Incomplete Draft Grammar Sketch for NSF IOWA Dictionary Project (Jimm GoodTracks, P.I,) by Jill D. Greer 9/16/2010

Please do not reproduce without permission. Will combine this with revised old sketch from 1997-2000 and add more material where possible. Most important, it should include an audio version to accompany the Cedar and Tobacco text embedded into the powerpoint slides (from SACC presentation), if possible. I have not put the numbering outline into this draft yet.

1.1 Sound System (Phonology)[1], Including An Inventory of Sounds by Characteristics

1.1.a Consonants: In general, a sound is considered to be a consonant if there is some modification of the air by the tongue, lips, teeth, etc., as the air goes out through the mouth.

1.1.a.a Stops. There are three sets of the **stops** in Jiwere-Baxoje. **Stop** is the term for sounds which begin by actually stopping the airflow briefly. They are distinguished by a set of particular sound features:

1.1.a.a.i. **aspiration** (meaning a slight puff of air comes just as the consonant ends), represented by a superscript [^{h}] after each consonant symbol; note that English speakers also tend to "puff" (aspirate) the initial voiceless consonants. If one were to hold a piece of paper in front of one's mouth while pronouncing the word "paper", you will notice that the first "p" sound makes the paper move slightly, while the second "p" tends not to have the puff and does not move. The first one would thus be written phonetically as an aspirated [p^{h}] while the second one would not. The Jiwere-Baxoje aspirated stops would be written as \p^{h}, k^{h}, t^{h} \.

2) **glottalization** (meaning there is a "break" or "crack" in the sound caused by a slight glottal stop immediately after the consonant, which also tends to put the preceding sound further back in the mouth in anticipation of the shift to the epiglottis (see the diagram of the mouth for further clarification.) Glottal stops occur in English sometimes such as the interjection "uh-oh!" where it comes at the beginning of both syllables. The apostrophe symbol represents that "cracked" sound, as in \p', k', t'\. Some have analyzed Jiwere-Baxoje as having a separate glottal stop phoneme, too (REF?), and some words such as the verb \ʔu,\ 'to make, do, use' are very consistent in having that sound before the vowel. However, there don't seem to be any words that are identical except one lacks the glottal where the other word has it. For example, if there were a word \u,\ that meant something different from \ʔu,\ 'to do, make, use', then it would help prove there is a distinct and always meaningful sound \ʔ \. Until such proof is forthcoming, it seems more efficient to suggest that \ʔ \ works to identify boundaries between morphemes, and

[1] For an introduction to phonetics and the wonderful world of human speech sounds, see Peter Ladefoged A Course in Phonetics, 5th edition, Boston: Thomson Learning 2005. Online visit University of California Phonetics Lab: www.humnet.ucla.edu/humnet/ linguistics/facility/uclaplab.html. http://faculty.washington.edu/dillon/Phon Resources/PhonResources.html also includes a pronunciation program to demonstrate all the phones.

other processes related to preserving word meaning rather than at the level of the basic inventory and system of sounds (**phonology**).

3) **plain** (neither aspirated or glottalized). These sounds can be either voiced, or voiceless, which is different than the way English speakers are accustomed to hearing and speaking. English speakers have a problem with hearing and producing the plain voiceless version of consonants at the beginning of the word especially. That is because native English speakers don't have any plain stops in that same word position. They automatically create the puff of air after the voiceless stops there, as described in the "**p**aper" example above. Accuracy in pronunciation for English-speaking students of Jiwere-Baxoje can be most easily acquired by using the voiced version of the sounds, since that most closely parallels their existing speech habits. Different scholars who have worked on Jiwere-Baxoje have used either or both [p/b, k/g, t/d] for the plain series.

One should be aware that variation exists on the phonetic level for all languages, both individually, and for different dialects of the same language. It may well have existed between the closely related forms such as in voiced vs. plain voiceless stops within the three historic speech communities, within some families, or even in some complex and interesting patterned way within the speech of individual speakers. A few notes by Marsh and Whitman suggest that individuals' speech did display tendencies toward such variation, but the number of speakers is too small, and the data too limited to do more than speculate on such topics at the present time (Whitman 1946).

Fricatives are another category of consonants which take their name from the fact that the air is pushed through the mouth with some interference rather than flowing freely, or coming to a complete stop. This partial blocking of the air produces **fric**tion, which is the basis for the name. The fricatives in Jiwere-Baxoje include the following:

\h\ as in "help, rehearse"
\s\ as in English 'Sue, sin'
\š\ as in the "sh" spelling in English 'shoe, rush'
\Θ\ the Greek letter "theta", found in the voiceless "th" in English 'thin, length'
\ð\ the voiced version of the English "th" spelling, as in 'the, then, breathe'
\s'\ as in s'age 'elder, aged person'; it is the \s\ sound followed by a brief glottal "break"
\Θ' \ as in Θ'ida 'a long time', Θ'u Θ'u ???, with the voiceless "th" plus short glottal "break"
\x\ a sound also found in German as in Bach; it represents the velar fricative produced far back in the mouth. (Look at the human vocal apparatus diagram to find the velum.)
\x'\ the glottalized version of the velar fricative.

The glottalized ("popping or cracking") versions of voiceless fricatives and stops don't ever occur in English at the beginnings of words, making that set of sounds a little challenging to say. In particular, the last sound in the list \x'\ requires a great deal of practice to produce correctly.

Speakers often were amused at the researchers' attempts to repeat it (and the other glottalized consonants) for them.

Affricate is the linguistic term for a sound that begins like a stop, but quickly open up the airstream to friction, as in the English words "judge" and "church." The affricates include some of the same sound distinctions as outlined above for the stops. There are plain [č ~ǰ] aspirated ones [č^{h}], and glottalized ones [č', š']. Once again, variation between voiced and unvoiced versions of these sounds did exist, and trying to represent that variation is challenging. It tends to confuse English speakers' ears, as well as make any decisions on orthography more difficult.[2]

Most writing systems represent only the important sound distinctions in the language, in part because the literate people typically learn to read after they already are fluent speakers. In other words, babies learn to talk first, many years before they ever start school!!![3] In addition, if the writing system were to represent all the phonetic variations of real speech, then every dialect region would potentially have different spellings of the same words. Historically, that possible development has been rejected in favor of the trend toward spelling uniformity and standardization.[4]

Nasals are so named because there is air vibrating through the nose during the production of these sounds. Nasal consonants include [m *n ŋ ñ*]. The first two are familiar to English speakers, as in "**m**other, ho**m**e", and "**n**eck, ru**n**". The next two do also occur in English, but usually only in the middle or end of words, not the beginning of them. \ŋ\ is the sound that is represented by the "ng" spelling in English, as in "fi**ng**er, pulli**ng**". Likewise, in Baxoje-Jiwere, it appears within words, or at the end, rather than beginning them. The \ñ\ can be pronounced by

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[2] Is it better to ignore slight phonetic variation which probably occurred beyond the awareness of the monolingual speakers, or to preserve the "surface" level? According to Noam Chomsky's original theory of generative grammar, language has a surface layer of speech as produced and heard, as well as a deep structure of the actual grammar and set of words available inside the minds of all native speakers (1957). The European structural linguists such as Saussure and Jakobson had much earlier discussed the distinction between speech (*parole*) and language itself (*langue*). (REF)

[3] Note the current trend in many Native language renewal programs (where fluent speakers are still available as teachers) is to fully immerse students in living speech, and acquire it orally, delaying literacy for a length of time. Not only is that more "natural" for first language learning, it also helps prevent interference between existing reading and writing skills and the ones in the new target language people are trying to learn. [Based on SACC 09 discussion – need To get a REF – ask Mark Swetland and Vida Stabler, or Sue Garzon?]

[4] Famous exceptions occur in fiction, when authors attempt to represent particular regional forms of speech, as in Mark Twain's characters Huckleberry Finn, Tom Sawyer, the slave Jim, and the Native American called Joe.

starting with the basic \n\ but saying a \y\ immediately afterward. That tongue movement against the roof of the mouth or palate is called palatalization. It is occasionally heard in English, in Spanish loanwords such as "canyon," or "piñon".

The latter two nasal consonants \ñ\ and \ŋ\ were especially significant within these two tribes socially. Which one a person said in certain words and suffixes was heard as a sign of one's particular tribal dialect/ identity. Baxoje speakers favored the palatalized [ñ] in words where Jiwere speakers would more typically have the [*ŋ*]. For example, the Ioway word for horse is [*šuñe*] while the Otoe version is [*suŋe*]. [5] The [ŋ] could be analyzed historically as a phonetic "by-product" which resulted whenever a nasal vowel was followed immediately by a velar stop such as [*k, g*]. However, there are clear examples of the palatal nasal \ñ\ in both dialects, most commonly in the indefinite plural [-ñe] but also word initially, as will be discussed shortly hereafter.[6]

Looking at it from a single point of time (a synchronic viewpoint), the variation could be explained as a tendency to have an "extra" (epenthetic) nasal consonant appearing whenever nasal vowels are immediately followed by stops. In this case, the "extra" nasal consonant seems related to making words "easier" to pronounce, or "smoother" as some elders liked to put it. The "extra" nasal sound would form a sonic "bridge" if you will. Which particular nasal consonant would be "chosen" (specified) would be determined by which stop came after it, and where that sound was made in the mouth (called the place of articulation). This general principle would work out into specific cases, so that [ŋ] appears as the form that "matches" the closest point in the mouth with the **velar** stops [k,g]. Likewise, the plain [*n*] appears before alveolar stops [*d, t*].[7]

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[5] That example also illustrates the other common pronunciation difference between the two distinct versions of this language, namely the plain [*s*] at the beginning of words for Otoe, where Ioway produces [*š*] instead.

[6] Linguists often consider such surface level rules of pronunciation to lie outside the bounds of phonemic (hence written) representation, and therefore limit it to a single line in a pronunciation guide. As long as there is a living speech community, with children actively acquiring language before they learn a set of spelling conventions which attempt to represent their speech, such an approach does not pose a problem. Children learn to "match" the spelling with the words they have been saying correctly for years. However, when that situation is not present, then accurately representing the pronunciation of the language appears to be equally important as maintaining phonemic purity in representation. In addition, it can promote accurate pronunciation from language learners who lack a speech community to correct their efforts.

[7] Linguists usually use the different kinds of brackets to mean specific things. \ \ is phonemic (phonemes are the basic building blocks of meaningful sound distinctions in the language); **[ ]** is phonetic (symbols representing speech as it actually is pronounced).

When nasal vowels are followed by the stops [p, b] which are made with both lips (**bilabials**), this pattern continues. In this case, the "extra" nasal consonant "bridge" that comes between the nasal vowel and the following stop would be the **bilabial** nasal sound [m], as in na˛mp^{h}o 'finger'.[8]

There is also a strong tendency for \n\ to become [ñ] when it begins a word and is followed by the front high vowels \i \ and \i˛\. If that were the only situation (sound environment) that [ñ] appeared, then it would be considered a predictable sound alternative (allophone) of \n\ instead of a distinct phoneme. That probably was the case historically, but since it also appears "inside" words (medially), especially in the Baxoje dialect, it needs to be represented with its own symbol.[9] Q: How about palatalization occurs before front vowels, which would include \e\ also then, as well as \i i˛\???

Liquids: There has been some difficulty defining and representing the liquid sound found in Baxoje-Jiwere. Phonetically, it has been described as between an unreleased [d] ("flap"), the plain [r] found in Spanish, and a variation upon the [l] sound (Whitman 1946:). It is not identical to any of the many English sounds represented by these two letters. It is definitely **NOT** like the "r" found in English words like "Pete**r**," or "fa**r**me**r**!" The tongue should touch lightly somewhere near the back of the top dental ridge. It has been written with the symbols "l" and "r". There is anecdotal evidence that bilingual speakers classed both variants as the "same", suggesting that while they could hear and reproduce both English liquids accurately, there was no such distinction in their native tongue. (A Missouri Chiwere Language Project[10] favorite example is from an elicitation session with Truman Dailey correcting the author's pronunciation - "*gri, gri, gri,* - you know, like G**L**ee Club". For orthographic purposes, the symbol *r*\ will be used, but as always, it is recommended that learners listen to some recordings of elders to hear the sound and try to produce it as accurately as possible.

Glide is the term for speech sounds that are produced by slight changes in position of the parts of the mouth, rather than a single fixed position for pronunciation. Examples include \w\ and \y\.

1.1b Vowels: There are both **oral** (through the mouth only) and **nasal** vowels in Baxoje-Jiwere. The difference is phonemic. They include \a i o u e \ and \a˛ i˛ u˛\. There is no nasalized version of \e\, and no nasal \o\. Note that phonetically, the nasalized vowel \a˛ \is frequently pronounced as a nasalized **schwa** sound. **Schwa** is the unstressed vowel occurring in nearly all unstressed position in modern informal English. One example is "**a**byss", also heard in "**o**f",

[8] Amelia Susman's 1945 work on Hochunk (Winnebago) mentioned the same tendency in that very closely related Siouan language.
[9] GoodTracks n.d. cites two forms from James Owen Dorsey with a plain \n\ preceding an \i\, which could represent evidence for that idea. *Huni* 'mortar' and *hunipa* 'pestle, grinder, grindstone' (p. 28).
[10] The Missouri Chiwere Language Project (1988-1996) was directed by Professor N. Louanna Furbee, from the Anthropology Department of the University of Missouri. It was funded by MU Faculty Research Development Grant, as well as by the National Science Foundation, and the American Philosophical Society. The team included native language consultants, and graduate students.

"th**e**" as in "top **o**f th**e** line", "a", and the pause syllable "**uh**", or the annoying interjection "D**uh**!" A nasalized English schwa would be said in "apartm**e**nt" and d**u**nce."

Phonetic vowel quality sometimes differs significantly in particular words used by female speakers; in those contexts, there are also an [E] as in the English "pet" and "sweat", and sometimes an [æ] as well. The [æ] sounds like the first syllable in English words such as "apple", or "at". Since these variations are very limited to a very small part of the vocabulary of the language, they will be discussed primarily in the section on sentence final particles and interjections.

1.1c Vowel length. Nearly identical vowels may once have also existed as separate phonemes. The distinguishing features would be only by the actual time spent in "holding" the vowel (either for a short or longer time period). The relative pitch or tone of the syllable, and the stress placed on it also affect the perception of the vowel in actual speech. Other Siouan languages such as ??? do have this meaningful distinction between the long versus short vowels (REF?). Robert Rankin heard it when listening to recordings of a Jiwere speaker, but this author, alas, has not been successful in consistently doing so. Therefore, caution makes it prudent to state that no phonemic distinction in Jiwere-Baxoje vowel length has been documented.

However, there are **very** prolonged vowels that occur marking where two different words and/or prefixes/suffixes have joined together. When the two vowels of separate speech units come into contact with each other, they produce an extra long vowel through that combination, which is considered a process[11] of speech at the level of word-formation (**morphology)**, rather than of the sound system, so it will be covered in more depth in section ????.

1.1d Stress / Accent

Stress or accent in a language refers to patterned and regular use of sound differences as another method of telling similar-sounding words apart from one another. The relative "loudness" or increased volume of one syllable versus another can distinguish between words that otherwise sound exactly the same. In addition to the volume, there can also be a change in the pitch or "height" of the tone which helps the listener notice that syllable more easily, and unstressed syllables tend to have lower pitch than stressed ones. For example, when the first syllable is stressed in the word XXXX , it means ' ', but when the last syllable receives the greater stress, then the word means ' '. That illustration is evidence that stress is a meaningful (phonemic) quality in Baxoje-Jiwere.

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[11] The 19th century linguist James Owen Dorsey has also been criticized for his failure to accurately record the vowel length feature in his research. Miner recorded differences in vowel length for Hochunk (Winnebago) (REF). Perhaps future study of existing recordings will reveal true phonemic vowel length, but it seems better to err on the side of omitting a potential distinction rather than to attempt to consistently and accurately represent a phonetic detail not reliably detected by the researcher.

When a root word with two syllables has additional prefixes or suffixes attached to it, the basic stress pattern can change. In these cases, the accent may shift to the "right" or later in the word, especially if there are 3 or more syllables.

Syllable Structure

There is a strong tendency to end all syllables with a vowel; simple CV (Consonant-Vowel) syllables are very common, but it is also true that two and even three consonants can come at the beginning of a syllable, such as …

The few instances in which a CVC structure appears in informal speech seems to be a classic case of contraction, where a final unstressed vowel was "dropped" (elided). This proposal is based on the fact that there are also more formal and "precise" pronunciations of the same word which have two complete syllables (CV-CV), rather than one.

1.3 Longer Sound Patterns or Prosody

The pronunciation of longer speech units has an additional patterning of sound that speakers would traditionally have learned and absorbed even as an infant. Language acquisition studies of humans has taught us that before babies master the rather intricate muscle movements of actual words, they hear and imitate the melody and cadence of the voices flowing around them. Linguists call those phrasal patterns **suprasegmentals** or a language's meaningful and generally shared pitch contours. The different dialects of a language can differ in these qualities also, which includes overall volume, speed, tone, and all those subtle variations that help humans use language to convey emotion as well as information. Since the living speech community to hear and mimic is no longer available to language learners, the recorded voices of the elders become an especially treasured resource for that aspect of the language.[12]

1.4 How Do Sounds Get Changed Around? Also Known As Phonological Processes

The way that words are pronounced during actual speech may change from the way they sound when spoken alone, in isolation. The words just before and after a particular word can affect its sounds, especially in casual or rapid speech. All languages have similar general processes, but it's not something predictable. Speakers learned by example how their language worked, and which changes are "okay" and which are not..

1.4.1 Elision

One of the most common changes is that words may be shortened or "cut off" a little bit. Elision refers to when a sound simply "drops out" of a word during rapid speech, such as XXX

[12] Amelia Susman used a system of lines and symbols under the words to attempt to represent the intonation contours of Hochunk (Winnebago).[12]

1.4.2 Vowel Harmony

Sometimes, when it so happens that two vowel sounds come close to each other, one of the vowels will actually change its normal form to "match" or harmonize with the other vowel sound. A similar but less complete change can take place in which the nasal quality from a nasal vowel "spreads" to nearby vowels. (Hočunk 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 200? :). (Examples)

1.4.3 Vowel Change That Is NOT Matching (Ablaut / Sandhi)

There is a set of vowel changes that occurs very frequently in similar ways across so many of the Siouan languages that scholars interpret it as having great antiquity within the language family. It involves the /a/ and /e/ vowels, which may alternate with each other in a variety of settings, such as particular verbs or certain suffixes in unusual and not entirely predictable ways. Motion verbs are one such set of verbs demonstrating this alternating pattern. (NEED TO ELABORATE HERE/ give examples)

Some verbs ending in –e will "switch" (ablaut) to a final –a before –wi definite plural suffix
Ugwe 'enter'
Example 1
Marsh Giants Bk2 LN49 čʰúgwáwi re.
'House-enter (pl.) Imperative(male speaker).'

Re 'to go'
Example 2
Marsh The Twins LN65 ...iwálàwi ho.
'...yonder go (pl.) (injun).'

WORDS: Parts of Speech and More

Nouns

The most common nouns fit with the elementary school definition of "a person, place, or thing". They are often concrete living beings, such as plants and animals that are key to survival, or everyday objects such as tools and raw materials that can be touched, counted, or seen (rock, wood, clay,…). They can also include the "names" for geographic features, locations, family members, and other social groups. As is true in other languages, many "nouns" can function fully as verbs, complete with the extensive system of prefixes and suffixes described later in XXX. To illustrate the relationship between the two kinds of words, which share aspects of

basic meaning, the verb waruǰe 'to eat (something)' can also mean 'table' or something to eat upon. Actually, scholars consider Siouan languages to be strongly verb oriented, with very few prefixes or suffixes that attach directly to nouns that make them clearly different from verbs.[13]

Certain prefixes that attach to verbs will transform those states and actions into a nominal sense, as in the example given above: waruje 'table' < wa- 'indefinite object' + ruje 'eat'. That instance illustrates how this grammatical transformation takes place.

Possessing: Inalienable vs. Alienable

Native American languages in general are known for distinguishing between people and things that are extremely close to a person's identity and self **(inalienable)**, versus whatever can be separated easily from the person (**alienable**). What are those things considered so deeply part of one's self that they cannot be split apart? They include the kinship terms naming the key social relationships of family and marriage, the parts of one's own body, and the formal social ties of friendship. These important categories represent the small set of nouns that receive special marking as belonging to a particular person. The prefixes meaning **inalienable possession** are "hooked" to the words themselves, so that one can't normally speak of just any old arm and a leg, but of 'my- arm', or 'your-leg', or 'his- finger', and so forth.

Address Forms: *–o* 'speaking to this one'/Address form

h ịt^{h}ára 'my friend (referential form) > *hị t^{h}áro* 'My friend (address form)'

Kin terms and the word given for one's special friend (formally established as cultural role)[14] would have a different way of speaking for when one is talking directly **to** that person, instead of talking about them to someone else. The final vowel becomes [o] when the speaker is talking directly to the person(s). This final vowel change is identical to what happens to words in songs when they come at the end of a line. Perhaps the aesthetic idea that the sound [o] "carries well" had something to do with the origins of this language feature. It is the least obstructed and most centered sound in the human sound system.

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The purpose of a proper name is to uniquely identify someone, for both address and referential purposes. It also can index key identity features, such as gender, clan membership, personal attributes or characteristics, or significant events relating to that particular human being (or horse, or dog, too, for that matter. For example, William Whitman collected traditional names for dogs in his work about the Otoe tribe (1936).

[13]Helmbrecht 2002 gives an extended discussion of ways to distinguish between nouns and verbs in Hocank (Winnebago).

[14] The friendship would have been initiated by the parents of two children, formalized with a ceremonial feast, and thereafter a lifelong bond of reciprocity and obligation existed between the two, to be recognized by the word '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).

Some names could be shared by members of the same clan, but the feminine form was created by the addition of the special – *mį* ‘ suffix. A nickname could be formed on the spot to tease someone, as when one elder spoke to the other that they should call the author ***Toské-mį*** ‘Quick Woman /Speedy-Woman’ because I had done something so quickly that it surprised them.

Names for men were not specially marked, but there was a masculine form that occurs in the words for ‘boy’, and for ‘bucks’ and ‘bulls’, to distinguish them from the more numerous females in the herding species of deer, bison, and cattle.

Gender affixes: *-do* ‘MASC’; *-mį* ‘FEM’

a) ***iǰʰidóįñe*** ‘boy-child’< ***i-*** ‘at/around’+ čʰi ‘house’+ ***-do*** ‘male’+ ***-įñe*** small/DIM’ [Ioway]

b***)*** ***iǰʰimįŋ(e)*** ‘girl-child’ < ***i-*** ‘at/around’+ čʰi ‘house’ + ***-mį*** + ***-įŋe*** ‘small/DIM’ [Otoe]

c) ***tʰa*** ‘deer > ***tʰado*** ‘buck, male deer’

(With white-tailed deer, a buck would indeed be the “marked form” if the visible feature of antlers were the primary basis for assigning group membership).

d) ***čʰé*** ‘buffalo, bison’ > ***čʰédo*** ‘bull buffalo’

There are also cases from the tales collected in the mid-1930’s by Gordon Marsh in which the **Diminutive Suffix** coming after a verb serves to create a name that relates to the characteristic action of a character in the story, as in [V +- DIM > Name]: ***- įŋe*** , ***-šį̀ŋe [O-M]; įñe*** ‘small /DIM [Ioway]’.

a) ***Bé –ñe- įŋe*** ‘The Outcast’

‘Throw out-INDEF.PL-Little [One]’ [Marsh n.d. Line 141 ‘The Outcast’]

b) ***Hįnų́-šį̀ŋe číla*** ‘My boy-little dear’ [Marsh n.d. ‘The Wanderer’ Ln. 200]

Number

Nouns do not have any special or separate plural marker, just as English ‘deer’ and ‘sheep’ can mean either one, two, or fifty, depending on the context. Numerals can follow the noun to make the exact number clear, or the suffixes on the verb may carry the plural information there, instead of attaching to the noun itself. Likewise, nouns do not have any case markers that attach to them to

indicate possession or other grammatical features such as nominative and accusative case in Indo-European languages commonly do.

Numerals

Ordinal Numbers

To show the order of events in a story, or results of a race, languages often modify the basic sound/shape of the plain number in some way, as in the English suffix-d/th, as in second, third, fourth, etc. Baxoje-Jiwere can use either a prefix **i-** or a suffix **–ya~** for expressing that ordering principle, as in the examples below from Marsh n.d. The Giant book 2:

I. i- 'ordinal marker' only:

LN 25 **walúxawe iΘát^{h}ą dahá?e** **[< i- 'ordinal marker'+Θat^{h}ą 'five']**

'Bundle fifth it is standing'

LN 30 **walúxawe išágwe dahá ?e** **[< i- 'ordinal marker'+ šágwe 'six']**

'Bundle sixth it is standing'

LN 34 **walúxawe išáhmą dahá?e** **[< i- 'ordinal marker' + s'ahmą 'seven']**

'Bundle seventh it is standing'

II. i- 'ordinal marker' + =ya~ 'indefinite article?

Q Or is it an infixed numeral inside 'one, a' iya~ ????LOOK AT HOCANK & OP, etc.

Marsh The Wanderer

LN 34 **dáñį́yą ut^{h}ą?įwagiašku .**

'A third time he make them appear to him, it seems.'

LN 35 **hetále idóyąṭahági síge alé gú?waškų .**
< [i=do{we}=yą≠ dahági]

'Then it is the fourth time-it is again it is this-he do it, it seems.'

Compound Nouns[15]

Jiwere-Baxoje allows additional words to attach to a simple noun to form a new word. The type of word that attaches can vary from another noun to a verb. Sometimes the modifying word precedes the base noun, while other times it follows it.

1) *čʰina* 'village' < *čʰi* 'house' + *-na*
2) *čʰina wanaxi* 'cemetery' < *čʰina* 'village' + *wanaxi* 'spirit, ghost'
3) *walúšge čʰina* 'giant(s) village' [Marsh n.d. The Wanderer" Ln. 100]
4) *hį́dų́ŋe-nąwų ʔšų* 'mouse-paths indeed' [Marsh n.d. 'The Wanderer' Ln 67]
5) *wanaxi waxoñiitʰą* 'spirit/ghost + be.holy/sacred' (Davidson 1997)
6) *mą́yą uhą́we* 'heaven' < 'land-(in)be.bright' (Davidson 1997; Good Tracks n.d.)
7) *mą́yą wàtahe* 'Wanderer' < *mą́yą* 'land' + *wa-* 'directional' + *dahe* 'be.standing'
8) *wáŋegíhi* 'Chief/Headman' < *waŋe* 'man' + *gi*-'benefactive/Dat' +-*hi* 'CAUS.'{OR 'w.hand.away'}
9) *wą ʔkwá s'ose* 'warrior, veteran, soldier' < *waŋe* 'man' + *was'ose* 'brave'[16]
10) *waʔšige* 'person' < *waŋe* 'man' + *šige* ?'again' +/or –*ge* 'Emphatic Particle'
11) *waʔší k'uč'e* 'man-hunter' < wąʔšige 'person' + *k'uč'e* ' -to.kill'
12) *tʰà waΘlų* 'deer-to.roast' [Marsh 'The Wanderer' Ln. 175]
13) *išta čʰi* '(menstrual) period' *ista* + *čʰi* < 'be.alone-house'

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[15] In other Siouan languages such as Lakota and Crow, there can be a greater degree of "fusing" of the parts inside the complex combinations of nouns with other words. Linguists describe the process as **noun incorporation**. Since that technicality is more on the level of linguistic theory rather than describing the language for a general audience, I will not address that issue here. See De Ruese? , Gracyzk …

[16] Whitman 1947 noted glottal stop marking morpheme juncture. It seems to me to be especially prevalent when the deleted sounds/syllable involves /ŋ / as in the examples given here.

These words can include names also, as in ma¸k^{h}a ruǰe ‘medicine eaters’ for those who participate in the different traditions associated with partaking of the sacrament peyote.

Culture Contact and Forming New Words

Since there was strong resistance to borrowing words from the languages of Europeans throughout the Plains in general, it is not surprising that Jiwere-Baxoje speakers also preferred to form new words, or extend the meaning of existing words for new situations. The Ioways chose the part of a bird that enables its motion for the name of a new object, the wheel: ahu ‘wing’ > wheel of a wagon, then later a car.[17]

1) Wagon = **na** ma¸ñi¸ < **na** ‘wood’ + ma¸ñi¸ ‘moving/walking’
2) Train = na ma¸ñi¸ dak’o < na ma¸ñi¸ ‘wagon’ + dak’o ‘thunder/fire’
3) Photographs/pictures = **i¸ǰe wagaxe** < ‘**i¸ǰe** face’ + **wagaxe** ‘writing’
4) Saturday = **ha¸we uk^{h}iϴ re** ‘day – half’ < **ha¸we** ‘day’ + **uk^{h}iϴ re** ‘half, be split into two’ [because the Tribal Agency was only open from morning until noon on Saturday]
5) Piano = **na yɑ̨we** ‘wood sings’ < **na ‘wood’** + **yɑ̨we** **‘to sing’**

The existing native word for ‘metal’ ma¸ðe would have originally referred to copper, which was available from the Great Lakes region in particular, and is found archeologically throughout the late Woodland on through the Adena-Hopewell and Mississippian periods in the Mississippi River valley and far up its tributaries. Silver and gold coins from the Europeans were named as “white/light” or “shiny” metal, ma¸ðe Ɵka , and so eventually that compound word became associated with coins in general. Finally, there were different kinds and colors of coins, and thus, the word for ‘penny’ was formed from ‘red + white/shiny-metal’, ma¸ðe Ɵka šuǰe. One can tell that this form is truly a compound noun by seeing it in a phrase, such as the following:

‘a/one penny’ ma¸ðe Ɵka šuǰe iya¸

[17] Keith Basso described the Western Apache (Athabaskan) words for automobiles in similar ways, including the wing = wheel metaphor (19??:) .

The information in Table illustrates the different ways that these compound verbs may be conjugated. Linguists call these particular structures "incorporated nouns", meaning that over time, as a noun becomes so closely attached to the verb, it may become fused to it, both in meaning and in form. In the early stage, the personal pronoun prefixes may still be attached directly to the verb, as in the column labeled [N [PRO + V]]. In other cases, a speaker may choose to use an auxiliary verb to follow the compound, to carry the inflections on it instead of on the main verb, as shown in the center column. Finally, a fully fused or incorporated noun will appear with the pronominal prefixes attaching to it directly, as in the right-most column labeled [PRO + [N+V]]. The table also shows that some variation and speaker preference may be involved on which "sounds" better for each particular word. Definitely the forms relating to *ho* 'voice' tended to be more fully fused than some of the other nouns were.

TABLE

Jiwére / Gloss	[N[+ PRO-V]]	MIXED or [N+V] PRO-AUX	PRO-[N+V]
1) *hóΘige* / 'to fish'	*Ho-heΘige* 'I am fishing'	- -	- -
2) *nąsje p^{h}iskųñi* **'be unkind'**	*nąsje-hj-p^{h}iskųñ* 'I am unkind'	- -	- -
3) *nąt'ųdą* **/** 'to pity'	*Nąt'ų -he-dą* 'I pity him'	- -	- -
4) *nąsjep^{h}i* **/** 'be kind'	*Nąsje-ri-p^{h}i* '**You** are kind'	- -	- -
5) *irodaxa* / 'have a fever'	*Iro-hi-daxa* 'I have a fever'	*irodaxa hjñjwi* '**We** have a fever'	- -

	(2P “”)	[añį ‘have]	
6) ***iroruΘ’a*** ‘be shaken up/excited’	WawaroruΘ’ ‘we’re shook up’ (1st response)	*i roruΘ’a* *hjñiwi* ‘we are shook up’(2nd response) *roruΘ’ani* ‘I am shook up’	- -
7) ***iroΘet^{h}ą*** ‘to abuse’	- -	- -	*iriroΘet^{h}ą* ‘you were abused’ (1P Sg & Pl “”)
8) ***irok^{h}up^{h}i*** ‘be handsome’	--	*irok^{h}up^{h}i* ***hjñiwi*** ‘**we** look good’ [añi ‘to have]	*i-**ri**-rosk^{h}up^{h}i* ‘y**ou** are handsome’ (1P also)
9) ***rosje*** ‘to sweat’	- -	*Rosje-**ri**-ñe* ‘sweat-**2P.Pat**-0-Indef.Pl.’ ‘they made **you** sweat’ [CAUS.]	***Wawa**-rosje**wi*** ‘**we’re** sweating’ (1P.Sg. also)
10) ***dąwe*** ‘to awaken, open eyes’	--	--	***Ha**-dąwe* opened my eyes’
11) ***hohga*** ‘to belch’	--	--	*Ra-hohga* ‘you belched (1PSg,Pl“”)

12) *hoxu* 'to cough'	--	--	***Ha-hoxu*** 'I coughed.'
13) *hoxga* 'to hiccup'	--	--	*Ha-hoxga maą̃ni* 'I am hiccupping'

Other examples of nouns that become so frequently associated with a particular verb includes the following. The only example of this particular verb found thus far is in the 3rd person, so its conjugation pattern is not known .

Example: *t^{h}á č̌'èhi mą́ñà* 'he went deer-hunting' [Marsh 'The Wanderer' Ln.47]

Nominalizing Prefixes

Certain prefixes commonly attach to verb stems to form nominals, complex words that can serve as nouns. This is a very productive process in Baxoje-Jiwere. The following three prefixes all incorporate the basic wa- 'indefinite object' to the following action word.

wa-	***wagáxe***	'paper'
	waruwaha	'bundle'
wi- < *wa-* + *i-*	*wí:ų*	'tool'
	wí:ró:ha	'kettle'
	wí k^{h}ą́hį	'bridle' [Marsh 'The Outsider' Ln. 65]
wo < ***wa-*** + ***u-***	***woč^{h}exi***	'difficult times, trials' < **'INDEF OBJ –in-be.cruel/stingy'**
	wóyawe	'festivity' [Marsh n.d. 'The Outcast' Ln 160]

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The Verb and Its Many Parts

The most complex type of word is the verb, which may include the basic verb stem, plus up to 8 positions for a number of potential prefixes as well as three positions for potential suffixes. Linguists create a template or map to reflect the order in which native speakers combine them in their speech. In this map, the anchor or center point is the most basic verb form (stem) which holds the meaning of the action/feeling/etc. Like the "zero" in a mathematical number line, positions to the left of the verb stem receive a negative value (traditionally called prefixes), while those following the verb stem receive a positive value (suffixes). Rankin 2009 outlines the verbal template for individual Siouan languages for comparison and historical purposes. The discussion of each position will come before the general template.

The left-most position of the prefixes that may occur is as follows (Whitman 1946:246, Marsh m.s., cf. also Hopkins and Furbee 1991):

(-9) 1st person Patient pronouns:
hi¸- =singular 'me'
wa$_{1}$ = dual 'us 2'

(-8) The second *wa-* pair (completely distinct from the dual mentioned above!):
wa$_{2a}$- 'them, something' Indefinitely extended object
wa$_{2b}$- 'toward' directional' [precedes all person prefixes except *hi¸-* 1st p. patient 'me']

Whitman considered the latter directional wa- to be parallel in some functions to both *gra-* and *gi-* of template position (-2) discussed later. [18] The following words are offered here as illustration of the first meaning ***wa-***$_{2a}$ 'indefinitely extended object/them':

Waiakida 'tribal police' [Skinner] Possible derivation from *wa-* + *i-* 'locative' *a-* [*k^{h}i-* reflexive] *da* 'to see', which could mean something like 'those who look out / watch,' as in guards or literally 'watch-er(s)'.

Wa^{ʔ}u¸ 'tool(s)' < *wa$_{2a}$-* 'indefinite object(s)' + *^{ʔ}u¸* 'make, do, create'

[18] Please refer to Boyle 2009 for a comparative discussion of the *wa-* prefixes across the Siouan languages. Boyle quoted a discussion from the late Carolyn Quintero on Osage *wa-* that seems especially interesting (REF). Based on these analyses, it might 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 all of the various functions within the different glosses given above. At present, it does not seem crucial to determine whether they may best be described as two distinct morphemes ***wa-***, or as a single *wa-* which is quite flexible in meaning. In the future, as more work on comparative Siouan *wa-* emerges, perhaps this issue can be addressed again.

Wǎjip^{h}ana ‘village crier’ < *wa*$_{2a}$- ‘indefinite object(s)’ + ???

Wanaxi ‘spirit, ghost’ < *wa*$_{2a}$- ‘indefinite object’ + *naxi* ‘breath, life’

Hinage **wa**t^{h}a naha waye:re na ?
Woman **them** I see-those ones who are they Q?
‘Who are the **women** that I saw?’

For the second meaning, the directional *wa*$_{2b}$ -, the following is only one of many such examples in prayer songs collected by the author.

Example (a): *hi¸yi¸no* ***wa-*** *hi¸* *-na* *-we*
‘Our Elder Brother **DIR**-1p.Pl.Agt-Go -definite plural
‘We’re going toward Our Elder Brother (Jesus),’ (Davidson 1997:)

(-7) Instrumentals or Objects:
ba- ‘by cutting’,
bo- ‘with a blow’
da- ‘by heat or cold’
gi-$_{2}$ ‘with an object away from the body, by pushing or striking with an object’
na¸- with foot/feet’
ra-$_{2}$ ‘by mouth, teeth’
ri- ‘with held object, toward the body, pulling with an object/tool’
ru- ‘with hand, toward oneself, by pulling with the hand‘
wa-$_{3}$ ‘with hand > away, by pushing with the hand’

According to Whitman (1946:246), these nine prefixes can transform a passive verb into an active one. In today’s grammatical terms, they serve to make a transitive verb from an intransitive one,? OR stative here instead? Q OR adds one valency slot to the verb? NEED definition for valence!!. More interesting from the point of view of meaning, they make very specific distinctions in the concrete world of human activity. ‘Long horizontal object being cut in two’ -*gruje* is an interesting yet abstract verbal root; in reality, someone or something must do the cutting, and the varied means by which that action is accomplished can be encoded very precisely and concisely with these prefixes. Hence, one can say ‘to saw’ by combining *wa*$_{3}$- ‘with hand away (from agent’s body)’ + -*gruje* = *wagruje* ‘to saw’.

(-6) **Locatives**:
a- ‘on, upon, over’,
u- ‘in, within, into’,
i- ‘at, to, by’ (Whitman 1946:241)

These combine with the prefix *wa*$_{2a}$- (indefinitely extended object) to make a “heavy” syllable; it has a longer vowel, and usually attracts stress also. Examples of this process were discussed earlier in the section on nominal prefixes.

wa: < wa_1- + a- ‘on’
wo: < wa_1- + u- ‘in’
wi: < wa_1- + i- ‘at, to, by’

(-5) **Object/Patient** Pronouns
$wa\text{-}_{1b}$ ‘us’
ri- ‘thee’
mi - ‘me’

(-4) **Agent** Pronouns (1st and 2nd person)
ha- ‘I’ / 1st p. singular Agent
ra - ‘thou’ / 2nd p. singular Agent

(-3) **Reflexive**
k^hi- ‘(to) one’s self’

This prefix means that the event or state described by the verb is related back to the person, which usually gets translated as “(one’s) self”.
If the reflexive is “doubled” (reduplicated), then it gives the sense of the action being reciprocal ‘(to/with) each other’.

(-2) **Case-like Prefixes**
gra- possessive ‘one’s own’
gi_1- benefactive/dative ‘for, to’

The two prefixes below give additional information about social relations between actors or parties mentioned in the verb complex.

Example (b & c): Flag Song… (Greer 2008:)

(-1) **2nd person s-**

Archaic form that stands for ‘you’ (2nd person) on a small number of specific verb stems. Historical Siouan scholars have found similar forms in many of the related languages which support the idea that it is of ancient origins. Over time, it was probably replaced in the less common verbs by the regular 2nd person forms ra-, ri-, but it became “frozen” in the most common verbs which tend to resist change more than less frequently occurring ones do. This is one more interesting way in which languages can give clues to the past.

(0) **Verb Root /Stem**

This is the basic smallest unit of meaning, which could be a simple verb, as in ʔu¸ 'to make, do, create'. It could be a compound verb with a new or extended meaning, as in uparehi 'to understand, to investigate, to notice'.

(+1) **Post-positioned Prefixes and Causative Suffix**
-hi 'to make something happen, to cause something'

One very productive way to form an active verb from a stative one is through the addition of the causative suffix *–hi*, which gives the meaning "to make or cause to X", as in *č'e* to die, becomes *č'e+hi* 'to kill ' < 'to cause to die'. When the causative *–hi* occurs, it also results in the personal pronoun prefixes appearing **after** the verb, and immediately before the *-hi,* rather than in their usual pre-verbal positions. Sometimes the *–hi* is omitted, but the pronominals' position after the verb and the meaning 'to cause (something)'are still present, signaling the rather unique nature of this morpheme.[19] The word *na¸yi¸hi* expressing 'to heal or cure' literally means 'to cause one to stand up, to stand X up'.

Example ( ): The following sequence is the chorus from a NAC song by Edward Small (Ioway) (Davidson 1997 #16). In this case, the *–hi* does not appear, but the meaning and pronouns' position after the verb stem *nayi¸* 'to stand' give evidence of its underlying presence.

Hi¸yi¸no | *Wak^{h}a¸da- yi¸ŋe |* *ma¸ya čegi* *wahire** *nayi¸**-wa-ra** na /*

'Our elder Brother | Son of God | this land the sick* you make them stand up.'

*Some versions give *wa¸šige* 'person, people' alternately instead of 'the sick'. The rhythm and general meaning are not changed, and the forms rhyme with each other!

Not only do the pronominal prefixes come after the main verb root in the causal verb "make X, allow to X, but other verbal prefixes can appear AFTER the verb for the causative form, too. Examples from old sources include the possessive, the dative/benefactive gi-, and also the wa- that means either a plural 3rd person, or an indefinitely extended object, as in the following example from the missionary scholars William Hamilton and Samuel Irvin (1848:43, #53):

č'e – wa - hi khe.
Kill-3rd person plural /indefinitely extended object-causative suffix + declarative marker (male speaker)
'He killed them'.

[19] One possibility for the origins of this unusual case of the pronoun shift to the end is that perhaps *hi* was once truly an independent verb, and over time, as the forms became heard by speakers later 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* \ which is the motion verb meaning 'arrive ??' (Taylor 1976, Hopkins 1987).

(+2) **Plural suffixes**:

–wi definite pl. (wa-wa…-wi, hi¸-…-wi, ra-…-wi, ri-…-wi, …-wi)
–ñe indefinite pl. (limited to 3rd person forms)

The plural does not have to "match" or agree with the preceding pronominal prefixes by their role as an actor/patient or object (direct or indirect). It only tells the listener about the number of folks involved. Specifically, it says there are more than 1 for 2nd and 3rd person forms, and 3 or more for the 1st person inclusive form. (Remember that the 1st person inclusive prefix already means the pair of us, 'you and I', so adding a plural marker increases the meaning to 'greater than 2'.)

The two plural forms are not interchangeable. They show how much the speaker knows about the group, for example, how specific the group membership is, whether the people's identity is known, if they have already been mentioned in a story before this point or not, and so on. It makes sense that the definite plural always appears with the 1st person plural, for practical reasons. It is difficult to imagine a situation in which "we" might mean a group with unknown or uncertain membership. Second person plurals usually take the definite plural, for the same reason, although some rare exception might occur. On the other hand, it is very possible to imagine situations involving 3rd persons to be either definite ("the gourd dancers from Red Rock, Oklahoma") or indefinite in nature ("all the people in this world who knew my uncle"). Just as one might expect, verbs with no pronominal prefixes (0 = 3rd person) have also been shown to occur with either plural, depending on the meaning intended.

However, only ONE plural suffix may appear on a single verb, and so the potential for misunderstanding which of the pronominal prefixes (or both) are intended to be plural occasionally must be understood from the context. CHECK!! In draft I said opposite definite plural would appear last, after both indefinite pl. –ñe and fut/incomplete 'hna, and it could trigger ablaut in either one, while supposedly the indefinite ñe could cause certain verb stems ending in –e to \a\ especially if the final vowel is accented???? Verb-Word paper sounded more like both can occur… DATA NEEDED HERE***

*NOTE: Siouan list discussion 4/8/99: Rankin says" the [proto-Siouan] 'animate classifier (if it was a classifier) was *wi-. Why not think of wa- as the inanimate one?" This looks like a discussion of prefixes, not postverbals here. So Maybe NOT relevant,or maybe Chiwere post-posed theirs, or this line of thought needs to be set aside for now…*

(+3) **Mood/Aspect**

–hñe, -hna 'will, shall'

The modal suffix seems at first to be similar to a future tense, but probably is more accurately expressed as 'an action that is not yet completed'. Rankin 2009 suggests that the older translations which simply labeled examples such as these as 'tense' are misleading.

QUESTION: Could the mysterious and often absent 3rd person singular ***e-*** be the underlying cause of the ablaut before ***gra-***, ***gi-***, etc.???

The ***e-*** itself ablauts to ***a-*** with verbs of motion (come here, come home here, arrive home here, go there, go home there, arrive there, arrive home there).[20] **Ablaut** simply refers to a vowel change between related forms. It can be a process that makes a difference between meanings, as when an English speaker uses patterned vowel changes to mark the singular vs. plural forms in certain irregular roots. Instead of the plural {-s} being added to the identical root {car + -s = cars}, there is an internal sound change in the root, as in goose >geese, mouse>mice, foot>feet. Comparatively speaking, there has yet to be an elegant historical explanation of the different ablaut as realized in the various members of the Siouan language family (Rankin p.c.)

PUT THE VERB TEMPLATE HERE

Auxiliary Verbs

Additional verbs that give information about the main verb are known as auxiliary verbs. They typically can also appear alone, inflected with the variety of verbal prefixes, which shows their "verbiness" (Ross, Helmbrect 2002:). But when they are not the main verb, they follow the verb (and any verbal suffixes attached to it). In that case, there is usually no inflection on the auxiliary (AUX). This is the same pattern found in most SOV languages, and parallels the patterns of modifying words following their head in noun phrases also (Rankin n.d.: 27Quapaw Sketch).

Positionals

After the main verb, there is often a second verb which signals the activity or position of who or what is being talked about, or a distinct clause describing the activity /position of the speaker (see unit 18 of Cedar and Tobacco). For example, if one witnessed something, then a thorough description would include whether someone was sitting, lying, standing, or moving around while it occurred. Davidson 1997 included a discussion of the aspect these auxiliary verbs played in creating vivid images in the Native American Church songs composed by Otoe-Missouria and

[20] See Taylor 1976 for a general discussion of these widespread forms in the different Siouan languages; see Cumberland 2003 for their function in narrative in ?Assiniboine, and ??John's student? for potentially similar use in Biloxi texts recorded by J.O. Dorsey.

Ioway speakers.[21] Beyond describing the bodily orientation of the person or thing being described, there is also an element of meaning present that represents the continuity of what is happening, as if it is continuing over some time frame, rather than a single point in time or limited /short event.

Examples:
ma˛ñi˛ 'going around, moving (in characteristic way)'
mi˛na 'sitting /dwelling'
na˛ɳe 'be in a sitting position' (??)
ha˛ɳ e 'be in a lying or reclining position'
dahe 'be in a standing /upright position'
nayi˛ 'to stand something/someone up'

Negatives

There are two basic forms that can "cancel" or negate the action of the main verb. These are sku˛ñi˛ 'not' and ñi˛ɳe '(be/have) nothing'. So, while the stative verb p^hi 'be good' expresses a positive attribute, the opposite meaning is created when the word sku˛ñi˛ 'not' is attached:

p^hisku˛ñi˛ literally 'good-not' , 'no good, bad, onery'

Modals

Modal auxiliaries are those important verbs that indicate something about the verb's action, such as whether or not it has been completed. (Think of the use of the past tense of the verb 'to do'; "done" can act as a completive AUX in certain varieties of non-standard English, such as "I **done** finished my homework.") Modals can also make the listener aware that an action is ongoing (continuative), or is so frequent that it is seen as a habit, or "always" happens (habitual).

Pronominals

Like many Siouan languages, Baxoje-Jiwere identifies the people talking or being discussed (1st, 2nd, 3rd person), as well as how many there are: one (singular), we two (dual inclusive), and greater than 1 (plural). It also marks which person(s) is the agent (one doing the action) vs. the patient (one being acted upon, or experiencing a particular state or emotion without their own control or volition). The 1st person dual agent 'we two' and patient forms 'us two' single out the speaker and the listener as a unit. There is overlap between categories, however, which can be a little confusing. The 1st p. singular Patient form \hi˛\ 'me' is identical to the 1st person dual

[21] See Rankin ?? for discussion of how these positional verbs moved from an auxiliary function to eventually become classificatory articles attached to nouns in some Siouan languages….

Agent form \hi¸\ 'we two'.[22] The 1st person plural must be expressed by the addition of the definite plural suffix -wi (see above), which stands for the speaker and 2 or more additional people as either agents, or patients.

'You' is composed of 2nd person singular agent \ra$_2$-\ and patient \ri$_2$-\, and also 2nd person plural agent and patient forms. See the following paradigm to clarify personal pronoun prefixes.

Table 1: Personal Pronominal Prefixes

	1st person Singular 'I/me'	1st person Dual 'we/us two'	1st person Pl. 'we/us all'	2nd Person Singular 'thou/thee'	2nd person plural 'You'
Agent	***ha-, he-****	***hi¸-***	***hi¸- [+ -wi]***	***ra-, re-****	***ra-, [+ -wi]*** ***re-* [+ -wi]***
Patient	***mi¸-, hi¸-***	***wa-wa-***	***wa-wa- [+ -wi]***	***ri-***	***ri- [+ -wi]***

*The final vowel difference here demonstrates that pronominal prefixes can also change form ("ablaut"). The agentive forms ha- 'I' and ra- 'Thou' will become he- and re- in complex verbs such as na¸t'uda¸ 'to pity (someone/something)' (Whitman has the plain [u] here while Davidson 1997 heard it as a nasal [u¸], perhaps just from the surrounding environment.) A potential origin for this word is a compound formed from *na¸hje* 'heart' + u-gi-da¸ 'be depressed toward' (Whitman 1946:243). If this is correct, the **benefactive** prefix gi- 'for' might partially explain the reason for the vowel ablaut in this particular case. Another example is gi-t'a¸'(it) flies', although the gi- prefix itself only is fully apparent in the plain 3rd person form, as well as gra-hi 'to love, have pity on someone' (Whitman 1946:242).

Third person singular is most often unmarked, although there is an ***e-*** prefix which occurs especially with the possessor prefix 'one's own' and with the independent possessive 3rd person form, *et^{h}awe* 'his/hers' (singular) or *et^{h}ewi* 'theirs'. See also demonstrative form – ʔe which can combine with various prefixes including the 3rd p. e- to give eʔe 'it is that one?' Motion verbs provide the only known exception to that rule, with an \a-\ prefix appearing in plural contexts. Once again, the a/e alternation could be another example of ablaut. CHECK

Independent pronouns can occur for emphasis or clarity, but are not required grammatically with a properly inflected verb for a sentence to be complete. (Marsh example/ 1989 MALC paper?)

[22] Perhaps a practical connection between these two that might help learners remember; "**I**" can only truly control my own actions when I'm acting alone. In that sense, there is an element of subordinating myself when acting as a pair -"you and **me**".

Table 2: Personal Pronouns (Hamilton and Irvin 1848, Marsh n.d.)

Person	Independent	Possessive
1st p. Singular	*mi¸re*	*mi¸t^{h}awe*
1st p. Dual	*hi¸re*	*hi¸t^{h}awe*
1st p. Inclusive (pl.)	___	*hi¸t^{h}ewi*
2nd p. Singular	*rire*	*rit^{h}awe*
2nd p. Plural	*??----*	*rit^{h}ewi*
3rd p. Singular	*Are??*	*et^{h}awe*
3rd p. Plural	*???*	*et^{h}ewi*

Regular Verbs: A verb stem is considered "regular" or typical if it follows the verbal template of prefixes in its ordering, and the sounds of the stem itself do not change regardless of any change in person or number.

Example:

Irregular Verbs

Stems in *D-, R-, W-:*

According to Whitman (1946:243), all the irregular verb stems begin with either *d-, r-,* or *w-* sounds. Note that it is the stem which is irregular; that does not mean that there are no prefixes which are also a permanent part of the verb stem. But when any of those prefixes come before the personal pronoun, they don't influence each other. It is the starting sound of the verb stem itself that determines this class. Another interesting thing about these stems is that in the 2nd person agent forms, in addition to the expected *ra-,* there is also an \s\ that appears. Because there are similar irregular verbs in other Siouan languages with the same \s\ appearing, historical linguists consider it to be a remnant of a former, very old 2nd person marker that has been "frozen" in these particular conjugations (REFERENCE?).

Examples of these compound stems include:

D- Stems

a-da 'to see' >	a**t**a	'I see'
	ara**s**da	'You (sg.) see'
	wawada	'We two see'
	ada	'he sees'

R- Stems

Irosige ‘

Ihadosige ‘I …’

Adverbials:

Words that relate to the important elements of time, space, perception, and qualities of motion (slow vs. quick, etc.) play an important role in language. There are basic forms that may combine with each other to express a wide range of meanings relative to these components. There are parallels with the personal pronouns (both independent and the prefixes) in recognizing not only 1st and 2nd persons (I vs. You), but also the ‘we two (you and I)’ **dual inclusive**.

Spatial Elements - Baxoje-Jiwere could distinguish between the location of the speaker ‘my spot here’ *ǰe*-\, the location of the listener ‘your spot’ *se*-\[23],and the general area of both persons conversing together ‘our here’ *i*-\(location of both you and me). Beyond the immediate area of the conversation or speech, people could describe a distant but not out of sight location, ‘there’ *ga*-\, versus a place beyond their sight (usually far away) would be *hari*-\ (somewhat like the archaic English ‘yonder’). These spatial elements can combine with other words that distinguish between a fixed spot close at hand \-*gi*\, and a stationary spot slightly further off - ‘at there’ \-*da*\. One can also speak of movement through space, which can include the motion <u>toward</u> a location ‘to’ \-*gu*\, and also the directional sense of the prefix \wa\ ‘motion toward’ can combine as a suffix here with the 1st or 2nd person forms. (See Appendix for a diagram representing the spatial aspects of these elements.)

Time Elements – While some Baxoje-Jiwere words for geographic place can be extended metaphorically for time as well (as in the English expression that the time is “near”, or has “come”), there are also words with specific temporal meanings. These may appear at the beginning of the sentence, as in the following verse from a Native American Church prayer-song composed by the late George Washington Dailey (Otoe-Missouria) (Davidson 1997:).

Go:č^{h}i	Hi,yi,no		hi,	ha	wi	-yi-yi
Now	Our Elder Brother (male speaker)	we 2 Agt.		Say-plural(definite)		-Chant syllables ‘

Free Translation:‘Oh, My Lord, we’re calling upon Your name, now.’

<u>Motion Verbs</u> also distinguish between the different stages of a trip, whether one has just begun the trip (depart), is in the process of traveling between locations (go/come), or has completed the

[23] This form \se-\ that has an initial [s] representing the 2nd person is very likely related to the archaic 2nd person \s\ found in some irregular verbs as discussed in section on verb conjugation. It is another reminder of how languages can preserve little pieces of the past in them!

journey (arrive). Like all other Siouan languages, the system of coming (toward the location of speaker and hearer, or "here") versus going (away from the location of speaker and hearer, or "there") is more complicated and precise than the current English system. The added dimension is that of whether a location is one's home (or prior location), or not. The "belonging" dimension is called the vertitive in grammatical terms, and makes a very interesting, brief, and powerful way of expressing the notion of leaving home or predicts their safe **homecoming**[24]. Some of the Otoe-Missouria Patriotic songs have this highly charged motion verb in them, which highlights the fears and joys involved when soldiers go off to fight, and return safely to their families. [25]

Other Morphological Processes:

Sound Symbolism

It occurs with words that have (a) consonants that produce friction in the mouth (fricatives) in them and (b) also tend to be verbs, especially related to qualities of color shade, intensity, or other changes in sense perception (visual, touch, sound…) as in degree of noise or roughness of texture.

This phenomenon is common in all the Siouan languages, and can create interesting word pairs or trios which differ only in the one sound (Rankin 1998:12). The "lighter/less intense" word is usually associated with the sound made closer to the front of the mouth, while the greatest intensity of meaning matches up with the "deepest" sound in the back of the mouth/throat. It has been documented for Hochank and Dakota in particular. Baxoje-Jiwere examples are as follows:

Reduplication

Verbs follow the general Siouan pattern of "doubling" part (or all) of the verb stem as a way to make a new word. There is a kind of symbolism to this process also. The repetition of the recognizable and meaningful sounds makes an audio pattern of something that is repeated or "spread out" in an incomplete way. When this process is used for a stative verb, such as a color, then it would mean that the color is scattered (as in patches, spots, stripes). Another case of expressing the repeated action of a verb - the word *gis'é* 'drip' becomes *gis'és'e* 'drip several drops'. For less concrete activity, the reduplication can convey the meaning that the verb's action is somehow partial or incomplete. For example, the form *up^{h}ap^{h}arehi* 'understanding only bits and pieces, imperfectly comprehending' < *up^{h}arehi* 'to understand, notice,

[24] While English lacks the motion verb equivalent to the vertitive, the compound noun 'homecoming' is perhaps the closest in meaning and emotional power.

[25] Scholars of related Siouan languages such as Assiniboine and Biloxi have also analyzed these verbs in terms of how they appear in traditional narratives, where the notion of "belonging"/ home 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 2002??, ??Boyle student 2009).

investigate,…' Conversation, referring to white missionaries' partial understanding of Indian beliefs.

It seems that reduplication in Jiwere-Baxoje is a **productive process**, meaning it is available as a language resource for speakers to actively use and create as the need arises. A speaker can spontaneously create a partial (or complete) repetition of a verb if he or she wants to express one of these specific meanings about the action. If others also begin to use that version, and it gets passed on to another generation, then one could say a new word has been "born. [26]

Reduplication in Baby Talk

In addition to the complex reduplication process just described for adult speech, there is also a very simple kind of copying sounds involved in "baby talk" or caretaker speech. While the length and sound pattern of the word for adults didn't matter, it does matter for talking to babies and small children. Usually there is a simple one syllable word which gets repeated exactly in the same form, such as CV-CV. They are so simple, in fact, that it's not always clear which ordinary word the "baby" form came from! The most important difference, however, is in the meaning - instead of having the idea of something being scattered or repeated, the caretaker speech mainly serves to help make it easier for little ones to understand and learn to speak. Perhaps it is a kind of adult imitation of the tendency very young children have for pronouncing things this way themselves.

Examples:
-dáda 'something to eat'
ǰíǰi 'hot (to touch)'
ná¸na¸ 'something forbidden because of potential danger or pain'

Other examples include the repeated form + the normal adult diminutive suffix ***-iñe*** 'little one' : ***mamá i¸ñe*** 'baby' (Ioway), ***hahá i¸ñe*** 'baby colt, horsey'. (Note the English diminutive suffix [–y] can work in a similar way for baby talk: dog + -y = doggy.)

Word Order / Syntax

The traditional way to approach basic word order is the order of the primary elements. Baxoje-Jiwere is classified as an SOV (Subject Object Verb) language. However, for 3rd person forms, it is possible to have a "plain" (uninflected) verb serve as a complete utterance, if it is followed by one of the required sentence final markers which mark the gender of the speaker. The reason for this possibility is that there are no singular pronominal prefixes corresponding to 'he, she, it.'

[26] "English speakers do things that are a little similar, and also play symbolically with the basic sounds of words, such as make vowels very long for emphasis, as in 'He was s-o-o-o-o mad at me. ' Or they can use simple repetition, as in 'She was very, very, VERY angry!'

The head noun should come first in a sentence, followed by everything that describes it in any way. Those modifying items should start first with the words showing shape, color or size (large, round, yellow, …). Such describing words can also occur alone with patient pronominal prefixes, acting as stative verbs in other contexts, which true adjectives cannot do. Therefore, they are not grammatically "the same" as adjectives, although their English translations often are.

Next will come the determiners. These forms help narrow down which person or thing is being discussed, if it is a specific individual(s) or no one in particular (a generic case), how many there are, and so forth. These include the quantifiers, demonstratives, the indefinite article, all of which follow their "head". For example, 'horse white' would be *ˇsu¸ñe ska* I. / *suɳe Ɵka* O-M. The SOV order applies also within parts of the sentence which are smaller sub-units than the main clause. That makes the language consistent internally, which probably made it easier for listeners to process meaning.

Subordinate Clauses

The forms which make the preceding clause into a supporting or modifying one, rather than carrying the primary meaning of the sentence, are called subordinators. Their meaning is the most important factor when choosing from among the different subordinators. They can signal how long something lasted, what was the exact sequence of events, if the events were actual or potential, and so forth. These particles include: *-sge* 'if', *-da* 'when', 'but' -sji

Example: An Ioway man named Edward Small composed a Native American Church song after being healed in a NAC service. The verse is a complex sentence which begins with a kin tem addressed to Jesus, then a subordinate clause before the main one indicated by the temporal subordinator ***-da*** 'when' (Davidson 1997:p. Song #16).

Hi¸yi¸no| wo-waxoñita¸ rit^{h}awe urak^{h}iñe da |
'Brother| when they tell about this beautiful ceremony|

wa^{ʔ}u¸ warup^{h}i | *Rire añe na*
the wonderful work it does| they say it's You.'

Relative Clauses

A relative clause is a common structure that gives additional information about the subject, the object, or the indirect object. An English example would be "John met the woman who wrote that book." It forms a sub-unit separate from the larger overall sentence. That sub-unit is a verb phrase that attaches to one of the nouns (or nominals). Often a demonstrative or other form helps clearly set the embedded sentence apart from the main clause it modifies.

The Baxoje-Jiwere language is SOV at this level also, meaning speakers put the subject (head noun) first in the relative clauses also. There is an optional relative clause marker *–naha* 'the

one(s) that X' that immediately follows the clause it acts upon. Within that smaller unit of meaning, it is still the traditional word order. The Subject comes first, then the Object, then the Verb, as in the relative clause hinage at^{h}a naha 'woman I saw (her) –that one'. In English it would translate as 'the woman that I saw'. More examples of relative clauses follow below:

1) Relative Clause in a question:
   Hinage at^{h}a naha waye:re ?
   Woman I saw (her) –that one, who is she?
   'Who is the woman that I saw?

2) Relative Clause as the object:
   John **hinage at^{h}a naha** uk^{h}ič'e k^{h}e
   John woman I saw (her) that one he spoke with (each other) male decl.
   'John spoke with the woman that I saw.'[27]

3) Relative Clause as the subject of the sentence.
   Hinage at^{h}a naha John uk^{h}ič'e k^{h}e .
   Woman I saw-that one John (she) spoke with (him) Masc. Decl.
   'The woman that I saw spoke with John.'

4) Relative Clause as the direct object of the verb phrase.
   Sam **wawagaxe hapagaxe naha** araje k^{h}e.
   Sam book I wrote it – that one (he) read it Masc. Decl.
   'Sam read the book that I wrote.'

Because it is not grammatically required to have the relative clause marker present, plus the fact that 3rd person forms on the verb aren't inflected, it can be difficult to decide exactly how to translate some sentences, even though the general meaning is clear.

NEED example sentence here!!

Conjoined Clauses: Conjunctions may join independent clauses together, including what might seem from listening alone (phonologically) to be distinct utterances. In this case, the conjunction *heda* 'and' may occur at the beginning of the second sentence. Within more rapid speech

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[27] Linguists sometimes use brackets of different colors to show how the different parts of the sentence are structured.
The English sentence "I saw the horse." = [^{NP}I [^{VP}saw [^{NP}the horse]]].
Example sentence 2 above would be represented as follows:
[^{NPSUBJ}John [^{VP}{[^{NPOBJ} hinage at^{h}a] naha}^{RC} [$^{V+ENCL}$ uk^{h}i č'e k^{h}e]]]

sequences, it is common to have the particle *–na* 'and' occur at the end of the first main clause, separating it from the one to come.

Aré can function in discourse to "point" back at something in the previous speech. It has been noted as a very frequently occurring word in the texts collected by Gordon Marsh (Hopkins and Furbee n.d.)

Demonstratives, Definite Articles, Focus Markers, …

-ya, 'a, one' indefinite or definite?? It is derived from the word for 'one' iya ˌkʰi .

-ge example Two friends talking: Gilbert-*ge daniṇe* … 'Gilbert was drunk (again)!'

-su, 'indeed'

MANY MORE HERE…(draw from Discourse markers paper especially)

Variation in Speech By Social Group:

Tribal Identity & Language Use. Most aspects of the language were the same for Baxoje and Jiwere speakers, and the two (once three) historically distinct tribes could understand each other. But there were a few patterned sound differences, and a few vocabulary differences that were recognized, and it is those differences that helped separate each group's unique way of speaking. **Dialect** is the term for these mutually intelligible but distinct forms of a language, whose speakers may be part of separate political and/or geographic units, such as was the case for the Otoe-Missouria and Ioway Nations. Since the Missouria tribe joined with the Otoes for safety from intertribal warfare during the late 18th century, there has been no real way to address what possible unique features might have belonged to their dialect, and so the discussion will focus on the two that have been documented.

At the level of the sounds, these different tendencies have been noted. It is not so simple as to always substitute one sound in dialect A for another in dialect B. Rather, it is a general tendency, or even only a few examples . Yet speakers would notice the distinction. [28] Another thing to remember is that individual speakers of ALL languages may have features in their speech style and pronunciation that make them unique. When the number of documented

[28] One must remember that there has been extensive intermarriage between these two groups for a very long time, and so there is not likely to be absolute "purity" or 100% dialect consistency for speakers in their actual speech all the time, regardless of their official tribal membership. Dialect differences are often a matter of different tendencies, rather than "all or nothing". It is likely that family members might exhibit different forms in the same household, and that seems especially likely to have been the case for the Ioway and Otoe-Missouria peoples. Whitman's two major speakers, Mr. and Mrs. Small, were Iowa and Otoe respectively, which illustrates the point perfectly. The Smalls could understand each other but did not speak exactly the same.

speakers is so small in endangered and "sleeping" languages, the possible effects of that individual variation should not be ignored either.

Table A?. DIALECT DIFFERENCES

I. Sounds That May Vary In The Same Words

		Baxoje		Jiwere
A. Difference in Fricatives:				
1. In consonant clusters				
a) before [g]		-sg, hg	=	Θk /Θg
	'dish/plate'	wahke,		waΘke
	'What is it?'	dahga,		daΘka
	'to be white'	hga		Θga
b) before [ǰ]		ʔǰ, hǰ	=	sǰ
	'heart'	naʔ je, nahje		nasje
2. Word initially:		š	=	s
	'horse'	šúñe		súṇe
B. Difference in Nasal Consonants:				
1. Inside words, especially before final –e		ñ	=	n
	'little boy'	čʰidóiñe		čʰidóiṇe

II. Vocabulary Differences:

	Baxoje	Jiwere
A. Nouns/names:		
'wheel'	ahu	?
'little baby'	mamáiñe	šsuwe
'?rooster'		
B. Interjections:		
'Incredible!!'	sik'	da¸rah [tan-rah in Marsh ?]

Gender Marked Speech:

Baxoje-Jiwere features three very rich sets of words which signal the gender of the speaker, as well as the mood or degree of certainty of a person about what he or she is saying. The first is the set of kin terms, which is discussed in section??? as well as in the dictionary entry under ???. Gender is distinguished not only of the person bearing the term (mother vs. father) but certain terms also vary by the sex of the speaker as well, especially relevant to siblings' words for each other.

Sentence Final Particles. The second set of terms that differ depending on the gender of the speaker occur in nearly every sentence. Choosing an appropriate one and using it is required to make a correct statement, request, or command, or quote another person's speech. These little words come at the end of the sentence, and tell the listener key information about how to understand the entire segment of speech, and therefore, how they in turn may need to respond to it. (See Table B.) By S-final, it is meant that these words normally come at the end of a sentence. They may occur in combination with each other, especially those that express an extra emphasis on what has been said, as kʰe hu,ʔ 'Indeed!'(I declare, male speaker).

TABLE B: Sentence Final Particles Marking Mood/Evidentiality and Gender

S-Final Particle Type	Male Speaker	Female Speaker
Declarative	kʰe	kʰi
Command	re	rɛ as in "wet, wretched" or ræ as in "rash, apple"
Polite Command	ne	na?
Inclusive Request[29] **'Let us…', 'Would that…'**	tʰo , dáhò, hdaʔo	tha
Question Marker (Opt.)	ǰe	ǰʔ
Narrative Marker **'It seems'**	asgu,	
?Quotative	ʔe	
Emphatic	hu,ʔ	ea, ʔa

Interjections. The other set which marks the speaker's sex is usually found at the complete opposite end of the sentence. Interjections can stand alone as an emotional expression or response to an event or statement, or they may begin a longer speech, and set the tone for the message to come. (See Table C.) It is sometimes only a subtle difference, such as a final vowel that changes, while other times there is no apparent relationship between the two forms at all.

TABLE C: Interjections Showing Mood and Gender

Interjection Gloss	Male Speaker	Female Speaker
'Oh, my! (Pity, love, sympathy, compassion'	***hé:ha,***	***ɛ́ʲ inà:***
'Say; Hey !' (change subject)	***kàró***	**??**
Joy, Happiness (while singing or talking)	***íyà***	***íyà*** ***sometimes now also, but not so traditionally**
Greeting/Acknowledgement, Thank you, Sanction	***Ahó, hó***	***ahá, há***

[29]Earlier scholars have often called this case the **hortative** marker, related to the rather old-fashioned word to "exhort" someone to do something.

'Hmph! Aw, Heck! '(critical/doubtful, prior speaker isn't telling it right)	***dɛ²*** **(For both male and female forms, the vowel is so short,**	***hɛ²*** **it's really [E] as in 'wet')**
'Well! (GT); Whew! (almost; something Nearly happened, but it didn't; it could be good or bad)	***gwí, kwí***	***hí***
'Well, well [Whitman]; Oh, my!' (negative response, as in teasing was too harsh by niece/nephew to uncle; one is surprised in a bad way)	***hé:ha¸***	***hára²*** **[also glossed as doubting truth]**
'My goodness! Surely not! No way! (negative response – surprise, shock!)	***bá²***	***dó², dó²ò*** **(greater emphasis)**
'Yes' (Affirmative)	***Hú ǰè***	***Hú ǰÈ*** **(different vowel quality, as in 'pet')**
'No' (Negative)	***hiñégo***	***hiñéga***

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Appendix

Phonology: Continued Discussion of the Nasals (from section >>>)

This pronunciation data can be represented as a basic sound rule, as given in A. below. The # represents the boundary between two morphemes, Vn represents any nasal vowel, and > means 'becomes or is realized as'. The = symbol is the same as it is in mathematics, meaning 'equal to / equivalent'. This analysis does support the idea that [n̥] historically originated as a phonetic complement of \n\ in the middle of a word (medial position). Such a case is called **complementary distribution**, meaning the two sounds don't "compete" for the same position, but make a kind of "sound team," each partner taking its turn when the particular sound situation occurs. So, instead of verbally describing this process as done above, the same thing can be represented more concisely as the following generalization about the pronunciation of Baxoje-Jiwere.

Example 1. **Nasal Vowel/Stop Boundary Pronunciation Rule:**

Underlying \Vn # Stop V\ > [Vn{+Nasal C} # Stop V\] where
Nasal C {Place of Articulation} = Stop {Place of Articulation}

If (1) a word were discovered which included [*n̥*] in a non-medial sound environment, (such as in word initial position, or before consonants which were not stops), and (2) that word meant something different from a word exactly identical in sounds **except** that where the [n̥] had been, the other word had instead a plain [*n*], then there would be no question of its status. That case as just described would be a **minimal pair**, the traditional criteria for establishing the set of phonemes in a language in structural linguistics. Since no **minimal pairs** have been found thus far that clearly separate [*n*] from the similar [*n̥*] and [*ñ*] sounds, it appears that the latter two sounds represent the level of actual speech (the "surface" or heard form), rather than the **phonemic** level. That level is a more abstract concept, representing what is processed in the minds of the speakers/listeners as they hear the nearly continuous stream of sounds. That is where the ears "feed" it into the brain, which breaks that flow of sounds down into words made up of the most basic sound units called **phonemes**.

Diagram of Spatial Distinctions (taken from Hopkins 1988:)

Sentence Template as given in A Noun by any other name 2010 SAC conference:

[1p.Dual.AGT/PAT + INDEF.OBJ/DIR. + LOC. + Pat.PRO + Agt.PRO.Sg. + REFLX + BENF./DAT. + INSTMTL + Arch.2p. + **Verb Stem** + CAUS. + PL. + Aspect + AUX]