Copular constructions and clausal syntax in Cherokee*

Faruk Akkuş

University of Pennsylvania

Abstract: This paper investigates the verb 'to be' and the nonverbal predicates in Cherokee in a comparative manner, and discusses their interaction with negation and other functional elements. I show that verbless sentences - nominal and adjectival predicates - pose an apparent problem for Baker's (2008) theory of agreement, which I argue may be resolved through a more articulated functional layer. On the basis of the co-occurrence restriction of certain elements, such as negation and conditional marker, I also provide support to the templatic morphology of Cherokee.

Keywords: Cherokee, copula, nonverbal sentences, negation, templatic morphology

1 Introduction

Cherokee is a language of the Southern branch of the Iroquoian family of American Indian languages, currently spoken in Oklahoma and North Carolina, with an estimate of some 22,500 speakers (Montgomery-Anderson 2015:3). This paper describes and discusses the verbless sentences in Cherokee, both nominal and adjectival predicates, and their interaction with functional categories, such as negation.¹

The verb 'to be' and nonverbal constructions in Cherokee are understudied, to the extent that John Baker (1975: 306) feels the need to note that "a complete analysis of 'to be' has not been attempted and further study of this highly important irregular verb is needed". This work describes the nonverbal predicates in Cherokee in a cross-linguistically comparative manner, and discusses its interaction with negation and other functional elements in the language. It also investigates the function of the copula and provides arguments for the verbal and nonverbal predicate distinction. Looking at the co-occurence restriction on certain elements, such as negation and conditional marker, I provide a clausal structure for Cherokee.

The paper is organized as follows: Section 2 describes the inflectable nominals in Cherokee focusing on their person and number prefix. Section 3 looks at nonverbal sentences, both nominal and adjectival, on the basis of Wetzer's (1996) criteria and investigates two arguments that favor a distinction between verbal and nonverbal predicates. Section 4 introduces the verbal morphology and discusses the interaction of negative verbs with the relativizer and the conditional. Section 5 considers certain properties of Cherokee, which lends support for the head-final analysis of the language. Section 6 discusses the clausal syntax of Cherokee following Baker's (2008) analysis of

^{*} I would like to thank Tom Belt and Hartwell Francis for sharing their Cherokee knowledge with us, and their good humor and patience. Their enthusiasm as consultants and linguistic background made it much easier in dealing with such a complex language. I also thank Claire Bowern, and the audience at WSCLA21. Contact info: akusf@sas.upenn.edu

¹ The data consist of the material elicited from our consultants, Tom Belt and Hartwell Francis, as part of the Spring 2015 Field Methods class taught at Yale University and data from the literature. We also made use of the Kilpatrick collection of Cherokee manuscripts at Beinecke Rare Book and Manuscript Library.

In Proceedings of the Workshop on the Structure and Constituency of Languages of the Americas 21, University of British Columbia Working Papers in Linguistics 46,

Megan Keough, Natalie Weber, Andrei Anghelescu, Sihwei Chen, Erin Guntly, Khia Johnson, Daniel Reisinger, and Oksana Tkachman (eds.), 2018.

nonverbal predicates. I argue that Cherokee has two Neg positions and requires a special treatment due to its agreement patterns on nonverbal predicates. The final section concludes the paper.²

2 Nominals in Cherokee

Nouns in Cherokee have been classified on the basis of various criteria.³ Montgomery-Anderson (2015:125), for instance, distinguishes nouns into main two classes, i.e. *root nouns* and *derived nouns*, a property which determines whether the noun may be inflected or not. Nouns in the former category are simple nouns in the sense that are not created from another category, and most of these root nouns - except for people, clothing, and body parts - do not normally inflect for person or number and cannot be directly possessed (Cook 1979: 144). Root nouns are exemplified in (1).

(1)	a.	DЪ	ada	'wood'	(Montgomery-Anderson 2015: 125)
	b.	VU	doosa	'mosquito'	

Apart from the root nouns, nouns in Cherokee often have agreement prefixes that are cognate to the agreement prefixes of verbs. In other words, mostly nouns referring to human beings, i.e. those with a reference function, are inflected for person and number. As exemplified in (2), the agreement on the noun is identical to the Set A subject pronoun prefix that occurs with intransitive verbs (John Baker 1975:279, Montgomery-Anderson 2015: 39, 58) and these noun forms may also be used as complete sentences.

(2)	a. ji-sgaya	b.	a-sgaya
	1A-man		3A-man
	'I – man / I am a man.'		'man / He is a man.'

Similarly, adjectives are also inflected for person and number by the use of the subject pronoun. Unlike nouns, which get Set A prefixes, adjectives may require Set A or Set B pronouns, which is lexically assigned.

(3)	a.	o-sda	b.	u-tana	(John Baker 1975: 331–332)
		3A-good		3B-big	
	'g	ood, he/it is good.'	'big	g, he/it is big.'	

As Baker (1996: 244) points out, this is a common property of nominals in polysynthetic languages, which share several unusual properties that distinguish them from nominals in a language like English. Andrews (1975:143–144) reports that nouns in Nahuatl can be overtly inflected for 1st and 2nd person. Moreover, when they are, the forms used are identical to those that appear on intransitive verbs.

² In the glossing, I adhered to Leipzig Glossing Rules, yet in some cases I adopted the glossing in the original text. The abbreviations used in this paper are as follows: 1, 2, 3: first, second, third person, A: Set A prefix, B: Set B prefix, CMF: completive, COND: conditional, DST: distributive, DU: dual, EXCL: exclusive, FOC: focus, FUT: future, HAB: habitual, INCL: inclusive, IPFV: imperfective, IRR: irrealis, ITR: iterative, LOC: locative, NEG: negation, NON.SG: nonsingular, NS: nonsingular, NSF: noun suffix, ORD: ordinal, PAST: past, POS: possessive, PL: plural, PRC: Present Continuous, PRES: present, REL: relativizer, SG: singular, SUBJ: subject.

³ See also John Baker (1975: 319–322), Scancarelli (1987:287) and Potter (1996).

- (4) a. n-oquich-tli lsS-man-NSF/SG 'I – the man, I am a man.'
 - b. am-oquich-tin
 2ps-man-NSF/PL
 'you men you (pl.) are men'
 - c. Ø-oquich-tli 3S-man-NSF/SG 'the man, he is a man'

This is the same in Cherokee. Inflectable nouns and adjectives are marked with person and number agreement, which is identical to the subject pronominal prefix on intransitive verbs, as in (5).

(5)	a.	a-sv:-ka 3sG.SUBJ-smell-PRES 'It/he/she smells.'	(Lindsey and Scancarelli 1985:210)
	b.	a-sakho:nike-?i	(Emosey and Soundaroni 1965.216)
		3SG.SUBJ-blue 'S/he is blue.'	(Lindsey and Scancarelli 1985:210)
	c.	a-sgaya	

3A-man 'He is a man.'

This raises the question of whether nominals can be treated on a par with verbs, which will be addressed in the next section.

3 Verbless sentences

In the previous section, we have seen that nouns and adjectives are marked with the person and number agreement. In this section, I will examine verbless/copular sentences in detail in order to determine if all lexical categories share the same properties or if a division can be made among them. For instance, one possible question is whether adjectives behave more 'nouny' or 'verby' in the sense of Wetzer (1996) if a distinction can be drawn. Wetzer (1996: 116) suggests two criteria to determine the nouny nature of predicate adjectivals in a given language: (i) either the fact that both adjectival and nouns are accompanied by an overt copula, or (ii) that adjectival and nominal predicates are constructed by means of zero marking⁴. On the basis of the overt copula criterion, a large number of languages are considered to have nouny adjectival, including languages such as Arabic, Turkish, Icelandic.

⁴ I will not discuss the second criterion, i.e. zero marking criterion since it does not apply to Cherokee.

As in many languages discussed in Wetzer (1996), the copula 'to be' is irregular in Cherokee. It has the following forms in present, past and future tense, respectively.⁵

(6) a. *igi* Present
b. *gesv²i* Past
c. *gesesdi* Future

(John Baker 1975: 305)

In the simple present, predicative adjectivals and nouns pattern syntactically like intransitive verbs in Cherokee.⁶ They appear without an overt copula *igi* 'to be' and take the person prefixes which are also found on verbs. Consider the nominal (7) and adjectival predicates (8).

(7)	a.	na that 'That n	a-sgaya 3A-man nan is a doct	3A-	a?nakti doctor	(*igi) be.PRES	b.	a-sgay 3A-ma 'He is		
(8)	a.	book	eli ga-nah 3A-lon ook is long.'	g	(*igi) be.PRES	5	b.	that	a-sgaya u-tana 3A-man 3B-big man is big.'	(*igi) be.PRES

Note that the present form *igi* is not required in (7) and (8) (Scancarelli 1987, Lindsey and Scancarelli 1985, Cook 1979, Montgomery-Anderson 2015). However, there are certain instances where the copula is overtly realized, whose function has been described as 'to make statements more emphatic' (Montgomery-Anderson 2015: 86).

(9) gayeegwoóni nvhgi-iine ama+ayééhli uu-adeetiyiísgv ii-gi
 July four-ORD water+center 3B-birthday ITR-be:PRC
 'The Fourth of July is America's birthday.'

Such examples express characterizing statements or factual statements, which roughly corresponds to the meaning attributed to the copula in Cherokee. Based on the interpretational contribution of *igi*, I take it to be a modality marker that expresses epistemic generality, which

(i) The forms of 'be'

Present continuous	-gi
Incompletive	-geès-
Immediate	-ga
Completive	-geèh-

Accordingly, Montgomery-Anderson glosses *i*- in *igi* as ITR, i.e. iterative. However, the different approaches with respect to the root of 'to be' have no immediate implications for the present analysis.

⁶ I will not discuss locative sentences since this construction is expressed via a distinct verb meaning 'be at' in Cherokee. I will focus on copula clauses which consist of a subject and a non-verbal predicate between which a predication or identification relationship exists (Citko 2008: 262), illustrated in (i).

(i) a. Mary is a doctor.

b. John is smart.

c. That animal is a tiger.

⁵ Montgomery-Anderson (2015: 86) takes -g- to be the root of the verb 'to be' and gives the following stems:

corresponds to a ModP in the structure. The fact that this copula occurs in formal styles (John Baker 1975: 305), supports this analysis.

Thus far, in the present tense, nominal predicates pattern with verbs in carrying person and number morphology. This similarity calls for a uniform treatment of all predicates in Cherokee. However, there are (at least) two contexts which set nominal predicates off against verbal predicates: (i) copula in non-present tenses and (ii) their interaction with tense, aspect, modality (TAM) markers.

3.1 Copula in non-present tenses

In Cherokee, the use of copula is required in tenses other than present tense.

(10) a. digoweli di-ga-nahida ges-v[?]i book PL-3A-long be-PAST 'The books were long.'
b. na a-sgaya a-ga?nakti ges-esdi that 3A-man 3A-doctor be-FUT 'That man will be a doctor.'

Adjectival and nominal predicates can be set off against verbal predicates because they obligatorily contain an overt copula (except in affirmative simple present tense constructions, where the copula is generally omitted) in Cherokee (Cook 1979; Lindsey and Scancarelli 1985). At the same time, adjectival and nominals also take person markers like verbs do, even when the copula is used.

3.2 Nonverbal predicates and TAM

Another argument to distinguish nominal and adjectival predicates from verbal predicates comes from their interaction with tense, aspect, modality markers. In Cherokee, the verbal negation is realized through the prefix y- that attaches to the verb along with the negative element gesdi/hla/tla.

(11) a.	agowhtiha	b.	hla y-agowhtiha
	'He sees it'		not NEG-see
			'He doesn't see it.'

In the case of nonverbal sentences, on the other hand, the negative marker attaches to the copula, not the predicate itself. This holds both for nominal and adjectival predicates.

(12) Nominal Predicate	(13) Adjectival Predicate
a. a-sgaya	a. digoweli ga-nahida
3A-man	book 3A-long
'He is a man.'	'The book is long.'
b. hla a-sgaya y-igi not 3A-man NEG-be 'It is not a man.'	b. gesti ga-nahida y-igi digoweli not 3A-long NEG-be book 'The book is not long.'

c.	*hla y	v-a-sgaya	c.	*gesti	yi-ganahida	digoweli
	not	NEG-3A-man		not	NEG-long	book

The contrast between the (b) and (c) of the above examples show that negation cannot be marked on the predicate, but on the copula. This distinguishes nonverbal predicates from their verbal counterparts since in Cherokee verbs are morphologically marked to indicate verbal categories such as tense, mood, aspect and negation.

4 The structure of verbs

In the previous section, (11) shows that the prefix *y*- attaches to the verb along with the negative element *gesdi*, while (12) and (13) show that in the case of nonverbal sentences, the negative marker attaches to the copula, not the predicate itself. Now let us look at the interaction of negative copular sentences with relativizer and conditionals.

4.1 Relativizer with a negative verb form

The distributional restriction regarding the negative marker is also observed with relativizing morpheme j-, which marks relative clauses. (14) and (15) illustrate the relativizer on the verbal predicates.

(14) a. asgaya gawoniha	(15) a. gihli jigowhtiha
'A man is speaking.'	'I see a dog'
b. asgaya ji-ga-woniha man REL-3A-speak 'the man who is speaking'	b. gihli ji-ji-gowhtiha dog REL-1A-see 'the dog that I see'

Now let us look at relativizer in the context of nonverbal predicates.

- (16) a. na asgaya u-tana j-igi, the man 3B-big REL-be.PRES 'the man who is big'
 - b. *na asgaya j-u-tana the man REL-3B-big

The example (16) shows that the relativizer cannot attach to the nonverbal predicate, in contrast to the cases in (14) and (15), where the relativizer is prefixed to the verb form. Based on this contrast, one could suggest that the relativizer is an indicator of verbalness. One prediction this assumption makes is that the relativizer and the negative marker should co-occur. Yet the prediction is not correct.

(17) *asgaya hla yi-ji-ga-woniha man not NEG-REL-3A-speak 'the man who is not speaking.'

In (17) both the negative marker and the relativizer attach to the verb, and this results in an ungrammatical form. The grammatical counterpart is as follows:

(18) asgaya	ni-ga-wonisgv-na	j-igi
man	NEG-3A-speak-NEG	REL-be.PRES
'the man	who is not speaking.'	

The example (18) shows that the relative prefix cannot be attached directly to a negated verb form, and negative relative are formed by adding the negative circumfix n- (or ni-) ... na- to the verb form. The relative j- is then attached to the auxiliary verb -igi yielding yigi.⁷ This restriction can be made sense by looking at the verb structure in Cherokee.

A verb in Cherokee minimally consists of a verb stem, one or more pronominal prefixes and modal suffixes. The verb may also include prepronominal prefixes, which precede the pronominal prefix.

(19) Prepronominal prefix + Pronominal prefix + Verb stem + Modal suffixes

Several prepronominal prefixes can co-occur in a single verb form, however there are certain restrictions with respect to the order they can appear or semantic compatibility of some prefixes with others. Table 1 from John Baker (1975: 241) represents the prefixes.

1 y- negative j- relative, past, etc.	2 w-, away from the speaker	3 n-, lateral position, already	4 de- , plural object
5 da- future da- motion toward speaker di- distant position	6 i-, again	7 ga-, since e- distant imperative	8 pronoun prefixes

Table 1 Prefixes in Cherokee

In line with the categorization in Table 1, prefixes in the same box, for instance, the prefixes *y*and *j*- in the first box cannot co-occur. I take this fact to mean that Cherokee has a templatic morphology in that the two affixes occupy the same slot, hence cannot surface simultaneously.

The same restriction is at work in nonverbal constructions as well, which implies that the phenomenon is not a dichotomy between verbal and nonverbal constructions, but a structural requirement of the language.

(20) utana ni-gesa-na j-igi na asgaya, oginalii big NEG-be-NEG REL-be that man my friend 'The man who is not big is my friend.'

In the next section, I will move on to the discussion of conditionals in the context of negative predicates.

4.2 Negative conditionals

The conditional clause is formed with the same prefix as the prefix y-.

⁷ When *j*- is prefixed, the second last syllable in the word takes pitch 4 (John Baker 1975).

(21) a.	ga-woniha	b.	yi-ga-woniha
	3A-speak		COND-3A-speak
	'He is speaking.'		'if he is speaking.'

The restriction between the relativizer and the negated verb is observed in the case of conditional as well, where the conditional prefix cannot attach to a negated verb, hence is prefixed to the copula.

(22) ni-ga-wonisga-na y-igi na asgaya NEG-3A-speak- NEG COND-be.PRES that man 'if the man is not speaking.'

In nonverbal sentences, the conditional marker attaches to the copula, and not the predicate.

- (23) a. osda digoweli good book 'The book is good.'
 - b. osda y-igi digoweli good COND-be.PRES book 'If the book is good.'
 - c. *y-osda digoweli COND-good book Intended: 'If the book is good.'

Moreover, negative conditionals behave like the relativizer in that in nonverbal constructions, the negative element cannot attach to the copula and negative conditionals are formed by adding the negative circumfix n- (or ni-) ... na- to the verb form. The conditional y- is attached to the auxiliary verb -*igi* yielding *yigi*.

(24) osda ni-gesa-na y-igi, gesti y(i)-dv-tsigoliyea. good NEG-be.PRES-NEG COND-be.PRES not IRR-CMF-read 'If the book is not good, I am not going to read it.'

Before accounting for the restrictions, let us investigate the head-directionality in Cherokee.

5 Head-directionality in Cherokee

As Scancarelli (1986, 1987, chapter 7) points out, although most word orders in Cherokee are variable, the relative word order some constituents is fixed. Properties in (25) suggest a head-final propensity:

(25) a. Only postpositions (and not prepositions) exist.

- b. Adverbial modifiers must precede the adjectives they apply to.
- c. Inflection is suffixal: tense and aspect, as well as causatives, are suffixes.
- d. It is far more common for adjectives to precede, rather than follow, nominals; it is also more common for genitives to precede nominals.

Another domain which exhibits a head-final property is the copular constructions. In Cherokee the copula may not precede a nominal or adjectival predicate.

(26) a.	book	di-ga-nahid PL-3A-long were long.'	e	S+Pred+Cop
b.	diganahida PL-3A-long	0	ges-e ² i be-PAST	Pred+S+Cop
c.	diganahida PL-3A-long	0	U	Pred+Cop+S
d.	*digoweli book	ges-e [?] i be-PAST	diganahida PL-3A-long	*S+Cop+Pred
e.	*ges-e [?] i be-PAST	diganahida PL-3A-long	e	*Cop+Pred+S
f.	*ges-e [?] i be-PAST	digoweli book	diganahida PL-3A-long	*Cop+S+Pred

Based on the restrictions in (26) and properties in (25), I take Cherokee to be a head-final language. Now let us consider the word order alternations in a negative clause.

(27) a.	• •	nahida -long is not lo	NEG-be bo	goweli ook	NOT+Pred+Cop+S
b.	digoweli book	gesti not	ga-nahida 3A-long	y-igi NEG-be	S+NOT+Pred+Cop
c.	gesti ga- not 3A	nahida -long	•	y-igi NEG-be	NOT+Pred+S+Cop
d.	gesti not	digowe book	•	nida y-igi ng NEG-be	NOT+S+Pred+Cop
e.	*digoweli book	gesti not	yigi NEG-be	ganahida 3A-long	*S+NOT+Cop+Pred
f.	*digoweli book	yigi NEG-be	gesti e not	ganahida 3A-long	*S+Cop+NOT+Pred
g.	*yigi NEG-be	gesti not	ganahida 3A-long	digoweli book	*Cop+NOT+Pred+S
h.	*yigi NEG-be	digowe book	eli gesti not	ganahida 3A-long	*Cop+S+NOT+Pred

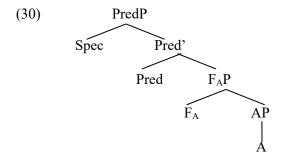
Based on (26) and (27), we can draw the following conclusions: (i) the predicate and the copula order is fixed, i.e. Pred + Cop, and the reverse order is ruled out (which can be accounted for via head-movement constraint), (ii) subjects can come between the predicate and the copula, while the negative element *gesti* cannot, (iii) the relative order of [NOT ... Pred ...Cop] is also fixed in negative sentences. The examples in (28) and (29) support the idea that a change in the relative order of the negative *gesti*, the predicate and the copula leads to ungrammaticality.

(28) *astaya gesti hard not 'The rock is r	NEG-be	*Pred+NOT+Cop
(29) *gesti yigi not hard	astaya NEG-be	*NOT+Cop+Pred

6 The clausal syntax in Cherokee

6.1 The syntax of nonverbal sentences

I follow Baker (2008) for the structure of nonverbal predicates, which is as follows.



Baker ties the availability of the specifier to the asymmetry between verbs on one hand and adjectives and nouns on the other in terms of agreement. While verbs often agree in 1st and 2nd person features, nouns and adjectives do not. Note that Cherokee facts, where nouns and adjectives bear person agreement, appear to contradict this statement, as shown in (2).

Baker (2008: 56–58) says that Turkish is an apparent problem for his claim, since it allows the same person agreement to attach to all three lexical categories, as in (31) (Kornfilt 1997: 78–83).

(31) a. Ben oku-r-um.	b. Ben temiz-im	c. Ben öğretmen-im.
I read-AOR-1sS	I clean-1sS	I teacher-1sS
'I read.'	'I am clean.'	'I am a teacher.'

Baker's proposal is that the person agreement in a language like Turkish is not on $F_{A/N}$, the functional category that can be generated immediately above all uses of A and N. Rather it is agreement on some more verbal functional category higher in the structure of the clause, a functional category that is generated above the subject and can trigger movement of the subject to its specifier. This is supported by the fact that in a tense other than present, for instance, in the future tense, the tense does not merge with a nonverbal root; rather an auxiliary root *ol* 'be' needs to be inserted to support it when the predicate of the clause is noun or adjective.

(32) a. gel-eceğ-im	b. Ben temiz ol-acağ-ım
come-FUT-1sS	I clean be-FUT-1ss
'I will come'	'I will be clean.'

The example (32) shows that auxiliary insertion takes place when the tense is future. The present tense is merely obscured by the fact that Tense and the noun or adjective sometimes form a single word on the surface in Turkish as a result of head movement, PF merger, or cliticization. This makes it look like the noun or adjective agrees with the subject – especially in the present tense, when the tense marker is phonologically null.

Cherokee, on the other hand, differs from Turkish in that although tenses other than present tense also require auxiliary insertion, the agreement on the nonverbal predicate remains in its original position.

(33) a.	o-sda	b.	o-sda	ges-e [?] i	c.	*sda	o-ges-e [?] i
	3A-good		3A-good	be-PAST		good	3A-be-PAST
	'It is good.'		'It was goo	d (reportedly).'			

Nahuatl has no auxiliaries even in nonpresent tenses to bear tense and agreement (Baker 2008: 59), unlike Cherokee in which nonpresent tenses attach to a copular auxiliary. The two languages, however, behave similarly in terms of the agreement. For this reason, languages like Cherokee pose an apparent problem for Baker (2003, 2008) and call for a slightly different treatment. Before moving on to the analysis, I will discuss other parts of the Cherokee clause structure.

6.2 Cherokee clause structure

6.2.1 Negation in Cherokee

As mentioned previously, the prefix *y*- along with the negative element *gesti/hla* gives a negative interpretation. I will take this to be consistent with the Neg Criterion of Haegeman and Zanuttini (1991), which is formulated as follows:

(34) The Neg Criterion (Haegeman and Zanuttini 1991: 244)

- a. Each Neg X° must be in a Spec-Head relation with a negative operator.
- b. Each Negative operator must be in a Spec-Head relation with a Neg X°.

This formulation accounts for the West Flemish facts the authors discuss along with the following English sentences from Rizzi (1991: 11).

(35) a. I would do that in no case.

- b. * In no case I would do that.
- c. In no case would I do that.

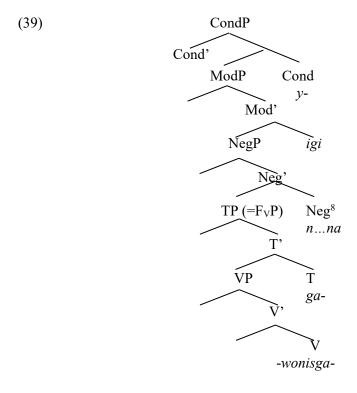
The I to C movement in (35c) can be interpreted as the result of a Spec-Head requirement on the relation between a negative head and a negative operator. I will argue that the same relation holds in Cherokee as well where the Spec-Head configuration between the negative element *gesti* and the prefix *y*- yields the negative interpretation. This is also the configuration between *pas* and *ne* in French. As argued in section 3, I take the overt copula *igi* to be the realization of the ModP since it expresses epistemic generality. These considerations yield the following tree structure. The head-movement or PF cliticization of the Mod head to the Neg[°] yields the adjacency.

(36) [NegP gesti [Neg y- [ModP [Mod igi]]]]

Also as discussed in section 4, in the case of negative conditional or negative relative, the relativizer (18) and the conditional marker (22) appear on the copula while the negation is expressed by adding the negative circumfix n-...-na to the verb form. In order to account for these restrictions I will argue that the negative marker y- in Cherokee occurs in the same slot as the relativizer and the conditional. Therefore, the presence of the relativizer or the conditional blocks the appearance of negation. This can be accounted for via the templatic morphology of Cherokee. However, the blocking is not due to a semantic clash, hence negation surfaces on another element in the sentence. I will take this to mean that Cherokee has two negative projections, which is consistent with the recent negation analyses (e.g. Bell 2004). Let us consider this on the basis of the examples (22) and (24), repeated here for convenience.

(37) osda	ni-gesa-na	y-igi,	gesti	y(i)-dv-tsigoliyea.
good	NEG-be.PRES-NEG	COND-be.PRES	not	IRR-CMF-read
'If the	book is not good, I a	am not going to r	ead it.'	

(38) ni-ga-wonisga-na	y-igi	na	asgaya
NEG-3A-speak- NEG	COND-be.PRES	tha	t man
'if the man is not speaking			



⁸ One could also analyze *n*- and *-na* as a discontinuous morpheme under two separate Neg[°] projections, as has been proposed for the discontinuous Arabic negative morpheme *ma-š*. I will posit it in a single projection for the sake of simplicity.

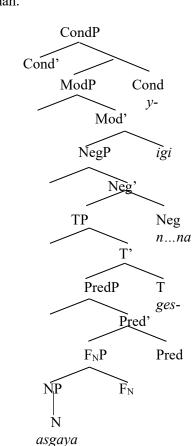
Note that in (38) the negation is circumfixed to the thematic verb, but in (37) to an auxiliary verb, which presumably occupies a T head. Thus, it is plausible to assume that in (38) the main verb raises from V-to-T-to-Neg, when auxiliary is not present. In constructions with the auxiliary, on the other hand, we have T-to-Neg movement.

This hypothesis accounts for the fact that in the case of relativization or conditional, the higher negation is blocked; hence the lower Neg position becomes available.

6.2.2 The structure in a nonverbal construction

The structure for a nonverbal construction in Cherokee, as in (40), would be as illustrated in the tree configuration in (41):

- (40) a-sgaya ni-gesa-na y-igi 3A-man NEG-be-NEG COND-be.PRES 'If he/it is not a man.'
- (41)



As mentioned in section 6.1., Nahuatl has no auxiliaries even in nonpresent tenses to bear tense and agreement, unlike Cherokee in which nonpresent tenses attach to a copular auxiliary. Moreover, as seen in (41), negation attaches to the auxiliary *-ges-*. Therefore, Baker's proposal for the possible lack of T[°] would not work in Cherokee.

Baker (2008:59) points out that although he cannot inspect the location of agreement relative to Tense directly in Nahuatl, there is a bit of evidence that the person agreement in question is on

a higher, clause-like functional head and not on the lower, purely nominal head that I call F_N . This involves the location of person agreement with the subject on possessed nouns that are used predicatively. In fact, the person agreement appears outside of the possessor agreement prefix in Nahuatl, as shown in (42).

(42) a. Ti-no-cihuā-uh	b.	An-to-pil-huān	
2sS-1sP-woman-POSS		2pS-1pP-child- poss	
'You are my wife.'		'You (pl) are our children.'	(Launey 1981: 91)

Following his Mirror Principle (1985), Baker argues that this morpheme order in Nahuatl indicates that the functional head that agrees with the subject of predication is higher in the phrase structure than the functional head that agrees with the possessor of the noun phrase.

In Cherokee, this test would not work on relationship nouns, which refer to humans and typically indicate a family member. This is because such nouns typically have a prefix with both a reference and a possession function, that is, they are not expressed separately.⁹

(43) a. ji:-yeji	b.	hi:-yeji	c.	u-weji
1A-child		2A-child		3B-child
'I am his child.'		'You are his child.'		'He is his child.'

Nonhuman root nouns, on the other hand, indicate possession by attaching a Set B prefix to the possession pronoun (POS.PRO) *-ajeélií?i* (typically shortened to *-ajeéli*) (Montgomery-Anderson, 2015: 134). This pattern is exemplified in (44).

(44) a.	gihli	agw-ajeli	b.	gihli	j-ajeli
	dog	1B-POS.PRO		dog 2H	B-POS.PRO
	'my do	og'		'your	dog'

In these cases as well, person agreement and possession are not realized separately, but as one unit on the possession pronoun.

(45) a.	u-jeli	b.	ji:-jeli	wesa	c.	hi:-jeli	wesa
	3B-cat		1>3-POS.PRO	cat		2>3-POS.PRO	cat
	'his cat'		'I am his cat.'			'You are his cat.'	

Since in Cherokee, we have eliminated the option of the absence of the T head, I suggest to posit null T head under the T° which hosts the auxiliary in negative contexts. This is the head to which the agreement in person can be attributed. This assumption is based on the fact that same transitive pronouns are used in copular possession constructions as the regular transitive constructions.

(46) a.	squ-ahtadada	b.	squ-ajeli	(digoweli)	
	2>1-ask		2>1-POS.PRO	book	
	'Ask me a question.'		'You are my book.'		

⁹ If the person referred to by the relationship noun is a local person and the possessor is third person, then a Set A animate object prefix is used. If the reference function is third person, then Set B prefixes are used. See also Montgomery-Anderson (2015: 128, 144, 255).

Based on this fact, I propose that person agreement in Cherokee can be attributed to another tense projection under the T head hosting the auxiliary. The T° that hosts the agreement would correspond roughly to Pollock's (1989) Agr projection. Baker (2008: 60) speculates that in Nahuatl person agreement could either be in Pred (if T is absent) or T. Since Cherokee has a T projection, agreement is associated with it, not Pred.

7 Conclusion

In this paper, I have described the distribution and properties of the copula in Cherokee. I investigated nonverbal sentences in contrast with verbal sentences concluding on the basis of (i) the presence of the copula in verbless construction (nominal and adjectival) and (ii) marking of TAM such as negation on the copula rather than the nonverbal predicate that in Cherokee nominal and adjectival predicates behave differently than verbal predicates.

I also discussed the head-directionality in Cherokee and the word order restrictions in verbless sentences. Based on the cooccurence restriction between negation and relativizer *j*-, as well as negation and conditional, which require negation to surface in a separate position, I concluded that Cherokee has two Neg projections. Taking all these facts into consideration, I proposed a clausal structure for Cherokee.

References

Andrews, R. (1975). Introduction to Classical Nahuatl. Austin, Texas: University of Texas Press.

- Baker, M. (1985). The Mirror Principle and Morphosyntactic Explanation. *Linguistic Inquiry* 373–415.
- Baker, M. (1996). The Polysynthesis Parameter. Oxford: Oxford University Press.

Baker, M. (2003). Lexical Categories: Verbs, Nouns and Adjectives. Cambridge University Press.

- Baker, M. (2008). The Syntax of Agreement and Concord. Cambridge University Press.
- Bell, A. J. (2004). *Bipartite Negation and the Fine Structure of the Negative Phrase*. PhD Dissertation. Cornell University.
- Citko, B. (2008). Small Clauses Reconsidered: Not so Small and Not All Alike. *Lingua* 118 (3): 261–95.
- Cook, W. H. (1979). A Grammar of North Carolina Cherokee. Michigan: University Microfilms International.
- Haegeman, L., and Raffaella Z. (1991). Negative Heads and the Neg Criterion. *The Linguistic Review* 8 (2–4): 233–52.
- John Baker, B. (1975). *Cherokee-English Dictionary*. William Pulte (ed). Oklahoma: Heritage Printing.
- Kornfilt, J. (1997). Turkish. London and New York: Routledge.

Launey, M. (1981). Introduction à la langue et à la littérature Aztèques. Paris: L'Harmattan.

- Lindsey, G., and Scancarelli, J. (1985). Where Have All the Adjectives Come from? The Case of Cherokee. Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society 11: 207–15.
- Montgomery-Anderson, B. (2015). *Cherokee Reference Grammar*. Norman: University of Oklahoma Press.
- Pollock, J. (1989). Verb Movement, Universal Grammar, and the Structure of IP. *Linguistic Inquiry* 365–424.
- Potter, B. (1996). Cherokee Agentive Nominalization. *Cherokee Papers from UCLA*, Pamela Munro (ed), *UCLA Occasional Papers in Linguistics 16*. 115–33.
- Rizzi, L. (1991). Residual Verb Second and the Wh-Criterion. Ms. University of Geneva.
- Scancarelli, J. (1986). Pragmatic Roles in Cherokee Grammar. *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society* 12: 224–34.
- Scancarelli, J. (1987). *Grammatical Relations and Verb Agreement in Cherokee*. PhD Dissertation, University of California, Los Angeles.
- Wetzer, Harrie. (1996). The Typology of Adjectival Predication. Walter de Gruyter.