

## Chapter 9

# Baxoje-Jiwere grammar sketch

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This synchronic grammar follows a descriptive approach to Baxoje-Jiwere of the Mississippi Valley branch of the Siouan language family. It expands upon prior published and unpublished documentation, based upon fieldwork conducted from 1987–96. Baxoje-Jiwere-Nyut’achi is a “sleeping language,” with no fully fluent speakers at present, but with revitalization efforts underway in each of the three native communities of Red Rock and Perkins, Oklahoma, and White Cloud, Kansas. The sketch begins with phonology, morphology, then syntax, with special attention to the complex system of verbal affixes; the interesting phenomenon of noun incorporation within certain verbs; verb classes (regular stems, irregular stems in *r/l*, *w*, and *d*, and the causative construction); positional verbs, which may serve as auxiliary verbs; and SOV word order, with clause-final and utterance-final enclitics marking relation to the following clause, source of evidence, sentence type, and gender of speaker. The topic of language variation concludes the sketch, with gender differences documented for greetings and interjections; brief tables illustrate phonological and lexical distinctions associated with both tribal dialects.

## 1 Introduction

Baxoje-Jiwere belongs to the Mississippi Valley branch of the Siouan language family, and is the native language of the Plains/Prairie tribes known today as the Otoe-Missouria and Ioway (Goddard 1996: 3,8). While their original homelands were in northern Missouri, southeastern Nebraska, and the state of Iowa, during the late 19<sup>th</sup> century the two tribes relocated to a north-central portion of Indian Territory in an attempt to avoid Euro-Americans’ increasing encroachment on their reservations and the assimilation policies of the BIA. One segment of the Ioway chose to stay on a portion of their original reservation near the Missouri River in northeastern Kansas (Wedel 2001; Schweitzer 2001).

The following sketch is based upon fieldwork in central Oklahoma which I conducted mainly between 1987 and 1996 while a graduate student and research assistant within a larger team, led by Dr. Louanna Furbee, and including Lori A. Stan-



ley.<sup>1</sup> The research was conducted with the permission of the 1987 Otoe-Missouria Tribal Council, among members of both the Otoe-Missouria and the Ioway Tribes living in an approximately 100 mile radius of Red Rock, OK. It was funded initially by a University of Missouri Faculty Development Grant, then generously supported by the National Science Foundation Documenting Endangered Languages Program and the American Philosophical Society's Phillips Fund.

*Báxoje* is the Ioway tribe's name for their people and language. *Jíwera* is the native Otoe term for themselves (and the language), while *Nyút'achi* refers to the Missouria people/language.<sup>2</sup> The native language spoken by these two tribes has frequently been called *Chiwere* in the existing literature (Whitman 1947; Marsh 1936; Wedel 2001; Schweitzer 2001). However, because this spelling makes it more likely for English speakers to mispronounce the first sound of the Otoes' self-name, I prefer to use <J> instead, because the voiced allophone is far less likely to be aspirated by language learners with English as their first language. Goodtracks also follows this orthographic shift.

In addition to the two contemporary communities centered in Red Rock and Perkins, Oklahoma, respectively, there is also a Northern Ioway Nation located on their original reserve in White Cloud, Kansas. Sadly, there are no L1 speakers of Baxoje-Jiwere, but a few individuals may be semi-speakers. Language renewal efforts are underway in each of the small communities, so there is hope that while yet sleeping, the ancestral tongue may still be awakened.

Many factors led to this particular effort to document Baxoje-Jiwere, but the original impetus was the collegial friendship between two University of Chicago linguists (both students of Eric Hamp), the late Robert L. Rankin and N. Louanna Furbee. These two scholars both landed jobs in the Midwest, the former at KU in Lawrence, Kansas, and the latter just a few hours away at Mizzou. They remained in touch throughout the 1970s and 80s. As Bob adopted Siouan languages as his primary research focus, he saw the urgent need for more linguists. He would tease Louanna that since she was employed by the primary research university in the state that was named for one dialect of this highly endangered Siouan language, it was her duty to start doing research on it.

His good-natured urging came to fruition in 1987, when a critical mass of graduate students interested in language study surrounded Louanna and she offered

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<sup>1</sup> Stanley's Ph.D. dissertation (Stanley (1993)) includes a life history of Dr. Truman W. Dailey, one of the primary speakers and contacts within the Otoe-Missouria Tribe, available at the University of Missouri-Columbia Library.

<sup>2</sup> Because the Missouria language was not recorded, I omit the name *Nyút'achi* when referencing the language in general, although the Missouria people and history are remembered in Otoe tribal heritage in the conjoined name today.

a special seminar on Siouan languages. About nine eager students enrolled in the course, myself included. Bob came to Mizzou to give a beginning workshop to Louanna's class, with stacks of handouts full of concrete suggestions such as questions to ask and topics to cover in the field.

His help did not end there, but continued throughout the years, giving feedback on papers, guiding our elicitation of forms for the Comparative Siouan Dictionary, reading much earlier versions of this sketch, and countless other generous acts on his part. Thus, without the initial friendship between Robert L. Rankin and N. Louanna Furbee,<sup>3</sup> there would have been no Missouri Chiwere Language Project grammar. This work is dedicated to them both. All errors are of course my own.

## 2 Sound system (phonology)

### 2.1 Consonants

#### 2.1.1 Stops

There are three sets of stops distinguished by these features:

- a. Aspiration /p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>/
- b. Glottalization /p', t', k'/
- c. Plain (neither aspirated nor glottalized) /b, d, g/

The “plain” sounds can be either voiced or voiceless, but the two allophones would have been heard by native speakers as the “same.” Different scholars of Baxoje-Jiwere have used either or both [p/b, k/g, t/d] for the plain (lenis) series. Variation may have existed between closely related forms within the three historic speech communities, within some families, or even with particular speakers. Notes by earlier researchers suggest that individuals' speech did display such tendencies, but the data are too limited to address such topics at present (Whitman 1947). In addition, the glottal stop /ʔ/ does appear in word-initial, medial, and word-final positions, but in the first two instances, it serves primarily to prevent amalgamation and preserve semantic content before certain vowel-initial morphemes such as verb stems. In those settings, its function is morphological,

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<sup>3</sup> The essential role of Louanna Furbee as major professor, grant writer, P.I., fieldworker, editor, friend, and all around pillar of strength cannot be overemphasized. The MCLP (Missouri Chiwere Language Project) original materials are archived at Luther College, Decorah, Iowa.

rather than phonemic per se. Likewise, it tends to appear in word-final position only for a limited set of morphemes, namely interjections and sentence-final particles/enclitics. In those instances, its phonetic abruptness carries an iconic meaning of emphasis, doubt, or even impatience (cf. Tables 18 and 19).

### 2.1.2 Affricates

As with the stop series, there are three contrasts: plain affricates /č/-/j/, aspirated /č<sup>h</sup>/, and glottalized /čʔ/.

### 2.1.3 Fricatives

The plain series has a larger set of sounds than the glottalized versions.

- a. Plain: /θ ð s š x h/
- b. Glottalized: /θʔ sʔ xʔ/

### 2.1.4 Nasals

The four nasal consonants are /m n ñ ŋ/. The latter two phonemes /ñ/ and /ŋ/ were significant as indices of tribal identity. Baxoje speakers favored *ñ* in words where Jiwere speakers typically said *ŋ*, such as ‘horse’: *šun̄e* in Ioway vs. *sun̄e* in Jiwere.<sup>4</sup> However, there are clear cases of /ñ/ in both dialects, such as the shared indefinite plural *-ñe*. Word-initial /n/ often palatalized to [n̄] before front high vowels /i, ī/.

The /ŋ/ cannot occur word-initially, and probably is historically derived from phonological environments where a velar stop followed a nasal vowel. Note that there is a very strong tendency to pronounce an epenthetic homorganic nasal consonant when nasal vowels precede stops, probably for economy of effort, or making the word “smoother,” as some elders liked to put it, as in the /m/ in *nqmp<sup>h</sup>o* ‘finger’.<sup>5</sup>

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<sup>4</sup> That example also illustrates another common pronunciation difference between the distinct versions of this language, namely the plain /s/ at the beginning of words for Otoe, where Ioway produces /š/ instead.

<sup>5</sup> Amelia Susman’s (1943) work on Ho-Chunk (Winnebago) mentioned the same tendency in that very closely related Siouan language.

### 2.1.5 Liquids

There has been some difficulty defining and representing the liquid sound in Baxoje-Jiwere. Phonetically, it has been described as resembling an unreleased “flap” [d] like the medial sound in *latter*, the plain [r] found in Spanish, and a variation upon the [l] sound (Whitman 1947: 235); Rankin also included [ð, n, y] as possible phonetic reflexes (Wedel 2001: 346; Schweitzer 2001: 447). For orthographic consistency, the symbol /r/ will be used.

### 2.1.6 Glides

Glides include /w/ and /y/.

## 2.2 Vowels

### 2.2.1 Oral vs. nasal

There are both oral and nasal vowels in Baxoje-Jiwere. They include /a i o u e/ and /ą ı ʉ/. Frequently /ą/ would be realized as a nasalized schwa.

### 2.2.2 Vowel allophones as gender indexicals

Phonetic vowel quality sometimes differs significantly in particular words used by female speakers especially; in those contexts, there is also an [ɛ] and sometimes an [æ]. These variations are limited to a particular small domain of the overall vocabulary of the language, and serve a social-indexical function. (Cf. section 5.2. on sentence-final particles and interjections.)

### 2.2.3 Vowel length

Robert Rankin transcribed long vowels from a recording of a key word list by a OtoeJiwere speaker, but I have been unable to perceive length on the same recording. No minimal pairs clearly establish phonemic significance of vowel length between etymologically unrelated words.<sup>6</sup> Thus, at present there is scant evidence to support the idea of *phonemic* vowel length, although the revised *Plains* volume of the *Handbook of North American Indians* presents a list of long and short vowels, based on Rankin’s analysis (Wedel 2001: 432; Schweitzer 2001: 447).

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<sup>6</sup> John Boyle’s student presented a brief paper on this topic based on spectrographic analysis of MCLP recordings, but that paper has not been published.

However, there are very prolonged vowels that occur when morphological boundaries have been “blurred” during amalgamation. The greatly extended length preserves the mora from the contracted morpheme, and sometimes affects the stress pattern as well. It seems to be primarily a morphological rather than phonological process.

### **2.3 Stress/accent**

Stress is both volume and pitch-based, with phonemic value in Baxoje-Jiwere, as in *ráwe* ‘beaver’ and *rawé* ‘to count’ (Goodtracks n.d.), or *gísa* ‘to laugh at another (v.)’ vs. *gisá* ‘a knot (n.)’ (Dorsey n.d.) When a root word with two syllables has additional affixes attached to it, the basic stress (and pitch) pattern can change, typically with primary stress shifting to the left in the case of prefixation, and addition of a secondary stress in the case of infixes or suffixes. An adequate prediction of stress patterns is beyond the scope of this grammar.<sup>7</sup>

### **2.4 Syllable structure**

There is a strong tendency to end all syllables with a vowel,<sup>8</sup> thus (V) and (CV) are very frequent syllable shapes. Initial consonant clusters are allowed (CCV), but examples of CCCV have not been discovered, nor have (VCC). The consonant clusters shown in Table 1 may begin a syllable.

### **2.5 Longer sound patterns/prosody**

For length constraint, phrase-level prosody is included under §4, Syntax.

### **2.6 Phonological processes**

#### **2.6.1 Elision**

One of the most common changes, elision is characteristic of rapid speech, such as the final vowels mentioned in Footnote 8 which frequently are deleted.

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<sup>7</sup> Cf. discussions of Dorsey’s Law in Miner (1979) and Hale & White Eagle (1980).

<sup>8</sup> The few exceptions to the preference for vowel-final syllables would be represented as a CVC structure. However, such instances only appear in informal speech and seem to be elision. During quick speech, the final unstressed vowel disappears, yet speakers give the full “precise” pronunciation with final vowel if asked to repeat or clarify what they said. This seems to have been a major aspect of the historical sound changes separating Ho-Chunk from Jiwere.

Table 1: Syllable-initial consonant clusters

a. stop + liquid:	br-	<i>bra</i> ‘separated, spread in layers, sliced, flat’
	gr-	<i>gru</i> ‘to curse’
b. stop + glide:	p <sup>h</sup> y-	<i>p<sup>h</sup>yúbrq</i> ‘mint, medicine tea, Indian perfume herb’
	gw-	<i>gwák’u</i> ‘to wipe off, scrape off, dry oneself (one’s body)’
c. fricative + stop:	sd-	<i>sdq</i> ‘to stop, cease, leave off’
	sg-	<i>sga</i> ‘to be white, shiny’
	šg-	<i>šgúñi</i> ‘no; not; (does) not’
	θg-	<i>θga</i> ‘to be white’ (old form)
	hg-	<i>hga</i> ‘to be white’ (Ioway)
d. fricative + liquid:	sr-	<i>sroge</i> ‘to remove object from inside a hole’
	θr-	<i>θrije</i> ‘easily, softly, slowly’
	xr-	<i>xra</i> ‘eagle’
e. fricative + glide:	sw-	<i>swahi</i> ‘to soften’ (flesh, leather, stale bread)
	šw-	<i>šwara</i> ‘soft (buckskin, flesh, cloth)’
f. fricative + nasal:	sn-	<i>sni</i> ‘cold’ (Wistrand-Robinson 1972)
	θn-	<i>θni</i> ‘cold’ (possibly archaic; Dorsey in Goodtracks (n.d.))

### 2.6.2 Vowel harmony and nasal spread

The nasal quality of a nasal vowel may “spread” regressively (from right to left) to nearby vowels. (Ho-Chunk scholars have documented such nasality spread not just to directly adjacent vowels, but also across the consonants /h/ and /w/ to the closest non-adjacent vowel (Helmbrecht & Lehmann 2010: 7–8).

### 2.6.3 Vowel ablaut

This well-known phenomenon among Siouan languages involves /a/ and /e/, which may alternate in a variety of settings, especially before particular verbs or certain suffixes, suggesting it is morphologically conditioned. Motion verbs are one set of verbs that trigger ablaut. Some verbs ending in *-e* such as *ugwe* ‘to enter’ and *re* ‘to go’ will also ablaut to final *-a* before *-wi* ‘definite plural’ as does the indefinite plural *ñe* > *na* before the definite *-wi* also. Conversely, verbal prefixes with final /a/ will ablaut to /e/ before the possessive *gra-* and the verb *udwáñi* ‘to fail to reach, fail to come up to’ (Whitman 1947: 239-40), as well as *doye* ‘to break’. The instrumental prefix *gi-* ‘by hitting’ (with an ax, hammer, or other object in the hand) will trigger ablaut from /a/ to /e/ in the pronominal prefixes which attach directly to it. The dative *gi-*, however, will not trigger the same

vowel change, despite the identical phonetic shape, supporting the idea that it is not a purely phonological process.

Examples:

- (1) *Č<sup>h</sup>úgwá-wi*      *re.*  
 house.enter-DEF.PL IMP(male speaker)  
 [from *č<sup>h</sup>i* ‘house’ + *ugwe* ‘to enter’ + *-wi* ‘DEF.PL’]  
 ‘Come in the house, you-all.’ (Marsh 1936: “Giants” Bk2 LN49)
- (2) *Iwálà-wi*      *ho.*  
 yonder.go-DEF.PL HORT(male speaker)  
 [from *i* ‘there’ + *wa* ‘directional’ + *re* ‘to go’ + *-wi* ‘DEF.PL’]  
 ‘Let’s go over there!’ (Marsh 1936: “The Twins” LN65)
- (3) *He-grahi*      *k<sup>h</sup>i.*  
 1P.AGT-love DECL(female speaker)  
 [from *ha*-1P.AGT + *grahi* ‘love’]  
 ‘I love him.’

An alternative analysis accounts for the vowel change before *-gra* ‘poss’ and *-gi* ‘DAT/BEN’ as two vowels coalescing. Since the key morphemes in question are consonant-initial, there would have to be an underlying vowel, either /e/ or /i/. The /e/ matches the target vowel, and parallels the 3PL form found in the independent pronoun *e?e*, and the possessive *etháwe* ‘his/hers/its’ and *ethéwi* ‘theirs’. But there is precedent within Baxoje-Jiwere for /a/ + /i/ to become /e/, which Whitman (1947: 239) called ‘amalgamation.’ The volume reviewer likewise suggested that possibility, *igra-*. That shape/meaning resembles the 3PL inalienable prefix on kin terms (Table 2), which parallels cognate Lakota forms and matches the reconstructed Proto-Siouan \**i*- Possessive (on non-verbs) (Rood 1979). This analysis also reserves the term ‘ablaut’ to stem-final vowels, as has been the norm within Siouan scholarship.<sup>9</sup>

### 3 Words/morphology

#### 3.1 Nouns

Many nouns can function fully as verbs, complete with the extensive system of prefixes and suffixes described later in the verbal template. Siouan languages are

<sup>9</sup> Unfortunately, *udwáñi* ‘to fail to reach, come up to’ and other verbs with separable prefixes preceding PRON prefixes also show the shift from final /a/ to /e/, [*uhédwañi* ‘I fail to reach’] and these cases do not fit neatly into the proposed explanation (Whitman 1947: 240).



classified as strongly verb oriented, with very few prefixes or suffixes limited only to nouns.<sup>10</sup> Certain verbal prefixes transform that state/action into something more noun-like, as in the following example, wherein the verb ‘to eat’ becomes ‘something to eat upon’: *wá:ruje* ‘table’ < *wa-* ‘indefinite object’ + *a-* ‘upon’ + *ruje* ‘eat’. Without the locative *a-* ‘upon’, the first vowel is not lengthened, and the stress remains on the second syllable: *warúje* ‘something to eat, food.’ Because there is a  $\emptyset$  third person pronominal prefix, ‘food’ sounds identical to the third person singular sentence ‘He ate (something).’

### 3.1.1 Possessing: inalienable vs. alienable

Native American languages often distinguish people and things extremely close to a person’s identity and self (INALIENABLE) versus other entities that separate more easily (ALIENABLE). The former category includes kinship terms and in Baxoje-Jiwere, the formal social ties of friendship and parenthood.<sup>11</sup> The prefixes meaning inalienable possession are bound morphemes similar in shape to first and second singular person patient pronouns, but they differ in having an expressed third person form (which is sometimes dropped in fast speech), as shown in Table 2. (See Table 8 for personal pronominal prefixes.)

### 3.1.2 Address form -o ‘speaking to this one’

While *hít<sup>h</sup>ára* ‘my friend’ is the unmarked referential form, a person would switch to *hít<sup>h</sup>áro* ‘my friend (address form)’ while speaking directly to the special friend (formally established as cultural role).<sup>13</sup> Kin terms also take the same address morpheme when speaking directly *to* that person. The identical substitution of /o/ for final vowel affects line-final words in songs as well (Davidson 1997). There is no vowel variation by gender for this morpheme.

<sup>10</sup> Helmbrecht (2002) gives an extended discussion of ways to distinguish between nouns and verbs in Ho-Chunk (winnebago).

<sup>11</sup> While body parts may be inalienably possessed in other languages, it is not the case in Baxoje-Jiwere. Frozen remnants of such a system are evidenced if one interprets the initial *i-* in the following body parts as representing the third person *i-* inalienable prefix found in kin terms and other life-long social relationships like formal friendship and parenthood (‘(his/her) child’ *ičičjne* (Otoe), *ičičjñe* (Ioway)): *ihdóge* ‘elbow’, *iréje* ‘shoulder’, *isdq* ‘eye’.

<sup>12</sup> See Goodtracks (1992 – present) dictionary for complete inventory.

<sup>13</sup> The friendship would have been initiated by parents of two children of the same sex, formalized with a ceremonial feast, and thereafter a lifelong bond of reciprocity and obligation existed between the two, to be recognized by this word *-t<sup>h</sup>ara* ‘friend’. The ultimate duty came at the death of one friend, when the other would sit with the deceased’s body for the duration of the wake, traditionally 4 days before burial would take place (Whitman 1936, Davidson 1997).

Table 2: Inalienable possession

Kin term <sup>12</sup>	Inalienable possessive prefix		
	1 <sup>st</sup> person sg.	2 <sup>nd</sup> person sg.	3rd person sg.
Father	<i>hĭ-ka</i> 'my father / father's brother'		
	<i>hĭ-daje</i> (old) 'my father'	<i>naje &lt;ri-qje</i> 'your father'	<i>aje &lt; i-aje</i> 'his/her father'
Mother	<i>hĭ-na</i> 'my mother / mother's sister'		
	<i>hĭ-hų</i> archaic 'my mother'	<i>đi-hų /ri-hų</i> 'your mother'	<i>i-hų</i> 'his/her mother'
Man's elder brother	<i>hĭ-yĭna</i> 'my elder brother'	<i>ri-yĭna</i> 'your elder brother'	<i>i-yĭna</i> 'his elder brother'
Woman's brother	<i>hĭ-čjdo</i> 'my(FEM) brother'	<i>ri-čjdo</i> 'your(FEM) brother'	<i>i-čjdo</i> 'her brother'
Grandfather	<i>hĭ-t<sup>h</sup>úga</i> 'my grandfather'	<i>ri-t<sup>h</sup>úga</i> 'your grandfather'	<i>i-t<sup>h</sup>úga</i> 'his/her grandfather'

### 3.1.3 Names

A proper name uniquely identifies someone, for both address and referential purposes. It also may encode key identity features (gender, clan membership, personal attributes/characteristics, or significant events relating to that person).<sup>14</sup> Both dogs and horses were named also (cf. Whitman 1936 for traditional Otoe-Missouria dog names).

**Gender.** Some names were identical for both genders within the same clan, but often a woman's form differed by the addition of *-mĭ* 'feminine' suffix. A nickname could be coined to tease someone, as when one elder told another they should call me *Toské-mĭ* 'Quick/Speedy-Woman,' because I had done something so quickly that it surprised them. While names for men were not specially marked, there was a masculine morpheme *-do* that occurs in words for male noun referents such as 'boy,' 'buck,' and 'bull'; see Table 3.

<sup>14</sup> The Reverend James Owen Dorsey collected names, their meanings, and clan identification during his brief fieldwork in the late 19<sup>th</sup> century. The Smithsonian Institution has his field notes, truly a rich resource for individuals interested in discovering more about names, now available in their digital archive.

Table 3: Gender affixes: *-do* ‘MASC’; *-mj* ‘FEM’

a) <i>ič<sup>h</sup>idóǰñe</i> ‘boy-child’	< <i>i-</i> ‘at/around’ + <i>č<sup>h</sup>i</i> ‘house’ + <i>-do</i> ‘MASC’ + <i>-ñe</i> ‘small/DIM’ [Ioway]
b) <i>ič<sup>h</sup>imǰŋ(e)</i> ‘girl-child’	< <i>i-</i> ‘at/around’ + <i>č<sup>h</sup>i</i> ‘house’ + <i>-mj</i> FEM + <i>-ŋe</i> ‘small/DIM’ [Otoe]
c) <i>t<sup>h</sup>ado</i> ‘buck, male deer’	< <i>t<sup>h</sup>a</i> ‘deer’ <sup>a</sup> + <i>-do</i> ‘MASC’
d) <i>č<sup>h</sup>édo</i> ‘bull buffalo’	< <i>č<sup>h</sup>é</i> ‘buffalo, bison’ + <i>-do</i> ‘MASC’

<sup>a</sup> With white-tailed deer, a buck is clearly the “marked form” if the visible feature of antlers was the primary basis for assigning group membership.

**Diminutive suffix** *-ǰŋe*, *-šǰŋe* [O-M]; *ǰñe*, *šǰñe* ‘small /DIM [Ioway]’. There are also cases in Ioway tales where the protagonist’s name is created from a verb + diminutive suffix: [V + DIM > Name].

- (4) a. *Bé-ñe-ǰŋe*  
throw.out-INDEF.PL-DIM  
‘The Outcast’ < ‘Little One(They)Threw Away’ (Marsh 1936: “The Outcast” LN141)
- b. *Hǰŋú-šǰŋe číla*  
my.first.son-DIM dear  
‘My dear Little-Son’ (Marsh 1936: “The Wanderer” LN200)

### 3.1.4 Number

Nouns do not inflect for plural or case; numerals may follow the noun to give an exact number, or verbal suffixes reveal plural information instead. Numbers may act as stative verbs, with patient inflection, as also happens in other Siouan languages such as Quapaw (Rankin 2005: 481) and Lakota (Ullrich 2008: 708).

**Numerals.** One through ten are the basics from which other numbers are expressed. Eleven through nineteen are formed using the formula ‘X over ten’ lit. ‘ten-over-one’: *grebrq agri (i)yaq<sup>h</sup>i*, ‘ten over two’, etc. Multiples of ten become ‘two tens’ (lit. ‘ten (be) two’) *grebrq núwe* ‘two tens over one’, up to ninety-nine. An interesting example of word coinage is the large quantity ‘one thousand’; it is expressed by the word *kóge* ‘box or trunk’, because shipments of money (presumably annuity payments from Washington, D.C.) arrived in packing boxes, each of which held one thousand dollars.

**Ordinal numbers.** Baxoje-Jiwere may use either a prefix *i-* or a suffix *-yq*. *i-* ‘ordinal marker’: (Marsh 1936: “The Giant” Bk2)

- (5) *walúxawe i-θát<sup>h</sup>q dahá?-e*  
 bundle ORD-five it.is.standing-that.one  
 ‘that fifth upright bundle’ (LN 25)
- (6) *walúxawe i-šágwe dahá?-e*  
 bundle ORD-six it.is.standing-that.one  
 ‘that sixth upright bundle’ (LN 30)
- (7) *walúxawe i-šáhmq dahá?-e*  
 bundle ORD-seven it.is.standing-that.one  
 ‘that seventh upright bundle’ (LN 34)

(*i-* ‘ordinal marker’) + *-yq* ‘indefinite article’ (Marsh 1936: “The Wanderer”)

- (8) *Dáñ-í=yq (ut<sup>h</sup>q?iwagi ašky).*  
 three-ORD=INDEF  
 ‘A third time (he makes them appear to him, it seems).’ (LN 34)
- (9) *Hetále idóyq dahági síge alé gú?wašky.*  
 hetále i-dowe=yq dahági síge alé gú?wašky  
 then.it.is ORD-four=INDEF time.it.is again it.is.this he.do.it.it.seems.  
 ‘And then, he does it again for the 4<sup>th</sup> time, it seems’ (LN 35)

### 3.1.5 Compound nouns

Baxoje-Jiwere compound nouns,<sup>15</sup> shown in Table 4 often have the modifying word precede the base noun, while other times the modifier(s) follow it. These words can also include names, i.e. *mąk<sup>h</sup>á rujè* ‘medicine eaters’ denoting those who participate in the religious traditions surrounding the sacred sacrament peyote.

### 3.1.6 Culture contact and word coinage

There was strong resistance to borrowing from European languages throughout Plains tribes in general,<sup>16</sup> so it is not surprising that Baxoje-Jiwere speakers also chose to coin new words, or extend the meaning of existing words. For instance,

<sup>15</sup> In other Siouan languages, e.g. Lakota and Crow, there can be a greater degree of noun incorporation. See Ullrich (2008: 738); de Reuse (1994); Graczyk (1991).

<sup>16</sup> Cf. Brown (1999), also Larson (2004)

Table 4: Compound nouns

a. <i>č<sup>h</sup>ina</i>	‘village’ < č <sup>h</sup> i ‘house’ + -na ‘horizontal?’
b. <i>č<sup>h</sup>ina wanàxi</i>	‘cemetery’ < č <sup>h</sup> ina ‘village’ + wanaxi ‘spirit, ghost’
c. <i>walúšge č<sup>h</sup>ina</i>	‘giant(s) village’ (Marsh 1936: “The Wanderer” LN100)
d. <i>hídúŋe-nàwų</i>	‘mouse + paths’ (Marsh 1936: “The Wanderer” LN67)
e. <i>wanáxi waxòñit<sup>h</sup>q</i>	‘spirit/ghost + be holy/sacred’ (Davidson 1997)
f. <i>máŋq uhqwe</i>	‘heaven’ < ‘land + full.of.light’ (Davidson 1997; Goodtracks n.d.)
g. <i>máŋq wàtahe</i>	‘Wanderer’ < máŋq ‘land’ + wa- ‘directional’ + dahe ‘be standing’
h. <i>wáŋegíhi</i>	‘Chief/Headman’ < wáŋe ‘man’ + gi- ‘BEN/DAT’ + -hi ‘CAUS’
i. <i>wá?kwás’ose</i>	‘warrior/veteran/soldier’ < wáŋe ‘man’ + was’ose <sup>a</sup> ‘brave’
j. <i>wá?šige</i>	‘person’ < wáŋe ‘man’ + šige ‘again’ +/or -ge ‘NOM’
k. <i>wá?sí k’uč’e</i>	‘man-hunter’ < wá?šige ‘person’ + k’uč’e ‘to kill’
l. <i>t<sup>h</sup>à waθlų</i>	‘roasted deer’ < deer + to roast (Marsh 1936: “The Wanderer” LN75)
m. <i>istq č<sup>h</sup>i</i>	‘(menstrual) period’ (literally ‘be alone-house’)

<sup>a</sup> Whitman (1947) noted glottal stop marking morpheme juncture. It seems especially prevalent when the deleted sounds/syllable involves /ŋ/.

the Ioways chose the part of a bird that powers its motion to name that revolutionary object, the wheel: *ahu* ‘wing’ > wheel (wagon/car).<sup>17</sup>

- (10) a. wagon = *námąñi* < na ‘wood’ + máñi ‘moving/walking’  
 b. train = *námąñi dák’o* < námąñi ‘wagon’ + dák’o ‘thunder/fire’  
 c. photographs/pictures = *ije wagaxe* < ije ‘face’ + wagáxe ‘writing’  
 d. Saturday = *háwe uk<sup>h</sup>iθre* ‘day-half’ < háwe ‘day’ + uk<sup>h</sup>iθre ‘half, be split into two’ [because the Tribal Agency was open from morning to noon on Saturdays]  
 e. piano = *nayqwe* ‘wood sings’ < na ‘wood’ + yáwe ‘to sing’

The existing word for ‘metal’ *mąǵe* originally referred to copper, available from the Great Lakes region in particular, and found throughout late Woodland through Mississippian periods in the Mississippi River valley and tributaries. European silver and gold coins were called ‘white/light’ or ‘shiny’ metal, *mąǵé θka*. The different types of coins led to this unique descriptor for ‘penny’ < ‘coin (white/shiny-metal)+ red’ *mąǵé θka šųje*. This new unit formed a single compound noun, as shown by the phrase *mąǵé θka šųje iyq* ‘a penny, one penny.’

<sup>17</sup> Keith Basso described the Western Apache (Athabaskan) words for automobiles in similar ways, but in that case it was a hand/arm = front wheel and foot = rear wheel set extension (1990: 17).

### 3.1.7 Degrees of noun incorporation

Table 5 demonstrates various ways that the words now functioning as compound verbs are conjugated. The left-most column represents the least degree of noun incorporating into the verb, because the personal pronominal prefixes still attach directly to the verb: [Noun [Pronominal prefix + Verb]]. Or a speaker might prefer to add an auxiliary verb to carry person/number inflections, rather than inflect the main verb; see center column. Finally, a fully fused/incorporated noun-verb lexeme accepts the 2 pronominal prefixes attaching directly to the left-most edge of the word, as represented in the far right-hand column [Pronoun + [Noun + Verb]]. The table shows some variation, and speaker preference seems to have been involved. Forms with *ho* ‘voice’ (11-13) appear to be more fully fused than other nouns were.

There is an intriguing case from another Marsh text in which the noun seems strongly associated with a certain verb but it was in the third person with  $\emptyset$  affix, so the conjugation pattern is unknown: *t<sup>h</sup>á č’èhi mañà* ‘he went deer-hunting’ (Marsh 1936: “The Wanderer” LN47)

### 3.1.8 Nominalizing prefixes

Certain prefixes commonly attach to verb stems to form a nominal. To illustrate, the three prefixes in (11) all incorporate the basic *wa-* ‘indefinite object’ (sometimes contracted with a locative prefix also) to action word(s).

- (11) a. *wa-*  
*wagáxe* ‘paper’ < *wa-* ‘INDEF.OBJ’ + *gaxe* ‘to scratch, write’  
*warúwaha* ‘bundle’ < *wa-* + *ruwaha* ‘to show with hands’
- b. *wi-*  
*wí:ú* ‘tool’ < *wa-* ‘INDEF.OBJ’ + *i-* ‘at, to’ + *?ú* ‘to do, make, create’  
*wí:ro:ha* ‘kettle’ < *wa-* + *i-* + *róhq* ‘plenty, lots, much, many’  
*wí:k<sup>h</sup>qhí* ‘bridle’ < *wa-* + *i-* + *k<sup>h</sup>qhí* ‘blood-vessel, sinew, cord’ (Marsh 1936: “The Outsider” LN65)<sup>18</sup>
- c. *wo-*  
*wó:č<sup>h</sup>exi* ‘difficult times, trials’ < *wa-* ‘INDEF.OBJ’ + *u-* ‘in’ + *č<sup>h</sup>exi* ‘be.cruel/stingy’  
*wóyqwe* ‘festivity’ < *wa* + *u-* + *yqwe* ‘sing’?<sup>19</sup>

Table 5: Conjugating different verbs with nouns attached

Jiwere gloss	[N+[PRON-V]]	[N+V] PRON-AUX	PRON-[N+V]
1) <i>hóθige</i> ‘to fish’ [‘fish + split’]	<i>ho-he-θige</i> ‘I am fishing’	-	-
2) <i>nąsje p<sup>h</sup>iskųñi</i> ‘to be unkind’ [‘heart be good-not’]	<i>nąsje-hi-p<sup>h</sup>iskųñi</i> ‘I am unkind’	-	-
3) <i>nąsje p<sup>h</sup>i</i> ‘to be kind’ [‘heart be-good’]	<i>nąsje ri-p<sup>h</sup>i</i> ‘you are kind’	-	-
4) <i>nąt’ųdq</i> ‘to pity’	<i>nąt’ų-he-dq</i> ‘I pity him’	-	-
5) <i>irodaxra</i> ‘to have a fever’ [‘body-burn/be hot’]	<i>iro-hi-daxra</i> ‘I have a fever’ <i>iro-ri-daxra</i> ‘you have a fever’	<i>irodaxra hiñjiwi</i> ‘we (PL) have a fever’ [añi ‘have’]	-
6) <i>iroruθ’a</i> ‘to be shaken up, excited’ [‘body be-pushed?’]	<i>wawa-roruθ’awi</i> ‘we’re shook up pl.’ (first response) <i>roruθ’ani</i> ‘I am shook up’	<i>roruθ’a hiñi-wi</i> ‘we’re shook up’ (second response)	-
7) <i>iroθet<sup>h</sup>q</i> ‘to abuse’ [‘body + ?’]	-	-	<i>iriroθet<sup>h</sup>q</i> ‘you were abused’ (1PSG & PL also)
8) <i>irok<sup>h</sup>up<sup>h</sup>i</i> ‘to be handsome’ [‘body +?look+good’]	-	<i>irok<sup>h</sup>up<sup>h</sup>i hiñiwi</i> ‘we look good’ [ <añi ‘to have’]	<i>i-ri-rosk<sup>h</sup>up<sup>h</sup>i</i> ‘you are handsome’ (1PSG also)
9) <i>rosje</i> ‘to sweat’ [ <‘body+?’]	-	<i>rosje-ri-ñe</i> ‘they made you sweat’ [CAUS]	<i>wawa-rosjewi</i> ‘we’re sweating’ (1PSG also)
10) <i>dąwe</i> ‘to awaken, open eyes’ [< <i>isdq</i> ‘eye(s) + move’]	-	-	<i>ha-dąwe</i> ‘I awakened’
11) <i>hohga</i> ‘to belch’ [< <i>ho</i> ‘voice’ + sound symbolic <i>hga</i> ]	-	-	<i>ra-hohga</i> ‘you belched’ (1PSG & PL also)
12) <i>hoxga</i> ‘to hiccup’ [< <i>ho</i> ‘voice’ + sound symbolic <i>xga</i> ]	-	-	<i>ha-hoxga mañi</i> ‘I am hiccupping’
13) <i>hoxu</i> ‘to cough’ <sup>a</sup> [< <i>ho</i> ‘voice’ + sound symbolic <i>xu</i> ]	-	-	<i>ha-hoxu</i> ‘I coughed.’

<sup>a</sup> Note 12 is lexicalized, as is its Lakota cognate, relative to Biloxi, which treated ‘cough’ still as separable, inflecting after *ho* ‘voice’ (Rankin et al. 2003: 186)

### 3.2 The verb and its many parts: The verb template

In Siouan languages, the most complex morphology involves the verb, which may include basic verb stem, plus up to ten “slots” or positions for a number of possible prefixes, as well as at least four positions for potential suffixes. Figure 1 (at end of chapter) is the representation of all fourteen potential affix positions and which prefix/suffixes can appear in each of those places.

Described in more detail, beginning at the front or left-most position of an inflected verb, the prefixes may occur as follows (Whitman 1947: 246, Marsh 1936, also Hopkins & Furbee 1991). Negative numbers represent positions preceding the verb root; positive numbers follow the root.

#### Position [-10] 1<sup>st</sup>-person patient pronouns.

- (12) a. *hi* =singular ‘me’
- b. *wa<sub>1a</sub>-* = dual ‘us two’ (first half of separable morpheme)

#### Position [-9] The second *wa*- set.

- (13) a. *wa<sub>2a</sub>-* ‘them, something’; INDEFINITELY EXTENDED OBJECT (also detransitivizes the verb)
- b. *wa<sub>2b</sub>-* ‘toward, DIRECTIONAL’ [*precedes all person prefixes except hi- 1SG. patient ‘me’*]

Two examples of the first meaning, *wa<sub>2a</sub>-*, give an idea of its flexibility as both derivational and inflectional morpheme:

- (14) a. *wanaxi* ‘spirit, ghost’  
      < *wa<sub>2a</sub>-* ‘INDEFINITELY EXTENDED OBJECT’ + *naxi* ‘breath, life’.
- b. *Hinage wa-t<sup>h</sup>a naha waye:re na?*  
          woman PL.PAT-1SG.see those.ones who.are3PL Q  
          ‘Who are the women that I saw?’

<sup>19</sup> Length is presumed here from the overall language pattern. Marsh rarely marked vowel length in the narratives, except on interjections within dialogue, when they were greatly lengthened for emphasis.

<sup>19</sup> This form and derivation is from Jimm Goodtracks. Marsh (1936: “The Outcast” LN160) gives *wóyawe* with non-nasal /a/, perhaps from *yawe* ‘stab’ (which might refer to the preparation of meat for feasting or the the piercing that took place during mourning a chief).



Whitman considered directional *wa-* to parallel both *gra-* and *gi-* of template positions -3 and -4 in some functions.<sup>20</sup> The next case illustrates directional *wa-* frequently found in prayer songs.

- (15) *Hiyino wa-hj-na-wi.*  
 our.elder.brother DIR-1PL.AGT-go-DEF.PL  
 ‘We’re going toward Our Elder Brother (Jesus).’ (Davidson 1997)

### Position [-8] Locatives.

- (16) a. *a-* ‘on, upon, over’,  
 b. *u-* ‘in, within, into’,  
 c. *i-* ‘at, to, by’ (Whitman 1947: 241)

The locatives combine with the prefix *wa*<sub>2a</sub>- ‘INDEFINITELY EXTENDED OBJECT’ to make a “heavy” syllable with a longer vowel, which usually attracts stress (cf. nominal prefixes.)

- (17) a. *wa:* < *wa*<sub>2a</sub>- + *a-* ‘on’  
 b. *wo:* < *wa*<sub>2a</sub>- + *u-* ‘in’  
 c. *wi:* < *wa*<sub>2a</sub>- + *i-* ‘at, to, by’

### Position [-7] Object/patient pronouns.

- (18) a. *wa*<sub>1b</sub>- ‘us (1PL.PAT; speaker & another, usually listener)’  
 b. *ri*<sub>1</sub>- ‘thee (2SG.PAT)’  
 c. *mi*- ‘me (1SG.PAT)’

### Position [-6] Agent pronouns (first and second person).

- (19) a. *ha-*, *he-* ‘I/1SG.AGT’  
 b. *ra*<sub>1</sub>-, *re-* ‘thou/2SG.AGT’  
 c. *a-*, *e-* ‘3PL.AGT’ with motion verbs only<sup>21</sup>

<sup>20</sup> Cf. Boyle (2009) for a discussion of the *wa-* prefixes across the Siouan languages, quoting the late Carolyn Quintero on Osage *wa-*, which was especially interesting. Based on these analyses it may be more elegant to conclude that in Baxoje-Jiwere there is only one *wa-* which does a wide variety of things to the verb, including the various functions within the different glosses given above. At present, it does not seem crucial to determine whether they are best described as two distinct morphemes *wa-*, or as a single *wa-* quite flexible in meaning. In the future, as more work on comparative Siouan *wa-* emerges, perhaps the issue can be resolved.

<sup>21</sup> Whitman did not list the *e-/a-* prefixes within the ordering of preverbal elements, probably

**Position [-5] Reflexive *k<sup>hi</sup>*- ‘(to) oneself’.** This prefix relates the event/state described by the verb back to the agent, usually translated as ‘oneself.’ If *k<sup>hi</sup>* reduplicates, giving *k<sup>hi</sup>ik<sup>hi</sup>*, it adds the sense of reciprocal action ‘to/with each other’.

**Position [-4] Possessive *gra-* ‘one’s own’.** The possessive prefix gives additional information about social relations between persons and things mentioned in the verb complex.

(20) Excerpt from the Otoe-Missouria Flag Song:

*E-gra-ñā-gri-ñē.*

*e-gra-añi+a-gri-ñē*

3OBJ[ablaut]-POSS-have+3PL-come.back.(home)-PL.INDEF

‘They brought it (the flag) back home.’ (Greer 2008)

**Position [-3] Benefactive/dative *gi<sub>1</sub>*- ‘for, to’.**

**Position [-2] Instrumentals (describing how an action was completed).**

- (21)
- a. *ba-* ‘by cutting’
  - b. *bo-* ‘with a blow’
  - c. *da-* ‘by heat or cold’
  - d. *gi<sub>2</sub>*- ‘with object away from the body, by pushing or striking with an object’
  - e. *nq-* ‘with foot/feet’
  - f. *ra<sub>2</sub>*- ‘by mouth, teeth’
  - g. *ri<sub>2</sub>*- ‘with held object, toward the body, pulling with an object/tool’
  - h. *ru-* ‘with hand, toward oneself, by pulling with the hand’
  - i. *wa<sub>3</sub>*- ‘with hand away, by pushing with the hand’

According to Whitman (1947: 246), these nine prefixes transform a passive verb into an active one, or a stative verb into a transitive one (Rankin 2005: 483). They make very specific distinctions in the world of human activity. ‘Long horizontal object being cut in two’ -*gruje* is an interesting yet abstract verbal root;

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because they are limited to motion verbs. However, since motion verbs do occur frequently, it seems preferable to include them as possibly archaic forms. The two also occur in 3rd p. possessive pronouns *et<sup>h</sup>awe* ‘his (singular)’, *et<sup>h</sup>ewi* ‘theirs (definite pl.)’, and *aré* ‘it is’ (independent pronoun that primarily serves as demonstrative now, loosely ‘that’).

someone or something must do the cutting, and the various ways that action is accomplished can be encoded very precisely (and concisely) with these prefixes, as in *wa<sub>3</sub>-* ‘with hand away (from agent’s body)’ -*gruje* > *wagruje* ‘to saw’. Siouan scholars have sometimes distinguished between “inner” and “outer” instrumentals, with the latter a smaller set consisting of ‘by extreme temperature/heat’, ‘by cutting with a knife,’ and ‘by shooting/blowing’ (Rankin 2005: 483-485); however, I have not found data pertaining to that distinction in Baxoje-Jiwere thus far.

**Position [-1] 2<sup>nd</sup> person s-** Archaic form that stands for ‘you’ (second person) on a small number of specific verb stems. Siouan scholars have found related forms in the Mississippi Valley subgroup (e.g. Quapaw allomorphs *š-/ž-*), even extending into Proto-Siouan, suggesting it is of ancient origin (Rankin 2005: 479-480). Over time, it was probably replaced in less common verbs by the regular second person forms *ra-*, *ri-*, but remained in very frequent verbs, which are more resistant to change.

- (22) *Arastawi* *k<sup>h</sup>e*  
*a-ra-s-da-wi* *k<sup>h</sup>e*  
 on-you.AGT-archaic.2-see-PL.DEF MASC.DECL  
 ‘You (all) see it.’ (Final line, Otoe-Missouria Flag Song, Greer 2008)

**Position [0] Verb root/stem.**

**Position [+1] Post-positioned person affixes + causative suffix *-hi* ‘to make something happen, to cause something’.** One way to form an active verb from a stative one is by adding the causative suffix *-hi*; so *č’e* ‘to die’ becomes *č’ehi* ‘to kill’ (literally ‘to cause to die’). Since the causative *-hi* occurs after the verb stem, personal pronoun affixes also come after the verb, but immediately before the *-hi*, rather than their usual pre-verbal positions. Sometimes the *-hi* itself is omitted (as in the following example), but the pronominals’ marked position after the verb, plus the meaning ‘to cause (something)’ are still present.<sup>22</sup> The word *nayīhi*

<sup>22</sup> One possible origin of this unusual case of pronominal prefixes shifting to the end is that *hi* was once truly an independent verb, and over time, the forms were re-analyzed by speakers as single unified words. Then the initial verb of the compound was no longer conjugated. In that light, it is interesting to note that there is another *hi*, the motion verb meaning ‘arrive here’ (Taylor 1976; Hopkins 1988). That would parallel English idioms such as ‘to come to pass’ for ‘happen, take place,’ or ‘go and X’ as in ‘Sam went and punched the man’.

‘to heal, cure’ literally means ‘to cause one to stand up, to stand X up.’ The chorus of a NAC song by Edward Small (Ioway) exemplifies an instance where *-hi* does not overtly appear. Still, the translation and the location of the PRO prefixes after the verb stem *nayi* ‘to stand’ give evidence of the causative *-hi* having an underlying presence.

- (23) *Hiyíno* | *Wak<sup>h</sup>qda- yiję* | *mąya čęgi wahire nayi-wa-ra*  
 our.elder.brother | God- son) | land this sick stand-3PL.PAT-2.AGT  
*na*  
 and  
 ‘Elder Brother, Son of God, you heal the sick in this land.’ (Davidson 1997)

Likewise, it occurs in this sentence from missionary scholars Hamilton & Irvin (1848: 43: #53):

- (24) *Č’e-wa-[∅]-hi* *k<sup>h</sup>e*.  
 kill-3.PL/INDEF.EXT.OBJ-3-CAUS DECL(male.speaker)  
 ‘He killed them’.

**Position [+2] Negation *-skuñj* ‘not’.**

**Position [+3] General Plural suffix *-ñe* ‘they/them.** Usually limited to third persons, Whitman (1947) called it an indefinite form; perhaps the term ‘general plural’ is more appropriate.

**Position [+4] Definite Plural *-wi* ‘DEF.PL’.** Usually ‘we’ or ‘you-all’, it may occur with any grammatical person

- (25) *wa-wa...-wi*, *hį-...-wi*, *ra-...-wi*, *ri-...-wi*, *∅...-wi*.  
 (1PL-PAT...-PL, 12AGT...-PL, 2AGT...-PL, 2PAT...-PL, 3...PL)

Both suffixes can pluralize any personal pronoun, no matter if that pronoun is in the role of an actor, patient or object (direct or indirect). They only index number, and definiteness vs. indefiniteness. Specifically, it says there are more than one for second and third person forms, and three or more for the first person dual form. The two potential plurals above differ by whether the people or things being referenced represent given or new information.<sup>23</sup>

<sup>23</sup> Think of the parallel indefinite article being used in the formula which begins many English fairy tales, ‘Once upon a time, there was a princess...’

Thus, they are not interchangeable. They reference the speaker's knowledge about the group, how specific group membership is, whether persons' identities are known, if they have already been mentioned in a story before this point or not, and so on. It makes sense for the definite plural to appear with the first person plural for pragmatic reasons. It is difficult to imagine a situation in which 'we' might mean a group with unknown or uncertain membership. Second person plurals also usually take the definite plural, for the same reason, although some rare exception might occur. However, it is very possible to imagine situations involving third persons to be either definite ('the gourd dancers from Red Rock, Oklahoma') or indefinite in nature ('everyone on Earth who knew my uncle'). Just as one might expect, zero third person-inflected verbs occur with either plural suffix, depending on the meaning intended.

- (26) *wówak'ųñawi*  
 wa-∅-u-wa-k'ų-ñā-wi  
 12PAT-3PAT-LOC-12PAT-gave-INDEF.PL('they')-DEF.PL('us')  
 [vowel ablaut to *ñā* from INDEF.PL -*ñe* when before -wi]  
 'They gave it to us.' (Whitman 1947: 240)

**Position [+5] Mood/Aspect -*hñe*, -*hna* 'will, shall'.** The modal suffix seems similar to a future tense, but probably is more accurately expressed as 'an action that is not yet completed' according to Rankin (2009).<sup>24</sup> The *e* itself ablauts to *a*-with verbs of motion.<sup>25</sup>

**Position [+6] Evidential and gender indexical particle.** It is not clear that these enclitics are actually part of the verbal complex, rather than serving as an audible coda indexing the gender identity of the speaker of an utterance and the degree of certainty of the speaker for the information given. The enclitics are not tied absolutely to the speaker's gender, but may also reflect the gender of a character during dialogue in a narrative, or original speaker's gender in reported speech/quotatives). They do not seem to function as truly "free" morphemes, as they carry only secondary stress, and there is basically no pause between the verbal complex and the sentence-final particle, which tend to form a single prosodic contour. Because it is such a rich and complex set, with meanings that are not

<sup>24</sup> While Rankin (2009) included auxiliary verbs, adverbial intensifiers, positionals, and more within his comparative Siouan post-verbal template, this analysis will not follow his template for those morphological elements at this time.

<sup>25</sup> Comparatively speaking, there is not yet an elegant historical explanation of ablaut across the various members of the Siouan language family (Rankin 2005: 466-468).

easy to gloss, these particles are listed in Table 18, rather than being included in the verbal template per se.

### 3.3 Auxiliary verbs

Auxiliaries may appear alone, inflected with the full variety of verbal prefixes. When they are not the main verb, they will follow it (and any verbal suffixes attached to it). In third person and inanimate subjects, the auxiliary verbs may not be inflected, but otherwise they would still bear first and second person prefixes, which strongly tend to be animate for practical contextual reasons. The same pattern is found in most SOV languages (Rankin 2005: 490).

**Positionals/modals.** After the main verb, there is often a second verb expressing the action or position of the agent, or a distinct clause describing the activity/position of the speaker. If one witnessed an event, a proper Baxoje-Jiwere description would include whether someone was sitting, lying, standing, or moving around while it occurred.<sup>26</sup> Beyond clarifying the bodily orientation of the person or thing being described, there are also various aspectual meanings that may be conveyed. One such aspect is continuative as if the action takes place over an extended time frame, rather than occurring at a single moment or limited duration.<sup>27</sup> They include:

- (27) a. *máñi* ‘going around, moving (in the characteristic way for that creature)’  
b. *mína* ‘sitting /dwelling’  
c. *náñe* ‘be in a sitting position’  
d. *háñe* ‘be in a lying or reclining position’  
e. *dáhe* ‘be in a standing /upright position’  
f. *náyi* ‘to stand something/someone up’

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<sup>26</sup> Davidson 1997 outlined the key role these auxiliary verbs played in creating vivid images in Native American Church songs composed by Otoe-Missouria and Ioway speakers.

<sup>27</sup> In addition to the continuative aspect, Rankin (2005: 484–485) also distinguished a habitual (‘always’) aspect (Quapaw *nq*), an imperfective ‘used to X’ derived from Proto-Siouan /\*ʔō/ ‘do’, a potential ‘will/would X’ (Quapaw *te*). Negation, imperative, and narrative forms were grouped with the auxiliary aspects, too. More complex moods could be created with combinations of these forms, such as potential + continuative, or negative potential continuative ‘to not go on X-ing’. However, I have grouped the imperative and narrative particles with the general sentence-final enclitics, in Table 18.

### 3.4 Pronominals

Baxoje-Jiwere has overt prefixes for first and second persons, while third person is represented by  $\emptyset$  morpheme. There are also three numbers expressed: one (singular), we two (dual inclusive), or more than two (distinguished by the plural suffixes discussed in §3.2). Each person's role is identified relative to the action of the verb, as agent/actor or patient/object. There is potential confusion caused by homophony between one allomorph of first person singular patient *hi-* 'me' and the first person dual agent *hi-* 'we two'. The other allomorph for 1PAT.SG, *mi-*, mirrors the form in the independent first person pronoun, as well as the independent possessive first-person pronoun. The first person plural can only be expressed by addition of the definite plural suffix *-wi* (see (+4) above), denoting the speaker, hearer, and one or more additional people as either agents *hi-...wi*, or patients *wa-wa-...wi*.

'You' is composed of second person singular agent *ra<sub>2</sub>-* and patient *ri<sub>2</sub>-*, and also second person plural agent and patient forms. See Table 6 for further illustration.

Table 6: Personal pronominal prefixes

	1SG 'I/me'	1DUAL 'we/us two'	1PL 'we/us all'	2SG 'thou/thee'	2pl 'you'
Agent	ha- (he-)	hi-	hi-[+ -wi]	ra- (re-)	ra-[+ -wi] (re-) [+ -wi]
Patient	mi- hi-	wa <sub>1a</sub> - wa <sub>1b</sub> -	wa <sub>1a</sub> -[+ -wi] wa <sub>1b</sub> -[+ -wi]	ri-	ri-[+ -wi]

The parenthetical forms with final /e/ show the vowel change that takes place when the prefix is followed by certain derivational morphemes such as *gra-* 'one's own' (possessive), represented in the verb *gra-hi* 'to love, have pity on someone'. The agentive forms *ha-* 'I', *ra-* 'thou' will become *he-*, *re-* in other complex verbs such as *nqt'udq* 'to pity (someone/something)'.<sup>28</sup> A potential origin for this word is *nqhje* 'heart' plus *u-gi-dq* 'be depressed toward' (Whitman 1947: 243). If that analysis is correct, the benefactive prefix *gi-* 'for' would be the conditioning morpheme for that particular case. Another example is *gi-t'q* '(it) flies', despite the

<sup>28</sup> Whitman (1947) has the plain [u] here while I heard it as a nasal [u], perhaps just spreading from the surrounding environment (Davidson 1997).

fact that the *gi-* prefix itself only is fully apparent in the plain  $\emptyset$  third person form (Whitman 1947: 242).

Third person singular is typically marked by a zero morpheme, although an *e-* prefix may rarely occur, especially with the possessor prefix ‘one’s own’, and with independent possessive third-person *et<sup>h</sup>awe* ‘his/hers (singular)’ or *et<sup>h</sup>ewi* ‘theirs’. The demonstrative form *-?e* combines with many prefixes, including third person *e-*, resulting in *e?e* ‘it is that one.’ Motion verbs provide an exception to that rule, with an *a-* prefix in plural contexts.<sup>29</sup> Once again, we see an /a/-/e/ alternation.

Independent pronouns, shown in Table 7, appear for emphasis or clarity, but are not required grammatically to complete a sentence, provided that the verb is properly inflected.

Table 7: Personal pronouns (Hamilton & Irvin 1848; Marsh 1936).

Person	Independent	Possessive
1 Singular	míre	mít <sup>h</sup> áwe
1 Dual Inclusive	híre	hít <sup>h</sup> áwe
1 Plural Inclusive	-	hít <sup>h</sup> éwi
2 Singular	ríre	rit <sup>h</sup> áwe
2 Plural	-	rit <sup>h</sup> éwi
3 Singular	é?e	et <sup>h</sup> áwe
3 Plural	aré	et <sup>h</sup> éwi

### 3.5 Conjugating verbs

#### 3.5.1 Regular verbs

A verb stem is considered REGULAR if it follows the verbal template of prefixes in its ordering, and the stem itself does not change in form, regardless of any shift in person or number. Verbs are grouped according to whether they are ACTIVE or STATIVE, with the agentive pronominal prefixes inflecting the active verbs, and the patient pronominal prefixes forming the subject of stative verbs, as well as the objects of transitive verbs; see Table 8.

<sup>29</sup> Marsh (1936); Taylor (1976).



Table 8: Regular verb paradigm

Person	Active verb	Stative verb	Transitive verb
1SG	<i>ha-mqñi</i> 'I walk/move'	<i>hi-yq , mi-yq</i> 'I sleep'	<i>ha-k'e</i> 'I dig (it)/ I dug (it)'
1DU.INCL	<i>hi-mqñi</i> 'We 2 walk'	<i>wawa-yq</i> 'We 2 sleep'	<i>hi-k'e</i> 'We 2 dig (it)'
1PL.DEF	<i>hi-mqñi-wi</i> 'We-all walk (>2)'	<i>wawa-yq-wi</i> 'We-all sleep'	<i>hi-k'e-wi</i> 'We-all dig (it)'
2SG	<i>ra-mqñi</i> 'You (sg) walk'	<i>ri-yq</i> 'You (sg) sleep'	<i>ra-k'e</i> 'You (sg) dig (it)'
2PL.DEF	<i>ra-mqñi-wi</i> 'You-all walk'	<i>ri-yq-wi</i> 'You-all sleep'	<i>ra-k'e-wi</i> 'You-all dig (it)'
3SG	$\emptyset$ - <i>mqñi</i> 'He/she/it walks'	$\emptyset$ - <i>yq</i> 'He/she/it sleeps'	$\emptyset$ - <i>k'e</i> 'He/she/it digs (it)'
3PL.DEF	$\emptyset$ - <i>mqñi-wi</i> 'They walk' (known)	$\emptyset$ - <i>yq-wi</i> 'They sleep' (known)	$\emptyset$ - <i>k'e-wi</i> 'They dig (it)' (known)
1SG.INDEF	$\emptyset$ - <i>mqñi-ñe</i> 'They walk' (unknown)	$\emptyset$ - <i>yq-ñe</i> 'They sleep' (unknown)	$\emptyset$ - <i>k'e-ñe</i> 'They dig (it)' (unknown)

### 3.5.2 Irregular verb stems in *d-*, *r-*, *w-*.

All irregular verb stems begin with *d-*, *r-*, or *w-* sounds (Whitman 1947: 243). Note that the stem-initial consonant defines the class, and determines which conjugation will be irregular; however, there may also be prefixes attached to that stem. When any of those prefixes come before the personal pronoun, they do not influence each other (no amalgamation). These irregular verbs share another anomaly; in second person agent forms, in addition to the expected *ra-*, the archaic Siouan second person *s-* also appears (Slot -1 on verbal template). Examples of irregular compound stems include:<sup>30</sup>

<sup>30</sup> Twentieth century elicitations seem to exhibit a tendency toward including the regular pronominal prefixes, in addition to the verb stem changes. However, Dorsey's slip file only has one speaker who doubles the inflection on these forms; this tendency to move toward the regular pattern may reflect the decline in everyday language use, leading to a preference for the most familiar inflections to be added onto the irregular verb stem changes (Dorsey n.d.).

**D- stems.** The stem's initial /d/ becomes /t/ to indicate 1AGT, instead of having the regular first person agent pronominal *ha-*. The stem change does not occur in any other person; even first person patient constructions take regular 1AGT *hĭ-*. Second person agentive form is doubly inflected; both 2AGT *ra-* and archaic 1AGT *s-* attach to the stem-initial consonant; see Table 9.

Table 9: D- stem

a-dá 'to see'	á <u>t</u> a	'I see (it/him/her)'
	ar <u>a</u> šda	'You(SG) see (it...)'
	h <u>a</u> da	'We two (1SG & 2SG) see (it,...)'
	h <u>a</u> dawi	'We (PL) see (it,...)' <sup>a</sup>
	ad <u>a</u>	'he sees her/it'
	ar <u>i</u> t	'I see you'
	á <u>r</u> ašda	'You(SG) -Archaic 2P see me'
	w <u>á</u> wad <u>á</u> wi	'(he) sees us (PL)'

<sup>a</sup> Stress shifted left to reflect a "heavy" syllable resulting from two vowels coalesced together, *hĭ-*<sub>1PAT</sub> plus *a-* 'on' LOC.

**R- stems.** There are two irregular verb classes beginning with /r/. In the first paradigm, shown in Table 10, the liquid /r/ is followed by back vowels /a, u/, giving *ra-* or *ru-* as the stem's first syllable. First person agent is marked by /r/ becoming /d/. The second person form inflects twice, with regular 2AGT /*ra-*/ and archaic 2AGT /*s, š*/.

Table 10: R-stem 1

rumi 'to buy'	had <u>u</u> mi	'I bought (it)'
	ras <u>t</u> umi	'You (SG) bought (it)'
	h <u>a</u> rumi	'We two bought (it)'
	rumi	'He/she bought (it)'

The second subclass of irregular verb stems, shown in Table 11, begin with /r/ paired with front vowels /i, e/. The /*ri-*, *re-*/ verb stems demonstrate a shift from /r/ to /j/ to mark 1AGT forms, while the archaic 2AGT /*s, š*/ morpheme inflects the unchanged stem alone.

Table 11: R- stem 2

ré ‘to go’	hájé	‘I go’
	sre	‘You go’
	hĩre	‘We two go’
	hĩrewi	‘We go (pl.)’
	ré	‘He/she/it goes’

**W- stems.** These verbs have an initial voiceless bilabial glide /w/ which becomes a voiceless aspirated bilabial stop /p/ in the 1AGT form. The regular 2AGT *ra-* may be present with some verbs, but is absent in others, while all W-stems take the archaic 1AGT /s, š/ inflection; see Table 12.

Table 12: W- stem

awádo ‘to point at, point to’	ápado	‘I point at (it)’
	ašwádo	‘You point at (it)’
	háwadowi	‘We (PL) point at (it)’
	awádo	‘He/she/it points at (it)’

Additional verbs may conjugate regularly in all other persons, but preserve the archaic 2AGT /s, š-/ inflection. These mixed verbs include common words: *e* ‘to say’, *hijé* ‘reach a standing position’, *áñi* ‘to have’, *hiwé* ‘reach a lying position’, and *dahé* ‘be standing’ (Whitman 1947: 243).

### 3.5.3 Other special conjugation patterns: motion verbs

Like all Siouan languages, the Baxoje-Jiwere system of motion verbs has a rich set of distinctions. One intriguing dimension is the vertitive, which allows a concise and powerful way of expressing the notion of leaving home or predicting a safe homecoming.<sup>31</sup> Otoe-Missouria patriotic songs often have this powerful motion verb, poetically highlighting the fear involved when soldiers leave home, and joy when they return safely to their families.<sup>32</sup> Motion verbs are also distinguished

<sup>31</sup> While English lacks the motion verb equivalent to the vertitive, the compound noun ‘homecoming’ is perhaps the closest in meaning and emotional power.

<sup>32</sup> Scholars of related Siouan languages such as Assiniboine have also analyzed these verbs in terms of how they appear in traditional narratives, where the notion of ‘belonging’/ home

by a third person plural prefix *a-* which changes to *e-* in the same conditioning environments in which first and second person prefix vowels also shift from /a/ to /e/, namely before the benefactive prefix *gi<sub>1</sub>-* and the possessive *gra-*. (See Table 13).

Table 13: Jiwere motion verb stems (Taylor 1976: 293)

Destination:	Arriving Motion		Motion Prior to Arrival	
	non-vertitive /	vertitive	non-vertitive /	vertitive
here . . .	jí	grí	hú	gú
there . . .	hí	-	rá	grá

Note the initial consonant cluster echoes the possessive prefix [*gra-* ‘one’s own’]; the shared phonological shape plus semantic congruity between vertitive and possessive is surely no coincidence.

### 3.6 Adverbials

There are basic adverbial morphemes that may combine to express a wide range of meanings, with parallels to the personal pronouns (both independent and bound) in recognizing not only distinct first and second persons (‘I’ vs. ‘you’), but also ‘we two (you and I),’ dual inclusive.

#### 3.6.1 Spatial elements

Baxoje-Jiwere identifies five distinct places relating to the discourse context:<sup>33</sup> 1) location of speaker ‘my spot here’ *je-*, 2) location of listener ‘your spot’ *se-*,<sup>34</sup> 3) shared area of persons conversing together ‘our here’ *i-* (location of both you and me), 4) ‘there’ *ga-*, beyond the immediate discourse zone, e.g. a distant but visible location, and 5) ‘place beyond their sight (usually far away) *hari-* (similar to archaic English *yonder*). These spatial elements combine with morphemes that distinguish between a fixed spot close at hand (*-gi*), a stationary spot slightly

location also can be used to mean the place where a person or animal was located at the beginning of the story (by the river/point A), versus where they ended up later on (inside a cave/point B) (Cumberland 2005).

<sup>33</sup> My M.A. thesis details the system of deixis in Baxoje-Jiwere (Hopkins 1988).

<sup>34</sup> This form *se-* with initial /s/ representing second person is very likely related to the archaic 2AGT /s/ found in conjugations of some conservative (irregular) verbs also (Rankin 2005: 480).

further off (-*da* ‘at there’), and motion toward a location (-*gu* ‘to’). The directional sense of the prefix *wa<sub>2b</sub>*- ‘motion toward’ may follow first or second person forms to complete the variety of distinctions recognized.

### 3.6.2 Negatives

Two basic forms can negate the main verb, *skuñi* ‘not’ and *ñiŋe* ‘(be/have) nothing’. Thus, while the stative verb *p<sup>hi</sup>* ‘be good’ expresses a positive attribute, the opposite meaning results from adding *skuñi* ‘not’, giving *p<sup>hi</sup>-skuñi* literally ‘good-not’; ‘no good, bad, ornery’. At the clausal level there can be additional ways to make it clear that something is false. (Cf. §4 on syntax, especially the evidential enclitics in sentence-final position.)

### 3.6.3 Time elements

While some Baxoje-Jiwere words for space do apply metaphorically to time, there are also specific temporal adverbs. They tend to occur at the beginning of the sentence, as in this verse from NAC prayer-song composed by the late George Washington Dailey (Otoe-Missouria):

- (28) *Go:č<sup>hi</sup> Hiyino* *hi-ha-wi-yiyi*  
 now our.elder.brother(male.spkr) 1PL.AGT-say-PL.DEF-chant  
 ‘Oh, My Lord, we’re calling upon Your name, now.’ (Davidson 1997)

## 3.7 Other morphological processes

### 3.7.1 Sound symbolism

In Baxoje-Jiwere, there are two characteristics of such mimetic words that attempt to recreate certain sounds or material aspects of the world:

- a. Often they use fricatives, which sometimes form sets of related words which vary only in the fricatives’ place of articulation.
- b. Many also are stative verbs, especially ones related to topics of color shade, intensity of hue, or other changes in sense perception, as in volume of noise, or roughness of texture.

This phenomenon is common in most Siouan languages, and can create interesting semantic sets differing by a single consonant sound (Rankin 2005: 468-469). The “lighter/less intense” word is usually associated with a front and/or

upper place of articulation, while the greatest intensity of meaning is found with the “deepest” back sounds. It has been documented for Ho-Chunk and Dakota in particular. Baxoje-Jiwere sound symbolic vocabulary sets include those in Table 14.

Table 14: Sound symbolism

šá-kh'e	1) 'swishing sound made in water' 2) 'sound made by hitting or dragging of a chain'
thá-kh'e [probably th = θ]	1) 'rattling of a rattlesnake'; 2) 'rattling of corn in granary or in pile outside'
khó-kh'e	'ripping of calico, roar of falling water, sawing or scraping sound of tool on wood, whizzing of a whirled stick (a bullroarer)' (Dorsey 1892: 3)
to-tó-khe	'repeated sharp sounds, such as the crackling or snapping of twigs and small branches, or frequent gunshots'
tópě	'pattering sound'; <i>nqtótopě</i> (no gloss given: I posit 'the sound of dancing feet'.)
ʔé-ghe	'the sounds of filing, grating, gnawing, or scratching on metal, bone, hard wood, etc.' (Dorsey 1892: 4–6) <sup>35</sup>
kh'é-ghe, kh'á-ghe, ká-ghe	'crow (bird, n.)' (initial syllable imitating crow's call) (Dorsey 1892: 8)

Note also the terms for upper body noises with variation in the medial fricative: *hohga* 'to belch' [*ho* 'voice' plus sound symbolic *hga*]; *hoxga* 'to hiccup' [*ho* 'voice' plus sound symbolic *xga*].

Although this is not an exhaustive list, let me add my personal favorite, *hé ʔši* 'sneeze', which beautifully imitates the sound of sneezing, and takes an active/agentive conjugation.<sup>36</sup>

### 3.7.2 Reduplication

**Adult/standard reduplication.** Another kind of sound symbolism is reduplication, copying part (or all) of a particular word. If a stative verb such as a color is

<sup>35</sup> Dorsey's orthography for consonants retained here.

<sup>36</sup> Dorsey gave Dhegiha *hé-tchí* 'sneeze' (Kwapa *hě-shí*), and 'snore' *zhq-khdhú-de* (1892: 8).

reduplicated, it means the color is scattered here and there (as in patches, spots, stripes), rather than in a continuous or “solid” distribution. For an active verb, it gives an iterative meaning, whereby *gis'é* ‘drip’ becomes *gis'és'e* ‘drip several drops’. For less concrete activity, the reduplication can convey that the verb’s action is somehow partial or incomplete. For example, the form *up<sup>h</sup>a’p<sup>h</sup>arehi* ‘understanding only bits and pieces, imperfectly comprehending’ comes from *up<sup>h</sup>arehi* ‘to understand, notice, investigate’.<sup>37</sup> In Baxoje-Jiwere, reduplication seems to have been a very productive process.

**Reduplication in baby talk.** In addition to adult reduplication, there is also “baby talk” or caretaker speech, a simplified version of ordinary phonological forms. Based on the limited sample available, it appears to have involved producing an exact copy of a monosyllabic morpheme, such as CV-CV. If the word is polysyllabic, then everything after the first syllable would be deleted. Some of the morphemes have been so simplified that it is not always clear from which word the simplified “baby” form originated. However, the primary difference between adult reduplication and “baby talk” is semantic. The latter had no notion of something being repeated or scattered. Caretaker speech must have made it easier for little ones to learn to speak. Perhaps it originated as an adult imitation of the adorable way young children pronounce things themselves. Examples are in Table 15. Other items elicited include the repeated form + the normal diminutive suffix, *-iñe* ‘little one’: *mamá*ñe** ‘baby’ (Ioway), *hahá*ñe** ‘baby colt, horsey’ (Davidson 1997).

Table 15: Baby talk reduplication

<i>dáda</i>	‘something to eat’
<i>ǰǰi</i>	‘hot (to touch)’
<i>nána</i>	‘something forbidden because of potential danger or pain’
<i>bobo</i>	‘penis’ abbreviated from <i>buje</i> ‘acorn cap, penis’

<sup>37</sup> The latter example came from the late Rev. Arthur Lightfoot and Dr. Truman W. Dailey conversing about white missionaries’ partial understanding of Indian beliefs at the Missouri Chiwere Language Project in July 1992.

## 4 Word order/syntax

Baxoje-Jiwere is classified as an SOV language. However, a verb (for third person forms, a “plain” (uninflected) verb) may function as a grammatical sentence,<sup>38</sup> since the independent pronouns are optional, and there is a  $\emptyset$  third person pronominal prefix corresponding to ‘he, she, it.’

### 4.1 Noun phrases

#### 4.1.1 Adjectival forms

The head noun should come first in the noun phrase, followed by everything that describes it in any way, including stative verbs showing shape, color or size (‘large, round, yellow’), which may also inflect as a main verb in other contexts, demonstrating they are not true adjectives.

#### 4.1.2 Determiners, demonstratives, articles and more

Determiners identify which person or thing is being discussed, if it is a specific individual(s) or a generic one, how many there are, and so forth. They include quantifiers, demonstratives, and at least one definite article and an indefinite article, which all follow their “head”. So ‘a white horse’ when spoken in proper Baxoje-Jiwere order would be ‘horse white a’ *šyñe ska iyq Ioway / suŋe θka iyq Otoe-Missouria*. Quantifiers would begin with specific numerals, as well as other words relating to quantity of a group for countable objects and for animate beings (‘few, many, all, most, ...’) or for quantities of mass nouns such as flour, soup, water and so forth (‘some, much, little, ...’).

#### 4.1.3 Article(s)

Indefinite article *-ya, -iyq* ‘a, one’ is derived from the word for ‘one’ *iyák<sup>h</sup>i*.<sup>39</sup> Definite article is *-ge*.<sup>40</sup> *Gilbert-ge daniŋe*. ‘(That) Gilbert was drunk (again)!’

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<sup>38</sup> There also needs to be a final particle that tells the gender of the speaker, as well as how certain the speaker is of the information being given, and the way the listener should respond (by listening and talking, by obeying what was said, by joining in with the speaker). These S-final particles are discussed in a later part of the grammar.

<sup>39</sup> Lakota also utilizes the ‘one’ morpheme as an indefinite article (Ullrich 2008: 755-756).

<sup>40</sup> Until very recently I followed Marsh’s (1936) analysis of Baxoje-Jiwere, which included no definite article. I would like to thank Johannes Helmbrecht (2015 p.c.), and Iren Hartmann (2008 p.c.), whose wonderful work on Ho-Chunk and excellent questions about possible cognates in Jiwere have forced me to reconsider the function of *-ge*. I cannot explain how it was overlooked,



While earlier researchers did not identify a definite article for Baxoje-Jiwere, it seems likely that this is an oversight, due to the relatively small amount of data collected, and its lack of frequency compared to the English definite article. There certainly needs to be further examination in this area, considering its complexity in other Siouan languages (Rankin 1977; 2005; Rood & Taylor 1996: 455).

#### 4.1.4 Interrogatives

Those words that are used to ask questions about quantity or number fall into this category.

- (29) a. *tahéna* ‘how many, how much?’ (*tana* in Hamilton & Irvin 1848)  
 b. *taheda* ‘how far?’  
 c. *danáha, danáhaje* ‘which?’<sup>41</sup>

- (30) *Bi-rawe tahena ra-gusta ja?*  
 ‘moon-count how.many 2P.AGT-want(irreg.verb.2/s-/) Q.FEM  
 ‘How many calendars do you want?’

#### 4.1.5 Indefinite quantifiers

Such words give information as to scope, for instance which members of a collective group are included (or excluded) in the utterance. For example:

- (31) a. *dáhi, áhi* ‘each, every’  
 b. *bróge* ‘all’

Table 16 presents the demonstrative pronouns paired with the corresponding deictic directional prefixes. Note the latter’s strong parallels to and semantic association with discourse participants/persons in the context of the speech event.

*Aré* ‘it is’ “points” back at something previously mentioned, and appears with great frequency in the texts collected by Gordon Marsh (1936), according to Hopkins & Furbee (1989). It can be paired with the emphatic bound morpheme *-su* ‘indeed’ (*aré?su* ‘indeed!’ (emphatic)), and even ‘stacked’ with the first person deictic prefix *je-* ‘this (here)’ to give *járe* ‘this one-it is’, and other additional complex compounds.

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except that its representation in the data collected was too infrequent to attract notice. More review of the existing data is needed to confirm the current interpretation.

<sup>41</sup> Cf. the similarity of sound shape in the cognate set found in Lakota (Rood & Taylor 1996: 455-457).

Table 16: Comparison of demonstrative pronouns to deictic directional prefixes

Demonstrative Pronouns	Deictic Directional Prefixes (Hopkins 1988)
jeʔe ‘this one’	je- 1 LOC ‘near me’, ‘this here’
seʔe ‘this one [near you]’	se- 2 LOC ‘near you’ [also še- Ioway]
eʔe ‘it is he/ that one’	i- inclusive 12 LOC ‘here’ e- 3 LOC ‘near her/him/it’
are ‘it is’	a- *unattested; possible ablaut form of /e/ with <i>re</i> ‘to go’
gaʔe ‘that one’	ga- ‘there’

#### 4.2 Subordinate clauses

Main clauses normally occur sentence-finally, while subordinators(s) transform the first clause(s) into a supporting or modifying syntactic role, signaling duration, exact sequence of events, if events were actual or potential, etc. These subordinating particles include *-sge* ‘if’, *-da* ‘when’, *-sji* ‘but, although’, *nuʔa* ‘but’. The temporal particle fills that function as follows:

- (32) *Hiyino| wo-waxoñitq rit<sup>h</sup>awe urak<sup>hi</sup>-ñe*  
 ‘Our.Elder.Brother| ceremony-sacred your they.tell.about-INDEF.PL  
*da| waʔu warup<sup>hi</sup> Rire [∅] a-ñe (h)na*  
**when|** the.work wonderful(it.does) you 3- say-INDEF.PL Imperfect.’  
 ‘Elder Brother, when they tell about Your ceremony and the wonderful  
 work it does, they say it’s You.’

This complex sentence begins with a kin tem (addressed to Jesus), a subordinate clause indicated by subordinator *-da* ‘when’, then finally the main clause (Davidson 1997: Song #16).<sup>42</sup>

<sup>42</sup> Edward Small (Ioway) composed this song after being healed during a NAC worship service.

### 4.3 Relative clauses

The Baxoje-Jiwere language tends to place the head noun first within the relative clause. An optional special marker *-naha*<sup>43</sup> ‘the one(s) that X’ immediately follows the clause it acts upon, as in *hinage at<sup>h</sup>a naha* ‘the woman that I saw’ (lit. ‘woman I saw (her) that one’).

- (33) a. Relative clause as the object of the sentence: *John hinage at<sup>h</sup>a*  
John woman I.saw.(her)

*naha uk<sup>h</sup>ič’e k<sup>h</sup>e.*  
that.one (he)spoke.with.(her) MASC.DECL  
‘John spoke with the woman that I saw.’

- b. Relative clause as the subject of the sentence: *Hinage at<sup>h</sup>a naha*  
Woman I.saw that.one

*John uk<sup>h</sup>ič’e k<sup>h</sup>e.*  
John (she).spoke.with.(him) MASC.DECL  
‘The woman that I saw spoke with John.’

- c. Relative clause as the direct object of the verb phrase: *Sam wawagaxe*  
Sam book

*hapagaxe naha araje k<sup>h</sup>e.*  
I.wrote.it that-one (he).read.it MASC.DECL  
‘Sam read the book that I wrote.’

Because the relative-clause marker is optional, and the 3<sup>rd</sup> person pronoun is zero, it can be difficult to translate some sentences, even though the general meaning is clear.

### 4.4 Conjoined clauses

The conjunction *heda* ‘and’ may occur at the beginning of the second sentence. Within more rapid speech sequences, it is common to instead have the particle *-na* ‘and’ occur at the end of the first main clause, separating it from the one to come.

<sup>43</sup> Dorsey (n.d.) gave *daha* as another potential relative clause marker, in an example sentence referring to an object rolling under a tent flap that was not fastened down: *t<sup>h</sup>q gri were **daha**, ruθewi re* ‘That which has gone outside, get ye’ (spelling and punctuation adapted to modern conventions). Further study on Baxoje-Jiwere demonstratives’ potential relationship to positional verbs in a classificatory system is very much needed (Cf. Rankin 2005: 3).

## 4.5 Beyond statements: Other kinds of sentences

### 4.5.1 Directives/requests/commands

These ways to “boss” others are linguistically interesting because many languages omit both first person and verb stating ‘I am telling you’ to do something. Sometimes second person form is also omitted. The “pragmatic skewing” occurs because overt first and second person forms may be considered too direct, and thus rude (Heath 1998). This politeness pattern holds true with Baxoje-Jiwere directives. One speaks to children in a more direct manner than adults, since few question the authority of parents/elders to tell kids what to do. If speaking to an adult, it would be more polite to use a different form, *ne/ne*. However, songs demonstrate expressing a plea with the stronger command particle, *re*:

- (34) *Hijino*                      *wa-a-wa-da-wi*        *re*  
Our.Elder.Brother 1PAT-look.at-DEF.PL [command (male speaker)]  
‘Elder Brother, look at us!’ (Davidson 1997)

Finally, one may make a very polite request by using the dual/first person inclusive plural form with hortative enclitic *t<sup>ho</sup>*. ‘Let us all call on the Creator’s name’, or ‘Let’s go to the handgame!’

### 4.5.2 Questions

There are three ways to correctly form questions:

- a. Declarative sentence + sentence-final question particle. Word order does not vary; it is an evidential ending particle that signals an answer is expected, because the speaker is asking, not telling something. As with many of these ending particles, the exact form varies by the speaker’s gender: *je* ‘Q (male speaker)’ / *ja* ‘Q (female speaker)’.
- b. By using interrogatives such as *wayé:re* ‘who (is it)?’ or *dagú:re* ‘what (is it)?’ The interrogative word receives the special question-sentence melodic contour, which includes lengthening the stressed vowel greatly and making its pitch higher, plus pronouncing the final syllable’s pitch lower than usual.
- c. Finally, one can create a question by simply omitting all S-final particles, and using the interrogative intonation pattern. See (25b) below. In Ioway/Otoe-Missouria speech, the question pattern is made with a much longer (and

slightly higher pitched) vowel in the penultimate syllable of the sentence, and a drop to a lower pitch in the last syllable.

- (35) a. *Wabúθga ra-gústa jà?*  
 bread 2SG-want(it) Q.female.speaker  
 ‘Do you want any bread?’
- b. *Wabúθga ra-gú:sta?*  
 bread 2SG-want(it)  
 ‘You want some bread?’
- c. *Ra-gústa dagúre?*  
 2SG-want(it) what(is.it)  
 ‘What (do) you want?’ or ‘You want what?’

## 5 Variation in speech by social group

### 5.1 Tribal identity and language use

The Otoe-Missouria and Ioway people spoke mutually intelligible dialects of one language. After a devastating enemy attack in the late 18<sup>th</sup> century, most surviving Missouria fled from their village in Missouri to the Otoe village in southeast Nebraska (Schweitzer 2001). Geographic separation between these two tribes ended about forty years before any language records exist. Although recognition of a leader, “Missouri Chief,” is documented in Indian Territory ca. 1885,<sup>44</sup> there is no data on unique Missouria dialect features.<sup>45</sup> At the phonological level, general tendencies have been noted (Table 17). It is not as simple as always substituting one sound for another, yet listeners certainly noticed the distinctions.<sup>46</sup>

<sup>44</sup> Cf. the diary of Miss Emma DeKnight, who taught at the Otoe tribal boarding school at that time (DeKnight ms., University of Oklahoma Archives, Norman, OK).

<sup>45</sup> J. O. Dorsey identified a tiny bit of data as specifically Missouri, but it related to only a single speaker, so I prefer to avoid any discussion of the Missouri dialect at present.

<sup>46</sup> There has been intermarriage for a long time, so 100% dialect consistency for a speaker would be very unlikely, regardless of tribal membership. Dialects may be a matter of tendencies, rather than always/never. Family members might use different speech within a household, such as Mr. and Mrs. Small, Ioway and Otoe respectively. The couple understood each other but didn’t speak exactly the same (Marsh 1936).

Table 17: Dialect differences

I. Phonological variation	Baxoje	Jiwere
A. Difference in fricatives:		
1. Word-initially	[š] <i>šúñe</i> 'horse'	[s] <i>súñe</i> 'horse'
2. In consonant clusters		
a) before [g]	[sg/hg] <i>wahge</i> 'dish/plate' <i>hga</i> '(be) white'	[θg] <i>waθge</i> 'dish/plate' <i>θga</i> '(be) white'
b) before [j]	[ʔj/hj] <i>nqʔje, nqhje</i> 'heart'	[sj] <i>nqsje</i> 'heart'
B. Difference in nasal consonants:		
1. Medial position, esp. before final -e	[ñ] <i>č<sup>h</sup>idóiñe</i> 'little boy'	[ŋ] <i>č<sup>h</sup>idóiŋe</i> 'little boy'
II. Select lexical differences		
A. Nouns:	<i>mamáíñe</i> 'little baby'	<i>šúwe</i> 'little baby'
B. Interjections:	<i>sik'</i> 'incredible!'	<i>dqrah</i> <i>tan-rah</i> (Marsh 1936) 'incredible!'

## 5.2 Gender-marked speech

Three distinct lexical sets signal speaker's gender.

**1. Kinship.** The first set is kin terms as outlined in Goodtracks' dictionary. Gender is distinguished not only of referent (mother vs. father, etc.) but certain terms vary by sex of speaker as well, especially siblings' words for each other and words for one's in-laws. Birth order establishes seniority and thereby determines respect relationships, and is reflected in words denoting sons, daughters, and siblings, which served as familial address terms.

2. **Sentence-final particles.** The second set of gender-indexical terms distinguish between declarative statements, requests,<sup>47</sup> commands, dubitatives, quotatives, and more.<sup>48</sup> These important enclitics audibly punctuate the sentence, informing the listener how to interpret the speech segment. (See Table 18. The list may not be exhaustive.) These enclitics occur in combination with each other, especially when expressing emphasis: *k<sup>he</sup> hu?* ‘Indeed!’(‘This I declare! male speaker’).<sup>49</sup>

Note that a narrator will use the character’s gender marker during dialogue, rather than indexing his or her own identity. Based on the songs I collected, while mixed gender singing does occur (females may join in during various worship and powwow songs), it is the men who traditionally begin the songs, and texts reflect that with male forms.

3. **Interjections.** The final morpheme set indexes a speaker’s gender, and is usually sentence-initial (See Table 19). It is sometimes only a subtle difference, such as a final vowel shift, while other forms show little apparent derivational relationship between the two forms at all.

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<sup>47</sup> Earlier scholars have often called the “inclusive request” form in Table 18 the HORTATIVE marker, related to the rather old-fashioned word to “exhort” someone to do something.

<sup>48</sup> Trechter (1995) presents a thorough analysis of gender enclitics, including the circumstances where a speaker’s gender was not the determining factor, for various pragmatic and contextual reasons, including quoted speech.

<sup>49</sup> Dorsey’s manuscripts (n.d.) gave the male declaratives as distinguished by tribe, with *kei* as the Otoe form and *ke* as Ioway, while he listed *k<sup>hi</sup>* ‘Ioway female declarative’, but *hq* for Otoe women’s equivalent.

Table 18: Sentence-final particles showing mood, evidentiality and gender

S-final particle type	Male speaker	Female speaker
Declarative 1	k <sup>h</sup> e	k <sup>h</sup> i
Declarative 2	k'a	hə
Completed Action 'not continuing into present' (Dorsey n.d.)		
Inference (2 <sup>nd</sup> -hand source) 'I think'	no	na (?)
Command	re	rɛ, ræ
Polite Command	ne	nɛ
Inclusive request 'Let us ...' / 'Would that'	t <sup>h</sup> o , dáhò, hdaʔo	t <sup>h</sup> a
Question marker (optional)	ʃe	ʃa
Tag question	ʔa	kʔa
Narrative marker 'It seems'	asgʉ	asgʉ
Quotative	ʔe	ʔɛ
Emphatic	hʉʔ	æ, ʔa, ʔ
Surprise/excitement point!' (Dorsey n.d.)	'Exclamation t'o	t'ʉ:



Table 19: Interjections showing mood and gender

Interjection gloss	Male speaker	Female speaker
‘Oh, my!’ (Pity, love, sympathy, compassion)	hé:hą	inà:, hina:
‘Say! Hey!’ (Change subject)	kàró	unknown
Joy, Happiness (while singing or talking)	íyà	íyà <sup>a</sup>
Greeting/Acknowledgement, Thank you! Approval/Sanction	ahó, hó	ahá, há
‘Hmph! Aw, Heck!’ (critical/doubtful; prior speaker isn’t telling it right)	dɛʔ <sup>b</sup>	hɛʔ
‘Well! (GT) Whew!’ (Almost!; something nearly happened, but didn’t, either good or bad)	gwí, kwí	hí
‘Well, well [Whitman]; Oh, my!’ (negative response, as in niece/ nephew teasing uncle/aunt too harshly; surprised in a bad way)	hé:hą <sup>c</sup>	háraʔ
‘My goodness! Surely not! No way!’ (Negative response; surprise, shock)	báʔ, hubaʔ, húʔ húbaʔ (L-R in order of increasing emphasis)	dóʔ, dóʔò (greater emphasis) ga: (Rankin 2009)
‘Yes’ (Affirmative)	hújé	hújè
‘No’ (Negative)	hiñégo	hiñéga

<sup>a</sup> Not traditionally female but some use it now.<sup>b</sup> Both male and female forms = short vowel [ɛ].<sup>c</sup> Also glossed as doubting truth

## Abbreviations

1, 2, 3	first, second, third person	FEM	feminine
		HORT	hortative
12	first+second person (first person dual)	IMP	imperative
		INDEF	indefinite
AGT	agent	INCL	inclusive
AUX	auxiliary	LOC	locative
BEN	benefactive	MASC	masculine
CAUS	causative	MoZ	mother's sister
DAT	dative	NOM	nominalizer
DECL	declarative	OBJ	object
DEF	definite	ORD	ordinal
DIM	diminutive	PAT	patient
DIR	directional	PL	plural
DU	dual	POSS	possessive
EMPH	emphatic	PRON	pronoun
EXT	extended	Q	question
FaBr	father's brother	SG	singular

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-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
PRO	INDEF	LOC	PAT	AGT	REF	POS	DAT	INS	Arch	VERB	CAU	NEG	PL1	PL2	ASP
12AGT			OBJ	Actor	'self'	'one's own'	BEN		2Pers	STEM					MOOD
<i>hi-</i>	<i>wāa-</i>	<i>a-</i> 'on'	<i>hi-</i>	<i>ha-</i> , <i>he-</i>	<i>k'i-</i>	<i>gra-</i>	<i>gi-</i>	<i>ba-</i>	<i>s-</i>		<i>-hi</i>	<i>=sg[āi]</i>	<i>=ñe</i>	<i>=wi</i>	<i>=hna</i>
	'them,		ISG	ISG	'self'	'one's own'	'for, to'	'by cutting'			'make,	'not'	'gen'	'definite'	'future,
<i>wāa-</i>	INDEFINITELY	<i>i-</i> 'at'	<i>wāib-</i>	<i>ra-</i> , <i>rē-</i>				<i>bo-</i>			['+pers.		[Whi-	incom-	
IPLPAT	EX-	<i>u-</i> 'in'		2SG				'with a blow'			affixes]		man's	indefi-	
	TENDED												nite]		
	OBJECT		<i>ri-</i>	<i>a-</i>				<i>da-</i>							
	<i>wāab-</i>		2SG	3PL				'by heat or							
	'toward',			motion				cold'							
	directional			verbs				<i>gi2-</i>							
								'with							
								obj.							
								away from							
								self, push-							
								ing with							
								something'							
								<i>niq</i>							
								'by foot'							
								<i>ra2-</i>							
								'by mouth/teeth'							
								<i>ri2-</i>							
								'with							
								obj.							
								moving							
								toward self,							
								pulling with							
								something'							
								<i>ru-</i>							
								'with hand,							
								toward self,							
								pulling'							
								<i>was-</i>							
								'with hand							
								away, by							
								pushing							
								with hand'							

Figure 1: Verbal template: Prefix slots in order = verb = suffix slots