

A GRAMMMAR SKETCH OF TUTELO-SAPONI

by

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DEDICATION

To all the Yesañ, Yesáh, Yesáng, and Yesá in old homelands and new, wherever you may be.

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LIST OF ABBREVIATIONS

1	first person
2	second person
3	third person
A	actor
ABS	absolutive
ALIEN	alienable possession
ASSERT	assertive aspect
CAUS	causative
DAT	dative
DEF	definite
DEM	demonstrative
DES	desiderative
DIR	directional
DISJ	disjunctive
EMP	emphatic
IMP	imperative
INDEF	indefinite
HORT	hortative
INS	instrumental
INTER	interrogative
LOC	locative
NEG	negative
P	patient
PL	plural
POT	potential aspect
PROG	progressive
PST	past
REAL	real aspect
REDUP	reduplication
REFL	reflexive
REST	restrictive
SG	singular
STEM1	stem (verb root)
STEM2	stem (initial verb stem)
VERT	vertitive

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ABSTRACT

This is a sketch grammar of the Tutelo-Saponi language, a preliminary examination of the history, phonology, morphology, and syntax of the Southeastern Siouan language and its speakers. While previous works have presented the corpus' data in the North American Phonetic Alphabet, this study presents data primarily in a combination of the International Phonetic Alphabet (for the phonology portion of the grammar) and the writing system currently being developed for the Occaneechi Band of the Saponi Nation (a derivation of the orthography of the 19th-century philologist Horatio Hale). Included later in the sketch are methods currently being used to enrich the Tutelo-Saponi lexicon. Finally, this sketch presents a sample opening prayer in the language created in conjunction with an Occaneechi language consultant, as well as a land acknowledgment of the Tohono O'odham people created by Corey Roberts to open a linguistics presentation at the University of Arizona.

1. Introduction

Tutelo-Saponi is the only extant language of the Virginia branch of the Siouan family. It was historically spoken by tribes and bands of people who lived in what is now Virginia and North Carolina by the time of first contact with the British in the late 1600s (Mooney, 1894). Prior to first contact, the various Siouan tribes speaking a variant of the language traveled and traded across a range of territory stretching from South Carolina in the south and Ohio in the west to Pennsylvania and Delaware in the north and east respectively (Mooney, 1894; Rankin, 2007).

Over the course of the last three centuries, the peoples that once spoke variations of this language have both remained in North Carolina and Virginia, and have also migrated through the northeast to ultimately reside in New York and Ontario (Salvucci, 2001). Today the language is spoken to some degree in seven tribes across North Carolina, Virginia, Ohio, New York, and Toronto.

Bits of Tutelo-Saponi have been documented by British and French explorers and colonials in Virginia since the 1670s, but the largest portion of documentation was recorded two centuries later in Toronto in the 1870s. Documentation efforts in the 20th century culminated in a grammar and dictionary of the language in 1996. This grammatical sketch is intended to provide basic analysis of Tutelo-Saponi with additional and preliminary explorations into cross-Siouan methods of enriching the language's lexicon.

This work is part of an effort to re-member my genealogical roots and linguistic heritage. After decades of not knowing the full extent of my ancestry, I only became aware that I was descended from the Occaneechi in 2017. In an effort to reconnect this part of my family's history, I reached out to distant cousins from tribes throughout North Carolina and Ohio. They

graciously shared with me what they knew about Tutelo-Saponi, and they impressed upon me the need to expand access to and understanding of the language in the community. It is my hope that this document helps to address that need.



Figure 1. Current distribution of Tutelo-Saponi heritage speaker tribes.¹

1.1 The Tutelo-Saponi language and its speakers

Tutelo-Saponi has been referred to using three different names in recent years. The most common of them, Tutelo, is the name of one of the tribes that in the past spoke the language and continues to do so in a limited capacity to this day. The name Tutelo is derived from the Iroquoian word for the Siouan people of the Southeast, *Tedarighroones* (Mooney, 1894; Salvucci, 2001). Another of the tribes who spoke a variant of the language, the Saponi, furnished

¹ See Hale, 2001 for more information on the migrations of the people who spoke the Tutelo-Saponi language.

Europeans with early word lists that contributed to the language's lexicon (Sapir, Frachtenberg, et al, 2002). This contribution is noted in the most comprehensive name of the language, Tutelo-Saponi. Finally, an etymological lexicon of the language published in 2010 refers to the language as Yesanechi, a neologism combining *Yesa*, 'the people', with *nechi*, 'tongue' (Meuse).

The geographically closest Siouan language spoken today is Catawba, the language and name of a people who variously traded with, traded against, and even harbored some bands of Tutelo-Saponi speakers in the 17th–19th centuries (Mooney, 1894). Languages from the Mississippi Siouan branch of the language tree are most closely related to Tutelo-Saponi. These include Ofo, a dormant language from the Mississippi Valley, and Biloxi, a critically endangered language also from the same state (Kaufman, 2015).

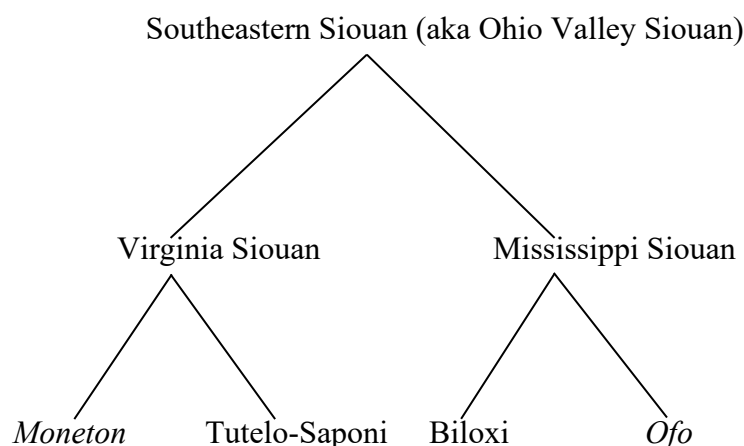


Figure 2. Southeastern Siouan family tree (Rankin, 2007).

There are eight present-day tribes that have inherited the Tutelo-Saponi language:

- In North Carolina, the Haliwa-Saponi, the Occaneechi Band of the Saponi Nation (OBSN), and the Sappony
- In Virginia, the Monacan

- In Ohio, the Saponi Nation of Ohio and the Saponi–Catawba Nation
- In New York, the Tutelo members of the Cayuga Nation at Seneca Falls
- In Ontario, The Tutelo members of the Cayuga Nation at Six Nations Reserve

The combined population of these tribes is estimated at no greater than 22,000 people today, and among this total membership there are currently no L1 speakers. The last people who had exposure to the language being consistently spoken in their lifetimes passed away in 1982 and 1991.² Any current speakers have learned the language primarily from a combination of three texts originally published in 1883, 1913, and 1996. The most thorough of the lexica from these sources yields no more than 750 words as a basis for the Tutelo-Saponi vocabulary (Oliverio, 1996). Using a criterion of 10 or more years of consecutive language study, a liberal estimate of the number of L2 speakers amongst the tribes would be 10 people. These are all L1 English speakers, and it is unknown if they speak any other languages. As of the time of this writing, there are no fluent Tutelo-Saponi speakers.

1.2 History and social structure

The first records of contact with peoples who spoke languages and dialects similar to Tutelo-Saponi came from the Batts and Fallam expedition of 1671, in which two British Settlers explored what is now western Virginia (Mooney, 1894). Among other activities, the explorers recorded a few place names of the Siouan bands they encountered throughout the region (Mooney, 1894). These encounters occurred in the middle of a centuries–old migration trail of Southeastern Siouan peoples that began in the Ohio Valley, their original homeland. Migration southward away from the homeland occurred under the duress of aggression from tribes of the

² M. Mithun, personal communication, December 5, 2018; L. Dunmore III, personal communication, October 22, 2018

then Five Nations of the Iroquois (namely the Seneca and Cayuga). Five–Nation aggressions continued during the colonial era, decimating much of the population of the Siouan tribes,³ driving them further south and east into the Piedmont of Virginia and North Carolina, and forcing them to seek alliance with and protection by the British colony of Virginia (Mooney, 1894).

On February 3, 1713, the colony of Virginia signed a treaty of peace on behalf of Great Britain with four Siouan tribes: the Saponi, the Totero (or Tutelo), the Occaneechi, and the Stuckenock—actually the name given to the Eno and Shakori Indians.⁴ Though not signatories, two additional Siouan bands also found refuge in affiliation with this treaty (the Cheraw and the Meipontsky). These six tribes and bands had been cohabitating in an abandoned Meherrin (Iroquoian tribe) town in southeastern Virginia, and when they entered into treaty with the British they were collectively dubbed the Saponi Nation. They resided until 1729 in Junktapurse,⁵ a town adjacent to a six–square–mile protective military station in southern Virginia by the name of Fort Christanna (from which the peoples of the Saponi Nation derived the pseudonym Christanna Indians).

During the time in Junktapurse, the colony funded a school for the ransomed children of leaders from both the Saponi Nation and other Siouan and Algonquin bands and tribes in Virginia and North Carolina (Kinchelo, 2019). The school’s headmaster elicited a small number of words from his students and passed them on to a French settler whose journal of word entries later contributed to the Tutelo-Saponi lexicon. In the school environment the children were ostensibly exposed to each other’s languages and dialects (including, in addition to all the tribes

³ The most comprehensive early records of the region noted some 22 Siouan bands, yet by the creation of the Saponi Nation in 1713, the numbers had dwindled to six (Mooney, 1894).

⁴ See Mooney, 1894; L. Dunmore III, personal communication, December 14, 2018.

⁵ from [ʃʰõ:kitãp^hasu:], <ʧhõñkitañpasũ>, ‘horse’s head’

of the Saponi Nation, Catawba, and a few Algonquin languages of the region) (Kinchelo, 2019). Prior to and during the time at Junktapurse, the adults of the Saponi Nation were likely additionally exposed to such Iroquoian languages as Mohawk, Oneida, and Tuscarora from warring expeditions that attacked the Siouan peoples over the course of decades from the north and the south (Kinchelo, 2019). Finally, there was significant interaction between the Christanna Indians and enslaved Africans that may have had an influence on the Tutelo-Saponi language.⁶

Under growing tensions and dissatisfaction with their relationship to the British colony, the tribes and bands of the Saponi Nation departed from Fort Christanna in 1829. A number of them migrated into various parts of North Carolina; for a time they took refuge among the Catawba before attempting an unsuccessful return to the Virginia fort where they had once lived.⁷ The more traditional Tutelo took refuge with the Cayuga in Pennsylvania, later migrating with them to join the then other five tribes of the Iroquois Nation to New York. Finally they moved with the Six Nations further north into Toronto after the Revolutionary War (Hale, 1883). It was in Brantford, Ontario, the seat of the Six Nations of the Grand River, where the bulk of the Tutelo-Saponi language was documented (Oliverio, 1996).⁸ Most of the remainder of the Christanna Indians returned to reside in North Carolina, while a smaller number returned to the Ohio Valley, the region of the ancestral homeland. Those tribes that remained in the United States were less successful at maintaining and documenting their language.

⁶ See Kinchelo, 2019 for an account of a thwarted plot planned by the Saponi and enslaved Africans to overthrow the British in the region; also, for conjecture that the Saponi harbored fugitive Africans who had escaped from bondage in Virginia. The theory is that they along with traces of their languages were later incorporated into the Saponi community and the Tutelo-Saponi lexicon.

⁷ They returned to Junktapurse under the assumption that the land belonged to them, only to find that it had been sold to the rangers that previously staffed the fort and offered the Saponi protection under the British colony. See Kinchelo, 2019.

⁸ By the time Hale began his first elicitation of the Tutelo, the people had been living with the Cayuga and other tribes of the Six Nations for over 120 years. There are lexical entries that exhibit language contact from these Iroquoian languages as well as the Dutch language that was borrowed into various Iroquoian lexica as a result of previous colonial contact in New York.

1.3. Language transmission and vitality

Tutelo-Saponi would currently be considered critically endangered according to UNESCO's scale of language endangerment. It has consistently scored one on a five-point scale in all but one of nine factors that UNESCO utilizes to categorize language-community vitality (UNESCO, 2003). While UNESCO's categories are thorough, they are relatively inflexible and limited in their ability to capture the nuances of a language community's health. Furthermore, it can be easy for people to use this rubric to freeze a community in a fixed state of language moribundity. Indeed, there are a number of sites online—even such trafficked ones as Wikipedia—that would claim that Tutelo-Saponi is extinct, and they are unequivocally incorrect (“Tutelo language,” n.d.).

There are generally low if varying levels of its use among the eight tribes that have inherited the language. One speaker of the Haliwa–Saponi tribe in North Carolina has been offering classes to his community for years, therefore a handful of youth have been learning the language (Pellicer, 2019). This tribe member is currently working on a talking dictionary in the language, and the Haliwa–Saponi do offer some sound files of the language on their website (Haliwa–Saponi Indian Tribe, 2019). The OBSN had a regular series of language classes in the early 90s, but since the most fluent member of the tribe moved out of the area only sporadic language lessons have been offered at community events. The most fluent member of the Occaneechi living near the North Carolina homeland is the tribe's administrator, and she does teach bits of the language to her family.

There are very few if any TS pedagogical materials widely available at this time. The OBSN publishes a language lesson in their monthly online newsletter (“Occaneechi Saponi,”

2019). The aforementioned sound recordings are also available on the Haliwa–Saponi website. Finally, there are a few written lessons available on Facebook (Yesanechi Word Pick, 2019).

The attitude about learning the language varies greatly. One community is very eager to learn everything possible since the return to the ancestral homeland in Ohio separated them from many of the southeastern Siouan traditions and language. Another group in Virginia has in the past expressed an unwillingness to engage the work of revitalization. They even suggested adopting the Lakota rather than engaging in revitalization of the Tutelo-Saponi language (Wood, 2016). Similar expressions of enthusiasm and apathy are pervasive among the remaining tribes; no group among them seems to be neutral about the language. I myself have noted great language-learning enthusiasm in my own interactions with members of the OBSN, the Saponi-Catawba Nation, the Saponi Nation of Ohio, as well as with a number of descendants without tribal affiliation.

1.4 Previous work

A number of philologists, anthropologists, and linguists have worked on Tutelo-Saponi in the past. Previous published work on the language includes the following:

1. *The Tutelo language* by Horatio Hale. Hale compiled the most extensive single-source corpus of the Tutelo language from elicitations obtained from three language consultants during the period between 1870 and 1880 (Hale, 1883). Unfortunately, much of his documentation perished in a fire that consumed his home in 1882. What remains contributes to later analysis of the language's grammar and the majority of the Tutelo-Saponi lexicon.

2. *Manuscript 4800: 336* was the result of the Reverend James Owen Dorsey's 1882 visit to the Six Nations Reserve during which he elicited a number of phrases from the few Tutelo speakers there.
3. *Minor Vocabularies of Tutelo and Saponi* by, William Byrd, John Fontaine, Leo Frachtenberg, Edward Sapir. This volume compiles lists and elicitation of Saponi and Tutelo languages taken by explorers and philologists over a vast time period from 1716 to 1907.
4. *The Tutelo spirit adoption ceremony*, by George Herzon and Frank Speck. This is an ethnological study of the Tutelo living among the Cayuga at Six Nations Reserve in 1938 and 1939. The study chronicles the language being used during this time, however it was ceremonial and not lexical in nature.
5. *A grammar and dictionary of Tutelo* by Giulia Oliverio. Published in 1996, this dissertation is the most extensive work on the language to date. Oliverio compiled all of the data of the aforementioned works, as well as that of a few sessions of elicitation taken by linguists throughout the 20th century.
6. *Yesanechi etymological lexicon* by William Meuse. This volume, published in 2010, renders the works above into a lexicon for a non-academic audience.

While Meuse's work was written for a community audience, it only offers lexical entries.

Oliverio's dissertation offers the most detailed grammar and lexicon currently available, however her work is meant for linguists and is relatively inaccessible to Tutelo-Saponi language community members. The grammar outlined is designed not only to be accessible to community members, but also to offer them the basic linguistic tools necessary to more fully access Oliverio's dictionary and grammar.

1.5. Current work

This volume is based primarily on the data from colonial documentation collected by William Byrd, elicitations gathered at Fort Christanna by John Fontaine, Horatio Hale and Leo Frachtenberg's elicitations with the Tutelo at Six Nations Reserve in Brantford Ontario, and Giulia Oliverio's analysis and reconstruction based on all prior linguistic information available on Tutelo-Saponi. Additional data informing orthographic and lexical considerations come from the OBSN monthly publication.

Later in the grammar is a brief section showing methods to enrich the lexicon of Tutelo-Saponi. These methods are based on the analysis of existing documentation and both comparative and historical analysis of the Siouan language family. Additionally, a section on comparative orthography is included to allow community members a point of entry into previous data. Perhaps this comparative orthography can serve as a prompt for today's tribal communities to choose a standardized writing system. The following section of the grammar sketch introduces the sound system of the Tutelo-Saponi language. It is based primarily on the data compiled in Oliverio's (1996) *A Grammar and Dictionary of Tutelo*.

2. Phonology⁹

The sound system of Tutelo-Saponi shares many characteristics that are common across Siouan languages including oral and nasal vowels, phonemic distinctions made based on vowel length, and a five-manner system of consonants. Due to the loss of vowels in certain contexts of the language over time, Tutelo-Saponi has syllable features that are slightly more complex than a typical Siouan consonant-vowel (CV) structure.

2.1 Notes on orthography

There are currently three writing systems (orthographies) in common use for people learning and working on the Tutelo-Saponi language. The earliest orthography still in use is the system utilized by the philologist Horatio Hale in his 1871 documentation of the language (Hale, 2001). This orthography is generally accessible to non-linguists, making use of relatively few diacritics. Aspirated consonants are not very well realized in this orthography.

Commonly used among the Haliwa-Saponi, the Saponi-Catawba Nation, and the Saponi Nation of Ohio is the Americanist phonetic notation (APN), which, with a few changes, is largely similar to the International Phonetic Alphabet (IPA). Syllable stress is realized in this orthography by placing an acute accent over vowels (e.g., *á*). The APN referred to in this work references the orthographic conventions found in Oliverio's dissertation (1996). There may be some variation from the overall system (e.g., she sometimes lists phonemes that appear as [b] and [d] in the Hale and Occaneechi orthography as [p] and [t] respectively.)

⁹ Not covered in this section of the sketch are phonological rules that attempt to describe sound changes in the language. These are beyond the purview of this study. Tone is also not addressed in this thesis. Tutelo-Saponi diverges from many other Siouan languages in that it may have lost phonological tone over time. More accurately, the documentation available did not record tone. Perhaps future research can trace how tone was expressed in relation to volume and speed in Tutelo-Saponi utterances, but this is also beyond the purview of the sketch.

Among the Occaneechi, an orthography reflecting phonetic transcription is commonly utilized. This is very similar to Hale’s system, but with fewer diacritics and occasional additional phonetic spellings.

1) Orthographic correspondences in Tutelo-Saponi

IPA	APN ¹⁰	Hale	Occaneechi
a	a	a, ă, â, ù	a
a:	a:	ā	ā
ã	ą	añ	añ
ã:	ą:	añ	añ
b, p	p	b	b
ɸ	č	tç	tç
ɸ ^h	č ^h	tç	tçh
d	t	d, t	d
e	e	e, ě	e
e:	e:	ē	ē
ẽ	ę	eñ	eñ
g	k	g	g
h	h	h	h
i	i	i, ĭ	i
i:	i:	ī	ī
ĩ	į	iñ	iñ

¹⁰ The APN here references the orthographic conventions utilized by Oliverio (1996), and do not represent the entirety of the APN.

IPA	APN ¹¹	Hale	Occaneechi
ĩ:	į:	ĩñ	ĩñ
k, k ^h	k, k ^h	k	k
l	l	l	l
m	m	m	m
n	n	n	n
o	o	o, õ, ò	o
o:	o:	ō	ō
õ	ɔ̣	oñ	oñ
õ:	ɔ̣:	ōñ	ōñ
p, p ^h	p, p ^h	p	p
s	s	s	s
ʃ	š	ç	ç
t, t ^h	t, t ^h	t	t, th
u	u	u, ú, ũ , ü	u
w	w	w	w
x	x	q	q
j	y	y	y
ʔ	ʔ		’

The transcriptions in the International Phonetic Alphabet below reflect my own renderings of the data.

¹¹ The APN here references the orthographic conventions utilized by Oliverio (1996), and do not represent the entirety of the APN.

2) Examples from the current orthographic systems in Tutelo-Saponi.

IPA	APN	Hale	Occaneechi	Translation
oni:	oni:	onī	onī	‘tree’
ʃ ^h õ:ki	č ^h ó:ki	tçõñg	tçhuñge	‘dog’
ok ^h u	ok ^h ú	okuq	okuq	‘box’
jãtojaste:ka	yãtoyaste:ka	yandoyasteka	yandoyastēka	‘you love it’

For the sake of linguistic analysis, the remainder of the phonology section will be presented using the IPA. Those readers who are more accustomed to one of the other aforementioned orthographies are encouraged to refer to phonemic correspondences in 1). The remainder of the thesis (sections 3-5) will be presented in the orthographic system currently utilized by the Occaneechi.

2.2 Basic phonemes

2.2.1 Vowels

The vowel inventory in Tutelo-Saponi distinguishes between long, short, oral, and nasal vowels. The language contains five oral vowels (i.e. the vowels most often taught to children in English–language schools in North America), [a, e, i, o, u], and five long oral vowels [a:, e:, i: o:] (typically represented with a macron, /ō/ for example, in the Occaneechi orthography). The language also has three nasal vowels [ã, ã, õ] and three long nasal vowels [ã:, ã:, õ:]. Nasal vowels are in contrast with their oral counterparts, sometimes creating two words or word parts with unrelated meanings only by changing one oral vowel to a nasal vowel in a word. For example, [i] changing to [ĩ] would create two unrelated concepts, [-pi] ‘want to’ and [pĩ] ‘to emit a smell.’

Table 1. Tutelo-Saponi vowel chart.

		FRONT	CENTRAL	BACK
ORAL	High	i/i:		u/u:
	Mid	e/e:		o/o:
	Low		a/a:	
NASAL	High	ĩ/ĩ:		
	Mid			õ/õ:
	Low		ã/ã:	

2.2.2 Vowel minimal and near minimal pairs

Minimal pairs and near minimal pairs are utilized to help show clear contrast in the vowel phonemes (distinct units of sound) of Tutelo-Saponi. Minimal pairs are pairs of words in a language that differ based on one unit of sound or another phonetic element, like tone for example. Near minimal pairs are similar, yet they differ by more than one phonetic element. The minimal and near minimal pairs below are listed by phoneme and morpheme, the smallest meaningful unit of a language (e.g. the word ‘impossibly’ contains the morphemes *im-*, *possible*, and *-ly*). These are then followed by a translation of the morpheme. If the morpheme translates into a grammatical feature of the language (a verbal aspect or particular morphemic prefix for example), that will be listed in small capital letters. Some morphemes are free, meaning they can stand alone (possible from ‘impossibly’); others are bound and may only be realized when attached to other morphemes (*im-* or *-ly* for example). If the morpheme is bound it will be followed by an example where it is realized in a word or phrase from the Tutelo-Saponi lexicon.

Examples 3) - 6) show vowel minimal pairs and near minimal pairs in Tutelo-Saponi. Please note the diacritic mark ' is placed prior to a syllable that receives the stress or accent in the word. After a later discussion on syllables these marks will be removed except in instances

where the stress appears in places different from the general rule for accents in Tutelo-Saponi.

The hyphens in the examples are meant to distinguish the morphemes in each word.

3) Oral vowels

Phoneme	Morpheme	Translation	Example
/i/	/hi/	HORTATIVE, in effect, 'please'	/ti'lusi-'hi/ 'take it, please'
/e/	/-se/	PROGRESSIVE, participle 'ing'	/hi:'jã-se/ 'sleeping'
/a/	/ha-/	DEMONSTRATIVE, 'this'	/ha-'le/ 'go there'
/o/	/ho/	'hawthorn'	
/u/	/lu-/	'by hand'	/'luti/ 'pull'

4) Oral long vowels

Phoneme	Morpheme	Translation	Example
/i:/	/hi:/	'hair'	
/e:/	/he:/	'hoof,' 'horn'	
/a:/	/wa:/	ABSOLUTIVE	/wa:-klumi'hĩta/ 'buy'
/o:/	/ho:/	'mix'	
/u:/	/hu:/	'come here'	

5) Nasal vowels

Phoneme	Morpheme	Translation	Example
/ĩ/	/nĩ/	'walk'	
/ã/	/wã/	ACTOR, 'we'	/'wã-olak'pe/ 'we drink'
/õ/	/kõ/	'cause,' 'make'	

6) Nasal long vowels

Phoneme	Morpheme	Translation
/ĩ:/	/mĩ:/	‘sun’
/ã:/	/mã:s/	‘iron’
/õ:/	/õ:/	‘do,’ ‘make’

There is evidence of only one diphthong in the Tutelo-Saponi language:

7) Diphthongs.

Phoneme	Example	Translation
/ai/	/atkasusai/	‘toe’

2.2.3 Consonants

The phonetic elements that distinguish consonants Tutelo-Saponi are primarily place and manner of articulation (where in and by what muscular action of the mouth the consonants are produced). An additional distinguishing element is aspiration, by which additional air is exhaled in the production of a consonant. The language distinguishes between aspirated and unaspirated stops (sounds where the flow of air is stopped using varying parts of the vocal tract) and affricates (sounds that begin as a stop and then release with a partial obstruction of air).¹² The language contains a total of 17 consonants, two of which are not generally written in American English orthography. One of these is the glottal stop, marked as <ʔ> in the IPA and as <’> in the Occaneechi orthography. This sound is characterized by a closing in the throat followed by a release of air. In English, this sound is sometimes articulated at the onset (beginning) of words that start with a vowel: ever, utter, and orange for instance. The other sound is called a velar

¹² The only affricates utilized in Tutelo-Saponi are tʃ and its aspirated variant, tʃ^h (tç and tç^h respectively in the Occaneechi orthography).

fricative and is marked as <x> in the IPA and as <q> in the Occaneechi orthography. This sound is similar to what we associate with [h], however with more vibration at the back of the throat as if attempting to produce phlegm.

Table 2. Tutelo-Saponi consonant chart.

Place and Manner of Articulation		Labial	Dental	Palatal	Velar	Glottal
Stops/Affricates						
	Aspirated	p ^h	t ^h	tʃ ^h	k ^h	
	Unaspirated	p	t	tʃ	k	ʔ
	Nasal	m	n			
Fricatives			s		x	h
Laterals			l			
Glides		w		j		

2.2.4 Consonant minimal and near minimal pairs

The principles of minimal and near minimal pairs in 2.2.2 also apply to consonants. In the minimal pairs and near minimal pairs of 8), Ø (referred to as null) indicates the lack of a consonant.

8) Consonant minimal and near minimal pairs

Phoneme	Morpheme	Translation	Example
/p/	/pi/	DESIDERATIVE	/ki-wi-le:-pi-na/ 'I do not want to go'
/k/	/ki-/	VERTITIVE	/kile:/ 'to go back or come back' ¹³
/m/	/mi/	'but'	
/l/	/li/	'arrive here'	

¹³ There is reason to suggest that /ki/ as a vertitive suffix was historically a separate word appearing before the verb that it modified. It would seem that over time it came to be incorporated into certain verbs and was no longer known as a separate word. Normally there would be a hyphen between a prefix and the verb it is attached to, but here the combination of the prefix and the verb came to replace the original verb itself (ki le: was perhaps replaced by ki-le:, and then came to known as kile:, 'to go back' or 'to come back').

Phoneme	Morpheme	Translation	Example
/w/	/wi/	POSSESSIVE, 'my'	/wi- 'sōtka/ 'my younger brother'
/j/	/ji/	POSSESSIVE, 'your'	/ji- 'sōtka/ 'your younger brother'
/p/	/pi:/	'good'	
/n/	/ni:/	'leg'	
/s/	/si:/	'yellow'	
/h/	/hi:/	'arrive there'	
/t/	/te:/	'die'	
/s/	/se/	ASSERTIVE	/'bi:-se/ 'is good'
/x/	/xe:/	'friend'	
/h/	/he:/	'that, there'	
/l/	/le:/	'this here'	
/k/	/kō/	'cause, make'	
/ʔ/	/ʔō/	'do, make'	
/Ø/	/ō:/	PROGRESSIVE	/o-xati- 'ō-hla/ ¹⁴ 'they are seeing it'
/m/	/māke/	'lay down'	
/l/	/lāke/	'sit'	

¹⁴ The length of the vowel /ō:/ is diminished when in the middle of a word. It becomes /ō/.

Phoneme	Morpheme	Translation	Example
/p/	/pa/	‘bitter’	
/p ^h /	/p ^h a/	‘head’	
/t/	/-’a:ti/	REFERENTIAL, ‘father’	/e-’ja:t-pui/ ‘your (plural) father’
/t ^h /	/a t ^h i:/	‘house’	
/tʃ ^h /	/’tʃ ^h õ:ki/	‘dog’	
/tʃ/	/’tʃõka/	‘die’	
/k/	/ĩ kĩ/	‘presently’	
/k ^h /	/i k ^h a/	RESTRICTIVE, ‘only, alone’	/ik ^h a nõ:pa:/ ‘only two’

2.3 Phonotactics

Phonotactics explores which combinations of individual sounds (or phonemes) are possible and acceptable in a given language. In the case of Tutelo-Saponi, this section will cover the consonant clusters that are possible, as well as the syllable structure of the language.

2.3.1 Consonant clusters

The following are the consonants clusters found in the Tutelo-Saponi language:

9) Consonant clusters

Cluster	Example	Translation
/pt/	/alup'te/	'to cross'
/pk/	/na'hã:pki/	'tomorrow'
/pn/	/kanahã:pñã/	'morning'
Cluster	Example	Translation
/ps/	/wihox'kupsua:/	'fishy smell'
/pl/	/haple:ha/	'thin'
/tk/	/'stetka/	'long'
/tm/	/hi'ka:tmani:/	'Hyco River' or 'Turkey Buzzard River'
/tn/	/a:satnitku'ãx/	'icy'
/tj/	/'tjaok/ ¹⁵	'under'
/tʃk/	/tʃke/	'to scratch'
/kp/	/lakpe:/	'to drink'
/kt/	/mãkta'kĩ/	'wolf'
/ktʃ/	/ktʃipa:i/	'pipe'
/km/	/wahuk'mi:/	'mask'
/kn/	/knĩ/	'to walk back'
/ks/	/mãksi:/	'arrow'
/kh/	/hawãkhe:wa/	'we say'
/kl/	/klu:/	'thunder'

¹⁵ This cluster is arguable. It is based on an elicitation from J.N.B. Hewitt in 1888, and has later been represented phonetically as /tiyaok/ in the Americanist phonetic notation. In IPA the /y/ in the earlier notation becomes /j/.

Cluster	Example	Translation
/kw/	/wākw <u>an</u> ō:wa/	‘we steal it’
/ky/	/wākj <u>āt</u> oste:ka/	‘we love him’
/mx/	/ko:m <u>x</u> ā:/ ¹⁶	‘girl’
/sp/	/spe:/	‘cut’
/st/	/i <u>st</u> i:/	‘beard’
/sk/	/a:s <u>k</u> a:i/	‘near’
/sn/	/mo's <u>n</u> uk ^h e/	‘otter’
/xt/	/'j <u>x</u> ta/	‘nest’
/xk/	/to: <u>x</u> ka:/	‘fox’
/xh/	/j <u>x</u> 'h <u>e</u> /	‘that, thus’
/xl/	/' <u>x</u> lo:te/	‘scratched’
/ht/	/'ma <u>h</u> tijī:/	‘cow’
/hk/	/wā:h <u>k</u> i/	‘man, husband’
/hn/	/'j <u>h</u> ni:/	‘tobacco’
/hl/	/ā:ko:h <u>l</u> e:/	‘shoe’
/hj/	/ki <u>h</u> je/ ¹⁷	‘step-child’
/lt/	/ɪk <u>sh</u> ō'pult/	‘you (plural) will be laughing’
/lx/	/j <u>x</u> helx/	‘man’

There is only one example of three consonants in a cluster:

¹⁶ This cluster is arguable. It is based on an elicitation from Horatio Hale in 1883, and has later been represented phonetically as /ko:mihā:/.

¹⁷ This cluster is arguable. It is based on an elicitation from J.N.B. Hewitt in 1888, and has later been represented phonetically as /kihi'je/.

10) Clusters of three consonants

Cluster	Example	Translation
/kst/	/ak'stã/	'cheek'

2.3.2 Syllable structure:

The typical Siouan CV (consonant vowel) structure characterizes the most commonly occurring syllable in Tutelo-Saponi. The language has experienced the deletion of final and unstressed vowels however, making all the following syllable structures possible:

11) Tutelo-Saponi syllable structures.

	Structure	Example	Translation
a.	V	/õ/	'do, make'
b.	CV	/su:/	'seed, pupil'
c.	CCV	/kle:/	'awake'
d.	VC	/ak-'stã/	'cheek'
e.	CVC	/hu:k/	'all'
f.	CCVC	/'stet-ka/	'long'

2.4 Stress

Unfortunately, stress has not been well documented in the corpus of Tutelo-Saponi. The data available reveal, however, that the stress in the majority of words in the language falls on the second syllable. This is in keeping with the accent pattern typical across Siouan languages. There are a number of instances where the stress is pronounced in places other than the second syllable of words. In some cases this is due to the deletion of vowels that took place over the

course of the language's history. In other cases a word may contain one of the following grammatical morphemes known as clitics (i.e. morphemes that must attach to a phrase—most often a verb phrase in Tutelo-Saponi—in order to have meaning) that tend to take the stress even though they are not located in the second syllable:

12) Inherently accented clitics

	Morpheme	Translation	Example
a.	/'a/	'on' (locative prefix)	/'a-ka'li/ 'to go up, to go on'
b.	/'õ:/	(progressive aspect)	/o-xati-'õ-hla/ 'they are seeing it'
c.	/'pu/	(2 nd person plural)	/jãtojaste:ka'pu:-a/ 'they love it'

3. Morphology¹⁸

Morphology is the study of morphemes, the smallest units meaning in a language that come together to form and structure words. Tutelo-Saponi is rich language for morphological analysis. It features a system of more richly inflected (modified) verbs than nouns. The language does not have adjectives, but rather a type of verb that acts similarly to adjectives. Tutelo-Saponi has five classes of adverbs and six types of numerals, in addition to demonstratives and interjections. Finally, the language has a number of grammatical categories including aspect, mode, and case. These categories are realized as affixes that attach most often to a verbal stem (a base word that prefixes, suffixes, and other bound morphemes attach to). Tutelo-Saponi is agglutinative and mildly polysynthetic, i.e. capable of generating words and phrases from several independent and unchanged affixes attaching to a single stem to alter meaning.

3.1 Verbs

Tutelo-Saponi has an active/stative distinction on its verbs, meaning that, depending on the type of verb in a phrase, different classes of prefixes indicate who or what is undertaking or experiencing the verb. The language also has morphemes that indicate plurality, and these are fairly independent of the other features of the verbal construction they attach to or complement. To indicate mode and aspect, Tutelo-Saponi also marks verbs extensively with bound morphemes (units of meaning that must attach to another, freestanding morpheme, or what we think of as words).

The majority of verbs in Tutelo-Saponi have a single root or stem.

¹⁸ As mentioned previously, the remainder of this study will be written in the orthography currently in development for the Occaneechi Band of the Saponi Nation.

13) Single stem verbs

- a. kitē
kill
'to kill'
- b. lakpē
drink
'to drink'

There are a few verbs in the language that have two stems. If each of the stems have a lexical translation, they will be listed; if one of the stems falls into a morphological category that will be described elsewhere in the morphology portion of this study. In the case of the verb 'love,' the verb is comprised of a noun, a locative marker¹⁹, and a verb.

14) Compound-stem verbs

- a. yañd-o-stēka
heart-LOC-good
'love'
- b. ha-hē
DEM-speak
'speak' (speak here)

3.1.1 Active/Stative split

In a language with an active/stative split such as Tutelo-Saponi, verbs are divided into two broadly defined categories. Active verbs are those that indicate the subject is undertaking an action, as in *kilum̄tha* 'buy'. Stative verbs are those that indicate the subject is experiencing a state, as in *n̄na* 'to be alive'. These categories are not comprehensive, as can be seen with the exceptions *h̄iyañta* 'sleep' as an active verb, and *kathi* 'to cut by striking' as a stative verb.

¹⁹ Refer to page 41 for an explanation of locatives.

Please refer to Oliverio, 1996, for an extensive list of Tutelo-Saponi active and stative verbs (p. 336-337).

3.1.2 Pronouns²⁰

Actor pronouns

Pronouns in Tutelo-Saponi occur as first and third person singular, and first person plural (i.e., I or me; he, she, or it; and we). Second person (you) is represented by a pronoun that can be either singular or part of a plural construction. Second and third person plural (you plural and they or them) are realized by the addition of a morpheme towards the end of verbal constructions.

Actor pronouns are affixes that attach either at or near the front of a verb (prefixes), or in some cases, attach between stems of a compound verb (infixes). There are two types of actor pronouns. The most commonly occurring singular pronouns are *ma-* or *wa-* for first person and *ya-* for first and second person. The third person singular actor pronouns are null (i.e., requiring no addition to, subtraction from, or other modification of the verb. Null morphemes are represented with the symbol \emptyset).

²⁰ Moving forward, please note that those examples not referenced to previous research have been created by me in accordance with the rules of the grammar.

15) Singular actor pronouns²¹

	Person	Pronoun	Prefix Example	Infix Example
a.	1 st person	wa- or ma-	wa-ktē-wa 1SG.A-kill-REAL 'I kill him' (Hale, 2001)	yañd-o-wa-stēka heart-LOC-1SG.A-good 'I love him' (Hale, 2001)
b.	2 nd person	ya-	ya-ktē-ta 2SG.A-kill-POT 'you will kill him' (Hale, 2001)	yañd-o-ya-stēka heart-LOC-2SG.A-good 'you love him' (Hale, 2001)
c.	3 rd person	Ø	Ø-kitē-se 3SG.A-kill-ASSERT 'he kills him' ²² (Hale, 2001)	yañd-o-Ø-stēka heart-LOC-3SG.A-good 'he loves him' (Hale, 2001)

Tutelo-Saponi currently has two active verb stems that feature a nasalized vowel prominently in the first syllable and therefore require different actor pronouns in the first and second person. The first verb is preceded by a glottal stop (in effect, a null sound) in its base form: *'oñ* 'do, make'. (Please note that the glottal stop is dropped when a pronominal prefix is added.) The second verb begins with a nasalized vowel: *oñspe* 'know'. In these instances, the active pronouns for the first and second person are *m-* and *y-* respectively.

16) Nasalized actor pronouns

- a. waquk m-oñ-ma
string 1SG.A-do-REAL
'I am making a string' (Dorsey, 1882)

²¹ Singular and first-person plural pronouns are addressed first in the morphology section of this sketch because they are marked by prefixes and infixes. Second- and third-person plurals are marked by suffixes. Verbal constructions in Tutelo-Saponi can be complex, having several elements that attach both before and after the verb stem. For the sake of clarity, this thesis addresses all possible verbal prefixes and infixes first, then follows with all possible verbal suffixes.

²² While the translations remain faithful to the original sources, the subjects for the third-person singular could also be 'she,' 'it,' or 'they' in the current singular usage of the pronoun.

- b. waquk y-oñ-ma
string 2SG.A-do-REAL
'you are making a string' (Dorsey, 1882)
- c. ki-m-oñspe-na toke koñdik nahamp
NEG-1SG.A-know-NEG how ? tomorrow
'I don't know how I may be tomorrow' (Dorsey, 1882)
- d. ki-y-oñspe-na toke koñdik nahamp
NEG-1SG.A-know-NEG how ? tomorrow
'You don't know how I may be tomorrow' (Dorsey, 1882)

The first-person plural actor pronoun (we) is realized as *wañk-* or *mañk-* before stems beginning in /h, l, w, j/. Before stems beginning with all other sounds, the pronoun is realized as *wañ-* or *mañ-*.

17) First person plural actor pronouns

- a. kohotç mañk-hiye-ta huk
hole 1PL.A-CAUS-POT ALL
'we will all make a hole.' (Dorsey, 1882)
- b. nahamp-ki mañk-lūti-ta
tomorrow-DEF 1PL.A-eat-POT
'we will eat tomorrow' (Hale, 2001)
- c. mañk-manōñ-ma
1PL.A-steal-REAL
'we steal it' (Hale, 1878)
- d. mañ-o-la-kpē-wa
1PL.A-LOC-drink-REAL
'we drink' (Dorsey, 1882)

In the case of compound verbs, the placement of the first person plural actor pronouns in almost all cases occurs prior to all stems. The only exception is for verbs that begin with the demonstrative *ha-* 'this' or 'here'. The only active verb that currently falls into this category is *ha-hē* 'speak,' however it is possible that verbs with this prefix may be reconstructed or created in the future.

18) Placement of first person plural actor pronouns with compound verbs

- a. mañk–yañdo–o–stēka
1PL.A–heart–LOC–good
'we love him' (Hale, 2001)
- b. ha–mañk–hē–wa
DEM–1PL.A–speak–REAL
'we say' (Hale, 2001)

Patient and dative pronouns

Tutelo-Saponi has two additional types of pronouns: patient and dative. Patient pronouns are those that are the subject of stative verbs. They can also represent an object that receives the action of the verb. For example, in the phrase, *She hits him*, *him* is an object pronoun that would be represented by a stative pronoun in Tutelo-Saponi. Unlike active pronouns, there is a third person singular patient pronoun in the language.

19) Patient pronouns

	Person	Pronoun	Example
a.	1 st person singular	wi– or mi–	mi–la–tçke–wa 1SG.P–INS–scratch–REAL 'I scratch with the foot' (Dorsey, 1882)
b.	2 nd person singular	yi–	o–yi–hiñh'nē–wa LOC–2P–push–REAL 'she pushes you'
c.	3 rd person singular	i–	i–la–tçke–wa 3SG.P–INS–scratch–REAL 'he scratches with the foot' (Dorsey, 1882)
d.	1 st person plural	wai– or mai–	'wai–loqkaha 1PL.P–tear 'we tear' (Dorsey, 1882)

Dative pronouns are those that indicate to whom the action of a verb is occurring. These pronouns are often used with the verbs *kikōha* ‘call to’ and *kītoñ* (or *gītoñ*). Dative pronouns are also used to indicate the subject of the stative verbs ‘hungry’ and ‘sick.’ The first- and second-person singular pronouns differ from the patient pronouns only by the nasality of the vowel. Unlike the patient pronouns, the dative third person pronoun is null. The first person plural dative pronouns are the same as the equivalent active pronouns.

20) Dative pronouns

	Person	Pronoun	Example
a.	1 st person singular	wiñ– or miñ	miñ–gikoha 1SG.DAT–DAT–call ‘he calls to me’ (Hale, 2001)
b.	2 nd person singular	yiñ–	yiñ–kīhniñtē–wa 2SG.DAT– hungry–REAL ‘you are hungry’ (Hale, 1879)
c.	3 rd person singular	Ø	ki–Ø–gītoñ–na NEG–3SG.P–belong– NEG ‘it does not belong to him’ (Hale, 2001)
d.	1 st person plural	wañk– or mañk	mañk–wa–ginōñ–ma 1PL.DAT–STEM–sick–REAL ‘we are sick’ (Dorsey, 1882)
e.	1 st person plural	wañ– or mañ	mañ–kītoñ–wi 1PL.DAT–belong–REAL ‘it belongs to us’ (Dorsey, 1882)

Singular pronominal affix combinations

A transitive verb in Tutelo-Saponi will have both the subject and object indicated by pronominal prefixes. The grammatical category person is the sole factor that determines the

order in which these prefixes occur. Regardless of whether the singular pronouns are actor, patient, or dative, first person always precedes second person, and both precede third person in relation to the main stem of a verb. These prefixes occur before reflexive, veritive, dative, and instrumental morphemes. If both the subject and object are in the same person, the resulting phrase is reflexive.

21) Pronoun combinations

	Combination	Example
a.	1SG.A-2SG.DAT	ma-yiñ-gū-wa 1SG.A-2.DAT-give-REAL 'I give to you' (Hale, 2001)
b.	1SG.P-2SG.A	kohināñk-wi-ya-hi-wa STEM-1SG.P-2SG.A-strike-REAL 'you strike me' (Hale, 2001)
c.	1SG.A-2SG.P	'wa-yi-kte-ta 1SG.A-2SG.P-shoot-POT 'I will shoot you' (Hale, 2001)
d.	1SG.P-3SG.P	wi-i-ne:-wa 1SG.P-3SG.P-see-REAL 'he sees me' (Hale, 2001)
e.	2SG.P-3SG.P	yi-i-ne:-wa 2SG.P-3SG.P-see-POT 'he sees you' (Hale, 2001)
f.	2SG.A-2SG.P	yañd-o-ya-yi-stēka heart-LOC-1SG.A-2SG.P-good 'you love yourself'

3.1.3 Plural constructions

The second and third persons Tutelo-Saponi have the respective suffixes *-pu* and *-hele* placed after the main stem of the verb. Person is the only factor to consider in using these

suffixes; considerations such as subject, object, actor, patient, or dative are irrelevant. If the subject and object are in the same person only one pluralizing suffix is necessary.

22) Pluralizing suffixes

- a. ki-yiñ-gītoñ-pū-na
NEG-2SG.DAT-belong-2 PL-NEG
'it is not yours (plural)' (Dorsey, 1882)
- b. o-xate-hla
LOC-see-3PL
'they see it' (Hale, 2001)

Additionally, there is the adverb *hūk* 'all' that sometimes replaces both *-pu* and *-hele* as plural markers. This adverb can appear as both a bound and free morpheme.

23) Hūk as a pluralizing morpheme

- a. hūk-waktāka
all-man
'they are all men' (Hale, 2001)
- b. huk yi-luka-hi-ta
all 2P-turn over-DES-POT
'You will all turn it over (please)' (Dorsey, 1882)

3.1.4 Non-pronominal prefixes

Absolutive prefix

The absolutive prefix *wā-* occurs in only a very few instances in the Tutelo-Saponi corpus. This prefix represents the indefinite object (an object with the meaning *something*) of a transitive verb or the indefinite subject of an intransitive verb (i.e., a verb that does not occur to an object) (Oliverio, 1996). The result of its realization in a phrase is 'something' 'or someone.'

24) Absolutive prefix *wā-*

- a. *wā-klumih-iñ-ta*
ABS-buy-HORT-POT
'(please) buy something' (Hale, 2001)
- b. *wā-kitçi*
ABS-dance
'somebody dances' (Hale, 2001)

Instrumental affixes

Tutelo-Saponi uses affixes (most often prefixes) to indicate action that is performed using an item, particular body parts, certain types of applied force, or in extreme temperatures.

25) Instrumental affixes

Affix	Translation	Example
a. <i>i-</i>	'with'	<i>mañsañ i-'ya-klat'kūsa</i> knife with-2SG.A-cut 'you cut with a knife' (Dorsey, 1882)
b. <i>ka-</i>	'by striking'	<i>tokai 'wa-ka-'qlēp</i> house 1SG.A-INS-sweep 'I sweep the house'
c. <i>la-</i>	'by mouth or teeth'	<i>hohinañk 'o-wa-la-'skē</i> cranberry LOC-1SG.A-INS-hold 'I bite into a cranberry'
d. <i>la-</i>	'by hand'	<i>wi-la-'tkūsa</i> 1SG.P-INS-break 'I break it with my hands' (Dorsey, 1882)
e. <i>la-</i>	'by foot'	<i>'wi-la-'tçke-wa</i> 1SG.P-INS-scratch-real 'I scratch with the foot' (Dorsey, 1882)
f. <i>'laka-</i>	'by force, by striking'	<i>'laka-'tiñhañ</i> INS-cut 'to cut by force/striking' (Oliverio, 1996)

g. lu–	‘by hand, by pulling’	'mima wi–lu–sa 1DISJ 1SG.P–INS–take ‘I take it/steal it’ (Dorsey, 1882)
h. na–	‘by temperature extreme’	'wi–na–'qlōta 1SG.P–INS–scratched ‘I am blistered’ (Dorsey, 1882)
i. nañ–	‘by foot’	nañ–tkūse INS–break ‘to break with the foot’ (Oliverio, 1996)
j. pa–	‘by pressure/pushing’	pa–hē ‘pound’ (Oliverio, 1996)

Locative prefixes

There are three verb prefixes in Tutelo-Saponi that indicate the location or direction by which an action is performed, *a-*, *i-*, and *o-*.

26) Locative prefixes

Prefix	Translation	Example
a. 'a–	‘on/at’	'tçūqe 'ā–ka'li–wa mountain LOC–go–REAL ‘she goes up a mountain’ (Oliverio, 1996)
b. i–	‘towards’	mañsañ i–lē–wa knife DIR–go there–REAL ‘he goes to the knife’
c. o–	‘into/inside’	wañ–o–la–skē 1PL.A–LOC–INS–hold ‘we bite into’ (Dorsey, 1882)

Reflexive prefix

In Tutelo-Saponi the prefix *hki-* indicates that the subject and object of a verb are one and the same.

27) The reflexive prefix

Prefix	Translation	Example
a. hki–	‘oneself’	hki–klē–wa REFL–awaken–REAL ‘she awakens herself (she wakes up)’

Vertitive prefix

The prefix *ki-* in Tutelo-Saponi indicates that a verb carries the meaning of ‘back to a location again.’ It is attached only to verbs of motion. If it attaches to a stative verb that normally uses patient pronouns, the verb then becomes active and acquires active pronouns.

28) Vertitive and non-vertitive constructions

lē→kilē

- a. wi–lē–ta i–athī
1SG.P–go–POT DIR–house
‘I am going to the house’ (Hale, 2001)
- b. wa–k–lē–ta i–athī
1SG.A–VERT–go–POT DIR–house
‘I am coming from the house’ (Hale, 2001)

If

The prefix *li-* approximately translates to ‘if’ in Tutelo-Saponi.

29) ‘If’ constructions

- a. li–hī–ok, wa–kilāki–ta
if–come–PST, 1sg.a–tell–POT
‘if he comes, I will tell him’ (Hale, 2001)
- b. wi–hū–ta, Jan li–hi–ōk
1SG.P–come–POT, John if–come–PST
‘I will come if John comes’ (Hale, 2001)

3.1.5 Verbal prefix placement

The following table marks the location of verbal prefixes in Tutelo Saponi

Table 3. Relative location of verbal prefixes.

						PROG <i>ya-</i>		
						REFL <i>hki-</i>	If <i>li-</i>	
						REFL <i>ki-</i>	INS 'force' <i>'laka-</i>	
NEG <i>ki-</i>	1PL	STEM 2	1SG	2	3P	VERT <i>ki-</i>	INS 'mouth' <i>la-</i>	STEM 1 verb root
	LOC 'on' <i>'a-</i>						INS 'hand' <i>lu-/la-</i>	
	LOC 'in' <i>o-</i>						INS 'foot' <i>nañ-/la-</i>	
	LOC 'dir' <i>i-</i>						INS 'striking' <i>ka-</i>	
	'with' <i>i-</i>						INS 'temp' <i>na-</i>	
	ABS <i>wā-</i>						INS 'pressure' <i>pa-</i>	

3.1.6 Aspects and Modes

Real aspect

The real aspect marks a verb as being a real occurrence for the speaker. This applies to either an event having taken place in the past or actually occurring in the present. In Tutelo-Saponi this aspect is marked by the suffix *-wa*.

30) Real aspect

- a. wa-ktē-wa
1SG.A-kill-REAL
'I kill him' (Hale, 2001)
- b. yi-lūti-wa
2SG.P-eat-REAL
'you eat it'

Progressive aspect

In Tutelo-Saponi the suffix *-ōñ* indicates a verb that is in progress or taking place over the course of time.

31) Progressive aspect

- a. wa-ktē-ōñ-wa
1SG.A-kill-PROG-REAL
'I am killing him' (Hale, 2001)
- b. wañ-ksēhe-ōñ-wa
1PL.A-laugh-PROG-REAL
'we are laughing'

Progressive -ya

In Tutelo-Saponi there is another progressive aspect that is used only with verbs of motion and the verb *nañhē* 'to stand'. It is indicated by the prefix *ya-*.

32) Progressive *ya-*

- a. hu-wa
come-REAL
'to come' (Hale, 2001)
- b. ya-hū-wa
PROG-come-REAL
'he is coming' (Hale, 2001)
- c. hewa-nañhe-wa
DEM-stand-REAL
'he stands' (Hale, 2001)

- d. he–ya–nañ ‘he–s
 DEM– PROG–stand–DEF
 ‘standing man’ (Oliverio, 1996)

Potential aspect

Tutelo-Saponi marks events that will occur in the future by adding the suffix *–ta* to a verb.

33) The potential aspect

- a. ya–ktē–ta
 2SG.A–kill– POT
 ‘you will kill him’ (Hale, 2001)

Past aspect

Completed actions are marked in Tutelo-Saponi by the addition of the suffix *–okhe* or a variant thereof to a verb stem. This suffix may also appear in sentences with ‘if’ constructions to indicate the conditions that must be met for a future action to take place.

34) *–okhe* in past and ‘if’ constructions

- a. kihkoñspe–hle–ōkha
 remember–3PL–PST
 ‘they remembered it’ (Hale, 2001)
- b. li–hī–ok, wa–kilāki–ta
 if–come–PST, 1sg.a–tell–POT
 ‘if he comes, I will tell him’ (Hale, 2001)

Oliverio also analyzed the suffix *–yuke* as a marker of the past tense, however comparative research of its cognates in other Siouan languages would indicate that this suffix, derived from a Pre-Tutelo word for ‘move,’ is actually a marker of continuative or ongoing activity. A more detailed analysis of this suffix is beyond the purview of this grammar sketch; it will, however, be explored in future work.

Negative mode

Negation is expressed in Tutelo-Saponi using a circumfix (a combination of adding a prefix before and a suffix after a verb), with the prefix *-ki* or some variant thereof and the suffix *-na* or some variant thereof at either end of the verb. This negation can also be used with nouns, effectively rendering the noun a stative verb.

35) The negative mode

- a. *ki-yiñ-gītoñ-pu-na*
NEG-2DAT-belong-2PL-NEG
'it is not yours' (Hale, 2001)
- b. *ki-yeqta-na*
NEG-nest-NEG
'it is not a nest'

Interrogative mode

Questions in Tutelo-Saponi are indicated with the suffix *-o*. This suffix applies in both yes/no questions and content questions.

36) Interrogative mode

- a. *ya-ktē-oñ-w-o*
2SG.A-kill-PROG-REAL-INTER
'are you killing him?' (Hale, 2001)
- b. *to 'khenañ-'no*
how.many-INTER
'how many?' (Oliverio, 1996)

Imperative mode

The imperative mode is used to give orders. It is highly assertive in Tutelo-Saponi, and there is another, more gentle mode and will be discussed further below. The imperative is marked with the suffix – 'i.²³

37) Imperative mode

- a. wiyañ 'kathi-'i
 wood cut–IMP
 'cut wood!' (Dorsey, 1882)

Hortative mode

The hortative mode is another way in Tutelo-Saponi to make an order, yet it is much gentler than the imperative mode. Although slightly more assertive, this is the closest equivalent in the language to saying 'please' in English. This mode is marked by the suffixes – 'iñ and – 'hi.²⁴

38) Hortative mode

- a. ehiñ, o–lakpe–'yiñ²⁵
 now, LOC–drink–HORT
 'now drink' (Dorsey, 1882)
- b. ti– 'lusi–'hi iyanañkoiñ
 2P? –take– HORT chair
 'take up a chair' (Dorsey, 1882)

²³ Please note that the ' does not indicate a glottal stop, but rather marks that the imperative morpheme is always accented.

²⁴ Refer to the previous note as regards accentuation

²⁵ The phoneme *y* is inserted before the hortative morpheme –*iñ* due to a phonological rule not covered in this study.

Causative mode

In Tutelo-Saponi the verb ‘to cause’ *hiye* is also used as a verb suffix indicating causation.

39) Causative mode

- a. 'a-ka-'qlēp-hi'ye
 loc-INS-sweep-CAUS
 ‘he makes someone sweep’ (Dorsey, 1882)

Desiderative mode

Expressing desire in Tutelo-Saponi is accomplished by the addition of the suffix *-pi* after a verb stem. All the examples in the language’s corpus of the desiderative suffix are in negative constructions, so comparative Siouan research will be required to ascertain whether or not it can be used in declarative statements.

40) Desiderative mode

- a. ki-wi-lē-pi-na
 NEG-1SG.P-come-DES-NEG
 ‘I do not wish to come’ (Hale, 2001)

Assertive mode

When making statements in Tutelo-Saponi, the assertive mode is often used when there are no real or past aspect suffixes present in a verbal configuration. There are two suffixes in the assertive mode, *-se* and *-la*. The former is the more common among the two, whereas *-la* seems to index as masculine or forceful speech and on. It is found most often in cases of reduplication, and will be discussed in more detail further below.

41) Assertive mode

- a. o–phe–tē–se
 LOC–go–POT–ASSERT
 ‘he is going’ (Hale, 2001)

Plurality and reduplication

The way to mark plural nouns in Tutelo-Saponi is by reduplication on stative verbs that they modify. The syllable that is reduplicated (i.e., repeated) in the stative verb has the shape CV(C) (consonant vowel with the possibility of another optional consonant in the syllable). The stress in the reduplicated stative verb falls on the second repetition of the syllable. This construction is often attested as being followed by the suffix *–se* or *–sel*, a combination of both assertive markers, when the speaker is male or attempting to exert power in their speech. These assertive markers are not mandatory however.

42) Reduplication

- a. athī asañ'sañ–se–l
 house white.REDUP–ASSERT–ASSERT
 ‘white houses’ (Oliverio, 1996)
- b. athī okhayi'yīkhi–se–l
 house ugly.REDUP–ASSERT–ASSERT
 ‘ugly houses’
- c. maqikā–lañ–lañki–se
 tree–REDUP–sit–ASSERT
 ‘clump of trees’ (Hewitt, 1888)

3.1.7 Verbal suffix placement

Unlike verbal prefixes, the placement of the verbal mode and aspect suffixes in Tutelo-Saponi is variable. A table capturing their precise ordering is not possible.

43) Verbal suffix ordering

- a. kite-oñ-se-l
kill-PROG-ASSERT-ASSERT
'he is killing them' (Hale, 2001)
- b. ya-ktē-oñ-w-o
2SG.A-kill-PROG-REAL-INTER
'are you killing him?' (Hale, 2001)
- c. k-o-wa-phē-pi-na
NEG-LOC-1SG.A-go-DES-NEG
'I do not wish to go' (Hale, 2001)
- d. k-o-phē-pi-nī-se
NEG-LOC-go-DES-NEG-ASSERT
'he does not wish to go' (Hale, 2001)

3.2 Nouns

Nouns in Tutelo-Saponi are marked for definiteness, possession, and emphasis. Nouns can in some instances derive from verbs. Though this is not the primary way that the language marks plurals, Tutelo-Saponi nouns occasionally exhibit reduplication to mark plurality and emphasis.

3.2.1 Definiteness

There are two suffixes (one with a nasalized variation) to mark definite nouns in Tutelo-Saponi: *-ki/-kiñ* and *-se*. There is one suffix to mark indefinite nouns, *-i*.

44) Definite and indefinite nouns

- a. tāksē-i
river-INDEF
'a river' (Hale, 2001)
- b. takse-se
river-DEF
'the river' (Oliverio, 1996)

c. nahāñp–ki
 day–DEF
 ‘tomorrow’ (Hale, 2001)

d. na'hāñp–le–'kiñ
 day–DEM–DEF
 ‘today’ (Oliverio, 1996)

3.2.2 Possession

Tutelo-Saponi inflects on both verbs and nouns to mark possession. With nouns, possession is either alienable or inalienable. Alienable possession refers to either a temporary or unnecessary ownership of the possessed item. Inalienable possession refers to a permanent or necessary ownership of the possessed item.

Alienable possession is marked in three ways: using the patient pronouns (see example 18)) in combination with *tā-* as prefixes, using the verb *'kītoñ* (or *'gītoñ*) ‘belong’ inflected with dative pronouns, or using the verb *o-hkiñphi* ‘own’ with the word ‘dog’.

45) Alienable possession

a. yi–tā–wāñhki
 2SG.P–ALIEN–man
 ‘your husband’ (Oliverio, 1996)

b. hi'sēp miñ–gītoñ–wi
 hatchet 1SG.DAT–belong–INDEF
 ‘my hatchet’ (Oliverio, 1996)

c. t̄choñg wañ–o–hkiñphi
 dog 1PL.A–LOC–own
 ‘our dogs’

Kinship terms, body parts, and the word ‘house’ are the nouns that receive the inalienable possession marker. In Tutelo-Saponi inalienable possession is demonstrated primarily with the

addition of patient pronoun prefixes for kinship terms, and dative pronoun prefixes for body parts. In the case of ‘house’ *-athi* and the referential term for ‘father’ *-’āti*, possession is marked by the addition of the prefix *e-* followed by an actor pronoun prefix.

46) Inalienable possession

- a. *yi-soñtka-pu-i*
2P-younger.brother-2PL-INDEF
‘your younger brother’ (Oliverio, 1996)
- b. *wiñ-phasū-i*
1SG.DAT-head-INDEF
‘my head’ (Oliverio, 1996)
- c. *e-wāñ-āti*
? -1PL.A-father
‘our father’
- d. *e-∅-āthi*
? -3SG.A-house
‘his house’

3.2.3 Nominal reduplication

The primary use of reduplication to indicate plurality occurs with stative verbs as seen in example 41), however there are some instances of nouns in Tutelo-Saponi also undergoing reduplication to indicate plurality. The attested instances work similarly to reduplication of stative verbs, yet the assertive markers *-se* and *-l* are not present. With sparse information available on this phenomenon in the Tutelo-Saponi corpora (collection of written data), comparative research with other Siouan languages is required to make any further determinations on the matter of nominal reduplication.

47) Nominal reduplication

- a. hasi–si–ā
berry–REDUP–?²⁶
'raspberries' (Oliverio, 1996)
- b. kopākseksēi
lightning.REDUP
'lightning (perhaps several bolts)' (Oliverio, 1996)

3.2.4 Deverbal nouns

In Tutelo-Saponi there are four ways that verbs can be made into nouns. The absolutive *wā–* indicates a person or an object either having the characteristics of, experiencing the action of, resulting from the action of, or performing the action of a verb.

48) Absolutive *wā–* in nominal constructions

- a. wā–si
ABS–yellow
'yellow object' (Oliverio, 1996)
- b. wā–lūti
ABS–eat
'food' (Oliverio, 1996)
- c. wā–pa'he
ABS–pound
'powder/flour' (Oliverio, 1996)

The assertive suffix *–se* can produce nouns from verbs indicating position.

49) Assertive *–se* in nominal constructions

- a. tāxkā–lañki–se
forest–sit–ASSERT
'clump of trees' (Oliverio, 1996)

²⁶ The question mark here indicates that the meaning of the < ā > morpheme is unclear.

The instrumental prefix *i-* ‘with’ can be used to indicate an object used to perform the action of a verb.

50) Instrumental *i-* in nominal constructions

- a. \bar{i} -kāthē-’ōñ²⁷
 INS-hot-do
 ‘kettle (object you make things hot with)’ (Oliverio, 1996)

The locative prefix *o-* ‘in’ can be used to indicate nouns that are derived from verbs and that indicate a type of container.

51) Locative *o-* in nominal constructions

- a. o-khu
 LOC-put
 ‘box’ (Oliverio, 1996)

3.2.5 Independent pronouns

Tutelo-Saponi has four types of pronouns that are not attached to verbs.

Disjunctive pronouns

Disjunctive pronouns are derived from the patient pronoun prefixes. The category of number is not relevant for these pronouns.

52) Disjunctive pronouns

	Person	Pronoun
a.	1 st person	'mīma or 'wīma
b.	2 nd person	'yīma
c.	3 rd person	'īma

²⁷ Note that the ' in this example is a glottal stop rather than a mark to indicate accent or stress in the word.

Disjunctive pronouns can form independent verbs (Tutelo-Saponi's closest equivalent to the copular verb *'to be,'* yet most often they precede a verb and are found at the beginning of a clause or sentence.

53) Disjunctive pronoun examples

- a. $\bar{i}ma-h\bar{e}-se$
 3DISJ-3PL-ASSERT
 'It is them' (Oliverio, 1996)
- b. $m\bar{i}ma\ ma\bar{n}'sa\bar{n}'i-wa-o\bar{n}-i$ $'wi-lat'kusa$
 1DISJ knife with-1SG.A-do-INDEF 1SG.P-cut
 'I cut it using a knife' (Dorsey, 1882)

Emphatic pronouns

Emphatic pronouns in Tutelo-Saponi convey the meaning 'oneself' or 'alone' and are formed by the addition of the suffix $-s\bar{a}\bar{n}$ to the singular and first person plural patient pronouns.

54) Emphatic pronouns

	Person	Pronoun
a.	1SG	$w\bar{i}-s\bar{a}\bar{n}$ ²⁸ 1SG.P-EMP 'I myself/I alone' (Oliverio, 1996)
b.	2SG	$y\bar{i}-s\bar{a}\bar{n}$ 2SG.P-EMP 'you yourself/you alone' (Oliverio, 1996)
c.	3SG	$\bar{i}-s\bar{a}\bar{n}$ 3SG.P-EMP 'he himself/he alone' (Oliverio, 1996)
d.	1PL	$wa\bar{i}-s\bar{a}\bar{n}$ 1PL.P-EMP 'we ourselves/we alone' (Oliverio, 1996)

²⁸ Based on previous examples of phonological changes, this should also be possible as $m\bar{i}-s\bar{a}\bar{n}$

Restrictive pronouns

Another way to indicate ‘alone’ in Tutelo-Saponi is by the use of the restrictive prefix *ikha-* added to the emphatic pronouns to add even more emphasis.

55) Restrictive pronouns

- a. *ikha-yī-sāñ*
 REST-2SG.P-EMP
 ‘you yourself/you alone’ (Oliverio, 1996)

Interrogative pronouns

Interrogative pronouns in Tutelo-Saponi are located at the beginning of a clause. The pronoun *tewa* ‘whose’ always appears followed by the verb *kītoñ* (or *gītoñ*) ‘to belong’. The pronoun *kakañ* ‘what’ has been used as a verb.

56) Interrogative pronouns

- a. *tōkha ya-tī-w-o*
 where 2SG.A-live-REAL-INTER
 ‘where do you live?’ (Hale, 2001)
- b. *tewa-kītoñ-wa*
 whose-belong-REAL
 ‘Whose is it?’ (Hale, 2001)
- c. *kakañ-wa*
 what-REAL
 ‘what is that’ (Hale, 2001)

3.3 Adverbs

Tutelo-Saponi has adverbs indicating location, time, quality, and quantity, as well as ‘yes’ and ‘no’. Adverbs can appear at the beginning of a clause following the disjunctive pronoun if present. They can appear at the end of a clause as well.

57) Adverbs

- a. hūk mañsañ 'wai-lat' koiñ 'wai-latkusi ta
 all knife 1PL.P-use 1PL.P-cut POT
 'we all cut using a knife' (Dorsey, 1882)
- b. nahañpki wi-lūti-ta
 tomorrow 1SG.P-eat-POT
 'I will eat tomorrow' (Hale, 1883)
- c. wa-i-'ne-wa hūk
 1SG.A-3P-see all
 'we did see them all' (Oliverio, 1996)

3.4 Demonstratives

Demonstratives in Tutelo-Saponi use the same words to describe distance for both location and time. They describe close, middle, and long distances.

58) Demonstrative base forms

Demonstrative(s)	Distance	Translation
a. 'lē / 'nē	close	'this, here'
b. 'hē	middle	'that, there'
c. ka / kō	long	'that over there, yonder'

The base forms above can be used to derive nominal forms using either the definite or indefinite suffixes, *-ki/-kiñ* and *-i* respectively.

59) Demonstratives inflected for definiteness

Demonstrative	Inflected forms
a. 'lē	'lē–ki
b. 'nē	'nē–i / 'nē–ki / 'nēi–kiñ
c. 'hē	'hēi–ki

60) Example of demonstrative inflected for definiteness

o–wa–ki–okha waktāka nikas mihañ nompa le–k
 LOC–1SG.A–meet–PST man and woman two DEM–DEF
 ‘I met a man and two women’ (Hale, 2001)

The demonstrative base forms in 57) can also be used to make stative verbs using the real aspect suffix *–wa*.

61) Demonstrative stative verbs

Demonstrative	Stative verb form
a. 'lē	'lē–wa DEM–REAL ‘this is it’ (Dorsey, 1882)
b. 'hē	'hēi–wa DEM–REAL ‘that is it’
c. kō	kō–wa DEM–REAL ‘that is it’

3.5 Numerals

Tutelo-Saponi has cardinal, ordinal, adverbial, distributive, and restrictive numerals.

Cardinal numerals

The cardinal numeral system is based on the numbers one through ten.

62) Cardinal numbers 1-10

1. nōñsā
2. nōñpā²⁹
3. lāni / nāni
4. tōpa
5. kisāñha
6. akāspē / akā'spē³⁰
7. sākōmīñ
8. palāni
9. kasañhka
10. pūtçka

The numerals 11-20 are formed by adding the prefix *aki-* ‘on top of’ to the cardinal numbers one through nine. Ten is not overtly expressed, and it is implied in *aki-* that the number it is attached to is added to ten.

63) Teen cardinal number examples

11. aki-nōñsā
12. aki-nōñpā
13. aki-lāni

²⁹ In many instances of the Occaneechi orthography, the combination of a nasalized /o/ and /p/ or /b/ is most often written as [m], thus cardinal number two would be [nōmpā]. For the sake of continuity, however, the systematic method of writing nasalized vowels is used above.

³⁰ Note that the ' in this example is a glottal stop rather than a mark to indicate accent or stress in the word.

Numbers from 20 to 100 also use *aki-* ‘on top of’ in their construction. The number ten is explicitly stated followed by the base cardinal numeral indicating its decade. Finally *aki-* attached to the final numeral is added.

64) Cardinal numbers 20-99 examples

21. pūtçka nōñpā aki–nōñsā
 ten two on.top.of–one

64. pūtçka akāspē aki– tōpa
 ten six on.top.of–four

98. pūtçka kasañhka aki–palāni
 ten nine on.top.of–eight

A similar pattern is found for hundreds and thousands.

65) Cardinal hundreds and thousands

100. ukhini nōñsā

200. ukhini nōñpā

1000. ukhini pūtçka

Sometimes cardinal numbers are used to modify nouns. In such cases they are placed after the nouns they modify.

66) Cardinal numbers as modifiers

athi nōñ'sā-i
 house one–INDEF
 ‘one house’ (Hale, 2001)

Ordinal numerals

Ordinal numbers are created when the prefix *-iñ* is added to a cardinal number. The exception to this is ‘first’, which is a separate entry in the lexicon.

67) Ordinal numbers

‘first’	ethāhni
‘second’	iñ–nōñpā
‘third’	iñ–lāni

Adverbial numerals

The only adverbial number that was elicited was ‘once’ *enoñx*. It appears to have a cognate in the Quapaw language and indicates that further comparative research may be necessary to reclaim the adverbial numeral lexicon.

Distributive numerals

The distributive form of numerals in Tutelo-Saponi is formed by adding the suffix *-lale* ‘apiece’ to a cardinal number. This shifts the accent of the word to the syllable that appears before the prefix.

68) Distributive numerals

Numeral	Translation
a. nōñ'sā–lale	‘one apiece’
b. nōñ'pā–lale	‘two apiece’

Restrictive numerals

The prefix *ikha-* is attached to a cardinal numeral to give the meaning ‘only’.

69) Restrictive numerals

Numeral	Translation
a. <i>ikha-kisāñha</i>	‘only five’
b. <i>ikha-palāni</i>	‘only eight’

4. Syntax

Until the 1990s, the corpora of the Tutelo-Saponi language were comprised of only single words, phrases, and sentences elicited by previous researchers. Most of those sentences are simple, though a few have two clauses. It is understood from the typological data available that the language is consistent with other languages in the Siouan family, i.e. having a Subject-Object-Verb constituent order, (abbreviated SOV).

4.1 Word order

While Tutelo-Saponi is considered SOV like many Siouan languages, this word order is not often explicit in Tutelo-Saponi verb phrases. There are a few instances of SVO elicitations, however this is likely due to the languages comprising Tutelo-Saponi being trade languages and therefore influenced by contact with neighboring non-Siouan languages.

70) Word order

- a. Ima hohinañk lūta
3DISJ cranberry eat
'She eats cranberries'
- b. wa-klumīha lupūs nikas mānsā
1SG.A-buy hat and knife
'I buy a hat and a knife' (Hale, 2001)

4.2 Clauses with nonverbal predicates

The English equivalent of adjectival predicates (e.g., the adjective in the statement *she is angry*) and nominal predicates (e.g., the final noun in the statement *they are animals*) in Tutelo-Saponi is formed by the use of stative verbs. In the case of nominal predicates, nouns in these instances are treated as stative verbs.

71) Adjectival and nominal predicate equivalents

- a. t̥hōñg 'kīhniñ 'tē
 dog hungry
 'the dog is hungry'
- b. wi-soñtka mañktakiñ-se
 1SG. P-younger.brother wolf-ASSERT
 'my younger brother is a wolf'

Locative predicates with copula in Tutelo-Saponi are achieved with the verb *a-ginēse* 'to be on.'

72) Locative predicate with copula

- hañtkoq a-wa-ginēse
 path LOC-1SG.A-be
 'I am on the path'

4.3 Verbal Predicates

As the base form of transitive verbs in Tutelo-Saponi assume a third person object unless otherwise modified, the most basic active verbs inherently have verbal predicates.

73) Verbal predicates

- añktāka
 weave
 'she weaves it'

4.4 Transitive sentences

Transitive sentences in Tutelo-Saponi can occur both with active and stative verbs.

74) Transitive sentences

- a. wa-ktē-wa
 1SG.A-kill-REAL
 'I kill him' (Hale, 2001)

- b. manī wi-nañte-ta
 water 1SG.P-swallow-POT
 ‘I will swallow the water’

4.5 Intransitive sentences

Intransitive sentences also can be formed with both active and stative verbs.

75) Intransitive sentences

- a. iñksēha
 laugh
 ‘he laughs’ (Dorsey, 1882)
- b. o-wi-knaho-ta
 STEM-1SG.P-work-POT
 ‘I will work’

4.6 Sentence types

Declarative, interrogative, and imperative sentences have been explored at length in earlier sections. The following subsections will offer additional examples of each.

4.6.1 Declarative sentence examples

76) Declarative sentences

- a. ki-kītoñ-hle-na
 NEG-belong-3PL-NEG
 ‘It is not theirs’ (Hale, 2001)
- b. o-ya-qati-okhe-wa
 LOC-2SG-see-PST-REAL
 ‘you saw it’ (Hale, 2001)

4.6.2 Interrogative sentence examples

77) Interrogative sentences

a. yi-klak-o
 2SG.P-speak-INTER
 ‘did he tell you?’ (Dorsey, 1882)

b. tokhenañ-w-o
 how.many-REAL-INTER
 ‘how many?’ (Oliverio, 1996)

4.6.3 Imperative sentence examples

78) Imperative sentences

a. 'wai-lat'kusa yi
 1PL.P-break IMP
 ‘let’s break it!’ (Dorsey, 1882)

b. wiyañ 'kati-'i
 wood cut-IMP
 ‘cut wood!’ (Dorsey, 1882)

5. Lexical enrichment

At the time that research for this grammar sketch began in 2018, there were less than 800 words documented and readily available in Tutelo-Saponi. While this certainly does not reflect the historical lexicon of the language, this lack of lexemes has left significant gaps to be addressed in order to facilitate successful revitalization efforts. This section of the grammar shows examples of four approaches that have been used in the language's past or that could be used in contemporary efforts to enrich the TS lexicon.

5.1 Borrowings

Words have been borrowed into Tutelo-Saponi and its antecedents for at least as long as Europeans have documented the language. A few of these words are relatively high frequency, i.e. being used fairly often, and may be (or are thought to be) attributed to non-Siouan languages.

79) High-frequency words borrowed into Tutelo-Saponi

- a. *mecouremēchen*
'welcome' (believed to be Algonquin)
- b. *pūs*
'cat' (Dutch)³¹
- c. *dalusgik*
'cat' (from Dutch by way of Cayuga)

5.2 Descriptive neologisms

Though the amount of words in Tutelo-Saponi may be limited, there are enough of them to create neologisms, new words. The following are examples that were created by the author of this thesis for the OBSN monthly newsletter.

³¹ Examples b. and c. were explained in a personal communication with M. Mithun, July 9, 2019.

80) Descriptive neologisms in Tutelo-Saponi

- a. kaiñstak–yeqta
crane–nest
'crane's nest'³²
- b. wāgenī mātāqē
snake corn
'corn snake'

5.3 Calques

A calque is created when a word or grammatical construction is borrowed from another language and translated using the words (in this case) of Tutelo-Saponi. While a calque can be created using any language as a template, words have been sourced from other Siouan languages in the last year to create neologisms for the TS lexicon.

81) Calques in Tutelo-Saponi

- a. mināgi
book
'to write' (both Ofo and Hidatsa use the noun 'book' to also mean the verb 'to write')
- b. Nahamp iñtōpa
day fourth
'Thursday' ('the fourth day' in Osage and 'the four day' in Ho-Chunk and Lakota)

5.4 Comparative/historical method

A final approach involves using words from other Siouan languages and applying a phonological analysis of how sounds would have changed if the words were to exist in Tutelo-Saponi today. The complexity of detailing this process is beyond the purview of this paper. Focusing on the Southeastern branch of the Siouan family, however, makes for fewer if any

³² This compound word falls under the category of neologism not only because it had been previously unattested, but also because the documentation of TS would likely create this concept as two words in the opposite order, yeqta kaiñstākai, literally 'nest crane.' The compound word in 80) a was modeled after mayeñg–ieqta, 'bird–nest,' attested in Hale, 2001.

sound changes, and therefore an easier process of reconstructing words in Tutelo-Saponi. Using words from the closest sister languages of TS (Ofo and Biloxi) has produced such lexical entries as the following:

82) Tutelo-Saponi reconstructions from Southeastern Siouan words

- a. kiyañska
‘hawk’ (there is no sound change between this and the word in Biloxi)
- b. atçi
‘oil’ (reconstructed from the Ofo for ‘oil,’ itchi’³³)

³³ This spelling reflects the orthographic system for Swanton and Dorsey of the Ofo language.

6. Glossed Tutelo-Saponi texts

Both of the following texts were created to introduce presentations at events in 2020.

6.1 Opening prayer

This prayer was created in conjunction with Occaneechi language consultant Vickie Jeffries for a statewide Indigenous event scheduled for March, 2020 in Raleigh, North Carolina.

Eiñgiyañ bī-se.

God good-ASSERT

‘The Creator is good.’

I-hī-okhe-wa hūk, yaq Eiñgiyañ bī-wa.

3P-arrive.there-PST-REAL all thus God good-REAL

‘Everyone has arrived here, thus the Creator is good’

Eiñgiyañ, bi-hiye-yiñ yāñti nikas wā-opemīha mañ-gito-hle-wa,

God good-cause-HORT heart and ABS-think 1PL.DAT-belong-3PL-REAL

‘Creator, please make our hearts and thoughts good’

yaq wai-wāhalañke-wa ikha-nōñsā.

thus 1PL.P-remain-REAL REST-one

‘so that we can remain only one.’

Mīma hūk iñkinōñpā nikas minēk.

1PL.DISJ all brother and sister

We are all brothers and sisters.

Kiloqkōyiñ nahamp-lek-iñ bī-se.

allow-HORT day-DEM-? good-ASSERT

‘Let this day be good.’

6.2 Land acknowledgment and welcome

This land acknowledgment and welcome speech was created as an opening to a presentation for prospective linguistics students at the University of Arizona in February, 2020.

Mecouremēchen kiho–e
welcome come.here–one.who
‘All who come here are welcome.’ (Greetings)

Amāñi bī–wa
Earth good–REAL
‘Thank you, Earth.’ (Mother Earth)

Wāktāka Tohono O’odham bī–la–huk
Indian Tohono O’odham good–ASSERT–all
Thank you, Tohono O’odham people.’

Yīma ya–tī–pu–yuke–wa nēi.
2DISJ 2A–live–2PL–PST–REAL DEM
‘You have lived here.’

Yīma Amāñi yañd–o–ya–stēka–pu–yuke–wa nikas Amāñi yañd–o–yi–stēka–pu–yuke–wa
2DISJ Earth heart–LOC–2A–good–2PL–PST–REAL and Earth heart–LOC–2P–good–2PL–PST–REAL
‘You loved the Earth and the Earth loved you.’

Yīma ya–tī–pu–wa nēi nahañp–le–kiñ
2DISJ 2A–live–2PL–REAL DEM DAY–DEM–DEF
‘You live here today.’

Yīma ya–tī–pu–ti–se nēi
2DISJ 2A–live–2PL–POT–ASSERT DEM
‘You will live here.’

Mañ–kiloqkō–yiñ hūk Amāñi yañd–o–stēka
1PL.DAT–let–HORT all earth heart–LOC–good
‘Let us all love the Earth’

Yaq Amāñi wai–yañd–o–stēka hūk
that Earth 1PL–heart–LOC–good all
‘so that the Earth may love us.’

Corey Roberts o–mi–klak–hli–se
Corey Roberts LOC–1SG.P–call–3PL–ASSERT
‘They call me Corey Roberts’ (my name is)

Mim Occaneechi
 1SG.DISJ Occaneechi
 ‘I am Occaneechi’

Ha-wa-yiñ-he-pu-wa Tutelo-Saponi
 DEM-1SG.A-2DAT-speak-2PL-REAL Tutelo-Saponi
 ‘I am speaking to you in Tutelo-Saponi’

Yesa-netçi
 Southeastern Sioun people-tongue
 ‘The language of the Southeastern Siouan people’

Yīma netçi y-oñspe-pu-pi-wa, mecouremēchen kiho-e hūk
 2DISJ tongue 2A-know-2PL-DESID-REAL welcome come.here-one.who all
 ‘You who want to know language, you are all welcome’ (welcome to you prospective linguists)

References

- Cayuga Nation. (2019). Retrieved September 4, 2019, from <https://cayuganation-nsn.gov/index.html>
- Dorsey, J.O. (1882). *Tutelo vocabulary*. Unpublished manuscript, National Anthropological Archives, Smithsonian Institution, Washington, D.C.
- Dorsey, J.O. & Swanton, J.R. (1912). *A dictionary of the Biloxi and Ofo languages*. Washington, DC: Washington Government Printing Office.
- Frachtenberg, L., Sapir, E., et al. (2002). *Minor vocabularies of Tutelo and Saponi*. Bristol, PA: Evolution.
- Hale, H. (1879). *Letter to Major J.W. Powell and accompanying Tutelo vocabulary*. Manuscript 4800: 335. National Anthropological Archives, Smithsonian Institution.
- Hale, H. (2001). *The Tutelo language*. Bristol, PA: Evolution. (Original work published 1883).
- Haliwa–Saponi Indian Tribe. (2018). Retrieved October 28, 2018, from <http://www.haliwa-saponi.com/>
- Hewitt, J.N.B (1888). *Tutelo vocabulary*. Manuscript 4800: 334. National Anthropological Archives, Smithsonian Institution.
- Kaufman, D.V. (2015). *Kadakathi Tanêks–Tayosq: Biloxi–English Dictionary with English–Biloxi Index*. Publisher: Author.
- Kincheloe, J. (2019). *Rediscovering Christanna: Native worlds and Governor Spotwood’s fort* [Kindle DX version]. Retrieved from Amazon.com.
- Meuse, W. (2010). *Yesanechi (Tutelo) Etymological Lexicon*. Publisher: Author.
- Monocan Indian Nation. (2018). Retrieved December 14, 2018, from <https://www.monacannation.com/>
- Mooney, J. (1894). *The Siouan tribes of the east*. Washington, DC: Government Printing Office.
- Oliverio, G.R.M. (1996). *A grammar and dictionary of Tutelo* (Doctoral dissertation). Retrieved from <http://b-ok.cc/book/3362115/bb419c>
- Rankin, R.L. (2007). Siouan tribes of the Ohio Valley: “Where did all those Indians come from?” [PowerPoint slides]. Retrieved from <https://kb.osu.edu/bitstream/handle/1811/28545/Rankin?sequence=1>
- Salvucci, C.R. (2001). Preface. In H. Hale, *The Tutelo language* (pp. 1–5). Bristol, PA: Evolution.
- Saponi–Catawba Nation (2019). Retrieved May 30, 2019, from <https://www.saponicatawbanation.com/>
- Pellicer, L. (2019, February 28). *One man’s fight to bring an ancestral language back to life*. Retrieved May 29, 2019 from <https://www.wunc.org/post/one-mans-fight-bring-ancestral-language-back-life>
- UNESCO Ad Hoc Expert Group on Endangered Languages. (2003). *Language Vitality and Endangerment*. Retrieved December 13, 2018, from http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/pdf/Language_vitality_and_endangerment_EN.pdf
- Wikipedia contributors. (2019, August 14). Tutelo language. In *Wikipedia, The Free Encyclopedia*. Retrieved 20:51, November 29, 2019, from https://en.wikipedia.org/w/index.php?title=Tutelo_language&oldid=910849319

- Wood, K. (2016). "*The language ghost*": *Linguistic heritage and collective identity among the Monacan Indians of central Virginia* (Doctoral dissertation). Retrieved from https://libraetd.lib.virginia.edu/public_view/d217qp81k
- Yesanechi Word Pick Facebook Group. (2019, September 20). Retrieved from <https://www.facebook.com/groups/461581230686553/>