL) are complex; those containing more than one CL are compound.

SEN: mSEN
pusi wa yą 'towards evening' 158-16
SEN: CL
ekeka acka na di kux nąke di 'then the Ancient of Crows was returning in the distance' 72-12

SEN: mSEN CL
kopko, yakataxni xti 'Oh grandmother, I am burned severely' $\quad 20-24 / 5$

SEN: mSEN dCL CL
kǫkǫ, xkito ni te nkande kike, cimana yąxkito ni okne 'Oh grandmother, though I continually long to get there first, again he has gotten there before me' 19-7/8

SEN: dCL CL
yaxkica daha xyeni, nkipxtu ko jikcatu ni 'although you have forgotten us, we have not forgotten you' 21-2/3

SEN: dCL dCL CL
duti de hed ha max ka kidi 'when they had eaten, and while they were sitting, he came back' 31-5/6

SEN: CL CL
eyą ahi hą ąxti yą kide di 'she reached there with him, and the woman started back' 33-13/14
1130. Embedded sentences

Embedded sentences are not overtly marked: nyidohi nkahi nkihi na 'we thought we were coming
to see you' (masc.) 65-3
te hiye iyuhi ha ni 'you thought that you had killed
her' 94-205/6
ktohi yag ac ką 'when he asked the frog to sing'
96-244
atatka ahi naxe yihi 'he thought he heard a child cry'
iduwe nkihi 'I thought that you untied it' 145-4
de kukiyohatu ni 'they do not wish for him to go'
165-11
However, in many cases the presence of a sentence medial mode marker signals the presence of an embedded sentence. For example, hi is a hortatory marker and as such is used when the action of the embedded sentence has not yet taken place:
ixt he uci doxtu hi kiye daha 'he told them that they too should lie in it and see (how it is)'

28-5/6
ani nd $\rho$ ni nkanda hi yihi 'he thought I ought not to see water' 33-5/6
yao hi kiyetu ką 'when they told her to sing' 50-15
nko hi niki na 'I cannot shoot it' (masc.)
(= it is not that I can shoot it) 85-4
gksi da ku hi kiye 'he told him to gather arrows and come back' 85-15
axti nakedi yakida hi edi na 'that woman sitting in the distance says that you are to go home' 108-4/5
iduwa hi nkihi 'I think you ought to untie it' 143-31 isịici hi nyedi 'I told you to stand up' 144-24 ndux ni hi yuhi 'he thought that I ought not to. eat it' 144-26
ikici iku hi niki 'you cannot spare it' (= it is not that you can spare it) $\quad 159-10$
da hi kiyuxtu 'they thought that he ought to go' 163-11 ni indicates that the action of the embedded sentence was not carried out:
ita ni ikiyuhi 'they want you to die (but you will not)' 87-58
nkta ni' yaxkiyuxtu 'they wish me to die'
da ni kiyuxtu 'they wished him to go (but he did not)' 162-30
da ni kiyuhi 'he wished him to go (but he did not)' 163-2
wo indicates that the embedded sentence contains a very mistaken idea:
etike nani wo yihi 'he thought it would not be so
(but it was)' 50-6/7
extixtik de di wo ayuhi 'he thought he had gone very far (but he had not)' 61-13
tukanitu yą wo yihi '(they) thought it was their uncle
(but it was not)' $65-2 / 3$
atkyuhi toho hi wo yuhi 'she thought she would get over him and lie down (but she could not)' 109-34/35
wo seems to have a variant form wi for embedded sentences: uwe de dusi wi yuhi 'she thought she would go in and catch him' 91-133
te ye wi yuhi 'he thought he had killed him (but he had not)' 163-21
de di wi yuhi 'he (A) thought he (B) had gone'
(but he had not)' 163-22
o ni wi yuhi 'he (A) thought he (B) had made it'
(but he had not)' 163-23
1200. The following section contains diagrams of seven sample sentences from the texts. A free translation of these sentences is as follows:

1. The rabbit and the bear were friends to one another. 15-1
2. "I live in a very large brier patch," he said, and went home. 15-2
3. Therefore, whenever dogs chase rabbits, they find bears and shoot them. 17-30/31
4. "Oh grandmother, though I continually wish to be first, he was first already." 19-7/8
5. When his nose could not get in (the dish), he could not eat. 24-16/17
6. That woman sitting in the distance says that you are to go home. 108-4/5
7. Our father wishes to kill us and sits making arrows. 113-26/27

The top line of each diagram shows Dorsey's original citation. An interlinear translation follows, and the texts are then given in phonemic, morphophonemic, and morphemic notations. The tactic units and their constructions are given with the reference numbers to the section in which they are discussed.







## GENERAL BIBLIOGRAPHY

The following two books were used for general purposes' in writing this dissertation. For the annotated bibliography of materi al available on Biloxi, readers are advised to see section 050.

Hockett, Charles F. 1958. A course in modern linguistics. New York: Macmillan.

Powell, John Wesley. 1880. Introduction to the study of Indian languages. Washington: Government Printing Office.


[^0]:    ${ }^{2}$ Dorsey lists the speaker here as masculine. I think it must be a mistake.

[^1]:    ${ }^{3}$ The root YE, 'cause' is mysteriously missing from these examples; I have no explanation for it.

