

A SKETCH GRAMMAR OF TONKAWA

[DRAFT 11/11/14 – PLEASE DO NOT CITE WITHOUT AUTHOR’S PERMISSION]

1.1 Introduction and genetic affiliation

The first mention of the Tonkawa Tribe comes almost from the dawn of historical writing in the New World. By 1536, after years of wandering through then largely uncharted lands along the Gulf Coast, the Spanish conquistador Álvaro Núñez Cabeza de Vaca (1490-1557) had seen just about everything. The fleet carrying him and 300 other Spaniards under the command of Panfilo de Narvaez in search of the Fountain of Youth ran ashore near present day Tampa Bay, Florida, forcing him and the rest of the crew to seek a way back to Mexico City by land. Along the way, most of them succumbed to disease, drowning, or attacks from hostile tribes, and by the time they had made their way to Texas, only forty of them were left. Cabeza de Vaca and his Moorish slave Estevanico spent the better part of seven years living enslaved as medicinemen among the Karankawas, escaped, only to be captured by the Tonkawas near present-day Llano, Texas. Although it is probably apocryphal, it is said that they were tied to a tree at the top of Enchanted Rock, an enormous granite rock formation at the rim of the Edwards Plateau in central Texas which the Tonkawas and other tribes revered as sacred. Late at night, Cabeza de Vaca and the others managed to escape once again without being detected, leading the Tonkawas to believe they had escaped into the Rock itself. When the Spaniards next came into contact with the Tonkawas over 150 years later, the latter reported the incident to the incredulous Europeans who promptly named the rock *piedra encantada* in the Conquistador’s honor.

The superficiality of the encounter, and the repeated failures in communication through half-understood rumors and reports over the centuries to come, is emblematic of the larger lack of knowledge about the languages and cultures of the indigenous population of Texas. Although compared to some – the entire corpus of texts, word-lists and discussion of Coahuilteco, Comecrudan, Maratino, Atakapan, Aranama and Karankawa in Swanton (1940) is a thin 137 pages – our knowledge of Tonkawa is relatively more complete, allowing us to understand most basic and many detailed facts about Tonkawa morphology and phonology, much yet remains wholly unclear. Foremost among such questions must surely rank its genetic affiliation. Tonkawa has been connected to more than half a dozen major linguistic phyla of the New World, often based on little more than assumption and guesswork. It has even been speculated that it could even be an ‘Amerind-Na-Dene Mischsprache’ (Manaster-Ramer 1996b: 276), but it is safe to say that the academic *communis opinio* stands against any clear connection to any known or attested indigenous language of the New World (Goddard 1979; Mithun **XX**; Manaster-Ramer 1996b).

Table 1.1. Proposed linguistic affiliations of Tonkawa.

Suspected linguistic affiliation	Source
1. Hokan-Coahuiltecan	Sapir (1920)
2. Penutian	Hymes (1987: 55-56)
3. Algonquian	Haas (1959; 1967; 1993)
4. Algonquian-Gulf	Haas (1958: 231, f.2)
5. Na-Dene	Manaster-Ramer ¹ (1996a)
6. Pakawan²-Karankawa	Powell (1890); cf. Manaster-Ramer (1996b)
7. Amerind	Greenberg (1987)

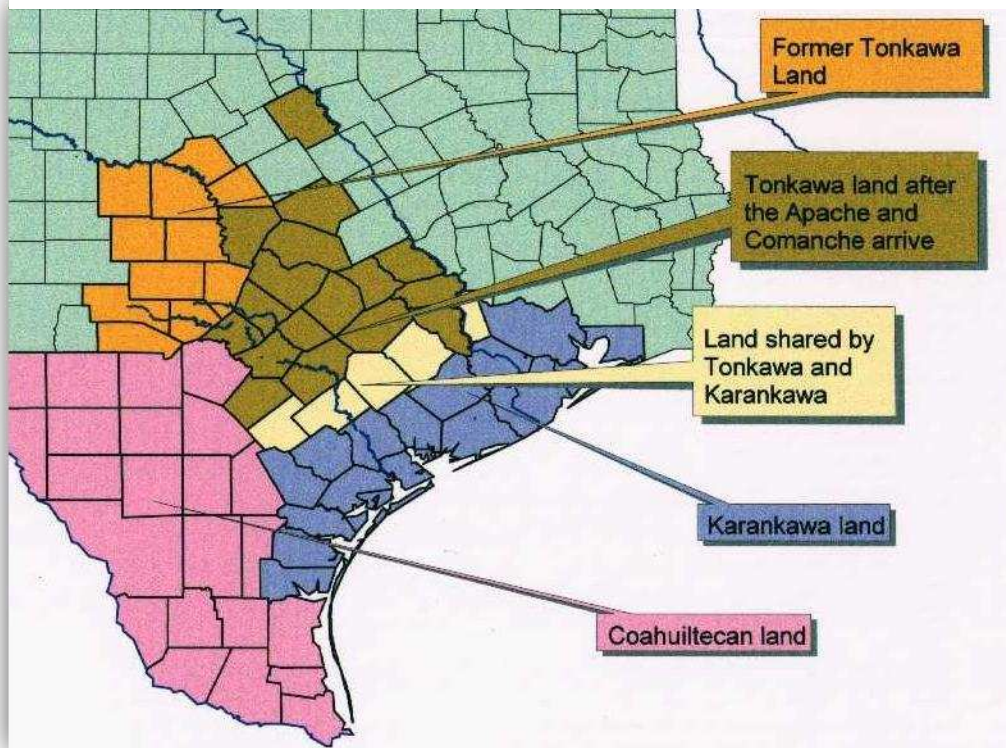
Manaster-Ramer (1996b) posits this more as a foil to the claims of Greenberg (1987), rather than a claim to the actual origins of Tonkawa as such.

² Pakawan is Manaster-Ramer's term that includes Comecrudan, Cotoname, and Maratino but excludes Karankawa, Atakapan, and Tonkawa. Powell's original term was Coahuiltecan, but since has been applied to so many languages as to lose terminological focus.

Directly related to the question of genetic affiliation is the question of whether Tonkawa has always been spoken in its historically attested ranges. The earliest historical records often do not directly record which Indian tribe European settlers and missionaries came into contact with, but there is suggestive evidence that the Tonkawas have long occupied the extreme southern fringe of the Great Plains, a grassy area then rich in bison, deer and pronghorns transitioning to black-forest prairie that today constitutes most of central Texas from around Austin stretching northeasterly towards Dallas. It is also possible that they once occupied much of the Edwards Plateau before being pushed onto the plains by the Lipan Apaches and Comanches within the protohistorical period (ca. 16th-17th centuries; Newlin 1981: 4). Other tribes or bands such as the Meyey, Yojaune and Ervipiane perhaps also spoke Tonkawa, or languages related to Tonkawa, but of their speech essentially nothing is known. Indeed, it is indicative of the lack of information about this people that the very name Tonkawa is not Tonkawa in origin; rather, it stems from a Waco word *tonkawéya* meaning 'they stay together' (Hoijer 1940: 1, citing Gatschet).

As for themselves, the Tonkawa referred to their tribe as *tickanwa-tic* 'the people'. Unlike people in eastern Texas, or further to the west at the height of the Rio Grande, the Tonkawas practiced an essentially migratory hunter-gatherer mode of subsistence, and when encouraged to settle by Stephen F. Austin, they specifically refused on the grounds of their wolf ancestry (the wolf being their totemic animal), and an injunction by the Great Spirit not to engage in agriculture (Newlin 1981: 23).

Figure 1: Historical attested distribution of Tonkawa Tribe (XX)



- How did they hunt?
- What kinds of housing and clothing did they use?
- What kind of social-structure did they have?
- extensive sign-language use
- history of removals, sociolinguistic context of reservation

1.2 Previous published materials

- Who did the fieldwork? When and what did they publish?
- What quality are the publications?
- Are there any audio recordings?
- Convention for transcription

Although words and phrases in Tonkawa had been recorded sporadically for centuries (Goddard 1979: 359-61), the first significant fieldwork on Tonkawa was carried out by Albert Gatschet, published in 1876. **Unfortunately, this consists of little more than word-elicitations and a few paradigms.** Work on kinship terminology was also carried out by Alexander Lesser and some terms from 'Old Tonkawa' (to use Manaster-Ramer's term for the earliest attestations from the 19th century) by Goddard (1979).

But by far the most extensive work on Tonkawa is Hoijer's doctoral dissertation pursued at the University of Chicago under the guidance of Franz Boas, Edward Sapir and Leonard Bloomfield, which he later published as an edition of the Handbook of American Indian languages (Vol. III). The dissertation covers a number of subjects of phonology and morphology of the language, almost to the exclusion of syntax, argument-structure, anaphora, discourse structure and lexical semantics. The work suffers from a number of general problems. First, it

presents phonology without any reference to phonemic contrast, thus losing an entire level of generalization (a flaw corrected in Hoijer's later *Analytical Dictionary of Tonkawa and Tonkawa Texts*). More problematic than this and its general organization (in which all questions both of clause structure and of word structure are dealt with in a chapter on 'morphology') is its idiosyncratic terminology influenced by antimentalist attitudes then prevalent in American Structuralism, whereby a root or stem is a 'theme', and an 'element' is a level of structure above the phone, but which lacks meaning and does not necessarily correspond to a syllable or a foot (so that CV, CVCV, and CVC are all potential 'simple elements' despite appearances to the contrary). Such terminological and analytical problems make understanding the text difficult even for specialists.

This revised collection of Tonkawa texts and grammatical sketch seeks to address such problems in a number of ways. First, all texts have been normalized with a standard phonemic transcription system. This means that transcriptions are based on specific alternations within the language and abstract away from surface phonetic facts. Where the underlying morphology would otherwise be too obscure to identify, as happens frequently with some verb forms, the surface form has been set on an additional tier within the textual corpus. Furthermore, each line of text has been broken down into additional tiers of morphological strings and English glosses of such strings, in each case abiding by the Leipzig Convention on linguistic glossing (thus each morph in the morphological tier corresponds, to the extent possible, with a single gloss on the glossing tier).

2. Phonology

2.1 Consonant and Vowel inventory

The inventory of phonemes in Tonkawa has changed with almost every succeeding publication on the work. Gatschet 1876 was the first to articulate a list of distinctive sounds, which differed in quite a number of ways from Hoijer 1933 and again from Hoijer 1972, both in terms of the phonological categories used and in terms of phonetic variants possible. Gatschet for example notes the existence of some kind of rhotic consonant <r>, which he says is rare (but whether a tap, trill or English-style retroflex he does not say). His analysis also entirely lacks any contrast between glottalic and pulmonic series of consonants (Table 2.1). Hoijer 1933, in contrast completely lacks any mention of a retroflex consonant, and argues for extensive sets of glottalized obstruents and resonants, no contrast between /s/ and /š/, and a series of labiovelar obstruents. He changes this in his later works (Hoijer 1949, 1972) by totally eliminating phonemically glottalized consonants, on the assumption that all phonetically glottalized consonants are actually underlying a sequence of a consonant plus a glottal stop, a segment which is independently needed anyway.

Table 2.1 Consonant inventory in Gatschet 1876

	Labial	Coronal	Palatal	Velar	
'EXPLOSIVE', VL	p	t		k	
'EXPLOSIVE', VD	b	d		g	
AFFRICATE		č <tch>			
FRICATIVE		s	š	x	h
NASAL	m	n			
APPROXIMANT	w <v>		y		
LIQUIDS		l, r			

Table 2.2 Consonant inventory in Hoijer 1933 ~ 1972

	LABIAL	CORONAL		DORSAL	GLOTTAL
STOP	p	t	k	k ^w	ʔ
Stop, glott.	p'	t'	k'	k ^w '	
AFFRICATE		c			
Affricate, glott.		c'			
FRICATIVE		s	x	x ^w	h
Fricative, glott.		s'	x'	x ^w '	
NASAL	m	n			
Nasal, glott.	m'	n'			
APPROXIMANT		l	y	w	
Approximant, glott.		l'	y'	w'	

[Insert evidence of minimal pairs here]

So what can we take away from these disagreements in the literature? The status of some of Gatschet's claims quite possibly result from insufficient exposure to the language and/or the lack of any way to record speech in the mid-19th century. This possibly explains his failure to detect glottalized variants of consonants – it is noteworthy in this respect that he does not identify the glottal stop as a distinct consonant. But other aspects of Gatschet's summary possibly result from a change in the language itself. The rarity of /r/ at the time of Gatschet's writing, and its complete absence by the time of Hoijer 1933, might reflect this, as liquids have a limited distribution in Tonkawa, with only a handful of exceptional words having word-initial /l/ even in Hoijer's work. In the case of Hoijer's reassessment of his earlier analyses, the elimination of glottalized series does make the phonological system 'cleaner', but it does not come without its own problems. For one, it creates syllable-initial consonant clusters (Cʔ) in a language which would otherwise not have syllable-internal clusters at all. Maybe more pointedly, in pluractional reduplication constructions which copy the first CV of the root, the consonant plus glottalized release patterns as a unit (XX):

- (n) a. na-k'am'e- na-k'a-k'am'e- 'gnaw'
 b. na-s'oka- na-s'o-s'oka- 'squeeze'

That is, if the glottalized consonants are in fact clusters, then we must make an exception of CCV reduplication precisely when glottalization functions as part of the onset of a syllable. In this text therefore we will adopt a modified form of Hoijer's 1933 analysis in which glottalized consonants are unit phonemes. In a larger sense, what we might be seeing here is evidence of a language in transition: losing liquids as a phonological category on the one hand, and the incipient phonologization of glottalization on the other.

The inventory of vowel segments is somewhat more straightforward. Gatschet's analysis argued for a typologically commonplace five vowel system: /i/, /e/, /a/, /o/, and /u/. Hoijer's 1933 analysis introduced evidence for length contrasts, and eliminated /u/ as a vowel quality, as per Table 2.3.

[Insert minimal pairs here.]

Table 2.3 Vowel inventory

	FRONT	BACK
HIGH	i, i·	
MID	e, e·	o~u, o·~u·
LOW		a, a·

Notably, Hoijer (1933: 69) argues that Tonkawa had three levels of syllable weight: light, heavy, and superheavy. The distinction between the latter two syllable weights however arises only in usual circumstances, such as when three distinct morphological units collide:

- | | | |
|-----|----------------------|-------------------|
| (n) | a. [yakpa·kwa] | b. [yakpa:kwa] |
| | /yakapa-V·kwa/ | /yakapa-V·-V·kwa/ |
| | strike-when | strike-2OBJ-when |
| | 'when he hit him...' | 'when he hit you' |

In the form in (na), the root yakapa- 'strike' ends in a simple light syllable, which is then lengthened by a suffix *-V·kwa* 'when?'; the third person object is simply not marked at all. However, when the same verb indicates a second person object, which is only ever marked by the insertion of an extra mora, a trimoraic verb can occur, as in (nb).

In his later work, Hoijer 1949 and 1972 changes some of these analyses. For one, he reintroduces the /u/ vowel, presumably because of its liminal use in words like *hecu·* 'what'. Another change is that he does not (implicitly at least) acknowledge three levels of syllable weight, presumably on the grounds that only two syllable weights are distinguished underlyingly.

2.2 Syllable structure and Prosody

Possibly more has been written about Tonkawa syllable structure than any other aspect of Tonkawa. This is because, like Semitic languages, the superficial variation in root structure seems to interact with syllabification in ways that posed problems for mid-20th century

Generative treatments of phonological rule ordering. To cite just a few examples used by Kissberth (XX)¹:

- (n)
- | | | | | |
|----|------------|---|--------------------|---------------------|
| a. | notxoʔ | < | notoxo-we-ʔe | ‘he hoes it’ |
| b. | wentoxoʔ | < | we-notoxo-we-ʔe | ‘he hoes them’ |
| c. | notxonoʔ | < | notoxo-no-we-ʔe | ‘he is hoeing it’ |
| d. | wentoxonoʔ | < | we-notoxo-no-we-ʔe | ‘he is hoeing them’ |
| e. | notox | < | notoxo | ‘a hoe’ |
- (n) notx-, -ntoxo-, notxo-, -ntoxo, notox

What this illustrates clearly is that the language is seeking to maximize realization of a consonantal tier, and to achieve syllabification of maximally CVC syllables from the left, vowels are regularly deleted where this would not create otherwise illicit syllables (an elision rule, see 2.3). Possibly related to this process, Hoijer reports that ‘each syllable receives substantially the same accentuation[; but] a slightly heavier accent may be noted for the penult’ (1933: 22). As such, Tonkawa was probably a stress-timed language; such languages are known to be susceptible to vowel reduction processes (XX).

2.3 Morphophonological Alternations

The relationship between the morphological content of words in Tonkawa and their overt phonological expression is usually fairly transparent. However, a number of important (morpho)phonological rules intervene to create sometimes opaque surface structures. As discussed in Kisseberth (XX) and Wier (forthcoming), at least five distinct phonological rules are needed to piece apart surface from underlying representations²:

- (n)
- | | | |
|----|----------------------------|---|
| a. | Conflation: | /awe/ & /owe/ → /o/ |
| b. | Word-final vowel deletion: | V → Ø / ___# |
| c. | Vowel Elision: | V → Ø / CVC_C [V _{STEM}] (iterative) |
| d. | Vowel harmony: | /V ₁ ʔV ₂ / → /V ₁ ʔV ₁ / |

- (n)
- | | |
|----------------|---------------------------------|
| | /yakapa-wes’a-we-ʔei-[no]/ |
| | hit-1/2.SUBJ.PL-DECL-PAST-2SUBJ |
| | ‘Y’all hit him’ |
| CONFLATION | yakap-os’-o-ʔei-no |
| DELETION | yakap-os’-o-ʔei-n |
| ELISION | yakp-os’-o-ʔei-n |
| HARMONY | yakp-os’-o-ʔoi-n |
| Attested form: | yakpos’oʔoin <u>o</u> |

¹ Kissberth misanalyzed the morphological structure of these finite forms: for two distinct suffixes –we-ʔe- he assumed a single unanalyzable -oʔ. In most forms this analysis works, but when the extra mora provided by the second person object agreement is present, it blocks the conflation rule of (a/o)we > o. I have provided the corrected forms above.

² Rules (nb-c) from Kisseberth (XX); Rules (na) and (nd) from Wier (forthcoming).

Rule (na) converts any sequence of /awe/ or /owe/ to a simple /o/. Thus in the example in (n), the second person plural subject marker conflates to /o/, as does the declarative suffix because both happen to involve sequences of /awe/ (even though crossing morphological boundaries). After this rule applies come rules (nb-d). Kisseberth's rules (nb-c) were one early Generative attempt to explain the behavior of vowel reduction, though some of them might well be morphologically dependent or they might well be reinterpreted as historical soundlaws. (nb) for example is necessary to account for forms like (ne), but its failure to operate in this tense might be explained either by reference to the particular tense suffix –no, or by the grammaticalization of –no after Deletion ceased to operate, or even by analogical restoration of –no by reference to other forms (see list of Paradigms). Like any phonological rule, these rules only operate when their initial conditions apply. Thus, when the extra mora of the second-person object agreement is inserted, the rule of conflation is blocked, producing rather different surface forms:

(n)	/picena-we-ʔe/ cut-DECL-PRES 'He cuts it'	/picena--we-ʔe/ cut-2OBJ-DECL-PRES 'He cuts you'
a. Deletion	picena-we-ʔ	picena--we-ʔ
b. Elision	picna-we-ʔ	picna--we-ʔ
Surface realization:	[picnoʔ]	[picna-weʔ]

In any event, the system includes some combination of historical soundlaws, synchronic phonological rules conspiring to create a particular kind of prosodic structure, and synchronic rules that are sensitive to particular morphological patterns.

3. Morphology

Such patterns in Tonkawa word-structure come close to the ideal notion of a polysynthetic language: verbal phrasal heads inflect for multiple categories, including person, number, tense, aspect, mode, negation, and evidentiality. With great regularity, both verbs and nouns also incorporate nominals, verbs, particles, even entire clauses, making the distinction between words and phrases a rather weak one. Descriptively at least, Tonkawa verbs might consist of a dozen or so distinct slots in something like the following template:

(n) Tonkawa Verbal Template
OBJ.AGR-OBJ.PL-CAUS-TH-RED-**ROOT**-NEG-FUT-DU/PL-CONT-SUBJ.AGR

(n) [kenesta·ʔa·tonoʔ]
ke-nes-ta·ʔ-a·tewa-no-we-ʔe (Hoijer 1972: 7, 1.6)
1OBJ-CAUS-marry-FUT-CONT-DECL-NONPAST.3SG
'They will force me to marry her!'

3.1 Nominal morphology

Tonkawa nominals inflect for number, case, the person and number of a possessor, definiteness and obviation status. Like verbs, they also inflect according to a specific template:

(n) a. [ROOT₁ – (STEM₂, STEM₃, etc.)]_{STEM} – POSS – OBV – DEF – NUM – (ACC)

b. ha·ʔako·n·osas-[[neswalʔan-[k-e-ykew'-a-to-nwaʔ]]-no-no]-wa·-ʔa·-la
 man-young-[[fish-[1.OBJ-REFL-make-FUT-COND]]]-say-CONT]-OBV-DEF-NOM.SG
 'The young man who said he'd be turned into a fish.' (TT. 23.4)

This form, which involves a phonologically full clause *yakew'a-* 'turn into' incorporating the object *neswalʔan* 'fish' which in turn is incorporated into a phonologically null participial form of *no-* 'say', illustrates how complex morphological nouns might be in Tonkawa.

3.1.1 Pronouns

Personal pronouns in Tonkawa inflect for mostly the same categories as regular nouns, except that pronouns also explicitly mark a dual number, and inflect for discourse features that regular nouns cannot: *sa·xwa* 'I too' but **ha·ʔako·n·xwa* 'the man too'.

Table 3.1. Personal pronouns (Hojjer 1933: 122-3)

		NOMINATIVE	ACCUSATIVE	GENITIVE	'too'	'by oneself'
SINGULAR	1	sa·ya	sa·sik	sa·ken	sa·xwa	sa·cos
	2	na·ya	na·yak	na·xen	na·xwa	na·cos
	3	ʔaye·la	ʔaye·lak	ʔa·xen	ʔa·xwa	ʔa·cos
DUAL	1	kewsa·ya	kewsa·sik	*	*	*
	2	wena·ya	wena·yak	*	*	*
	3	ʔawe·la	ʔawe·lak	*	*	*
PLURAL	1	kewsa·ka	kewsa·sak	kewsa·ken	kewsa·xwa	kewsa·cos
	2	wena·ka	wena·yak	nawenexen	wena·xwa	wena·cos
	3	ʔawe·ka	ʔawe·kak	ʔawxen	ʔawaxwa	ʔawacos

In addition to personal pronouns, Tonkawa also has a limited number of demonstrative and interrogative pronouns, as well as indefinites derived from them:

Table 3.2 Demonstrative pronouns (Hojjer 1933: 124)

	SUBSTANTIVE	PLACE -ca	DIRECTION -l	MANNER -c, -tic
wa·- 'this (obv)'	wa·ʔa·la, wa·ka, etc.	wa·ca	*	*
te·- 'this'	te·la, etc.	te·ca	te·l	te·c
he·ʔe- 'that'	he·ʔela, etc.	he·ʔeca	he·ʔel	he·c
we·- 'yonder'	*	*	we·ʔil	we·tic

With the exception of three interrogative pronouns – *hecu·* 'who?, what?', *hecu·ʔet* 'why?' and *hetwan* 'how many' – all other interrogatives are formed by the addition of *he-* plus a demonstrative: *hete·l* 'whither', *hete·c* 'how', etc. Indefinites are formed by the suffixation of *-ʔax*: *hetwanʔax* 'any number', *hecu·ʔax* 'anyone, anything', etc.

3.1.2 Nouns

Tonkawa nouns inflect for seven cases: nominative, accusative, allative, adessive, instrumental, genitive and ablative; two numbers: singular and plural; (in)definiteness; and proximate or obviative status.

Table 3.3 Nominal case suffixes (Hojjer 1933: XX)

NOMINATIVE	(null)
ACCUSATIVE	-k
ALLATIVE	-yʔik
ADESSIVE	-wʔan
INSTRUMENTAL	-s, -es, -ʔas, -lʔas, -las; -y (INST.PL)
GENITIVE	-lʔan, -ʔan
ABLATIVE	-nan ³

Nouns typically distinguish two numbers by means of distinct overt suffixes: -la for singulars, and -ka for plurals. Some nouns however also indicate groups by reduplication of the initial syllable:

- (n) kwa·-kwan-ka noho·-na·ʔe·-kla
 RED-woman-NOM.PL fetch.wood-go.off-DS.NSIM
 ‘The women went off to fetch wood...’ (TT 4.6)
- (n) kwa·-kwan-la ketay-ta ma-mka-nes-no-k-laknoʔo.
 RED-woman-NOM.SG two-DET RED-weep-DU-CONT-PART-EVID
 ‘Both women kept on crying, supposedly.’ (TT 7.3)

The fact that sometimes nominal reduplication is used in addition to a plural suffix, and sometimes with a singular suffix, indicates that they are formally separate morphological processes and not formally linked together in a single process of syntactic agreement.

Definite noun forms are formally marked with a suffix -ʔa· coming immediately before the number suffixes; indefinites are marked by the absence of a definite suffix. When not preceded by an obviative marker and the stem of the noun ends in /k/, the glottal stop of this suffix is systematically lost:

- (n) ʔo·ca-ʔa·-la-k həcip-kalak-a·-wʔan we-ta[·]-ta-kxo-na-k-laknoʔo.
 children-DEF-SG-ACC hole-other-DEF-ADESS OBJ.PL-COM-move.PL-in-ABL-PART-EVID
 ‘[The mouse] took her children into the other hole.’ (TT 11.3)

Like definites and indefinites, proximate and obviative NPs contrast by the presence of an obviative suffix -wa· and the absence of any overt proximate suffix. As in Algonquian and some other language families of North America, obviation marking reflects relative discourse salience: proximate arguments have more salience in the discourse, while obviative arguments have less salience. In some languages, only two levels of obviation are realized (e.g. XX), while others have three or more levels (e.g. Plains Cree, Meskwaki, etc.). Morphologically, Tonkawa belongs

³ A grammatical *hapax legomenon*, found only in TT 27.1.

to the former group, inasmuch as proximate arguments are never overtly marked, and primary obviative arguments always are. However, there is some reason to believe there might be a secondary class of further obviatives which, like proximates, are morphologically unmarked, resulting in an covert three-way contrast of proximate~obviative~further obviative (Wier XX).

In earlier literature (e.g. Hoijer 1933) *-wa·* was identified as meaning ‘aforementioned’, but this is problematic in two senses. First, definiteness and *-wa·* can be marked independently of each other, as in (na-d) with the implication that, although all aforementioned arguments are identifiable, some arguments marked with *-wa·* nonetheless are not marked for definiteness:

(n) a. **No definite marking, no obviative marking**

ha·ʔako·n-osas-la saxʔay-ka-k ʔe-ʔeyo·-no-k-laknoʔo.
 man-young-NOM.SG arrow-PL-ACC RED-make-CONT-PART-EVID
 ‘A young man was making arrows.’ (TT 3.2)

b. **Definite marking, no obviative marking**

ha·ʔako·n-osaʔas-ʔa·-la sikit-ita taʔan-ce-ta
 man-young-DEF-NOM.SG four-DEM grasp-up-SS.NPURP
 saxwa-k-laknoʔo
 run.away.PL-PART-EVID
 ‘The four young men grabbed him and ran off.’ (TT 21.5)

c. **No definite marking, obviative marking**

ha·ʔako·n-osaʔas-wa·-ka “ya·c-xwe·l-ape-we·sʔe-w,” no·-no-n-k-laknoʔo.
 man-young-OBV-NOM.PL look-miss-NEG-SUBJ.PL-IMP say-CONT-PART-PART-EVID
 ‘The young men kept on saying: ‘Don’t lose sight of him.’ (TT 13.2)

d. **Definite marking, obviative marking**

ha·ʔako·n-osas-wa·-ʔa·-la ya-txw-an-samox-ʔa·-la-k
 man-young-OBV-DEF-NOM.SG TH-fill.pipe-GER-red-DEF-SG-ACC
 ya-txo-k-laknoʔo
 TH-fill-PART-EVID
 ‘The young man filled his pipe.’ (TT 21.7)

These two categories are thus morphologically and referentially independent of each other. Another problem with assigning the status of ‘aforementioned’ to what we are calling an obviative suffix is that there are actually instances of *-wa·* which have not been mentioned prior in a text. For example, in TT 4.2, the first mention of the woman in the story is marked *kwa·nwa·ʔa·la*, which is unexpected if this suffix marks only the given information. Another problem is that many aforementioned NPs are not marked with *-wa·* -- e.g. TT.XX, TT.XX, TT.XX, etc. This suffix is thus not even weakly associated with ‘aforementionedness’. [See §5 for more discussion.].

3.2 Verbal Morphology

By far the most complicated part of Tonkawa morphology consists in the structure of verbs. Verbs inflect for the person and number of both subjects and objects, but the features of these categories are distributed across verb forms in different places in different paradigms. Like pronouns, verbal subjects indicate singular, dual and plural numbers; verbal objects only distinguish singular and plural. In terms of order, in most cases, the verbal stem is followed by

any negation, which is followed by any future marking, which is in turn followed by dual or plural marking of subjects.

(n) Different verb templates across modes (Hojjer 1933: **XX**)

Declarative:	STEM-NEG-FUT-DU/PL-TENSE(PRES/PAST)- PRON
Interrogative:	STEM-NEG-FUT-DU/PL-TENSE(PRES/PAST)- PRON-INTERR
Assertive mode:	STEM-NEG-FUT-DU/PL-CONT-ASS- PRON
	STEM-NEG-CONT-ASS
	STEM- <u>1</u> -ASS
Intentive	STEM-NEG-DU/PL-MODE- PRON
Imperative	STEM-NEG-DU/PL-MODE- PRON
Potential	STEM-NEG-DU/PL-MODE- PRON
Hortatory	STEM-NEG- PRON -k-MODE

3.2.1 Finite verb forms

The most basic modality of verbs is that of declarative verbs, used to make statements about actions or states of being. Declarative verbs are overtly marked with a suffix –we which is however frequently absorbed by surrounding suffixes because of the rule of conflation (see §2.3). Likewise tense suffixes sometimes display distinctions for person. Hoijer 1933 describes Tonkawa as having four tenses, but in fact this is a mischaracterization: morphologically speaking, Tonkawa has two tenses, present (-ʔe) and past (-ʔe·/ʔei/ʔe), and the use of the future suffix –a·tewa with these two tenses renders near future and remote future readings, respectively. Morphologically, however, these future forms are no more distinct tenses than English’s modal auxiliary will creates a future tense in English; ‘future’ might thus better be rendered as a kind of ‘prospective’ aspect. On top of this, each ‘tense’ can be marked for continuous aspect, resulting in eight possible tense-aspect readings:

Table 3.4. Present tense verb paradigm

NUMBER	PERS	PRESENT (-ʔe)	PRESENT CONTINUOUS (-ʔe)
SG	1	/yakapa-we-ʔe-s/ [yakpoʔs]	/yakapa-no-we-ʔe-s/ † [yakpanoʔs]
	2	/yakapa-we--ka/ [yakpo·ka]	/yakapa-no-we--ka/ † [yakpano·ka]
	3	/yakapa-we-ʔe/ [yakpoʔ]	/yakapa-no-we-ʔe/ † [yakpanoʔ]
DU	1	/yakapa-nesʔa-we-ʔe-s/ [yakpanesʔoʔs]	/yakapa-nesʔa-no-we-ʔe-s/ † [yakpanesʔanoʔs]
	2	/yakapa-nesʔa-we--ka/ [yakpanesʔo·ka]	/yakapa-nesʔa-no-we--ka/ † [yakpanesʔano·ka]
	3	/yakapa-nesʔa-we-ʔe/ [yakpanesʔoʔ]	/yakapa-nesʔa-no-we-ʔe/ † [yakpanesʔanoʔ]
PL	1	/yakapa-wesʔa-we-ʔe-s/ [yakpo·sʔoʔs]	/yakapa-wesʔa-no-we-ʔe-s/ † [yakpo·sʔanoʔs]
	2	/yakapa-wesʔa-we--ka/ [yakpo·sʔo·ka]	/yakapa-wesʔa-no-we--ka/ † [yakpo·sʔano·ka]
	3	/yakapa-we-ʔe-yuk/ [yakpoʔoyuk]	/yakapa-no-we-ʔe-yuk/ † [yakpanoʔoyuk]

Table 3.5. Past tense verb paradigm.

NUMBER	PERS	RECENT PAST (-ʔe-/ʔei/ʔe)	RECENT PAST CONTINUOUS (-ʔe-/ʔei/ʔe)
SG	1	/yakapa-we-ʔe--ʔ/ [yakpoʔo·ʔ]	/yakapa-no-we-ʔe--ʔ/ † [yakpanoʔo·ʔ]
	2	/yakapa-we-ʔei-no/ [yakpoʔoino]	/yakapa-no-we-ʔei-no/ † [yakpanoʔoino]
	3	/yakapa-we-ʔe/ [yakpoʔo]	/yakapa-no-we-ʔe/ † [yakpanoʔo]
DU	1	/yakapa-nesʔa-we-ʔe--ʔ/ [yakpanesʔoʔo·ʔ]	/yakapa-nesʔa-no-we-ʔe--ʔ/ † [yakpanesʔanoʔo·ʔ]
	2	/yakapa-nesʔa-we-ʔei-no/ [yakpanesʔoʔoino]	/yakapa-nesʔa-no-we-ʔei-no/ † [yakpanesʔanoʔoino]
	3	/yakapa-nesʔa-we-ʔe/ [yakpanesʔoʔo]	/yakapa-nesʔa-no-we-ʔe/ † [yakpanesʔanoʔo]
PL	1	/yakapa-wesʔa-we-ʔe--ʔ/ [yakpo·sʔoʔo·ʔ]	/yakapa-wesʔa-no-we-ʔe--ʔ/ † [yakpo·sʔanoʔo·ʔ]
	2	/yakapa-wesʔa-we-ʔei-no/ [yakpo·sʔoʔoino]	/yakapa-wesʔa-we-ʔei-no/ † [yakpo·sʔanoʔoino]
	3	/yakapa-we-ʔe-lok/ [yakpoʔolok]	/yakapa-no-we-ʔe-lok/ † [yakpanoʔolok]

Table 3.6. Near Future tense verb paradigm

NUMBER	PERS	NEAR FUTURE (= FUT + PRES)	NEAR FUTURE CONTINUOUS
SG	1	/yakapa-a·tewa-we-ʔe-s/ [yakpa·tewo·ʔs]	/yakapa-a·tewa-no-we-ʔe-s/ [yakpa·tono·ʔs]
	2	/yakapa-a·tewa-we-·-ka/ †[yakpa·tewo·ka]	/yakapa-a·tewa-no-we-·-ka/ †[yakpa·tono·ka]
	3	/yakapa-a·tewa-we-ʔe/ †[yakpa·tewoʔ]	/yakapa-a·tewa-no-we-ʔe/ †[yakpa·tonoʔ]
DU	1	/yakapa-a·tewa-nesʔa-we-ʔe-s/ †[yakpa·to·nesʔoʔs]	/yakapa-a·tewa-nesʔa-no-we-ʔe-s/ †[yakpa·to·nesʔanoʔs]
	2	/yakapa-a·tewa-nesʔa-we-·-ka/ †[yakpa·tonesʔo·ka]	/yakapa-a·tewa-nesʔa-no-we-·-ka/ †[yakpa·tonesʔano·ka]
	3	/yakapa-a·tewa-nesʔa-we-ʔe/ †[yakpa·to·nesʔoʔ]	/yakapa-a·tewa-nesʔa-no-we-ʔe/ †[yakpa·to·nesʔanoʔ]
PL	1	/yakapa-a·tewa-wesʔa-we-ʔe-s/ †[yakpa·tewo·sʔoʔs]	/yakapa-a·tewa-wesʔa-no-we-ʔe-s/ †[yakpa·tewo·sʔanoʔs]
	2	/yakapa-a·tewa-wesʔa-we-·-ka/ †[yakpa·tewo·sʔo·ka]	/yakapa-a·tewa-wesʔa-no-we-·-ka/ †[yakpa·tewo·sʔano·ka]
	3	/yakapa-a·tewa-we-ʔe-yuk/ †[yakpa·tewoʔoyuk]	/yakapa-a·tewa-no-we-ʔe-yuk/ †[yakpa·tonoʔoyuk]

Table 3.7. Remote Future tense verb paradigm

NUMBER	PERS	DISTANT FUTURE (= FUT + PAST)	DISTANT FUTURE CONTINUOUS
SG	1	/yakapa-a·tewa-we-ʔe-·-ʔ/ [yakpa·tewoʔo·ʔ]	/yakapa-a·tewa-no-we-ʔe-·-ʔ/ [yakpa·tonoʔo·ʔ]
	2	/yakapa-a·tewa-we-ʔei-no/ †[yakpa·tewoʔoino]	/yakapa-a·tewa-no-we-ʔei-no/ †[yakpa·tonoʔoino]
	3	/yakapa-a·tewa-we-ʔe/ †[yakpa·tewoʔo]	/yakapa-a·tewa-no-we-ʔe/ †[yakpa·tonoʔo]
DU	1	/yakapa-a·tewa-nesʔa-we-ʔe-·-ʔ/ †[yakpa·tonesʔoʔo·ʔ]	/yakapa-a·tewa-nesʔa-no-we-ʔe-·-ʔ/ †[yakpa·tonesʔanoʔo·ʔ]
	2	/yakapa-a·tewa-nesʔa-we-ʔei-no/ †[yakpa·tonesʔoʔoino]	/yakapa-a·tewa-nesʔa-no-we-ʔei-no/ †[yakpa·tonesʔanoʔoino]
	3	/yakapa-a·tewa-nesʔa-we-ʔe/ †[yakpa·tonesʔoʔo]	/yakapa-a·tewa-nesʔa-no-we-ʔe/ †[yakpa·tonesʔanoʔo]
PL	1	/yakapa-a·tewa-wesʔa-we-ʔe-·-ʔ/ †[yakpa·tewo·sʔoʔo·ʔ]	/yakapa-a·tewa-wesʔa-no-we-ʔe-·-ʔ/ †[yakpa·tewo·sʔoʔo·ʔ]
	2	/yakapa-a·tewa-wesʔa-we-ʔei-no/ †[yakpa·tewo·sʔoʔoino]	/yakapa-a·tewa-wesʔa-no-we-ʔei-no/ †[yakpa·tewo·sʔoʔoino]
	3	/yakapa-a·tewa-we-ʔe-lok/ †[yakpa·tewoʔolok]	/yakapa-a·tewa-no-we-ʔe-lok/ †[yakpa·tewoʔolok]

In addition to suffixal aspect, Tonkawa also has a highly productive system of reduplicative pluractional aspect based on a CV template:

- (n) a. topo- ‘cut’ to-topo- ‘cut several times’ (Hoijer 1933: 61)
 b. lopaw- ‘dive’ lo-lopaw- ‘dive over and over’
 c. sola- ‘drip’ so-sola- ‘keep dripping’
 d. yʔoco- ‘pinch’ yʔo-yʔoco- ‘pinch over and over’

These two systems of aspect are in principle distinct from each other, standing in neither morphological nor semantic dependence on each other:

- (n) a. **With continuous marker, no reduplication:**
 Ha·csokonay-la “saxʔay-e·-ka-k henox
 Coyote-NOM.SG arrow-yonder-PL-ACC good
 [yaknanoʔ]
 yaka-na-no-we-ʔe” no-k-laknoʔo.
 shoot-ABL-CONT-DEC-NP say-PART-EVID
 ‘Coyote said: ‘He is shooting the arrows well.’ (TT 3.16)
- b. **With no continuous marker, but reduplication:**
 ʔa·x-ʔa·-yʔik ta-kla-na-t lo-lopo·-nesʔe-k-laknoʔo.
 water-DEF-ALL move.DU-down-ABL-SS.CONC RED-dive-DU-PART-EVID
 ‘Both of them went down and kept diving into the water, supposedly.’ (TT 3.14)
- c. **With both continuous marker and reduplication:**
 “we·lʔa hexalʔoy-a·ʔas ʔe·-no-kwa! K-e·-na-naco·-no-kwa!”
 Ouch ant-many be-CONT-MIR 1OBJ-REFL-RED-bite-CONT-MIR
 ‘Ouch! There are a bunch of ants! They keep biting me over and over!’ (TT 3.8)

In some cases, reduplication has been lexicalized as part of the stem:

- (n) ʔe·-ta ha·-na-ci-cxile-xey-ne-k-laknoʔo.
 be-SS.NPURP move.SG-ABL-RED-run-far-LOC-ABL-PART-EVID
 ‘Then he went and ran far off.’

Finally, Tonkawa also indicates the person and number of objects in the first and second person, and the number of objects in the third person:

Table 3.9 Object agreement		
PERSON	SINGULAR	PLURAL
1	ke-	ke-we- [kew]
2	-V·-	we-...-V·-
3	Ø	we-

Unlike subject markers, object markers never vary for tense or modality, and also unlike subject markers, object markers are not found in dedicated templatic slots. The first person object prefix

Table 3.12. Deontic paradigm.

		DEONTIC (- <i>nwa</i> · / - <i>nwa</i> ʔa)	
SG	1	/yakapa-nwa·-sʔ/	[yakpanwa·sʔ]
	2	/yakapa-nwa·-nʔei/	[yakpanwa·nʔei]
	3	/yakapa-nwa·-ʔe/	[yakpanwaʔ]
DU	1	/yakapa-nesʔe-nwa·-sʔ/	[yakpanesʔenwa·sʔ]
	2	/yakapa-nesʔe-nwa·-nʔei/	[yakpanesʔenwa·nʔei]
	3	/yakapa-nesʔe-nwa·-ʔe/	[yakpanesʔenwaʔ]
PL	1	/yakapa-we·sʔe-nwa·-sʔ/	[yakpo·sʔenwa·sʔ]
	2	/yakapa-we·sʔe-nwa·-nʔei/	[yakpo·sʔenwa·nʔei]
	3	/yakapa-nwaʔa-nik/	[yakpanwaʔanik]

There are a number of moods that are confined to particular combinations of person and number. Two morphological mood paradigms, the jussive and the imperative, both serve to issue commands to third and second person members of the discourse, respectively. In other languages (e.g. Ancient Greek), paradigmatic similarities would motivate treating them as members of a single paradigm, but the Tonkawa forms bear only similar semantics, and otherwise have completely separate modal affixes, *-e-l* and *-w*, so it is probably best to treat them morphologically as separate moods.

Table 3.13 Jussive and imperative paradigms

	Pers	JUSSIVE	Pers	IMPERATIVE
SG	3	/yakapa-e·l/ [yakpe·l]	2	/yakapa-w/ [yakpaw]
DU	3	/yakapa-nesʔe-e·l/ [yakpanesʔe·l]	2	/yakapa-nesʔe-w/ [yakpanesʔew]
PL	3	/yakapa-wesʔa-e·l / [yakpo·sʔe·l]	2	/yakapa-wesʔa-w/ [yakpo·sow]

(n) ʔo·sʔow
 ma-tan ʔe-we·sʔa-w ya-coxʔ-an-te·-la naw-e·l
 quick be-1/2PL-IMP TH-camp-GER-this-NOM burn-JUSS
 ‘Be quick! Let this camp burn!’ (TT 4.8)

Another mode mostly limited to a single person-number combination is the mirative suffix *-kwa*, used to express surprising or unexpected actions or states:

- (n) [kewnescoxnapa·to·noʔ]
 “ke-we-[nes-coxn]-ap-a·tewa-no-we-ʔ” no-k-laknoʔo.
 1OBJ-OBJ.PL-[CAUS-sleep]-NEG-FUT-CONT-DECL-PRES say-PART-EVID
 ‘‘They won’t let us fall asleep,’ [the woman] said supposedly.’ (TT 3.10)

In addition to nes-, other markers of lesser productivity are also attested: ʔe·(y)- and ya-:

- (n) we·ʔis-pax ʔey-kana-txil-na-k-laknoʔo.
 one-just CAUS-take-out-ABL-PART-EVID
 ʔe·-kla ya·lo·na-k-laknoʔo ʔe·-t yaxa-no-n-laknoʔo.
 be-DS.NSIM kill-PART-EVID be-SS.CONNS eat-CONT-PART-EVID
 ‘He took out just one [buffalo], killed it and ate it.’ (TT 13.9)
- (n) ʔe·-kla Tanmaslak-la “ya-kwlaxe-w” no-k-laknoʔo.
 be-DS.NSIM Rabbit-NOM.SG TH-open-IMP CONT-PART-EVID
 ‘Then Rabbit said: ‘Open it’.’ (TT 1.7)

These alternative causative markers probably belong to different periods of grammaticalization and productivity. ya- belongs to an old semi-productive series of thematic markers, relics of an older stratum of grammatical particles that altered valence and semantic properties of the predicate, and in many cases is no longer truly separable from the root (see e.g. **Wier XX** on reduplication). ʔe(y)- by contrast belongs to a very recent layer of verb-verb compounds, and probably means little more than ‘do X’. Neither are as productive as nes-.

Another kind of affix that increases transitivity is the comitative affix ta·-, which functions as a kind of applicative:

- (n) Ha·ʔako·n-osas-la ʔekaka·-la-k
 man-young-NOM.SG maternal.grandmother-SG-ACC
 ta·-ya-coxʔa-no-k-laknoʔo.
 COM-TH-camp-CONT-PART-EVID
 ‘A young man was living with his mother’s mother.’ (TT 16.1)

There is some evidence that the comitative affix in some words undergoes backcopying of the vowel length or, contrarily, induces dissimilation if the following syllable is identical:

- (n) a. wetataxkoʔs
 we-ta-ta-xka-we-ʔe-s
 OBJ.PL-COM-move.PL-back-DECL-PAST-1
 ‘I brought them (here)’ (TT 17.28)
- b. ʔe·-kla kwa·-kwan-wa·-ka ta-sa-ta-na-n-laknoʔo
 be-DS.NSIM RED-woman-OBV-NOM.PL COM-RED-move.PL-ABL-PART-EVID
 ya-cox-ʔan-ʔa·-yʔik.
 TH-camp-GER-DEF-ALL
 ‘So the women went back to the camp with him.’ (TT 17.27)

In (nb), the reduplicant ought to be realized as ta-, because the verbal root is ta-. In this case, however, the addition of the comitative with backcopying would create three identical syllables in a row, which Tonkawa phonology apparently avoids.

Tonkawa also has morphology that reduces valence. By far the most frequent is the reflexive affix he-, which comes in the slot immediately before the verb root, unless the verb root has been reduplicated:

- (n) ʔe·t xa·ya-t lasas-a·tak he-pcana-n-laknoʔo.
 be-SS.CONNS move.SG.AUG-SS.CONNS bald-very REFL-sheer-PART-EVID
 ‘They arrived and shaved themselves very bald.’ (TT 17.32)

However, this most basic use of the reflexive to indicate coreference between a subject and an object is less frequent than its use to indicate the subject’s nonagentivity:

- (n) ʔey-kana-kxo-n-a·to-k-a·-la samox-a·tak
 CAUS-throw-in-ABL-FUT-PART-DEF-NOM.SG red-very
 he-yace-no-k-laknoʔo.
 REFL-look-CONT-PART-EVID
 ‘The [buffalo] about to throw [Little One] into [the fire] was looking very red.’
 (TT 17.33)

In some cases, both true reflexives and passive-like uses of the reflexive are used in the same clause. In (n) below, the first example relates how some young men go down to a river to bathe themselves, after which they are magically transformed back into their original forms (geese). Because the narrator does not know or wish to relate by what means the young men are transformed, he uses a passive-like reflexive:

- (n) ʔe·kla losos-ʔita ta-kla-na-t he-pnonoxo·-t
 be-DS.NSIM all-DET move.PL-down-ABL-SS.CONNS REFL-bathe.PLUR-SS.CONNS
 waʔanwa·ʔal he-ykoʔo-n-laknoʔo.
 just.as.before REFL-make-PART-EVID
 ‘So they all went down and bathed themselves and were turned into what they were before.’ (TT 17.36)

Another kind of valence morphology is that used to indicate reciprocals. This consists of a prefix *he(·)-* plus a suffix *-V.yewa-*, frequently with verb root reduplication (Hojier 1933: 76-77):

- (n) a. [henpapasxa·yewoʔ]
/he-na-pa-pasaxa-V·yewa-we-ʔe/
RECIP₁-TH-RED-play.shinny-RECIP₂-DECL-NPAST
‘They play shinny with each other.’
- b. [he·ʔatna·yewoʔ]
/he·-ʔatanawa-V·yewa-we-ʔe/
RECIP₁-love-RECIP₂-DECL-NPAST
‘They love each other.’
- c. [hetatxa·yewoʔ]
/he·-ta-taxa-V·yewa-we-ʔe/
RECIP₁-RED-talk-RECIP₂-DECL-NPAST
‘They talk amongst themselves.’
- d. [hecocoxa·yewoʔ]
/he-co-coxana-V·yewa-we-ʔe/
RECIP₁-RED-sleep-RECIP₂-DECL-NPAST
‘They sleep with each other.’

3.4 Mixed categories and derivational morphology

One side-effect of polysynthesis is that many nominals that in other languages would be underived are in Tonkawa derived from verbal forms. In particular, nominalizations and participial forms stand out for both frequency and ubiquity of their use. A very large number of Tonkawa nouns are derived from underlyingly verbal stems with an –(a)n suffix; in the corpus of texts these are marked as GERunds.

- (n) a. ya-tmax-an-la-k (TT 1.1)
TH-shatter-GER-SG-ACC
‘a watermelon (acc.)’ (lit. ‘shattering thing’)
- b. Ka·nos-e-pay-xwet-an-la-k (TT 1.6)
Mexican-REFL-bead-wear-GER-SG-ACC
‘a Mexican woman’ (lit. ‘Mexican bead-wearer’)
- c. he-ylapa-n-ʔa·yay-te·-ca (TT 1.9)
REFL-stand-GER-inside-this-place
‘here inside the tree’ (lit. ‘thing that stands’)
- d. ya-talp-an-kwa·low-la (TT 1.11)
TH-fry-GER-big-NOM.SG
‘a big fry-bread’ (lit. ‘fried thing’)

As one can readily see, the nominalizations have generally undergone significant semantic shift as a result of their lexicalization.

Like gerunds, participles are derived from verbs formally through four different means: the addition of suffixes –k or –n, the lengthening of the vowel that precedes the participial slot, or no overt marking. In all cases, participles allow the addition of otherwise purely nominal morphological categories such as obviation, definiteness, number and case.

- (n) [wetoxanoʔo]
 He-co-cxo·-k-la we-toxa-no-we-ʔe”
 REFL-RED-fear-PART-NOM.SG OBJ.PL-finish-CONT-DECL-PAST
 ‘A monster finished them off.’ (TT 4.2)

Predicative nominals also frequently become incorporated to nominal heads. Though single incorporatees are most frequent (n), multiple predicative incorporatees are not uncommon (n):

(n) Predicative incorporation (single incorporatee)

- a. ʔe[·]-k-la ta-na-nesʔe-k-laknoʔo. cakaw-kwa·low-ʔa·-yʔik
 be-DS.NSIM move.PL-ABL-DU-PART-EVID river-big-DEF-ALL
 ‘So the two of them went off to the big river...’ (TT 19.15)
- b. Ha·csokonay-la ha-kla-na-t ya-coxʔ-an-a-naxok-wa·-yʔik
 Coyote-SG.NOM move.SG-down-ABL-SS.PURP TH-camp-GER-big-OBV-ALL
 ‘Coyote went down to the big camp...’ (TT 4.1)

(n) Predicative incorporation (multiple incorporatees)

- a. ʔe·-k-la ʔekwan-esxaw-maslak-pax-wa·-ʔa·-la
 be-DS.NSIM dog-big-white-only-OBV-DEF-NOM.SG
 “na·kw sa·sik k-a·-yoxo-w,” no-k-laknkoʔo.
 all.right 1SGACC 1.OBJ-TH-ride-IMP say-PART-EVID
 ‘So the horse that was white all over supposedly said: ‘All right, ride me.’’ (TT 19.4)
- b. “kokon-ke-la ha·csokonay-eykaʔay-samox-ka-k
 chief-1SGPOSS-NOM.SG wolf-big-red-PL-ACC
 [k]e-nes-ʔe-y-wey-coʔ,”
 1.OBJ-CAUS-CAUS-TH-bind-RES
 ‘My chief has made me catch big red wolves.’ (TT 19.4)

Taken to an extreme, this process of predicate incorporation can consume entire sentences, such as the one quoted above in (n). Another example is:

- (n) Ka·nos-[[ya-tmax-an]-wa·-ʔa·-la-k-sokano]-ʔa·-la
 Mexican-[[TH-shatter-GER]-OBV-DEF-SG-ACC-own]-DEF-NOM.SG
 ‘The Mexican who owned the watermelon.’ (TT 1.5)

Without any longer having access to native speaker intuitions, it is impossible to say definitively whether this kind of data suggests a kind of recursive morphology in Tonkawa; it is certainly rare across languages, though not unattested (XX, YY, ZZ).

4. Syntax

Tonkawa constitutes a fairly standard example of nonconfigurational syntax, in that syntactic constituents of clauses, as well as any constituents of noun phrases, may surface in any order. There is remarkably little evidence for syntactic asymmetries below the level of the clause. To begin with, transitive sentences with overt arguments are rare, and most permutations of basic word order appear in the corpus:

- (n) a. SVO
 Ha·csokonay-la [...] ya·ce-no-k-laknoʔo ha·ʔako·n-wa·-ʔa·-la-k
 Coyote-NOM.SG see-CONT-PART-EVID man-OBV-DEF-SG-ACC
 ‘Coyote... was seeing the man.’ (TT 14.5)
- b. SOV
 ha·ʔako·n-wa·-ʔa·-la kwe·-ʔa·-la-k ta·kona-no-k-laknoʔo.
 man-OBV-DEF-NOM.SG club-DEF-SG-ACC search-CONT-PART-EVID
 ‘The man was looking for his club.’ (TT 14.8)
- c. [XVO]_x VS
 “hete-ca ya·mka·-·-k-ye na·ya·k?”
 what-place TH-call-2OBJ-PART-INTER 2SG-ACC
 no-k-laknoʔo Ha·csokonay-la.
 say-PART-EVID.3SG Coyote-NOM.SG
 ‘“Where did he call you?” said Coyote.’ (TT 3.3)

In general, Tonkawa syntax represents a mix of right- and left-branching phrasal structures. [\[Expand\]](#)

4.1 Phrase structure

Determining phrase structure asymmetries in extinct languages, without native speaker judgments, can be challenging. The reason is that many of the tests that one would use to determine headedness in other languages are lacking or liminal in Tonkawa. For example, determiners like definiteness or obviation markers which in English and other languages are free standing words in Tonkawa are fairly rigidly suffixed. Likewise, as discussed in §3.5, predicational modifiers also very freely incorporate into the nominal phrase. When nominal nongenitival modifiers surface outside this morphological matrix, they may surface either before or after the modified substantive (n)-(n), though they usually occur after:

- (n) a. Incorporated modifier
- | | |
|---------------------------------------|-----------------------------|
| | ha·na·tewoʔs |
| ya·coxʔ-an- kalak -eʔe·-k | ha·-na-a·tewa-we-ʔe-s” |
| TH-camp-GER- other -yonder-ACC | move.SG-ABL-FUT-DECL-PRES-1 |
| no-k-laknoʔo Ha·csokonay-la. | |
| say-PART-EVID Coyote-NOM.SG | |
- ‘Coyote said: ‘I’m going to the other camp over yonder.’’ (TT 4.9)
- b. Free modifier
- | | | |
|------------------------------|--------------|-----------------------------|
| ʔe·-kwa | kalak | tansa·le-wa·-ʔa·-la |
| be-DS.SIM | other | chicken.hawk-OBV-DEF-NOM.SG |
| ne-nxas-ʔan-kakn-aʔa | | |
| TH-ignite-GER-go.off.for-ASS | | |
- ‘So the other chicken-hawk really went off to find firewood.’ (TT 22.9)

If the evidence for other phrasal categories is weak, the evidence for verb phrases is most conflicted. NPs do not clearly form a constituent with verbs, but verba loquendi almost always take a clausal complement immediately before, even when such a constituent is quite heavy:

- (n) a. $\text{ʔe}\cdot\text{-kwa}$ $\text{Ha}\cdot\text{csokonay-la}$ $\text{xa}\cdot\text{-xa-k-laknoʔo}$ $\text{ʔe}\cdot\text{-t}$
 be-DS.SIM Coyote-NOM.SG AUG.move.SG-AUG-PART-EVID be-SS.CONS
 “tickan- $\text{ʔa}\cdot\text{-ka}$ ha $\cdot\text{-xey-ta-kwa? ?}$ ” no-k-laknoʔo.
 person-DEF-NOM.PL move.SG-LOC-CIS-MIR say-PART-EVID
 ‘So Coyote got there and said: ‘Did a couple of people really come by?!’ (TT 8.4)
- b. “hexwit-wa $\cdot\text{-ʔa}\cdot\text{-la-k}$ tickan-e $\cdot\text{-ka}$ ha $\cdot\text{-xey-ta-t}$
 belt-OBV-DEF-SG-ACC people-that-NOM.PL move.SG-LOC-CIS-SS.CONS
 nahawa $\cdot\text{-lʔok}$ hepak-ape-w,” no-k-laknoʔo
 ask.about-if tell-NEG-IMP say-PART-EVID
 ‘‘If those people come by and ask about the belt, don’t tell them.’ [Coyote] said.’
 (TT 8.2)

4.2 Grammatical Functions

Grammatical functions like subject and object constitute a different kind of syntax not wholly congruent with phrase structure (indeed in some theories a completely different domain of grammar). As one kind of test of grammatical functions, agreement in Tonkawa largely concerns the categories of person and number on verbal predicates, since modifier nominals (‘adjectives’), adpositions and other parts of speech do not participate in any kind of agreement process. However, even with verbs, agreement is by no means a straight-forward test of grammatical functions, as many grammatical paradigms (e.g. the evidential) do not change for person or number or other nominal categories. A more serious problem is that there exist numerous verbs in which object morphology is used where its English translation would naturally be translated with an English subject (Hoijer 1933: 70):

- | | | |
|-----|--|---|
| (n) | kaʔaco?
ke- ʔace-we-ʔe
1OBJ-be.ill-DECL-PRES
‘I’m sick’ | kewʔaco?
ke-we- ʔace-we-ʔe
1OBJ-OBJ.PL-BE.ILL-DECL-PRES
‘We’re sick’ |
| | ʔace-we?
$\text{ʔace}\cdot\text{-we-ʔe}$
be.ill-2OBJ-DECL-PRES
‘You’re sick’ | waʔace-we?
we- $\text{ʔace}\cdot\text{-we-ʔe}$
OBJ.PL-be.ill-2OBJ-DECL-PRES
‘Y’all’re sick’ |
| | ʔaco?
ʔace-we-ʔe
be.ill-DECL-PRES
‘He’s sick’ | waʔaco?
we- ʔace-we-ʔe
OBJ.PL-be.ill-DECL-PRES
‘They’re sick’ |

In some cases, such object-oriented predicates can take either subject or object morphology depending on interpretation:

- | | | | | |
|-----|----|---------------------------|----|------------------------------|
| (n) | a. | hecnoʔs | b. | kecnoʔ |
| | | he-cane-we-ʔe-s | | k-e-cane-we-ʔe |
| | | REFL-lie.down-DECL-PRES-1 | | 1OBJ-REFL-lie.down-DECL-PRES |
| | | ‘I lie down (willingly)’ | | ‘I fall over’ |

As such, Tonkawa appears to have had a Fluid-S alignment in which different classes of intransitive predicates pattern either like transitive subjects or transitive objects, depending on their semantic interpretation. Without native speaker judgments, it is difficult to go beyond this to make formal tests for grammatical function changing.

4.3 Relative clauses

If one defines a relative clause in a Eurocentric way, with an external head and relative pronoun coreferential with it, then Tonkawa does not have relative clauses. However, defined semantically as a clause with a head noun whose extension is restricted in some way by a proposition, then relative constructions are rife. This is because although Tonkawa does not have full subordinate relative clauses, nominals can be modified by participial constructions that have full subordinate relative role as European-style subordinate relative clauses. For example, in (n), the participial phrase *xa-xakla* ‘who arrived’ modifies the subject *wixwanwa-ʔa-la* ‘the Little One’ (a trickster folk-hero):

- | | | | |
|-----|---|-----------------------------|---------------|
| (n) | wixwan-wa-ʔa-la | [xa-xa-k-la] | |
| | small-OBV-DEF-NOM.SG | move.SG.AUG-AUG-PART-NOM.SG | |
| | “ha-kla-na-t | panxo-w,” | no-k-laknoʔo. |
| | move.SG-down-ABL-SS.CONNS | bathe-IMP | say-PART-EVID |
| | ‘The Little One who arrived said: ‘Go down and bathe.’ (TT 17.11) | | |

Though this might be the most canonical form of relative clause, most participial forms in the available texts serve other functions. (n) for example represents a locative adjunct ‘toward where the woman was lying’, and in (n), a phrase that at first appears to be a preposed relative clause in fact is an accusative absolute ‘as one settling down in a big camp’:

- | | | | | |
|-----|---|------------------------------|---------------------|-------------------------|
| (n) | ʔe-kla | Hacsokonay-la | ha-cxo-t | waʔasay-ʔa-wʔan |
| | be-DS.NSIM | Coyote-NOM.SG | move.SG-up-SS.CONNS | one.side-DEF-ADESS |
| | [kwa-n-la | he-cne-k-a-wʔan] | | he-cne-k-laknoʔo. |
| | woman-NOM.SG | REFL-lie.down-PART-DEF-ADESS | | REFL-lie.down-PART-EVID |
| | ‘So Coyote went up and lay down toward one side, toward where a woman was lying down.’ (TT 3.9) | | | |

- | | | |
|-----|---------------------------|--------------------------|
| (n) | ya-cox-ʔan-a-xok-a-yʔik | yacoxʔanoklak |
| | TH-camp-GER-large-DEF-ALL | ya-coxʔa-no-k-la-k |
| | | TH-camp-CONT-PART-SG-ACC |
| | tickan-wa-c-la | ha-ʔako-n-osas-la |
| | person-real-NOM.SG | man-young-NOM.SG |

saxʔay-ka-k ʔe[y]-ʔe-yo·-no-k-laknoʔo.
 arrow-PL-ACC CAUS-do-INGR-CONT-PART-EVID
 ‘A young Tonkawa man who was settling down in a big camp
 was making arrows.’ (TT 27.1)

It is probable that some participial constructions either originated as, or with the last speakers were, biclausal, with a higher preposed question word and a subordinate participial form, as in (n):

(n) “hete-ca ya-mka·-k-ye na·ya-k?”
 what-place TH-call-2OBJ-PART-INTER 2SG-ACC
 ‘Where is it that they called you?’ (TT 3.3)

In some cases, participial forms with null heads serve effectively as finite forms, as with (n) where *ka·lwa·nasek* ‘[It is I] who am going off to gamble’ with no overt main clause head:

(n) taxso·-k-la ʔaxxo·ne·-wʔan ka·lw-a·-na-se-k,”
 be.dawn-PART-NOM.SG north-ADESS gamble-move.SG-ABL-1-PART
 ‘I’m going up north to gamble tomorrow.’ (TT 4.16)

Another finite-like verb form that relies on participial morphology is the resultative, as in (n):

(n) ʔe·-ta ke-yace-w! ʔe·-la we·-tic-aʔa ya·lo·na-t
 be-SS.NPURP 1OBJ-watch-IMP be-NOM.SG this-SIM-3ASS kill-SS.CON
 yax-a-to-ne-k-coʔ, no-k-laknoʔo ʔokmaʔek-wa·-ʔa·-la.
 eat-FUT-2-PART-RES say-PART-EVID Tiger-OBV-DEF-NOM.SG
 ‘So, watch me! With someone killing just like this you will eat your fill.’ (TT 6.6)