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A GRAMMAR OF NORTH CAROLINA CHEROKEE.

YALE UNIVERSITY, PH.D., 1979

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**A GRAMMAR OF NORTH CAROLINA CHEROKEE**

**A Dissertation**  
**Presented to the Faculty of the Graduate School**  
**of**  
**Yale University**  
**in Candidacy for the Degree of**  
**Doctor of Philosophy**

**by**  
**William Hinton Cook**  
**May 1979**

## ABSTRACT

### A GRAMMAR OF NORTH CAROLINA CHEROKEE

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Yale University May 1979

This dissertation is a description of the Cherokee language as it is spoken on the Qualla Boundary in Swain and Jackson Counties of western North Carolina. The description is primarily in process terms, but the approach is eclectic. Chapter One gives an inventory of the phonemes and their articulatory features, and discusses the process of laryngeal metathesis. Chapter Two describes the categories of the pronominal prefix system and discusses the rules of attachment of the prefixes. Chapter Three describes the meanings and rules of attachment of the prepronominal prefixes.

Chapter Four discusses the system of aspect categories and describes the formation of stems and the suffixes used to mark them for the major conjugation classes. Chapter Five describes the modal suffix system and discusses the interaction of aspect and mode. Chapter Six discusses the structure of the verb bases, on which stems are built, discusses the reflexive morphemes, and lists and discusses the major derivational suffixes.

Chapter Seven describes the major classes of nouns and their interaction with the pronominal system. Chapter Eight discusses major syntactic processes in a case grammar format. Topics discussed include: underlying word order and surface

case marking, formation of the pronominal prefix and the rules of agreement, discourse focus, topicalization, question formation, conjunction, gapping, and complementation.

Chapter Nine discusses the Cherokee classificatory verbs in terms of general patterns of Iroquoian languages.

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## INTRODUCTION

This dissertation is primarily a description of the inflectional morphology and basic syntactic processes of the Cherokee language as spoken on the Qualla Boundary in Swain and Jackson counties of western North Carolina. The most complex inflectional morphology is that associated with the verb. A subset of this same inflectional morphology is used with those nouns which are inflectable. This study is not a complete grammar in two respects: it does not provide a complete phonology and it largely ignores particles, the third major lexical category beside nouns and verbs.

The initial focus of the discussion of the inflectional morphology is the potentially most complex of the inflected forms, the finite verb. The inflectionally simplest verb forms in Cherokee consist of a pronominal prefix, a verb root, an aspect suffix and a modal suffix.<sup>1</sup> A complex verb form may include one or more prepronominal prefixes, a pronominal prefix, a complex verb base with several layers of derivation, an aspect suffix and a modal suffix.

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<sup>1</sup> At various points in this dissertation the terms 'root', 'base' and 'stem' are used. The term 'root' is used in the established sense. The term 'verb base' refers to the portion of the verb form lying between the pronominal prefix and the aspect suffix. The term 'verb stem' refers to the same entity plus an aspect suffix. The term 'stem' is, however, used in two senses. In discussions of the pronominal prefixes the stem type is defined by the leftmost phoneme of the verb stem (e.g. an a-stem). In discussions of the suffix morphology the stem type is defined by the aspect suffix (e.g. an imperfective stem). The sense intended is in all instances, I believe, clear from the context.

In Chapter Two I discuss the pronominal prefixes, in Chapter Three the prepronominal prefixes, in Chapter Four the formation of the aspect stems and in Chapter Five the modal suffixes and their interaction with the aspect stems. In Chapter Six I discuss the structure of the verb bases and productive derivational morphology.

In Chapter Seven I discuss nouns and in Chapter Eight I give an overview of the major syntactic processes of the language. Chapter One provides a summary description of the phonology. Chapter Nine is devoted to classificatory verbs.

The theoretical orientation of this dissertation is eclectic. The discussion of the morphology is stated in process terms. It views the surface shape of morphemes as resulting from two distinct operations. The first is the selection of a basic alternant of a morpheme, whose selection is conditioned by the other morphemes in the string.<sup>2</sup> These selectional processes are summarized as rules using an arrow notation, connecting the underlying shape to the basic alternant. The morphological environments conditioning the selection are listed after a following slash (/).<sup>3</sup> The second operation is

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<sup>2</sup> In most cases there is only a single shape to choose from.

<sup>3</sup> I deviate from this account at a couple of points. The selectional process is different for the selection of allomorphs of the third singular subjective pronominal prefix a:-/ka- (see p. 16). Here the selectional process selects between what were historically--at least--two distinct morphemes. Such selections are not simply phonological and so there is no underlying phonological shape assigned to these basic alternants. Aspect stems and a few other suppletive

the phonological adjustment of the morphemes of the string conditioned by general processes governing the contact between phonemes at different boundaries. These phonological processes are summarized as rules using an arrow notation. Both types of rules are intended primarily as summaries of the processes described and for ease of reference.

The phonological information in Chapter One is for the purpose of providing the reader with a tool for interpreting the forms presented in the subsequent chapters. The units presented are, as the notation suggests, structuralist phonemes. The convention observed throughout this study is to place phonological units between phoneme slashes and to put double spaces around morphemes, morpheme strings or Cherokee words.

The economy of statement which might be gained from the use of a feature notation for the description of certain phenomena or for the collapsing of certain rules is sacrificed in the interest of readability. A more detailed phonological study will be undertaken at a later date.

The statement of syntax in this dissertation uses the case grammar framework of Charles Fillmore. The basic syntactic model of case grammar uses the formal apparatus of 'standard theory' transformational grammar presented in Chomsky's (1964) Aspects of the Theory of Syntax as modified in Fillmore's (1968) 'The Case for Case' and his 1970 course

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alternations encounter this same problem and are thus not formulated as rules.

at the Linguistic Institute at The Ohio State University. Notation or terminology not found in the above published sources is explained as it appears.

The research on which this dissertation is based was conducted during intermittent periods of residence on the Qualla Boundary between the summer of 1969 and the summer of 1974. Data are drawn primarily from the speech of ten informants ranging in age between late forties and early nineties.

## CHAPTER ONE: PHONOLOGY

1.0. The phonemes of Cherokee are five oral vowels /a, e, i, o, u/, one nasalized vowel /v/, five resonants /y, w, l, n, m/, three oral obstruents /t, k, s/, two laryngeal obstruents /h, ʔ/, vowel length /:/ and accent /' /.

/m/ is the only true labial in the language. It is very infrequent and only one instance is in a word of fairly certain etymology, ama 'water'. The back vowels /o, u/ have slight lip rounding as do many occurrences of /w/, but with all of these the distinctive quality is backness rather than rounding.

1.1.0. The following are the distinctive articulatory features of the phonemes.

1.1.1. The vowels:

/a/ is a low central oral vowel.

/e/ is a mid front oral vowel.

/i/ is a high front oral vowel.

/o/ is a mid back oral vowel.

/u/ is a high back oral vowel.

/v/ is a mid central nasalized vowel.

For most speakers /o/ is fairly low, toward [ɔ].

1.1.2. The resonants:

/y/ is a palatal semivowel.

/w/ is a velar semivowel.

/l/ is an apico-alveolar lateral.

/n/ is an apico-alveolar nasal.

/m/ is a bilabial nasal.

The resonants are voiceless after /h/ or after /ʔ/ before a consonant. Elsewhere they are voiced. Since there are no instances of /hm/ or /ʔm/ clusters, these statements apply vacuously to /m/.

1.1.3. The oral obstruents:

/t/ is an apico-alveolar stop.

/k/ is a dorso-velar stop.

The stops are voiceless and aspirated before /h/. They are voiceless and unaspirated after /h/ or /s/. Elsewhere they are voiced.

/s/ is the palatal spirant [š].

In some North Carolina dialects /s/ is consistently a blade-alveolar spirant. It is voiced pre-vocally in the cluster /ts/ and voiceless elsewhere.

1.1.4. The laryngeal obstruents:

/h/ is a voiceless segment.

/h/ takes on its coloring from the preceding and/or following vowels and/or resonants.

/ʔ/ is a glottal stop.

In some dialects /ʔ/ is realized post-vocally as a full glottal closure [ʔ], while in others it is realized as glottalization of and fall in pitch of the preceding vowel. Post-consonantly /ʔ/ is always [ʔ] in both dialects. Words written with an initial vowel have a /ʔ/ automatically before the vowel in several contexts. Since the occurrences of this /ʔ/ are predictable from phonetic context it is not written.

## 1.1.5. Prosodics:

/˘/ is high pitch.

/:/ is longer duration of the preceding vowel.

Phonetically there is a third degree of vowel quantity. Beside short vowels and long vowels, there are certain /a/s and /i/s which are shorter than short vowels. These are vowels which we know by comparative study to be epenthetic vowels. Since these extra-short vowels are predictable from morphological context and since there appear to be no instances of minimal contrast between [a] and [ä] or between [i] and [i̇] this distinction is not written.

## 1.2. Morphophonemic alternation:

Except for a few morpheme-specific instances, whenever a laryngeal, /h/ or /ʔ/, in a non-final syllable is preceded by an unaccented short vowel, by a resonant, or by a sequence of a resonant followed by an unaccented short vowel, provided that none of these is itself preceded by a laryngeal, the laryngeal metathesizes to the left of the vowel, resonant or sequence. If the next following phoreme is other than a resonant the vowel is deleted. These processes are summarized in rule (1).<sup>1</sup>

$$(1) \quad (R[V]H) \rightarrow \begin{array}{l} H(R[V]) / X \_ R \\ H(R[\emptyset]) / X \_ Y \end{array} \quad \begin{array}{l} \text{(Where H is either} \\ \text{laryngeal, R is any} \\ \text{resonant, V is any} \\ \text{short vowel } \neq \check{V}, \text{ and} \\ \text{X and Y are variables} \\ \text{X } \neq \text{ H, Y } \neq \text{ V\# )} \end{array}$$



Rule (1) is important because it multiplies the range of surface variation in the verbal morphology. Its most notable effects are on the pronominal prefix system and on the verbal suffix system, particularly class C verbs (see p. 107). Examples from these will illustrate the five cases of the application of rule (1), a laryngeal metathesizing across a short vowel and this same metathesis with loss of the vowel, a laryngeal metathesizing across an RV sequence with and without vowel loss, and a laryngeal metathesizing across a resonant.

Before certain consonant-stem verbs the third singular subjective prefix<sup>2</sup> is ka- 'he' as in

(2a) kanaki:ʔa 'he is picking it up'

< ka- 'he' + -naki:ʔa 'picking up'

When the stem has an initial /h/, the /h/ metathesizes across the vowel, changing the shape of the prefix, as in

(2b) khanawo:ʔka 'he is cold'

< ka- 'he' + -hnawo:ʔka 'cold'

The first singular objective prefix a:ki- 'I/me' is similarly affected, as we see in

(2c) a:kiyo:hsiha 'I am hungry'

< a:ki- 'I' + -yo:hsiha 'hungry'

(2d) a:khiyu:hkwatiʔa 'I have a toothache'

< a:ki- 'I' + -hyu:hkwatiʔa 'have a toothache'

When the stem initial /h/ is followed by a non-resonant the

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<sup>2</sup> For the details of the pronominal prefix system and the definitions of the terms used here see Chapter Two (pp. 13-15).

prefix vowel is lost, as we see in

- (2e) a:khtsv:ka 'I am sick'  
 < a:ki- 'I' + -htsv:ka 'sick'

An example from the prepronominal prefix system (cf. Chapter Three) will illustrate loss of the metathesized vowel before a vowel, as in

- (2f) yihwa:ʔi 'if you are walking away'  
 < yi- 'if' + wi- 'away' + ha:ʔi 'you are walking'

Example (2f) illustrates another fact about rule (1). Rule (1) may apply to any laryngeal in the string only once. Notice that yihwa:ʔi meets the structural description of rule (1), but the absence of a form \*hyiwa:ʔi shows that the rule cannot apply to the same laryngeal a second time.

Examples of another case of surface alternation caused by rule (1) can be seen with the a-stem verbs, which choose the allomorph a:kw- 'me/I' of the first singular objective prefix. When the stem has an initial /ah/ rule (1) can move the /h/ across the /wa/ cluster of the first person form, deleting the vowel before a non-resonant, as we see in

- (2g) a:khwthv:ki:ʔa 'he hears me'  
 < a:kw- 'me' + -ahthv:ki:ʔa 'hears'

compared to

- (2h) a:kwatu:liha 'I want it'  
 < a:kw- 'I' + -atu:liha 'want it'

With the transitive prefix tsi:y- 'I - him', which causes the first /h/ of the stem to become a /ʔ/, we see another

instance of surface variation caused by rule (1) in .

- (2i) tsi:ʔythv:ki:ʔa 'I hear him'  
 < tsi:y- 'I - him' + -ahthv:ki:ʔa 'hear'

Instances of metathesis across RV clusters without vowel loss are rarer but can be found in some cases of stem compounding. One example from the class C verbs is particularly interesting, since it involves two metatheses, as we see in

- (2j) kahlahska 'he is putting a round object in a container' < ka- 'he' + -la- 'inside' + -hnhska 'placing a round object'<sup>3</sup>

A detailed derivation of (2j) is given in (2k).

- (2k) ka+la+hn+hska  
 ka+hlan+hska metathesis  
 ka+hlav+hska vocalization (cf. p. 110)  
 ka+hlahska metathesis

This derivation is of interest because it shows that, while metathesis may not apply a second time to the same /h/, it can apply a second time to the same string and, in fact, to its own output, since the first application creates the environment for the second application. I will suggest tentatively that rule (1) can only read the string from left to right. Note also that the rules must apply in the sequence indicated, with metathesis applying once before vocalization of the /n/ and once after it. If vocalization had occurred

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<sup>3</sup> For a more detailed discussion of this derivation and of verbs which specify the form of the object see Chapter Eight.

before the first metathesis, the /a/ of the /la/ sequence would have been deleted before the following vowel. If vocalization had occurred after the second metathesis, the /v/ it creates would not have been deleted by the metathesis. Investigation of how these facts fit into the whole question of rule ordering goes beyond the scope of this dissertation. For present purposes, I shall assume a cyclic application of rules --as the NP fronting rule of Chapter Seven (cf. 7.1.5) also suggests--and order metathesis before vocalization, as is their order of initial application. The second metathesis, then, occurs in the second cycle.

The fifth case under rule (1), metathesis across a lone resonant, is applicable to the forms of a strict generative lexicon and explains forms which are apparent exceptions to the rule, such as

(21) a:nahne:tsó:ʔvhska 'they are playing (a sport)'

(2m) kanohli:to:ha 'he is hunting'

In a strict generative lexicon the underlying forms of (21) and (2m) will be given as

(2n) a:n- 'they' + -anhe:tsó:ʔvhska 'playing'

(2o) ka- 'he' + -nolhi:to:ha 'hunting'

which give, after application of rule (1), the actual surface forms. Apparent exceptions to rule (1) involving hR clusters in subsequent examples in this thesis can be accounted for as instances of rule (1) having already applied to underlying Rh clusters. Morpheme-specific exceptions to the rule will be noted as they are encountered. In the discussion which follows,

however, only those portions of the string which are under discussion will be given in their pre-metathesis form.

Rule (1) is the most general morphophonemic rule in the language, having only a few morpheme-specific exceptions. It is for that reason that it has been discussed in some detail here. Other rules of less general application are discussed in connection with the morphemes to which they apply.

## CHAPTER TWO: PRONOMINAL PREFIXES

2.0. Every Cherokee verb has a prefix which identifies the individual(s) or object(s) occupying the one or two main roles in the action or state denoted by the verb. Many Cherokee words which correspond to English nouns, such as body part words and kin terms, also use certain of these same prefixes to identify the possessor of the noun.<sup>4</sup> These prefixes are traditionally referred to as the pronominal prefixes.

2.1.0. The Cherokee pronominal prefix system recognizes, though not in every instance, the following categories:

relational: subject, object

person: first, exclusive, inclusive, second, third<sup>5</sup>

gender: animate, indefinite<sup>6</sup>

number: singular, dual, plural

2.1.1. The relational parameters of the prefixes are referred to as subject and object, the terms traditional in

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<sup>4</sup> For the details of the uses of the pronominal prefixes with nouns see Chapter Seven.

<sup>5</sup> Linguists have traditionally treated inclusive and exclusive as subcategories of first person. The native perception, however, seems to group inclusive with second person. I, therefore, avoid treating these categories as either first or second person. It is interesting to note that the Cherokee perception of inclusive is reminiscent of the situation in many Algonquian languages where the inclusive is formed with the second person prefix *ki-* (cf. Wolfart 1973, p. 16).

<sup>6</sup> Even though 'indefinite' is a term frequently used to refer to discourse-conditioned syntactic features, such as the English indefinite article, I have chosen this name because it is the traditional one in Iroquoian studies for the gender category of the cognate morphemes in the Northern Iroquoian languages.

Iroquoian studies. These terms derive from the fact that, for simple two-role (i.e. transitive) actor-goal verbs with any given pronominal prefix, the two referents of the prefix will be the respective subject and object of the sentence used as the English gloss. The exact nature of these categories and the appropriateness of these labels will be discussed below in Chapter Eight.

In this study I will also use three other terms which are traditional in Iroquoian studies. The terms 'subjective prefix', 'objective prefix' and 'transitive prefix' are used to designate subsets of the pronominal prefixes. These terms refer to the functions of the prefixes. The subjective prefixes are prefixes 1 thru 10 in Chart 1. They are used for single-role (i.e. intransitive) verbs for which the role is that of active instigator of the action. The objective prefixes are prefixes 16 thru 23 in Chart 1. They are used with single-role verbs for which the role is not that of active instigator of the action or state. Prefixes which denote two roles are transitive prefixes.

2.1.2. The gender system represents an extreme simplification of the four-gender system which must be posited for Proto-Iroquoian. Gender distinctions are made only for third persons. Animate is the category of definitely known animate beings or of objects put into this category by myth or metaphor. Indefinite includes those things which fail either the test of animateness or that of definiteness.

The exact semantics of the animate-indefinite distinction

is not clear at this point in the analysis of Cherokee. Some cases are fairly straightforward and look like gender systems of other languages. In (3)

(3) a:no:hsta a:ni:hskaya 'good men'

the animate noun a:ni:hskaya 'men' requires the 'third plural subjective' prefix a:n- to pluralize the adjective -o:hsta 'good', while in (4)

(4) tso:hsta nv:?ya 'good rocks'

the inanimate noun nv:?ya 'rock' takes the 'distributive'<sup>7</sup> prefix ts- to pluralize the adjective.

On the other hand, both (5a) with prefix 15<sup>8</sup> hi:- 'you - animate singular' and (5b) with prefix 6 hi- 'you - indefinite'

(5a) hi:?khehú:?ka 'chase him!'

(5b) hihkhehú:?ka 'chase him!'

may be translated as 'chase him!', but the first refers to a specific animate being known to the discourse, while the second refers to that being, presumably animate, making the racket off in the bushes.

2.2.0. The principal factor influencing the surface shape of the pronominal prefix is the initial phoneme of the verb stem to which it is attached. I will first present the surface facts of the shape variation in an item-arrangement

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<sup>7</sup> The 'distributive' prefix is discussed in detail in Chapter Three.

<sup>8</sup> Prefix numbering refers to the numbers used in Chart 1.



format and then, in 2.3., I will state the regularities among the alternants in process terms.

Cherokee verb stems fall into several different classes with respect to the selection of allomorphs of the pronominal prefixes. The following stem-classes are of significance for the selection of allomorphs of one or more of the pronominals.

2.2.1.0. The majority of the pronominals distinguish only between consonant-stems, whose initial phonemes are consonants or /:/s (see 2.2.2. below), and vowel-stems, whose initial phonemes are vowels.

2.2.1.1. The third singular pronominals distinguish the largest number of stem-classes. Two subclasses of the consonant-stems (C-stems) are of significance in selecting allomorphs of the third singular pronominals. The C-stems must be marked in the lexicon to indicate which allomorph of the third singular subjective prefix, prefix 9, they choose. The stems here labeled  $C^I$ -stems take the a:- allomorph of prefix 9, while those labeled  $C^{II}$ -stems take the ka- allomorph. The labels  $C^I$  and  $C^{II}$  are arbitrary. Both of these subclasses take the u:- allomorph of the third singular objective prefix, prefix 22.

Although membership in classes  $C^I$  and  $C^{II}$  is not fully predictable, it is nearly so, and with only a few exceptions, such as a:nv:hneho:ʔi 'he remains', with a:- before /n/, the following generalization holds. Class  $C^I$  contains stems with initial /k, t, s, y, h, hk, ht, hs, hy, hw/. Class  $C^{II}$  contains stems with initial /w, l, n, hl, hn/.

A few stems will be carried in the lexicon with an initial /:/ . These stems, which we call 'long-stems' (:-stems), pattern with the C<sup>II</sup>-stems in their selection of all prefixes, except 12, 15, 22, 55, 56, 57 and 60, but they lengthen the vowels of prefixes with short final vowels when they cooccur, as in

(6a) ka:ye:hwska 'he is sewing'

ka- 'he' + -:ye:hwska 'sewing'

The :-stems do not affect the prefixes whose vowels are already long. They select the u:wa- allomorph of prefix 22 and special allomorphs of prefixes 12, 15, 55, 56, 57 and 60.

Most of the vowel-stems, which we refer to collectively as V-stems, select the k- allomorph of prefix 9 and the u:w- allomorph of prefix 22. The following subclasses are of further significance in the selection of allomorphs of the third singular pronominals. A few e-stems (e<sub>2</sub>-stems) will be marked in the lexicon as taking a ∅- third singular subjective prefix.

The stems which we refer to as a-stems and v-stems display interesting interrelationships. The a-stems are those stems whose stem vowels are /a/. Stems with long /a:/ stem-vowels are rare and my data include only one example, -a:to:nfha 'conjuring'. The v-stems are those stems whose stem-vowels are long /v:/. Stems with short /v/ stem-vowels are rare and my data include only one example, -vhki:lo:ʔa 'washing flexible object(s)'.

The one a:-stem behaves like the other a-stems. They take the a:- allomorph of prefix 9 and the u:- allomorph

of prefix 22, but lose their stem-vowel, /a/ or /a:/, after both of these.

The (long) v-stems take the k- allomorph of prefix 9 and the u:wa- allomorph of prefix 22, and lose their stem-vowel but not its /:/ after the latter. The stem with a short /v/ stem-vowel takes the k- allomorph of prefix 9, but shows some dialect variation in its choice of allomorphs of prefix 22. Some speakers--possibly the majority--have this stem following the pattern of the a-stems and choose the u:- allomorph of prefix 22, with vowel loss, as we see in

(6b) u:hki:lo:ʔv:ki 'he has washed it'

u:- 'he' + -vhki:lo:ʔv:ki 'has washed'

Other speakers choose an allomorph of prefix 22 with /w/ as we see in

(6c) u:hwki:lo:ʔv:ki 'he has washed it'

u:w(a)- 'he' + -vhki:loʔv:ki 'has washed'

Because laryngeal-metathesis has deleted the vowel following the /w/, it is not possible to tell whether it was an /a/ or an /v/ and thus it is not possible to say whether these speakers are treating this stem like the v-stems, changing the /v/ to /a/, or simply like the other vowel-stems, choosing the u:w- allomorph of prefix 22. A third group turns this stem into a v:-stem with the expected (6d).

(6d) u:wa:hki:lo:ʔv:ki 'he has washed it'

These facts of dialect difference are represented by having a superscript  $\overset{v}{-}$  appear three times with prefix 22 in Chart 1.

2.2.1.2. Most of the other prefixes have only two allo-

morphs, one of which occurs with C-stems and the other of which occurs with V-stems. Prefixes 12, 15, 55, 56, 57 and 60 also have an additional allomorph which occurs with :-stems.

2.2.1.3. In addition to the above cooccurrence classes, the following stem classes cause further variation in the prefixes because of the operation of laryngeal-metathesis. The h-stems are a subclass of the C-stems which affect the surface shape of the pre-consonantal allomorphs of prefixes 16, 21, 39, 44, 47, 49, 52 and 58 and the (-)ka- allomorphs<sup>9</sup> of prefixes 9 and 37. The ah-stems, stems with an initial /ah/ or /vh/, are a subclass of the a-stems which affect the surface shapes of words with the pre-vocalic allomorphs of all of the pronominals except prefixes 1, 6, 11, 28, 29 and 34, which are not subject to rule (1), by metathesizing the /h/ into the prefix and/or deleting the stem-vowel.

2.2.2. Chart 1 summarizes the selection of allomorphs conditioned by the stem initials.<sup>10</sup> The following system of

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<sup>9</sup> The following notational conventions are adopted for representing morphemes or morpheme partials (cf. Lounsbury 1953, p. 19 for this latter term). A preceding or following dash, -, indicates a bound morph or morph partial, thus ka- represents the bound morph which can occur initially. A preceding or following dash in parentheses, (-), indicates that the morph may either be the initial (or final) morph in the string or may occur as part of a larger unit -- morph or string of morphs. Thus, (-)ka- represents both the initial bound morph ka- and the occurrences of -ka- in the string te:ka-. A morph with dashes on both sides is a bound morph or morph partial which occurs neither initially nor finally. Thus, -i:- represents the non-singular morph partial which occurs in the pre-consonantal allomorphs of all non-singular pronominals (cf. Chart 1).

<sup>10</sup> Charts 1 and 1a are intended to summarize surface

superscripts is used to indicate the stem-classes summarized above. The superscripts follow the conventions established by Lounsbury (1953, p. 55). The stem elements which are lost after a prefix or -- in the case special to Cherokee -- metathesize into the prefix are underlined.

- C This allomorph occurs with any C-stem.
- C<sup>I</sup> This allomorph occurs with C<sup>I</sup>-stems.
- C<sup>II</sup> This allomorph occurs with C<sup>II</sup>-stems.
- : This allomorph occurs with :-stems.
- h Before h-stems this allomorph undergoes metathesis, with possible loss of its vowel.
- V This allomorph occurs with any vowel-stem, except those whose superscripts occur with preceding allomorphs.
- a This allomorph occurs with a-stems, with the loss of the stem-vowel.
- v This allomorph occurs with v-stems, with the loss of the stem-vowel (cf. p. 18).

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information about the pronominal prefixes. This includes information about the surface realization of certain semantic categories, including the category 'plural'. In order to give this information, it is necessary to include the prefixes numbered 29 thru 38 in the charts. This inclusion is not intended to constitute a claim that the prepronominal prefix te:- 'distributive' (see Chapter Three) is a part of the pronominal prefix system. The forms of the pronominals given in Chart 2 are the forms which we take to be the underlying forms of the prefixes. The morpheme te:- is added to the verb form by different rules from those which select the pronominal prefix. The morpheme te:- is discussed further at the end of this chapter. The rules which add te:- to the verb, as well as those which select the pronominal prefix, are discussed in Chapter Eight.

$e_2$  This allomorph occurs with  $e_2$ -stems.

ah Before ah-stems or vh-stems this allomorph undergoes metathesis, with the possible deletion of the stem-vowel.

Whenever one superscript class properly contains another the allomorph in the contained environment is listed first.

Two other notational conventions are used in the chart. Both the column of subject categories and the row of object categories include a category  $\emptyset$  'zero'. When a verb has only a single associated role (i.e. is intransitive), whether the occupant of that role be singular, dual or plural, we conventionally consider it to have a 'zero' second role. Thus, the subjective prefixes have a 'zero' object and the objective prefixes have a 'zero' subject. This convention also follows Lounsbury (1953) and reflects the fact that the transitive prefixes with third singular indefinite objects are the same as the subjective prefixes and the transitive prefixes with third singular subjects are the same as the objective prefixes.

A number of prefixes have an asterisk following their number in the chart. The prefixes so marked are the ones which trigger the process, discussed below under 2.4.3., which changes the first /h/ of the stem to a /ʔ/.

2.2.3. The prefixes involving third person acting on third person are more complex than Chart 1 indicates. The prefix u:-, prefix 22, will illustrate this complexity. Consider the following sentences.

(7a) tsa:ni tsi:mi kv:hniha 'John is hitting Jim'

OBJ / SBJ	1 sg.	1 - 3 dual	1 - 3 plural	1 - 2 dual	1 - 2 plural
1 sg.					
1 - 3 dual					
1 - 3 plural					
1 - 2 dual					
1 - 2 plural					
2 sg.	58. ski- <u>C,h</u> skw- <u>V,ah</u>				
2 du.	59.* skini:- <u>C</u> skin- <u>V,ah</u>				
2 pl.	60.* ski:- <u>C</u> ski:y- <u>V,ah</u> ski:ya- <u>:</u>				
∅	16. a:ki- <u>C,h</u> a:kw- <u>V,ah</u>	17. o:kini:- <u>C</u> o:kin- <u>V,ah</u>	18. o:ki:- <u>C</u> o:k- <u>V,ah</u>	19. kini:- <u>C</u> kin- <u>V,ah</u>	20. i:ki:- <u>C</u> i:k- <u>V,ah</u>
3 sg.					
3 pl.	39. kv:ki- <u>C,h</u> kv:kw- <u>V,ah</u>	40. ko:kini:- <u>C</u> ko:kin- <u>V,ah</u>	41. ko:ki:- <u>C</u> ko:k- <u>V,ah</u>	42. ke:kini:- <u>C</u> ke:kin- <u>V,ah</u>	43. ke:ki:- <u>C</u> ke:k- <u>V,ah</u>
3 indef.	49. v:ki- <u>C,h</u> v:kw- <u>V,ah</u>	17a. o:kini:- <u>C</u> o:kin- <u>V,ah</u>	18a. o:ki:- <u>C</u> o:k- <u>V,ah</u>	50.* e:kini:- <u>C</u> e:kin- <u>V,ah</u>	51.* e:ki:- <u>C</u> e:k- <u>V,ah</u>

	1 - 3 plural	1 - 2 dual	1 - 2 plural	2 sg.	2 du.	2 pl.	∅	3
				55.* kv:- <sup>C</sup> kv:y- <u>V,ah</u> kv:ya-:				1.* tsi- k- <u>V</u>
					56.* stv:- <sup>C</sup> stv:y- <u>V,ah</u> stv:ya-:			2.
						57.* i:tsv:- <sup>C</sup> i:tsv:y- <u>V,ah</u> i:tsv:ya-:		3.
								4. i:ni i:n-
								5. i:ti i:t-
								6. hi- <sup>C</sup> h- <u>V</u>
								7.
								8.
								9.
								10. a:ni a:n-
								11.*
	60.* ski:- <sup>C</sup> ski:y- <u>V,ah</u> ski:ya-:							
	18. o:ki:- <sup>C</sup> o:k- <u>V,ah</u>	19. kini:- <sup>C</sup> kin- <u>V,ah</u>	20. i:ki:- <sup>C</sup> i:k- <u>V,ah</u>	21. tsa- <sup>C</sup> ts- <u>V,ah</u>	7a. sti:- <sup>C</sup> st- <u>V,ah</u>	8a. i:tsi:- <sup>C</sup> i:ts- <u>V,ah</u>		
	41. ko:ki:- <sup>C</sup> ko:k- <u>V,ah</u>	42. ke:kini:- <sup>C</sup> ke:kin- <u>V,ah</u>	43. ke:ki:- <sup>C</sup> ke:k- <u>V,ah</u>	44. ke:t <sup>C</sup> sa- <sup>C,h</sup> ke:ts- <u>V,ah</u>	45. kehsti:- <sup>C</sup> kehst- <u>V,ah</u>	46. ke:tsi:- <sup>C</sup> ke:ts- <u>V,ah</u>		
	18a. o:ki:- <sup>C</sup> o:k- <u>V,ah</u>	50.* e:kini:- <sup>C</sup> e:kin- <u>V,ah</u>	51.* e:ki:- <sup>C</sup> e:k- <u>V,ah</u>	52. e:t <sup>C</sup> sa- <sup>C,h</sup> e:ts- <u>V,ah</u>	53.* ehsti:- <sup>C</sup> ehst- <u>V,ah</u>	54.* e:tsi:- <sup>C</sup> e:ts- <u>V,ah</u>		

Chart 1

Pronominal Prefixes



2 du.	2 pl.	∅	3 sg. indef.	3 sg anim.	3 pl. anim.	3 pl. indef.
56.* stv:- <sup>C</sup> stv:y- <u>V,ah</u> stv:ya-	57.* i:tsv:- <sup>C</sup> i:tsv:y- <u>V,ah</u> i:tsv:ya-	1.*	tsi- <sup>C</sup> k- <sup>V</sup>	12.* tsi:- <sup>C</sup> tsi:y- <u>V,ah</u> tsi:ya-	24.* katsi:- <sup>C</sup> katsi:y- <u>V,ah</u> katsi:ya-	29.* te:tsi- <sup>C</sup> te:k- <sup>V</sup>
		2.	ohsti:- <sup>C</sup> ohst- <u>V,ah</u>		30. tohsti:- <sup>C</sup> tohst- <u>V,ah</u>	
		3.	o:tsi:- <sup>C</sup> o:ts- <u>V,ah</u>		31. to:tsi:- <sup>C</sup> tc:ts- <u>V,ah</u>	
7a. sti:- <sup>C</sup> st- <u>V,ah</u>	8a. i:tsi:- <sup>C</sup> i:ts- <u>V,ah</u>	4.	i:ni:- <sup>C</sup> i:n- <u>V,ah</u>	13.* e:ni:- <sup>C</sup> e:n- <u>V,ah</u>	25.* ke:ni:- <sup>C</sup> ke:n- <u>V,ah</u>	32. té:ni:- <sup>C</sup> té:n- <u>V,ah</u>
		5.	i:ti:- <sup>C</sup> i:t- <u>V,ah</u>	14.* e:ti:- <sup>C</sup> e:t- <u>V,ah</u>	26.* ke:ti:- <sup>C</sup> ke:t- <u>V,ah</u>	33. té:ti:- <sup>C</sup> té:t- <u>V,ah</u>
		6.	hi- <sup>C</sup> h- <sup>V</sup>	15.* hi:- <sup>C</sup> hi:y- <u>V,ah</u> hi:ya-	27.* kehi:- <sup>C</sup> kehi:y- <u>V,ah</u> kehi:ya-	34. tehi- <sup>C</sup> teh- <sup>V</sup>
		7.	sti:- <sup>C</sup> st- <u>V,ah</u>		35. tehsti:- <sup>C</sup> tehst- <u>V,ah</u>	
		8.	i:tsi:- <sup>C</sup> i:ts- <u>V,ah</u>		36. té:tsi:- <sup>C</sup> té:ts- <u>V,ah</u>	
		9.	a:- <sup>C<sup>I</sup></sup> , <u>a</u> / ∅- <sup>e<sub>2</sub></sup> ka- <sup>C<sup>II</sup></sup> / k- <sup>V</sup>		23. u:ni:- <sup>C</sup> u:n- <u>V,ah</u>	
45. kehsti:- <sup>C</sup> kehst- <u>V,ah</u>	46. ke:tsi:- <sup>C</sup> ke:ts- <u>V,ah</u>	22. u:- <sup>C</sup> , <u>a</u> , <u>v</u> / u:w- <sup>V,v</sup> u:wa-:, <u>v</u>	23. u:ni:- <sup>C</sup> u:n- <u>V,ah</u>		37. ta:- <sup>C<sup>I</sup></sup> , <u>a</u> / ∅- <sup>e<sub>2</sub></sup> te:ka- <sup>C<sup>II</sup></sup> / te:k- <sup>V</sup>	
		10. a:ni:- <sup>C</sup> a:n- <u>V,ah</u>	47. kv:wa- <sup>C</sup> kv:w- <u>V,ah</u>	48. kv:wani:- <sup>C</sup> kv:wan- <u>V,ah</u>		38. ta:ni:- <sup>C</sup> ta:n- <u>V,ah</u>
53.* ehsti:- <sup>C</sup> ehst- <u>V,ah</u>	54.* e:tsi:- <sup>C</sup> e:ts- <u>V,ah</u>	11.* a:tsi- <sup>C</sup> a:k- <sup>V</sup>		28.* ke:tsi- <sup>C</sup> ke:k- <sup>V</sup>		

fixes

(7b) tsa:ni tsi:mi u:wa:hniha <sup>11</sup>

'John is being hit by Jim'

Sentence (7a), with prefix 9, is the normal way of saying 'John is hitting Jim'. This prefix represents a third singular animate acting on a third singular. The same elements, however, are present in prefix 22 of (7b). How can we best characterize the difference in meaning between prefix 9 and prefix 22?

The translations of (7) give a clue. Sentence (7a) can be translated as an active sentence, while sentence (7b) is best translated as a passive. Note that, like the English passive, (7b) has the noun acted on in first position. The semantic thrust of the sentence is like the English passive, as well. The prefix u:- indicates that the focus of the sentence is on the object rather than the subject.

An examination of the syntactic behavior of the prefixes indicating third person acting on third person reveals that the system divides into two parallel sets of prefixes, which differ from each other in just the way that prefixes 9 and 22 differ. That is, one set indicates that the focus is on the subject, while the other set indicates that the focus is on the object. The break-down by focus marking is summarized in Chart 1a. The numbering of the prefixes corresponds to that in Chart 1, but for the sake of space the superscript indices are omitted.

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<sup>11</sup> For the alternation of the stem-vowel in v-stems, see 2.2.1.1. above.

Obj Sbj	3 sg.		3 pl.	
	Sbj Foc	Obj Foc	Sbj Foc	Obj Foc
3 sg.	9. a:-/ ka-/ k-	22. u:-/ u:w-/ u:wa-	37. ta:-/ te:ka-/ te:k-	23. u:ni:-/ u:n-
3 pl.	10. a:ni:-/ a:n-	47. kv:wa-/ kv:w-	38. ta:ni:-/ ta:n-	48. kv:wani:-/ kv:wán-

Chart 1a: Third-to-Third Person Pronominals

The remaining sentences of (7) demonstrate the syntactic behavior of the two prefix sets.

(7c) tsa:ni a:ni:tshú:tša te:kv:hniha (prefix 37)

'John is hitting the boys'

(7d) a:ni:tshú:tša tša:ni u:nv:hniha (prefix 23)

'the boys are being hit by John'

(7e) a:ni:tshú:tša tša:ni a:nv:hniha (prefix 10)

'the boys are hitting John'

(7f) tša:ni a:ni:tshú:tša kv:wv:hniha (prefix 47)

'John is being hit by the boys'

(7g) a:ni:ke:hyú:tša a:ni:tshú:tša ta:nv:hniha

(prefix 38) 'the girls are hitting the boys'

(7h) a:ni:tshú:tša a:ni:ke:hyú:tša kv:wánv:hniha

(prefix 48) 'the boys are being hit by the girls'

The implications of Chart 1a for the relationship between gender and focus are taken up below (2.6.).

2.3. There are a number of regular alternations observable in Chart 1. By formulating these regularities as rules it is possible to produce a much simplified version of Chart 1, containing only the underlying forms of the pronominals. This has been done in Chart 2. In this chart the only indices needed are the selectional indices for those prefixes (1, 9, 11, 16, 28, 39, 49, 58 and 60) which require indication in the lexicon of allomorph selection and an indication of those prefixes (12, 15, 24, 27, 55, 56, 57 and 60) which are marked in the lexicon as undergoing y-epenthesis (cf. 2.3.3. below). The indices used in Chart 2 are <sup>C</sup> for the allomorph selected before consonant-stems, <sup>V</sup> for the allomorph selected before vowel-stems, the indices <sup>I</sup> and <sup>II</sup> which are discussed below in 2.3.1. and <sup>Y</sup> for those prefixes marked as undergoing y-epenthesis.

2.3.0.1. Three of the regularities observable in the charts are true for all of the prefixes in Cherokee. If a prefix ending in a vowel is prefixed to a stem or to another prefix beginning with a consonant, the attachment is direct and no adjustment is made in the shape of either morpheme.

$$(8) \quad (-)V(:)- + (-)C- \longrightarrow (-)V(:)C-$$

(Where V is any vowel, C is any consonant and + is the boundary between any two morphemes)

Examples of the operation of this rule in the pronominal system are given in (8a) thru (8c), with prefixes 9 and 10.

$$(8a) \quad ka- \text{ 'he' } + \text{ -nohli:to:ha 'hunting' } \\ \longrightarrow \text{ kanohli:to:ha 'he is hunting' }$$

obj	1 sg	1-3 du	1-3 pl	1-2 du	1-2 pl	2 sg	2 du	2 pl	∅	3sg	an sg	an pl
sbj												
1 sg						55.# kv:-y			1.# ts- k-	12.# tsi:-y	24.# katsi:-y	
1-3 du							56.# stv:-y		2.	ohsti:-		
1-3 pl								57.# i:tsv:-y	3.	o:tsi:-		
1-2 du									4.	13.# i:ni:-	25.# ke:ni:-	
1-2 pl									5.	14.# i:ti:-	26.# ke:ti:-	
2 sg	58. C ski- v skw-								6.	15.# h-	27.# kehi:-y	
2 du		59.# skini:-							7.	sti:-		
2 pl			60.# C ski:- C ski:- V ski:-y-						8.	i:tsi:-		
∅	16. a:ki- C a:kw- V	17. o:kini:-	18. o:ki:-	19. kini:-	20. i:ki:-	21. tsa-	7a. sti:-	8a. i:tsi:-	22. u:-	23. u:ni:-		
3 sg									9.	a:- I / ka- II		
3 pl	39. kv:ki- C kv:kw- V	40. ko:kini:-	41. ko:ki:-	42. ke:kini:-	43. ke:ki:-	44. ke:t- tsa-	45. kehsti:-	46. ke:tsi:-	10. a:ni:-	47. kv:wa-	48. kv:wani:-	
3 indef.	49. v:ki- C v:kw- V	17a. o:kini:-	18a. o:ki:-	50.# e:kini:-	51.# e:ki:-	52. e:t- sa-	53.# ehsti:-	54.# e:tsi:-	11.# a:ts- v a:k-	28.# C ke:ts- v ke:k-		

Chart 2: Underlying Pronominals

(8b) a:- 'he' + -ko:li:ye?a 'reading'

→ a:ko:li:ye?a 'he is reading'

(8c) a:ni:- 'they' + -nohli:to:ha 'hunting'

→ a:ni:nohli:to:ha 'they are hunting'

Examples of the operation of rule (8) in the prepronominal prefix system (see Chapter Three) are given in (8d) thru (8f).

(8d) ta- 'cislocative' + kanohi:li 'he is flying'

→ takanohi:li 'he is flying this way'

(8e) hv:- 'iterative' + ka?lu:hki 'he arrived'

→ hv:ka?lu:hki 'he returned'

(8f) te:- 'distributive' + kv:?niha 'I am hitting it'

→ te:kv:?niha 'I am hitting it (repeatedly)'

Likewise, if a prefix ending in a consonant is prefixed to a stem or to another prefix beginning with a vowel, the attachment is direct and no adjustment is made in the shape of either morpheme.

(9) (-)C- + (-)V(-) → (-)CV(-)

Examples of the operation of this rule in the pronominal system are given in (9a) and (9b), with prefixes 6 and 16.

(9a) h- 'you' + -v:hniha 'hitting'

→ hv:hniha 'you are hitting it'

(9b) a:kw- 'I' + -atu:liha 'want'

→ a:kwatu:liha 'I want it'

Examples of the operation of rule (9) in the prepronominal prefix system are given in (9c) and (9d).

(9c) w- 'translocative' + a:ʔi 'he is walking'.

→ wa:ʔi 'he is walking away'

(9d) n- 'partitive' + -ú:hlstaʔne:ʔi 'it's happened'

→ nú:hlstaʔne:ʔi 'it's happened'

If a prefix ending in a consonant is prefixed to a stem or to another prefix beginning with a consonant, an epenthetic /i/ is inserted between the consonants. This is the [i] that was discussed in 1.1.5.

(10) (-)C- + (-)C- → (-)CiC-

Examples of the operation of this rule in the pronominal prefix system are given in (10a) and (10b), with prefixes 1 and 6.

(10a) ts- 'I' + -ko:li:yeʔa 'reading'

→ tsiko:li:yeʔa 'I am reading'

(10b) h- 'you' + -nohli:to:ha 'hunting'

→ hinohli:to:ha 'you are hunting'

Examples of the operation of rule (10) in the prepronominal prefix system are given in (10c) and (10d).

(10c) w- 'translocative' + tsate:ka 'you are throwing'

→ witsate:ka 'you are throwing it away'

(10d) ts- 'positive' + tsi:koʔv:ki 'when I see him'

→ tsitsi:koʔv:ki 'when I saw him'

It is, of course, equally possible to treat the prefixes in the above examples as having an underlying short /i/ which is lost before vowels. This would necessitate an alternative interpretation of examples (9a), (9c) and (9d), but such a rule could be written with no difficulty. Two things argue

for the treatment given here. First, the fact that the vowels inserted by rule (10) are all the extra short vowels, which we discussed in 1.1.5. makes it desirable to have such a rule to account for the source of these vowels. Second, comparative study shows that, historically, these vowels are epenthetic in origin. Neither of these facts necessitates this treatment, but the latter lends support to its having -- diachronic, if not synchronic -- reality in the language.

2.3.1. We see in Chart 1 that those pronominal prefixes whose pre-consonantal form ends in /a/ (21, 44, 47 and 52) have pre-vocalic forms without the /a/. We can formalize this as rule (11).

(11) -a- & -V- → -V-

(Where & is the boundary between the pronominal and the stem. This is a subcase of + .)

Examples of the application of this rule are seen in (11a) thru (11c), with prefixes 9, 21 and 47.

(11a) ka- 'he' + -ó:thahska 'building a fire'

→ kó:thahska 'he is building a fire'

(11b) tsa- 'you' + -v:hniha 'hitting'

→ tsv:hniha 'he is hitting you'

(11c) kv:wa- 'he by them' + -eyóhvhska 'teaching'

→ kv:weyóhvhska 'he is being taught by them'

Rule (11) provides a basis for the interpretation of prefix 9 in Chart 2. We know from Chart 1 that a-stems and C<sup>I</sup>-stems select the a:- allomorph of prefix 9, while the C<sup>II</sup>-stems select the ka- allomorph and the V-stems select



the *k-* allomorph. Given this rule, however, we can reanalyze the allomorph *k-* as the pre-vocalic form of *ka-*. If we include in our grammar a redundancy rule which marks all of the *a-*stems as being in the same class -- call it class I -- as all of the  $C^I$ -stems and marks all *V-*stems as being in the same class -- call it class II -- as the  $C^{II}$ -stems and *:-*stems, we can use the superscripts  $I$  and  $II$  alone as indices to indicate the selection of allomorphs of prefix 9. Class I will then consist, allowing for the exceptions mentioned above (p. 11), of stems in /a, k, t, s, y, hk, ht, hs, hy, hw, h/ and class II will consist of stems in /e, o, u, v, :, w, l, n, hl, hn/.

As stated earlier, the  $e_2$ -stems, which take a  $\emptyset$ - third singular subjective prefix, will simply have to be marked in the lexicon for their prefix selection, so that (12a)

(12a) e:to:ha 'he is walking around (there)'

will be marked as exceptional, while (12b)

(12b) ka- + -e:hloha 'feeding'

→ ke:hloha 'he is feeding it'

is derived by the rules just discussed, and is thus not marked in any special way in the lexicon.

The *a:-* allomorph of prefix 9 reminds us of a fact about *a-*stems which will be of interest immediately below. After the prefix *a:-* the *a-*stems lose their stem-vowel by

(13) a:- + -a(:)- → a:-

We see an instance of the operation of rule (13) in (13a).

(13a) a:- 'he' + -atawo:ʔa 'swimming'

→ a:tawo:ʔa 'he is swimming'

(13b) a:- 'he' + -a:to:nfha 'conjuring'

→ a:to:nfha 'he is conjuring'

2.3.2.0. Prefix 22 exhibits alternations which are characteristic of two more general processes in the language. When prefix 22 is attached to a C-stem the attachment is direct by rule (8). The a-stems, however, lose their stem-vowels after u:- by (14).

(14) u:- & -a(:)- → u:-

We see instances of the operation of rule (14) in (14a) and (14b).

(14a) u:- 'he' + -atu:lfiha 'want'

→ u:tu:lfiha 'he wants it'

(14b) u:- 'he' + -a:to:nvhv:ki 'conjured'

→ u:to:nvhv:ki 'he has conjured'

Rule (14) is parallel in effect to rule (13) above, and the two can be collapsed into a single rule about a-stems, as in (15).

(15)  $\begin{Bmatrix} a:- \\ u:- \end{Bmatrix}$  & -a(:)- →  $\begin{Bmatrix} a:- \\ u:- \end{Bmatrix}$

If prefix 22 u:- is attached to any other vowel-stem-- except, as we shall see below, the (short) v-stems for some speakers--an epenthetic /w/ is inserted between the vowels.

(16) u:- & -V- → u:wV-

This is one of three similar epenthetic processes in the language (cf. rule (10) above and rule (21) below).

Examples of the application of rule (16) are seen in (16a) and (16b).

(16a) u:- 'he' + -o:hla 'sitting'  
 → u:wo:hla 'he is sitting'

(16b) u:- 'he' + -e:hlu:hka 'yelling'  
 → u:we:hlu:hka 'he is yelling'

If the vowel before which the u:- is prefixed is /v:/, the /v:/ is changed to an /a:/.

(17) u:- & -v:- → u:wa:-

An example of the application of rule (17) is seen in (17a).

(17a) u:- 'he' + -v:hkhe:hwska 'forgetting'  
 → u:wa:hkhe:hwska 'he is forgetting'

This seems odd at first, viewed as an isolated fact, but the behavior of the stem -vhki:lo:?a 'washing flexible object(s)' previously discussed provides a clue to the explanation of this alternation. It will be recalled that there are two versions of this stem with prefix 22, which we repeat here as (17b) and (17c).

(17b) u:hki:lo:?v:ki 'he has washed it'

(17c) u:hwki:lo:?v:ki 'he has washed it'

Both of these come from (17d).

(17d) u:- 'he' + -vhki:lo:?v:ki 'has washed it'

In (17b) the stem-vowel is lost after u:-, just like the stem-vowel of an a-stem. This offers us two possibilities for accounting for this fact. We can rewrite rule (15), which deletes the stem-vowel /a/, to include specific reference to /v/, as in (15a).

$$(15a) \begin{Bmatrix} a:- \\ u:- \end{Bmatrix} \& \begin{Bmatrix} -a(:)- \\ -v- \end{Bmatrix} \rightarrow \begin{Bmatrix} a:- \\ u:- \end{Bmatrix}$$

This will give the proper output but is basically unsatisfying since it includes the non-occurring case of the morpheme a:- with v-stems. Alternatively, we can write a rule to merge the stem-vowels /v/ and /a/ to /a/ after u:-, which we do in

$$(18) u:- \& -v- \rightarrow u:- \& -a-$$

This latter alternative is the one chosen, since it eliminates the need to complicate rule (15).

Rule (18) accounts for (17b) by allowing rule (15) to delete the stem vowel of stems with short /v/ in the cases needed, just as it deletes the stem vowels of the a-stems. Rule (18) must be ordered before rule (15) in dialects which have (17b), so that (15) can apply to its output. Rule (16), which inserts the epenthetic /w/ after u:-, is ordered after both of these so that no /w/ appears in (17b).

In dialects which have (17c) rule (18) is ordered after (15) so that a vowel remains to trigger (16). The order of (18) and (16) in these dialects is not significant for the short v-stems, since it is not recoverable whether the vowel deleted by metathesis is an /a/ or an /v/. It is, however, significant for the long v-stems.

The (17c) dialect is the more simple and consistent one with respect to the v-stems since both long and short v-stems follow the same pattern. After rule (15) has deleted the /a/s of the a-stems after u:-, rule (18) changes the /v(:)/s to /a(:)/s and rule (16) inserts epenthetic /w/s after them. The

long /a:/s created by (18) are retained and the short /a/s are lost to metathesis.

The dialect with (17b), though probably more frequent, is the complicated one with respect to the v-stems, since the long and short v-stems behave differently in it. While the long v-stems can follow the same ordering described above for (17c), the short v-stems must merge with the a-stems before the application of rule (15), so that their stem vowel will be deleted. This could, however, give us a rule ordering paradox since (18)--or an identical rule--would have to apply before (15) for the short v-stems and after (15) for the long v-stems. The simplest solution for the (17b) dialect--though admittedly ad hoc--is to have a second morpheme-specific rule which applies only to this stem and applies before (15), leaving (18) to handle the long v-stems. Reflection suggests that this ad hoc solution is probably the correct one. The number of variants of -vhki:lo:ʔv:ki after u:- suggests that it is, in fact, the stem rather than the grammar that is the source of the variation, and, even though the majority of speakers appear to use (17b), older speakers use the regular (17c). The oddness of (17b) is probably the result of its uniqueness as the single short v-stem in common usage. For the purposes of grammatical description, I take (17c) and the rule ordering that it suggests to be the regular form and put the rule for (17b) in the lexical entry for this stem.

2.3.2.1. A similar alternation affects the :-stems. When prefix 22 cooccurs with :-stems the result is u:wa:- , as in

- (19a) u:- 'he' + -:ye:hwsv:ki 'has sewn'  
 → u:wa:ye:hwsv:ki 'he has sewn'
- (19b) u:- 'he' + -:ku:le:ka 'belching'  
 → u:wa:ku:le:ka 'he is belching'

For the moment, let us state this fact in the most specific possible terms as rule (19c).

- (19c) u:- & -:- → u:wa:-

We will return to this alternation and its relationship to the epenthesis rule (16) in 2.3.3. below (p. 37).

2.3.3. There are two different alternations in the charts which involve morphemes ending in an underlying /i:/. In those morphemes--the majority--in which the /i:/ is a part of a non-singular morpheme, except prefix 60 ski:- '(1 - 2) pl.', which undergoes a morpheme-specific alternation, the /i:/ is lost before all vowel-stems, including the a-stems.

- (20) -i:- & -V- → -V-

Examples of the operation of rule (20) are seen in (20a) thru (20c)

- (20a) a:ni:- 'they' + -ō:thahska 'building a fire'  
 → a:nó:thahska 'they are building a fire'
- (20b) i:ki:- 'we' + -atu:líha 'want'  
 → i:katu:líha 'we want it'
- (20c) sti:- 'you-two' + -u:ki 'take from the water!'  
 → stu:ki 'you-two take it out of the water!'

Those prefixes in which the /i:/ is not part of the

non-singular morpheme and ski:- , probably by analogy, insert an epenthetic /y/ between the prefix and the vowel-stems.

(21a) -i:- & -V- → -i:yV-

Historically the different alternations of Cherokee /i:/ at the pronominal boundary before vowel-stems go back to the two different proto-language sources of the two /i:/s. The first /i:/, which is lost before vowel-stems, comes from a Proto-Iroquoian \*-i- .<sup>12</sup> The second /i:/, which inserts an epenthetic /y/ before vowel-stems, comes from a Proto-Iroquoian \*-he- . In the proto-language, as well, the \*-i- is lost before vowel-stems and the \*-he- inserts an epenthetic \*-y- .

Synchronically, however, these two alternations must be handled differently. It is possible to account for the latter alternation by taking the allomorph with the /y/ as the basic form and simply dropping the /y/ before consonant-stems. This solution would also account for prefixes 55, 56 and 57, which we treat here as inserting a /y/ after /v:/ before vowel-stems. The prepronominal prefixes ta- 'cislocative' and ka- 'negative', however, also have variants with /y/ before some vowels, and to carry this /y/ in their underlying forms would complicate a process description of their alternations. We can, in fact, rewrite rule (21a) as a more general rule not restricted to the pronominal boundary which will handle these

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<sup>12</sup> I have discussed the sources of the Cherokee pronominal prefixes in detail in my paper 'The Iroquoian Origins of the Cherokee Language, Part I' (Cook 1974 ).

prepronominal alternations as well.

$$(21b) \quad \begin{Bmatrix} -a- \\ -v:- \\ -i:- \end{Bmatrix} + -V- \rightarrow \begin{Bmatrix} -a- \\ -v:- \\ -i:- \end{Bmatrix} yV-$$

Rule (21b) expresses the third of the three epenthetic processes which operate in Cherokee. The other two are rule (10), which inserts an epenthetic /i/ between consonants at morpheme boundaries, and rule (16), which inserts a /w/ after the prefix u:- before vowel-stems.

It will be noted that all of the prefixes which insert an epenthetic /y/ before vowel-stems also have a form of the prefix with /ya/ before :-stems. To account for this we must return to the treatment of prefix 22 u:- given above. Recall rules (16) and (19c) repeated below.

$$(16) \quad u:- \ \& \ -V- \rightarrow u:wV-$$

$$(19c) \quad u:- \ \& \ -:- \rightarrow u:wa:-$$

The similarity of these two rules is obvious and if we restate them slightly as (19d) and (19e) this similarity can be noted in the form of the rules.

$$(19d) \quad u:- \ \& \ \begin{Bmatrix} -V- \\ -:- \end{Bmatrix} \rightarrow u:w- \ \& \ \begin{Bmatrix} -V- \\ -:- \end{Bmatrix}$$

$$(19e) \quad -w- \ \& \ -:- \rightarrow -wa:-$$

The treatment of u:- in 2.3.2. is not affected, since the output of the rules remains the same and (16) and (19c) were not ordered significantly with respect to each other. What we do here is to recognize in the form of the rule that the :-stems have, beside their similarities to C<sup>II</sup>-stems, something in common with the vowel-stems. We have just seen this



pointed up again in the behavior of the /i:/ prefixes which insert /y/ before vowel-stems and :-stems. To make this explicit with respect to the /i:/ prefixes we can reformulate (21a) once again as (21c).

$$(21c) \quad \begin{Bmatrix} -a- \\ -v:- \\ -i:- \end{Bmatrix} + \begin{Bmatrix} -V- \\ -:- \end{Bmatrix} \rightarrow \begin{Bmatrix} -a- \\ -v:- \\ -i:- \end{Bmatrix} y + \begin{Bmatrix} -V- \\ -:- \end{Bmatrix}$$

If we then generalize (19e) as (19f) we have united the facts about epenthesis before :-stems in a way that gives us the occurring surface forms.

$$(19f) \quad \begin{Bmatrix} -w- \\ -y- \end{Bmatrix} \& \quad -:- \rightarrow \begin{Bmatrix} -w- \\ -y- \end{Bmatrix} \& \quad -a:-$$

Rule (20), which deletes the non-singular -i:- of the pronominals, is paralleled in the prepronominal prefixes by a rule which deletes the /e:/ of the 'distributive' prefix te:- before vowels.

Both processes, epenthesis and loss of front vowels before other vowels, are processes at work in several places in the language. For the pronominals, the loss of -i:- is the more frequent process and the pronominals which insert /y/ must be marked in the lexicon as exceptions to the deletion rule (20). Prefix 60 ski:- will simply be marked in the lexicon as exceptional and prefixes 12, 15, 24 and 27, in which the -i:- is the marker of an animate object, will be marked by a redundancy rule. Rule (21c) is, as the boundary notation indicates, the more generally applicable rule, applying to both pronominal and prepronominal prefixes. Rule (21c) will be ordered in the grammar after the other rules

which handle boundaries between vowels, such as (20).

2.3.4. The alternation in prefixes 1, 11, 28 and 29 between (-)k- before vowels and (-)ts- before consonants is the result of a regular historic process affecting the development of Proto-Iroquoian \*k in Cherokee. In the synchronic grammar of Cherokee, this is a fact for the lexicon. The alternation in prefixes 16, 39, 49 and 58 of the morpheme for first person singular object between -kw- before vowels and -ki- before consonants goes back to the proto-language and is synchronically, likewise, a fact for the lexicon.

2.4.0. In addition to the above rules, which affect the shapes of the pronominal prefixes, several other rules interact with the the pronominals to introduce further surface variation. The changes which result from the interaction of the pronominals with the prepronominal prefixes are discussed below in Chapter Three.

2.4.1. As we saw in Chapter One, laryngeal-metathesis can influence the shape of the pronominals. Several examples were given in Chapter One in the discussion of the metathesis rule. A complete set of examples where this rule has operated in the pronominal system is given below under 2.5.

2.4.2. A second morphophonemic rule interacts with the pronominal system, but does not always change the shape of the prefix involved. After certain of the pronominals the first /h/ of the stem is changed to a /ʔ/.<sup>13</sup>

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<sup>13</sup> Although no one has published on this question, some

(22) -Xh- → -Xʔ- / A\_\_\_ (Where the string X contains no laryngeal)

Since I can isolate no common conditioning element from the prefixes which induce this change, I simply label the set of prefixes 'A'. The prefixes which condition this alternation are 1, 11, 12, 13, 14, 15, 24, 25, 26, 27, 28, 29, 50, 51, 53, 54, 55, 56, 57, 59 and 60. These prefixes are marked with asterisks in the charts.

Rule (22) gives contrasts such as (22a) versus (22b).

(22a) koʔwe:liʔa 'I am writing' < k-\* 'I'  
+ -ohwe:liʔa 'writing' (underlying -owhe:liʔa )

(22b) kohwe:liʔa 'he is writing' < k- 'he'  
+ -ohwe:liʔa 'writing'

The interaction of rule (22) with metathesis results in forms such as (22c) and (22d).

(22c) tsi:ʔythv:ki:ʔa 'I hear him'  
< tsi:y-\* 'I - him' + -ahthv:ki:ʔa 'hear'

(22d) kv:ʔythv:ki:ʔa 'I hear you'  
< kv:y-\* 'I - you' + -ahthv:ki:ʔa 'hear'

2.5.0. The following paradigms, for -kohwthiha 'see(s)' (underlying -kawahthiha ) and -v:hniha 'hitting'

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scholars with whom I have discussed this process prefer an alternate interpretation, under which /ʔ/ becomes /h/, on the basis of naturalness arguments. I have chosen this one on synchronic grounds, since the laryngeals in my data which do not alternate after the triggering prefixes are /ʔ/s and since, in those verb classes which allow the alternation to affect laryngeals in the suffix, the alternating laryngeals appear as /h/ when a laryngeal earlier in the stem blocks the alternation of the suffix laryngeal. Relevant comparative data to resolve this question are lacking.

(underlying -v:nhiha ) show the shapes of the pronominals before consonant and vowel stems respectively in stems which do not change the shapes of the prefixes by metathesis. The verb -kohwthiha 'see' is a C<sup>I</sup>-stem. The numbers correspond to the numbers in the charts.

- |   |  |
|---|--|
| 1. tsiko?wthiha<br>I see it               | kv:?niha<br>I am hitting it                |
| 2. ohsti:kohwthiha<br>he & I see it/him   | ohstv:hniha<br>he & I are hitting it/him   |
| 3. o:tsi:kohwthiha<br>they & I see it/him | o:tsv:hniha<br>they & I are hitting it/him |
| 4. i:ni:kohwthiha<br>you & I see it       | i:nv:hniha<br>you & I are hitting it       |
| 5. i:ti:kohwthiha<br>you & we see it      | i:tv:hniha<br>you & we are hitting it      |
| 6. hikohwthiha<br>you see it              | hv:hniha<br>you are hitting it             |
| 7. sti:kohwthiha<br>you-2 see it/him      | stv:hniha<br>you-2 are hitting it/him      |
| 8. i:tsi:kohwthiha<br>you-all see it/him  | i:tsv:hniha<br>you-all are hitting it/him  |
| 9. a:kohwthiha<br>he sees it/him          | kv:hniha<br>he is hitting it/him           |
| 10. a:ni:kohwthiha<br>they see it/him     | a:nv:hniha<br>they are hitting it/him      |
| 11. a:tsiko?wthiha<br>he/it is being seen | a:kv:?niha<br>he/it is being hit           |
| 12. tsi:ko?wthiha<br>I see him            | tsi:yv:?niha<br>I am hitting him           |
| 13. e:ni:ko?wthiha<br>you & I see him     | e:nv:?niha<br>you & I are hitting him      |
| 14. e:ti:ko?wthiha<br>you & we see him    | e:tv:?niha<br>you & we are hitting him     |

- |   |   |
|---|---|
| 15. hi:koʷwthíha<br>you see him               | hi:yv:ʔniha<br>you are hitting him            |
| 16. a:kikohwthíha<br>he sees me               | a:kwv:hniha<br>he is hitting me               |
| 17. o:kini:kohwthíha<br>he sees him & me      | o:kinv:hniha<br>he is hitting him & me        |
| 18. o:ki:kohwthíha<br>he sees them & me       | o:kv:hniha<br>he is hitting them & me         |
| 19. kini:kohwthíha<br>he sees you & me        | konv:hniha<br>he is hitting you & me          |
| 20. i:ki:kohwthíha<br>he sees you & us        | i:kv:hniha<br>he is hitting you & us          |
| 21. tsakohwthíha<br>he sees you               | tsv:hniha<br>he is hitting you                |
| 7a. sti:kohwthíha<br>he sees you-2            | stv:hniha<br>he is hitting you-2              |
| 8a. i:tsi:kohwthíha<br>he sees you-all        | i:tsv:hniha<br>he is hitting you-all          |
| 22. u:kohwthíha<br>he is seen by him          | u:wa:hniha<br>he is being hit by him          |
| 23. u:ni:kohwthíha<br>they are seen by him    | u:nv:hniha<br>they are being hit by him       |
| 24. katsi:koʷwthíha<br>I see them             | katsi:yv:ʔniha<br>I am hitting them           |
| 25. ke:ni:koʷwthíha<br>you & I see them       | ke:nv:ʔniha<br>you & I are hitting them       |
| 26. ke:ti:koʷwthíha<br>you & we see them      | ketv:ʔniha<br>you & we are hitting them       |
| 27. kehi:koʷwthíha<br>you see them            | kehi:yv:ʔniha<br>you are hitting them         |
| 28. ke:tsikoʷwthíha<br>they are seen          | ke:kv:ʔniha<br>they are being hit             |
| 29. te:tsikoʷwthíha<br>I see those (things)   | te:kv:ʔniha<br>I am hitting those             |
| 30. tohsti:kohwthíha<br>he & I see those/them | tohstv:hniha<br>he & I are hitting those/them |

- |   |   |
|---|---|
| 31. to:tsi:kohwthíha<br>they & I see those/them | to:tsv:hniha<br>they & I are hitting those/them |
| 32. té:ni:kohwthíha<br>you & I see those        | té:nv:hniha<br>you & I are hitting those        |
| 33. té:ti:kohwthíha<br>you & we see those       | té:tv:hniha<br>you & we are hitting those       |
| 34. te:hikohwthíha<br>you see those             | te:hv:hniha<br>you are hitting those            |
| 35. tehsti:kohwthíha<br>you-2 see those/them    | tehstv:hniha<br>you-2 are hitting those/them    |
| 36. té:tsi:kohwthíha<br>you-all see those/them  | té:tsv:hniha<br>you-all are hitting those/them  |
| 37. ta:kohwthíha<br>he sees those/them          | te:kv:hniha<br>he is hitting those/them         |
| 38. ta:ni:kohwthíha<br>they see those/them      | ta:nv:hniha<br>they are hitting those/them      |
| 39. kv:kikohwthíha<br>they see me               | kv:kwv:hniha<br>they are hitting me             |
| 40. ko:kini:kohwthíha<br>they see him & me      | ko:kinv:hniha<br>they are hitting him & me      |
| 41. ko:ki:kohwthíha<br>they see them & me       | ko:kv:hniha<br>they are hitting them & me       |
| 42. ke:kini:kohwthíha<br>they see you & me      | ke:kinv:hniha<br>they are hitting you & me      |
| 43. ke:ki:kohwthíha<br>they see you & us        | ke:kv:hniha<br>they are hitting you & us        |
| 44. ke:tsakohwthíha<br>they see you             | ke:tsv:hniha<br>they are hitting you            |
| 45. kehsti:kohwthíha<br>they see you-2          | kehstv:hniha<br>they are hitting you-2          |
| 46. ke:tsi:kohwthíha<br>they see you-all        | ke:tsv:hniha<br>they are hitting you-all        |
| 47. kv:wakohwthíha<br>he is seen by them        | kv:wv:hniha<br>he is being hit by them          |
| 48. kv:wani:kohwthíha<br>they are seen by them  | kv:wav:hniha<br>they are being hit by them      |

- |  |  |
|--|--|
| 49. v:kikohwthiha<br>someone sees me   | v:kwv:hniha<br>someone is hitting me   |
| 50. e:kini:ko'wthiha<br>someone sees you & me  | e:kinv:'niha<br>someone is hitting you & me  |
| 51. e:ki:ko'wthiha<br>someone sees you & us  | e:kv:'niha<br>someone is hitting you & us  |
| 52. e:tsakohwthiha<br>someone sees you   | e:tsv:hniha<br>someone is hitting you  |
| 53. ehst:ko'wthiha<br>someone sees you-2   | ehstv:'niha<br>someone is hitting you-2  |
| 54. e:tsi:ko'wthiha<br>someone sees you-all  | e:tsv:'niha<br>someone is hitting you-all  |
| 55. kv:ko'wthiha<br>I see you  | kvv:'niha<br>I am hitting you  |
| 56. stv:ko'wthiha<br>I see you-2<br>we-2 see you-2<br>we-2 see you                                       | stv:yv:'niha<br>I am hitting you-2<br>we-2 are hitting you-2<br>we-2 are hitting you   |
| 57. i:tsv:ko'wthiha<br>I see you-all<br>we-2 see you-all<br>we see you-all<br>we see you-2<br>we see you | i:tsv:yv:'niha<br>I am hitting you-all<br>we-2 are hitting you-all<br>we are hitting you-all<br>we are hitting you-2<br>we are hitting you |
| 58. skikohwthiha<br>you see me   | skwv:hniha<br>you are hitting me   |
| 59. skini:ko'wthiha<br>you see us-2<br>you-2 see us-2<br>you-2 see me                                    | skinv:'niha<br>you are hitting us-2<br>you-2 are hitting us-2<br>you-2 are hitting me  |
| 60. ski:ko'wthiha<br>you see us<br>you-2 see us<br>you-all see us<br>you-all see us-2<br>you-all see me  | ski:yv:'niha<br>you are hitting us<br>you-2 are hitting us<br>you-all are hitting us<br>you-all are hitting us-2<br>you-all are hitting me |

2.5.1. The following paradigms show the interaction of the pronominals with :-stems and their interaction with the stem laryngeals of h-stems and ah-stems caused by the

metathesis rule. The stems shown are -:hwsv:ʔka 'smell(s)' (underlying -:whsv:ʔka ), -hmv:wiʔa 'doctoring' and -ahthv:ki:ʔa 'hear(s)'. Since the translations are unremarkable and can be predicted from the meanings of the prefixes shown in the charts, they are omitted. The numbers correspond to the numbers in the charts.

1.	tsi:ʔwsv:ʔka	tsiʔnv:wiʔa	kaʔthv:ki:ʔa
2.	ohsti:hwsv:ʔka	ohsti:hmv:wiʔa	ohsththv:ki:ʔa
3.	o:tsi:hwsv:ʔka	o:tsi:hmv:wiʔa	o:tshthv:ki:ʔa
4.	i:ni:hwsv:ʔka	ini:hmv:wiʔa	i:hnthv:ki:ʔa
5.	i:ti:hwsv:ʔka	i:ti:hmv:wiʔa	i:ththv:ki:ʔa
6.	hi:hwsv:ʔka	hihmv:wiʔa	hahthv:ki:ʔa
7.	sti:hwsv:ʔka	sti:hmv:wiʔa	sththv:ki:ʔa
8.	i:tsi:hwsv:ʔka	i:tsi:hmv:wiʔa	i:tshthv:ki:ʔa
9.	ka:hwsv:ʔka	khanv:wiʔa	a:hthv:ki:ʔa
10.	a:ni:hwsv:ʔka	a:ni:hmv:wiʔa	a:hnthv:ki:ʔa
11.	a:tsi:ʔwsv:ʔka	a:tsiʔnv:wiʔa	a:kaʔthv:ki:ʔa
12.	tsi:ya:ʔwsv:ʔka	tsi:ʔnv:wiʔa	tsi:ʔythv:ki:ʔa
13.	e:ni:ʔwsv:ʔka	e:ni:ʔnv:wiʔa	e:ʔnthv:ki:ʔa
14.	e:ti:ʔwsv:ʔka	e:ti:ʔnv:wiʔa	e:tʔthv:ki:ʔa
15.	hi:ya:ʔwsv:ʔka	hi:ʔnv:wiʔa	hi:ʔythv:ki:ʔa
16.	a:ki:hwsv:ʔka	a:khinv:wiʔa	a:khwthv:ki:ʔa
17.	o:kini:hwsv:ʔka	o:kini:hmv:wiʔa	o:kihnthv:ki:ʔa
18.	o:ki:hwsv:ʔka	o:ki:hmv:wiʔa	o:khthv:ki:ʔa
19.	kini:hwsv:ʔka	kini:hmv:wiʔa	kihnthv:ki:ʔa
20.	i:ki:hwsv:ʔka	i:ki:hmv:wiʔa	i:khthv:ki:ʔa



21. tsa:hsv:ka	tshanv:wi'a	tshthv:ki:a
22. u:wa:hsv:ka	u:hv:wi'a	u:hthv:ki:a
23. u:ni:hsv:ka	u:ni:hv:wi'a	u:hnthv:ki:a
24. katsi:ya:wsv:ka	katsi:nv:wi'a	katsi:ythv:ki:a
25. ke:ni:wsv:ka	ke:ni:nv:wi'a	ke:nthv:ki:a
26. ke:ti:wsv:ka	keti:nv:wi'a	ke:t'thv:ki:a
27. kehi:ya:wsv:ka	kehi:nv:wi'a	kehi:ythv:ki:a
28. ke:tsi:wsv:ka	ke:tsi:nv:wi'a	ke:ka'thv:ki:a
29. te:tsi:wsv:ka	te:tsi:nv:wi'a	te:ka'thv:ki:a
30. tohsti:hsv:ka	tohsti:hv:wi'a	tohsththv:ki:a
31. to:tsi:hsv:ka	to:tsi:hv:wi'a	to:tshthv:ki:a
32. té:ni:hsv:ka	té:ni:hv:wi'a	té:hnthv:ki:a
33. té:ti:hsv:ka	té:ti:hv:wi'a	té:ththv:ki:a
34. te:hi:hsv:ka	te:hihv:wi'a	te:hahthv:ki:a
35. tehsti:hsv:ka	tehsti:hv:wi'a	tehsththv:ki:a
36. té:tsi:hsv:ka	té:tsi:hv:wi'a	té:tshthv:ki:a
37. te:ka:hsv:ka	te:khanv:wi'a	ta:hthv:ki:a
38. ta:ni:hsv:ka	ta:ni:hv:wi'a	ta:hnthv:ki:a
39. kv:ki:hsv:ka	kv:khinv:wi'a	kv:khwthv:ki:a
40. ko:kini:hsv:ka	ko:kini:hv:wi'a	ko:kihnthv:ki:a
41. ko:ki:hsv:ka	ko:ki:hv:wi'a	ko:khthv:ki:a
42. ke:kini:hsv:ka	ke:kini:hv:wi'a	ke:kihnthv:ki:a
43. ke:ki:hsv:ka	ke:ki:hv:wi'a	ke:khthv:ki:a
44. ke:tse:hsv:ka	ke:tshanv:wi'a	ke:tshthv:ki:a
45. kehsti:hsv:ka	kehsti:hv:wi'a	kehsththv:ki:a
46. ke:tsi:hsv:ka	ke:tsi:hv:wi'a	ke:tshthv:ki:a
47. kv:wa:hsv:ka	kv:hwanv:wi'a	kv:hwthv:ki:a

48. kv:wani:hwsv:ʔka	kv:wani:hmv:wiʔa	kv:wahnthv:ki:ʔa
49. v:ki:hwsv:ʔka	v:khinv:wiʔa	v:khwthv:ki:ʔa
50. e:kini:ʔwsv:ʔka	e:kini:ʔnv:wiʔa	e:kiʔnthv:ki:ʔa
51. e:ki:ʔwsv:ʔka	e:ki:ʔnv:wiʔa	e:kʔthv:ki:ʔa
52. e:tsa:hwsv:ʔka	e:tshanv:wiʔa	e:tshthv:ki:ʔa
53. ehsti:ʔwsv:ʔka	ehsti:ʔnv:wiʔa	ehstʔthv:ki:ʔa
54. e:tsi:ʔwsv:ʔka	e:tsi:ʔnv:wiʔa	e:tsʔthv:ki:ʔa
55. kv:ya:ʔwsv:ʔka	kv:ʔnv:wiʔa	kv:ʔythv:ki:ʔa
56. stv:ya:ʔwsv:ʔka	stv:ʔnv:wiʔa	stv:ʔythv:ki:ʔa
57. i:tsv:ya:ʔwsv:ʔka	i:tsv:ʔnv:wiʔa	i:tsv:ʔythv:ki:ʔa
58. ski:hwsv:ʔka	skhinv:wiʔa	skhwthv:ki:ʔa
59. skini:ʔwsv:ʔka	skini:ʔnv:wiʔa	skihnthv:ki:ʔa
60. ski:ya:ʔwsv:ʔka	ski:ʔnv:wiʔa	ski:ʔythv:ki:ʔa

The forms given above are the normal conversational ones. Most speakers can produce the un-metathesized versions of the ah-stem forms, but these are used by older speakers only in careful-pronunciation situations-- probably representing spelling pronunciations. Some younger speakers will use the un-metathesized forms in conversation.

Notice that prefixes 1, 11, 28 and 29 are morpheme-specific exceptions to rule (1) and do not undergo metathesis.

2.6.0. A segmentation of the prefixes into morpheme partials is possible and is of comparative interest. The resulting segments are, however, in most cases, not the underlying units of a process description nor are they the productive units one would choose for the entries in any sort of lexicon. Only two of these synchronic morpheme partials are

singled out for special study here.

The units are *te:-* 'distributive' and *k-a-/k-e-* 'animate plural', which consists of morpheme partials *k-* 'third plural' and *a-/e-* 'animate'. These are singled out because they are, in different senses, productive in the language.

The morpheme *te:-* 'distributive' is an element of the prepronominal prefix set and is productive in that it has uses in addition to its function in extending the pronominal prefix set (see Chapter Three). As has been mentioned before, *te:-* is added to the verb by several rules which are distinct from the rule which chooses the pronominal prefix, or it may be required by the verb stem as part of its meaning. Thus, *te:-* is not part of the pronominal prefix proper. It is given extended attention in this chapter because it shares a semantic function with the pronominal prefixes, that of indicating number. The morpheme *te:-* has among its functions that of picking up overflow information about number not accommodated by the pronominal system proper. The points at which this overflow occurs are discussed below.

The morpheme partial *ka-/ke-* 'animate plural' is given special treatment because it is of special interest to comparative Iroquoian and because it is productive in Cherokee in the sense that Lounsbury (1941) recorded speakers of Oklahoma Cherokee who had generalized it in an expanded pronominal prefix set, which extends the 'third plural animate' object column of Chart 1 to include, beside prefixes 30 and 31, with the *t-*, *ko:sti:-* 'he & I - them(animate)' and *ko:tsi:-*

'they & I - them(animate)'. These prefixes are not found in North Carolina Cherokee nor are they recorded in the historical sources, such as the writings of Boudinot and Worcester (cf. Worcester 1968), and are thus assumed to be recent creations in Oklahoma.

2.6.1.    te:-/t-/ti-/ts- 'distributive': This is an element of the prepronominal prefix set. It cooccurs with any member of the pronominal prefix set to indicate that the action of the verb is distributed in time or space or among entities.

The meaning of the morpheme can be most clearly seen in a comparison of the forms of the verb stem -v:hniha 'hitting'. With a first person singular subject and third person singular objects we have forms (23a) and (23b).

(23a) kv:ʔniha                   'I am hitting it'

(23b) tsi:yv:ʔniha               'I am hitting him'

When we prefix te:- to both forms we get (23c) and (23d).

(23c) te:kv:ʔniha               'I am hitting those things' or  
   'I am hitting it repeatedly'

(23d) te:tsi:yv:ʔniha           'I am hitting him repeatedly'

The differences in the English glosses reflect the difference in the force of te:- with the different prefixes. When te:- is added to (23b) its meaning is that the action of the verb is done at more than one point in time, since there is a form in the paradigm (23e)

(23e) katsi:yv:ʔniha           'I am hitting them'

which indicates specifically that the animate object is plural. Sentence (23a), however lacks such a contrasting plural in the

paradigm and its meaning is thus ambiguous between action distributed in time and action distributed among objects. Note that the interpretation of (23e) would be that several animate beings are being struck with a single blow, as when hit by a car, say. To strike each one a blow we need (23f).

(23f) te:katsi:yv:ʔniha 'I am hitting (each of) them'

A fact not easily statable in the format of the charts should be mentioned at this point. It is discussed in detail in Chapter Eight. With verbs which take the objective prefixes, te:- may also be used to indicate plurality of the entities acted on. Thus, with the verb stem -atu:liha 'want', we have the contrast between (24a) and (24b).

(24a) se:lu a:kwatu:liha 'I want corn (one ear)'

(24b) se:lu ta:kwatu:liha 'I want corn (several ears)'

The rules which assign te:- in these contexts are discussed in Chapter Eight.

2.6.2. ka-/ke-/k[v]- 'animate plural': This morpheme is analyzable into two morpheme partials k- 'third plural' and a-/e-/[v]- 'third animate', which I shall discuss separately.

k- 'third plural': This morpheme indicates that the third person participant numbers two or more beings. In forms involving third person subjects with third person objects, the plural participant is the subject in prefixes 47 and 48 and the object in prefix 28.

This morpheme is found in prefixes 24 thru 28 and 39 thru 48. It is positionally distinct from the k- of pre-

fixes 9 and 11, as can be seen in prefix 28, in which both are present. It always cooccurs with a-/e-/[v]- 'third animate'.

a-/e-/[v]- 'third animate': This morpheme indicates that the third person participant is animate. In forms involving two third persons it is the subject which is animate. It occurs in prefixes 11, 13, 14, 24 thru 28, 39 and 42 thru 54. The a- variant occurs in prefixes 11 and 24. The e- variant occurs in those forms which involve a second person participant, 25 thru 27, 42 thru 46, and 50 thru 54. The e- variant also appears in 28 and in 11 when any prenominal prefix with a final vowel, except te:-, immediately precedes it. Thus, beside (25a) we have (25b).

(25a) a:tsikoʔwthiha 'he is being seen'

(25b) taye:tsikoʔi 'he will be seen'

< ta- 'cislocative' + a:tsi- 'someone - him'  
+ koʔi 'see (future stem)'

The [v]- variant appears in prefixes 39 and 47 thru 49. These /v/s are interpreted here as the result of the contact between two /a/s. Thus, 39 and 49 are the result of prefixing ka- and a- respectively to prefix 16 a:ki-/a:kw-. The result of the contact between the two /a/s is an /v/.

(26) (-)a- + (-)a:- → (-)v:-

The a-plus-a rule, (26), is a rule of fairly general application. An example of its application is seen in (26a).

(26a) tv:kohi 'he will see it' < ta- 'cislocative'  
+ a:- 'he' + -kohi 'see (future stem)'

Note that this is a different process from the one at the &-boundary between pronominal and stem. At the &-boundary an /a/ is lost before another vowel, including /a/. At all other boundaries the a-plus-a rule applies. Note further that the above interpretation, when applied to 47 and 48 results in an analysis of prefix 22 u:- as having an allomorph -aw-. This analysis is also supported by comparative evidence.

2.6.3. The discussion of these two pluralizing morphemes, te:- and ka-/ke-, leads us back to the complexities of prefixes which involve third persons acting on third persons. If we redraw Chart 1a as we did Chart 1, eliminating those prefixes not in the underlying pronominal system (i.e. those involving te:-), we come up with Chart 2a

Obj Sbj	3 sg.		3 pl.
	Sbj Foc	Obj Foc	Obj Foc
3 sg.	9. a:-/ka-	22. u:-	23. u:ni:-
3 pl.	10. a:ni:-	47. kv:wa-	48. kv:wani:-

Chart 2a: Underlying Third-to-Third Pronominals

Chart 2a makes us aware of an interesting fact. There is no subject focus column under the plural object heading. The pronominal system proper indicates plurality of a third person object only if that object is in discourse focus.<sup>14</sup>

At this point it becomes clear that the overflow which te:- picks up from the pronominal system is to indicate the plurality of those objects not in discourse focus and thus not in the proper domain of the pronominal prefixes.

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<sup>14</sup> The idea of discourse focus is introduced in the discussion of Chart 1a (pp. 21-22) but is more fully developed in Chapter Eight.



## CHAPTER THREE: PREPRONOMINAL PREFIXES

3.0. As in the other Iroquoian languages, there is in Cherokee a set of prefixes which precede the pronominal prefixes, which we call the prepronominal prefixes. The members of this set may, depending on the context of their appearance, carry real-world information about position, speaker attitude or several other things, or they may serve purely syntactic functions. These prefixes are:

y- <sup>15</sup>	'counterfactual'
ts-	'positive'
w-	'translocative'
n-/i:-	'partitive'
te:-/t-/to:-/ti-/ts-	'distributive'
ta-/ti-	'cislocative'
hi:-/hv:-	'iterative'
ka-/ke-	'negative'

3.0.1. Alternations in the surface shapes of several of the prefixes are governed by some of the rules already discussed. When the first four prefixes, y- , ts- , w- or n- are attached to prefixes with initial vowels, they

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<sup>15</sup> The convention used in this presentation is to represent the morpheme by a single shape (e.g. y- 'counterfactual') when the surface shape is altered only by very general phonological processes. When the factors conditioning the alternations are morphological or syntactic, two alternatives are adopted. If the shape of the allomorph is central to the discussion, the relevant allomorphs are listed, separated by slashes (e.g. te:-/t- 'distributive'). If the shape of the allomorph is not relevant to the discussion, the most common allomorph is used as a cover term (e.g. te:- 'distributive').

are attached directly to the prefix with no shape change by rule (9).

(9) (-)C- + (-)V(-) → (-)CV(-)

Examples of the application of rule (9) were given in Chapter Two (p. 27). Additional examples are (9e) and (9f).

(9e) w- 'translocative' + v:ka?lu:hki 'he returned'  
→ wv:ka?lu:hki 'he returned there'

(9f) y- 'counterfactual' + u:kohe:?i 'he has seen it'  
→ yu:kohe:?i 'he would have seen it'

When the first four prepronominals are attached to prefixes with initial consonants, the general epenthesis rule, rule (10) inserts an /i/ between the prefixes.

(10) (-)C- + (-)C- → (-)CiC-

Examples of the application of rule (10) were given in Chapter Two (pp. 27-28). Additional examples are (10e) and (10f).

(10e) n- 'partitive' + kanohi:li 'he is flying'  
→ nikanohi:li 'he is flying along there'

(10f) ts- 'positive' + khano:ki:?a 'he is singing it'  
→ tsikhano:ki:?a 'that he is singing it'

If any of the first four prepronominals or ti- 'distributive' or ti-/ta- 'cislocative' is attached to either of the second person prefixes with an initial /h/, prefix 6 h- or prefix 15 hi:-, the laryngeal-metathesis rule applies giving prefix combinations with the shapes hy(i:)-, tsh(i:)-, hw(i:)-, hn(i:)-, th(i:)- and th(i:)-, as in

(27a) w- 'translocative' + hiki 'pick it up!'  
→ hwiki 'go get it!'

- (27b) ti- 'distributive' + hihno:kf 'sing!'  
 → thihno:kf 'sing them!'

Recall that metathesis applies to any laryngeal in the string only once (cf. 1.2.) so that we have (27c).

- (27c) w- 'translocative' + n- 'partitive'  
 + hiyvha:ʔka 'enter!' → wihniyvha:ʔka  
 'go in the side (door)!' ( \*hwiniyvha:ʔka )

Whenever one of the pronominals with an initial /s/, prefixes 7, 56, 58, 59 and 6), is preceded by a prepronominal it inserts an /h/ before the /s/. These prefixes with inserted /h/s shorten the long vowels (cf. prefix 35) of prepronominals.

- (27) s- → hs- / X\_\_ (Where X is any prepronominal)

- (27d) te:- 'distributive' + ski:ʔneha 'you-all are giving it to me'

→ tehski:ʔneha 'you-all are giving them to me'

When the prefix vowel is short this inserted /h/ is subject to metathesis, rule (1). (For many speakers the application of rule (1) is optional in this context and is omitted in slow speech.)

- (27e) ti- 'distributive' + stv:ʔnéhti 'I have to give it to you-two'

→ thstv:ʔnéhti 'I have to give them to you-two'

- (27f) ta- 'cislocative' + skwv:hnili 'you are going to hit me'

→ thskwv:hnili 'you will hit me'

Metathesis of this inserted /h/ applies optionally to the first four prepronominals as well, so that we get beside the

unmetathesized forms, forms such as (27g) and (27h).

(27g) n- 'partitive' + -stv:neha 'you-two are making it' (this verb requires the partitive)

→ hnstv:neha 'you-two are making it'

(27h) w- 'translocative' + skini:ki:hi 'you-two pick it up for me!'

→ hwskini:ki:hi 'you-two fetch it for me!'

When any of the last four prefixes is attached to a prefix with an initial consonant, it is attached directly to the prefix by rule (8), with no shape adjustment.

(8) (-)V(:)- + (-)C- → (-)V(:)C-

Examples of the operation of rule (8) were given in Chapter Two (p. 27). Additional examples are given in (8g) and (8h).

(8g) hi:- 'iterative' + ka?lu:hka 'he is arriving'

→ hi:ka?lu:hka 'he is returning'

(8h) to:- 'distributive' + tatsiko?i 'I will see it'

→ to:tatsiko?i 'I will see them'

When any of the last four prefixes is attached to a prefix beginning with a vowel, various changes in the shapes of the prefixes occur which are described under the discussions of the individual prefixes.

3.0.2. The prefixes occur in a fixed order, relative to one another. Chart 3 displays the order of the prefixes. Prefixes in the same column do not cooccur. The label 'empty' over a column indicates that the elements in the column always cooccur with the immediately preceding morpheme and are morphologically conditioned alternants contributing no difference

in meaning to the preceding morpheme.

<u>ctrfc</u>	<u>tmsl</u>	<u>prtv</u>	<u>dstrb</u>	<u>empty</u>	<u>cislc</u>	<u>empty</u>	<u>itrtv</u>	<u>negt</u>	<u>empty</u>
y-	w-	n-	t-	-o:-	t-	-i- -a-	hi:- hv:-	k-	-a- -e:-
<u>postv</u>		i:-		<u>empty</u>					
ts-				-e:-/-i-					

Chart 3: Prepronominal Prefixes

3.1. The meanings of each of the morphemes and the morpheme-specific rules which govern their attachment to the pronominals and to the other prepronominals are discussed below, taking the prefixes in left-to-right order.

3.1.1. y- 'counterfactual': The rules which govern the attachment of this morpheme were discussed above (3.1.0.). It is attached directly before vowels by rule (9), inserts an epenthetic /i/ before consonants by rule (10), and undergoes metathesis, rule (1), when it immediately precedes pronominal prefixes 6 h- or 15 hi:- .

The general meaning of the prefix is that the forms to which it is attached describe situations not presupposed by the speaker or contrary to fact. It has the following translations.

(a) 'if' in construction with the suffix-accented forms of stems with the suffixes -a 'indicative' and -e?i 'reportive' and of the imperfective stem with the suffix -e:sti 'intentional' (i.e. those forms which do not themselves presuppose the action or state described by the verb

having already occurred).<sup>15</sup>

(28a) ya:hwihska 'if he is planting'

(cf. a:hwihska 'he is planting')

(28b) yite:khano:ki:ské:ʔi 'if he had been singing'

(cf. te:khano:ki:skeʔi 'he was singing')

(28c) hyi:ʔste:lvhé:ʔi 'if you had helped him'

(cf. hi:ʔste:lvhe:ʔi 'you have helped him')

Imperfective forms with the 'intentional' suffix *-e:sti* sometimes include the 'iterative' morpheme *hi:-/hv:-* in this construction with no apparent additional meaning, so that beside forms like (28d) we have forms like (28e).

(28d) hyi:koʔwthihské:sti 'if you see him'

(cf. hi:koʔwthihske:sti 'you will be seeing him')

(28e) yi:kalo:nuhéhské:sti 'if he cheats him'

(cf. kalo:nuhéhske:sti 'he will be cheating him')

These forms and the ones discussed under (b) below can be translated as 'if'-clauses when they are used in the protasis of a conditional sentence. In the apodosis these same constructions can be translated as 'would' or 'would have' (cf. 3.1.1. (c) below).

(b) 'if, whenever' In a special construction with the perfective stem and the suffix *-a* 'indicative', *y-* forms a conditional clause without specific time reference.

(29a) ya:khinnohéhla 'if/whenever I tell it'

(cf. a:khinohéhlv:ki 'I have told it')

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<sup>15</sup> For a detailed discussion of the inflectional suffixes and of the suffix-accented verb forms see Chapter Five.

(29b) yitsa?lú:htsa 'if/whenever you arrive'

(cf. tsa?lu:htsv:ki 'you have arrived')

Note that this is a subcase of the general construction described under (a) above. It is singled out here because the corresponding independent verb form with the perfective stem and the suffix -a does not occur.

(c) 'would' or 'would have' The same constructions described under (a) and (b) above can be used in the apodoses of conditional sentences, and can usually best be translated with 'would' or 'would have' in those contexts.

(30a) yikatawó?a 'I would be swimming'

(cf. katawo:?a 'I am swimming')

(30b) ya:kwatawo?é:?i 'I would have swum'

(cf. a:kwatawo:?e?i 'I have swum')

(d) 'will' in construction with the suffix-accented form of the punctual stem. This form is used only in the apodoses of conditional sentences.

(31a) yitkhano:kí '(then) I will sing'

(cf. witikhano:kí 'let him sing!')

(31b) hyihsto:tsá '(then) you will pound'

(cf. hihsto:tsá 'pound!')

(e) with negative particles, such as ú:tsha 'not', tshahno 'and not' (-hno 'and'), tshahkhe 'or not' (i.e. 'isn't', 'aren't', etc. -hkhe 'or'), késti 'not', it occurs obligatorily.

(32a) ú:tsha yitsiko?wthiha 'I don't see it'

(cf. tsiko?wthiha 'I see it')

(32b) tshahno yu:ni:hwáhthvhe:ʔi 'and they didn't find it'  
 (cf. u:ni:hwáhthvhe:ʔi 'they found it')

(32c) késti yitsikí:ʔa 'I'm not eating'  
 (cf. tsikiʔa 'I am eating')

Note that the negative particle késti acts like a subordinator, in that it introduces penultimate accent and length in the verb form (cf.

(f) in construction with hi:-/hv:- 'iterative' and ka-/ke- 'negative' it forms verb forms with negative meanings which can be used either as independent sentences or in the apodoses of conditional sentences (see 3.1.8.).

3.1.2. ts- 'positive': The rules which govern the attachment of this morpheme were discussed above (3.1.0.). It attaches directly before vowels by rule (9), inserts an epenthetic /i/ before consonants by rule (10), and undergoes metathesis, rule (1), when it immediately precedes pronominal prefixes 6 h- or 15 hi:- .

The general meaning of this prefix is that the forms to which it is attached are asserted or taken as presuppositions of the utterance. It has the following uses and translations.

(a) it is attached to the verbs of relative clauses.

(33a) tsu:ni:htsv:ka a:tshú:tša a:le a:ke:hyú:tša ...

'the boy and girl who are sick ...'

(cf. u:ni:htsv:ka 'they are sick')

(33b) ... ki:hli, tsu:yohlv:ki tsi:mi '... the dog  
 that Jim shot' (cf. u:yohlv:ki 'he has shot it')

Note that the verb forms in relative clauses are the suffix-



accented (dependent clause) forms of the verbs (cf. Chapter Five).

(b) with the independent clause forms of verbs with the suffix *-v:ki* 'assertive' it makes a stronger assertion of the utterance.

(34a) *tsitsi:koʔv:ki* 'I have definitely seen him'

(cf. *tsi:koʔv:ki* 'I have seen him')

(34b) *tsu:wohwe:la:ʔnv:ki* 'he has definitely written it'

(cf. *u:wohwe:la:ʔnv:ki* 'he has written it')

(c) with time adverbials built on the suffix-accented form of the perfective stem plus *-v:ki* 'assertive' it gives the adverbial a past-time reference.

(35a) *tsitsi:koʔv̄:ki* 'when I saw him'

(cf. *tsi:koʔv̄:ki* 'when I see him')

(35b) *tsu:hno:ki:s̄v̄:ki* 'when he sang'

(cf. *u:hno:ki:s̄v̄:ki* 'when he sings')

(d) it may be optionally added to the verbs associated with the past-time adverbials just discussed in (c) to reinforce the sense of simultaneity of the verbs.

(36a) *tsitsi:koʔv̄:ki tsitsi:ʔkhehvʔsv:ki*

'when I saw him I chased him'

(cf. *tsi:ʔkhehvʔsv:ki* 'I chased him')

3.1.3. *w-* 'translocative': The rules which govern the attachment of this morpheme were discussed above (3.1.0.). It attaches directly before vowels by rule (9), inserts an epenthetic /i/ before consonants by rule (10), and undergoes metathesis, rule (1), when it immediately precedes pronominal

prefixes 6 h- and 15 hi:- .

The general meaning of this prefix is that the orientation or location of the action or state is away from the speaker or understood point of reference. It has the following uses and translations.

(a) with verbs of motion it indicates that the direction of the motion is away from the speaker or reference point.

(37a) wa:ʔi 'he is going away'

(cf. a:ʔi 'he is going')

(37b) hwiyvha:ʔkákwo 'just go in!'

(cf. hiyvha:ʔká 'enter!', -kwo 'just')

(b) with non-motion verbs it indicates that the location or the object acted on is at a distance from the speaker or reference point and oriented (e.g. facing) away from it.

(38a) witsikoʔwthiha 'I see it over there'

(cf. tsikoʔwthiha 'I see it')

(38b) hwikí 'fetch it' (cf. hikí 'pick it up')

(38c) wikato:ʔka 'he's standing over there (facing away from me)' (cf. kato:ʔka 'he's standing' and tikato:ʔka 'he's standing there' see 3.1.6.)

(c) it is obligatory with non-second person imperatives and adds no spatial information.

(39a) witsi:yv:ʔnká 'let me hit him!'

(cf. hi:yv:ʔnká 'hit him!')

(39b) wikhane:kí 'let him speak!'

(cf. hihne:kí 'speak!')

(d) in narratives it can indicate that the action described occurs at a point removed from the narrative focus.

(40) wihú:nv:ʔneʔi a:yo:hli hi:na wu:naki:sv:ʔi

'he laid the child back where he had picked it up'

(cf. hú:nv:ʔneʔi 'he laid it back down' and

u:naki:sv:ʔi 'he had picked it up', hi:na 'there')

This sentence occurs in a narrative in which the main characters are watching the villain from hiding.

3.1.4. n-/i:- 'partitive': The rules governing the attachment of this morpheme were discussed above (3.0.1.). It attaches directly before vowels by rule (9), inserts an epenthetic /i/ before consonants by rule (10), and undergoes metathesis, rule (1), when it immediately precedes pronominal prefixes 6 h- and 15 hi:- .

In the infinitive, agent nominals and a few other contexts the allomorph n- is replaced by an allomorph i:- which attaches directly before consonants by rule (8) and inserts an epenthetic /y/ before vowels by rule (21b). This gives us, beside present forms with n- like (41a), infinitives with i:- like (41b).

(41a) nikatv:neha 'I am doing it'

(41b) i:ya:kwatv:ʔnti:yi 'for me to do it'

This allomorph appears only word initially and seems in many cases to be in free variation with n- .

The name 'partitive' is chosen for this morpheme because it is the name given to the cognate morpheme in the Northern Iroquoian languages. The basic meaning of this morpheme is

difficult to pull out of its various uses, but the central concept seems to be that of spatial, temporal or qualitative parallelism or comparison of path or of events, of one state or event being perceived in terms of another. It has the following uses and translations.

(a) with verbs of motion it indicates that the motion is passing by (neither going from nor coming to) the speaker or point of reference.

(42a) na:ʔi 'he is passing by' (cf. a:ʔi 'he is going')

(42b) nithiyvha:ʔka 'come in the side door!'

(cf. thiyvha:ʔka 'come in!' see 3.1.6. below)

(42c) wihniyvha:ʔka 'go in the side door!'

(cf. hwiyvha:ʔka 'go in!' see 3.1.3. above)

Either of these last two sentences would be said when the speaker was facing the front or back door.

(b) with the particles u:h̄tsi:ʔi 'more' and e:ska 'less' it is used to form comparative forms of verbs denoting qualities (adjectives). The verbs compared are put into forms which have the 'indicative' suffix -a, and the base compared to, if it is stated, repeats the verb with the 'participle' suffix -v̄:ʔi also with the partitive prefix.

(43a) e:ska na:kwo:tuha 'I am less beautiful'

(cf. a:kwo:tuhi 'I am beautiful')

(43b) u:h̄tsi:ʔi nikhala 'he is bigger'

(cf. khali:ʔi 'full')

(43c) u:h̄tsi:ʔi na:kwahl̄ini:kvʔka, tsa:ni nu:h̄l̄ini:kvʔk̄v̄:ʔi

'I am stronger than John (is strong)'

This usage reflects the quantitative function of the partitive in Iroquoian, which is more fully developed in the northern languages. Other reflections of this function are quantitative expressions such as *nikohi:lŷ:ʔi* 'always' and *niká:ta* 'all'.

(c) it occurs obligatorily with the modal suffix *-ŷ:na* to form negative dependent clauses.

(44a) *me:li ŷ:tsha ya:khthaha, nikv:koʔŷ:na tsiki*

'Mary doesn't know that I didn't see you'

(cf. *kv:koʔŷ:ʔi tsiki* '... that I saw you')

(44b) *kato: thatv:ne:li, nu:hne:skehŷ:na yiki*

'what will you do if he doesn't build it'

(cf. *u:hne:skehŷ:ʔi yiki* '... if he builds it')

Note that the dependent clauses in this structure usually occur with the helping words *tsiki* 'that' or *yiki* 'if'. These two words are built on the present of the verb *iki*, *ke:ʔse:ʔi* 'to be' plus the positive and counterfactual prefixes, respectively. I will refer to this verb as the 'copula' because it fits most parts of the standard dictionary definitions of that word and because it resembles, in most functions, the English 'to be'.

(d) with the modal suffix *-oʔi* 'habitual' and the perfective stem it carries the idea of 'already'.

(45a) *na:kwohwe:la:ʔnoʔi* 'I had already written'

(cf. *a:kwohwe:la:ʔnoʔi* 'I have always written')

(45b) *nu:ʔlu:htsoʔi* 'he had already arrived'

(cf. *u:ʔlu:htsoʔi* 'he has always arrived (by then)')

3.1.5.     te:-/t-//ti-/ts-//to:- 'distributive': This morpheme undergoes a complex set of selectional and morpho-phonemic rules. I will first describe the selection of allomorphs and then the changes that the allomorphs undergo in combination with the other prefixes. The three allomorphs of this morpheme are te:- with its automatic pre-vocalic alternant t- , ti- with its automatic prevocalic alternant ts- , and to:- . The following discussion takes te:- , ti- and to:- to be the basic shapes of the allomorphs to which the phonological rules apply. The allomorph to:- does not alternate, and so the question of its basic shape does not arise. The shapes te:- and ti- , rather than t- and ts- , are taken as the basic forms of those allomorphs because, in the cases of vowel contraction with other prefixes, these contribute the vowel color. Of these three, I take te:- as the underlying form of the morpheme for reasons discussed below under 3.2.

The following rules select among the three basic allomorphs of the morpheme. The allomorph to:- occurs before the 'cislocative' morpheme ti/ta- (see 3.1.6.) regardless of the suffix morphology.

(46)     te:-     →     to:- / \_\_\_ 'cislocative'

(In rapid speech this /to:/ is lowered to /ta/ and more than a few speakers now use /ta/ exclusively.)

The following examples are instances of this selection.

(46a)     to:tatsi?sto?i     'I will pound them'

(cf. tatsi?sto?i     'I will pound it')

(46b) to:titsatu:ʔka 'throw them here!'

(cf. titsatu:ʔka 'throw them!')

(46c) to:titsate:ka 'you are throwing them here'

(cf. te:tsate:ka 'you are throwing them')

The /o:/ of the allomorph to:- continues the Proto-Iroquoian morpheme \*e- which has become the future marker in the other Iroquoian languages. The fact that this to:- (< \*te- ) allomorph is selected before ti-/ta- 'cislocative' is probably connected to the fact that the cislocative has as one of its primary functions in Cherokee the formation of the ta-futures.

Before the 'iterative' hi:-/hv:- the allomorph te:- contracts with that morpheme to become té:- . We represent this fact by rule (47). (The iterative loses its /h/ when non-initial by a rule discussed below in 3.1.7.)

$$(47) \quad te:- + \begin{Bmatrix} -i:- \\ -v:- \end{Bmatrix} \longrightarrow té:-$$

(47a) té:hi:ʔneha 'you are giving them back to him'

(cf. hi:hi:ʔneha 'you are giving it back to him')

This rule applies before rule (48) below, and blocks its application in cases of the cooccurrence of distributive and iterative.

(47b) té:tshanéhti 'he has to give them back to you'

(cf. titshanéhti 'he has to give them to you')

I discuss rule (47) briefly in 3.2.

The allomorph ti-/ts- occurs with agent nominals, infinitives, imperatives and derived nominals with the 'nominal' suffix -i .

(48)  $te:- \rightarrow ti- / \text{---} \left. \begin{array}{l} \text{agentive} \\ \text{imperative} \\ \text{infinitive} \\ \text{-i 'nominal'} \end{array} \right\}$

The following examples are instances of this selection.

(48a)  $tikohwe:li:ski$  'scribe'

(cf.  $te:kohwe:li'a$  'he is writing')

(48b)  $titsaki:sti$  'you have to pick them up'

(cf.  $te:tsaki:sv:ki$  'you have picked them up')

(48c)  $thihno:ki$  'sing!'

(cf.  $te:hihno:ki$  'you (just) sang')

Elsewhere, the allomorph  $te:-/t-$  occurs. Instances of this are seen in the comparison forms of (48a) thru (48c).

Before consonants  $te:-$ ,  $ti-$  and  $to:-$  all attach directly to the following prefix by rule (8).

(49a)  $te:tsi:tuhvhska$  'I am baking them'

(cf.  $tsi:tuhvhska$  'I am baking it')

(49b)  $titsa:thti$  'you have to bake them'

(cf.  $tsa:thti$  'you have to bake it')

(49c)  $to:taka:tuhni$  'he will bake them'

(cf.  $taka:tuhni$  'he will bake it')

Before prefixes beginning with vowels  $te:-$  undergoes the following changes. Before prefixes with initial /i:/ or /e:/  $te:-$  undergoes contraction. The /i:/ or /e:/ is lost and the  $te:-$  becomes  $te:-$ . After  $te:-$ , from distributive plus iterative, /i:/ and /e:/ are simply lost, as in (50c) and (50d) below. We represent both of these processes in (50).

(50)  $(\text{e}) \quad te:- + \left. \begin{array}{l} \{i:-\} \\ \{e:-\} \end{array} \right\} \rightarrow te:-$



- (50a) té:ni:kohwthiha 'you & I see them'  
 (cf. i:ni:kohwthiha 'you & I see it')
- (50b) té:tó:t'a:neha 'we are building him fires'  
 (cf. e:tó:t'a:neha 'we are building him a fire')
- (50c) té:ni:hvhska 'you & I are putting them back down'  
 (cf. i:ti:hvhska 'you & I are putting it down')
- (50d) té:ti:ʔneha 'we are giving them back to him'  
 (cf. e:ti:ʔneha 'we are giving it to him')

Before all other vowels te:- and té:- lose their vowels, but té:- retains its accent.

- (51)  $\begin{matrix} (\text{ }) \\ \text{te:-} \end{matrix} + \text{V-} \rightarrow \begin{matrix} (\text{ }) \\ \text{tV-} \end{matrix}$
- (51a) ta:nó:thahska 'they are building fires'  
 (cf. a:nó:thahska 'they are building a fire')
- (51b) tohsti:ki:ʔa 'he & I are picking them up'  
 (cf. ohsti:ki:ʔa 'he & I are picking it up')
- (51c) khá:ʔko tú:hne:leʔi 'who gave them back to him'  
 (cf. tsa:ni u:hne:leʔi 'John gave it to him')

Before prefixes beginning with vowels ti- undergoes the following changes. Before prefixes beginning with /i:/ or /a:/ ti- undergoes contraction. The /i:/ or /a:/ is lost and the ti- lengthens its vowel.

- (52)  $\text{ti-} + \begin{Bmatrix} \text{i:-} \\ \text{a:-} \end{Bmatrix} \rightarrow \text{ti:-}$
- (52a) ti:tsó:thahsi 'you-all build him fires!'  
 (cf. i:tsó:thahsi 'you-all build him a fire!')
- (52b) ti:khinéhti 'he has to give them to me'  
 (cf. a:khinéhti 'he has to give it to me')

Before all other vowels *ti-* becomes *ts-* .

(53) *ti-* + *V-* → *tsV-*

(53a) *tsu:hno:ki:ʔstiyi* 'for him to sing (songs)'

(cf. *u:hno:ki:ʔstiyi* 'for him to sing (a song)')

(53b) *tsv:kwv:hnstiyi* 'for me to be hit (repeatedly)'

(cf. *v:kwv:hnstiyi* 'for me to be hit')

The basic meaning of the morpheme is that the action of the verb is repeated either on several occasions or on several objects. It has the following uses and translations.

(a) with pronominal prefixes which do not pluralize the object of the verb with *ka-/ke-* 'animate plural', *te:-* may indicate plurality of the object.

(54a) *nv:ʔya te:tsikoʔwthiha* 'I see rocks'

(cf. *nv:ʔya tsikoʔwthiha* 'I see a rock')

(54b) *a:ni:hskaya tohsti:kohwthiha* 'he & I see the men'

(cf. *a:hskaya ohsti:kohwthiha* 'he & I see a man')

(54c) *se:lu: tu:tu:liha* 'he wants (several ears of) corn'

(cf. *se:lu: u:tu:liha* 'he wants (an ear of) corn')

(b) with plural animate objects marked with *ka-/ke-* 'animate plural', *te:-* may indicate that the objects are acted on individually.

(55a) *te:katsi:yaʔlv:ʔiha* 'I am tying each of them'

(cf. *katsi:yaʔlv:ʔiha* 'I am tying them (all together in one bunch)')

(55b) *te:katsi:yv:ʔniha* 'I am hitting each of them'

(cf. *katsi:yv:ʔniha* 'I am hitting them (all with one blow)')

(c) it may indicate plurality of some third entity in the sentence, other than the subject or object. This is particularly true with verbs with the dative suffix (see Chapter Six).

(56a) *tihskhvhsi* 'give them to me!'

(cf. *skhvhsi* 'give it to me')

(56b) *te:kō:tha:neha* 'he is building fires for him'

(cf. *kō:tha:neha* 'he is building a fire for him')

(d) it may indicate that the action of the verb involves more than one performance on the same object. This is unambiguously so with verbs whose prefix specifies a singular object.

(57a) *te:tsi:ya?lv:?iha* 'I am binding him (in several places, say the arm and the leg)'

(cf. *tsi:ya?lv:?iha* 'I'm binding him (one place)')

(57b) *to:thi:ko?i* 'you will catch sight of him repeatedly'

(cf. *thi:ko?i* 'you will see him')

3.1.6. *ti-/ta-* 'cislocative': Like the distributive, this morpheme undergoes complex selectional and morphophonemic rules. I will first discuss the selection of allomorphs and then the changes which the allomorphs undergo in combination with other prefixes.

The allomorph *ta-* occurs with verb forms with the suffixes *-i* 'motion' and *-v:ki* 'assertive' and before agent nominals, simple past forms and infinitives. Elsewhere, the allomorph *ti-* occurs (i.e. with verb forms with the suffix *-a* 'indicative' and with all of the primary modal suffixes

(see 5.4.0. below for this term) except  $-v:ki$ , and with imperative forms). This is, interestingly enough, the same pattern of selection as  $hi:-/hv:-$  'iterative' undergoes, with  $hi:-$  occurring in the same morphological environments as  $ti-$  and  $hv:-$  occurring in the same environments as  $ta-$ . For reasons discussed in 3.2. below, I take  $ti-$  as the underlying form of this morpheme for a generative description and select  $ta-$  by rule (58).

$$(58) \quad ti- \rightarrow ta- / \left. \begin{array}{l} \text{agentive} \\ \text{past} \\ \text{infinitive} \\ \text{-i 'motion'} \\ \text{-v:ki} \end{array} \right\}$$

(58a) tatsaté:kitsu 'can you throw it here'

(cf. titsate:ka 'you are throwing it here',

-i 'agentive', -tsu 'yes-no question')

(58b) takato:ʔkv:ki 'he was standing over there'

(cf. tikato:ʔka 'he is standing over there')

One of the rules of attachment which affects this morpheme was discussed above (p. 55). If either of the allomorphs immediately precedes pronominal prefix 6  $h-$  or 15  $hi:-$  it will undergo metathesis, rule (1), and lose its vowel.

(59a) thi:koʔi 'you will see him'

(cf. tatsi:koʔi 'I will see him')

(59b) thi:koʔi:se:ʔi 'you were going to see him'

(cf. titsi:koʔi:se:ʔi 'I was going to see him')

Before other consonants both  $ti-$  and  $ta-$  attach directly as we see in the comparison forms of (59).

Before prefixes with initial vowels, several contractions

occur. Before /a:/ and /i:/ *ti-* lengthens its vowel and the /a:/ or /i:/ is lost, just as with *ti-* 'distributive', by rule (52) (p. 70).

(52c) *ti:ni:taluka?ni:se:?i* 'they were going to plow'  
(cf. *a:ni:kalu:ki?a* 'they are plowing')

(52d) *ti:tsohsvhni:se:?i* 'you-all will form it'  
(cf. *i:tsohsvhska* 'you-all are forming it')

When *ta-* is attached to a prefix with an initial /a:/, except prefix *ll a:ts-/a:k-*, the a-plus-a rule, rule (26), operates and the two /a/s contract to /v:/ (cf. p. 51).

(26)  $(- )a- + (- )a:- \rightarrow (- )v:-$

(26b) *tv:khtsv:tsi* 'I will get sick'  
(cf. *a:khtsv:ka* 'I am sick')

When *ta-* is attached to a prefix beginning with /i:/, the *ta-* is lengthened, the /i:/ lost and a /?/ inserted after the *ta:-*.

(60)  $ta- + i:- \rightarrow ta:?-$

(60a) *ta:?ni:hlski:?si* 'you & I will dance'  
(cf. *i:ni:hlski:?a* 'you & I are dancing')

Before the iterative morpheme the following contractions occur. The 'iterative' *hi:-/hv:-* loses its /h/ by a rule given below (3.1.7.) when any other prefix precedes it. Both allomorphs of the cislocative lose their vowels before the iterative by the following rules.

(61)  $ti- + -i:- \rightarrow ti:-$

(61a) *ti:ka?lu:hsti:se:?i* 'he was going to return'  
(cf. *tika?lu:hsti:se:?i* 'he was going to arrive')

(62) ta- + -v:- → tv:-

(62a) tv:kaʔlu:htsi 'he will return'

(cf. takaʔlu:htsi 'he will arrive')

These two morpheme combinations attach directly before consonants, contract with prefixes with an initial /i:/ to ti:- and tʰ:-, respectively, and insert a /ʔ/ before all other vowels. Details of these attachments and examples are given in the discussion of the iterative 3.1.7.

Before all other vowels both ti- and ta- insert an epenthetic /y/ by the general epenthesis rule (21c).

(21c)  $\left\{ \begin{array}{l} -a- \\ -v:- \\ -i(:)- \end{array} \right\} + \left\{ \begin{array}{l} -v- \\ -:- \end{array} \right\} \rightarrow \left\{ \begin{array}{l} -a- \\ -v:- \\ -i(:)- \end{array} \right\}y + \left\{ \begin{array}{l} -v- \\ -:- \end{array} \right\}$

(21d) tiyohstí:tuhni:se:ʔi 'he & I were going to bake'

(cf. ohstí:tuhvhska 'he & I are baking')

(21e) khá:ʔko tayu:kohi 'who will see him'

(cf. me:li u:kohwthiha 'Mary sees him')

(21f) tiye:ni:yv:ʔnili:se:sti 'you & I will be going to hit him'

(cf. e:ni:yv:ʔniha 'you & I are hitting him')

(21g) taye:tsiʔwo:sthani 'he will be smothered'

(cf. a:tsiʔwo:stiha 'he is being smothered')

This last form shows a special alternation which applies only to the pronominal a:ts-/a:k- 'someone - him' prefix 11.

After ti-/ta- 'iterative' and ka- 'negative' the /a/ of prefix 11 becomes /e/.

(63)  $\left\{ \begin{array}{l} a:ts- \\ a:k- \end{array} \right\} \rightarrow \left\{ \begin{array}{l} e:ts- \\ e:k- \end{array} \right\} / \left\{ \begin{array}{l} ti- \\ ta- \\ ka- \end{array} \right\} \text{ —}$

The general meaning of this morpheme is that the object or event is at some location (not oriented away from the speaker's location) or is approaching the speaker or point of reference in space or in time. It has the following uses and translations.

(a) with verbs of motion it indicates that the movement is toward the speaker or point of reference.

(64a) tv:ʔi 'he is coming' (For some speakers this form is taya:ʔi with epenthetic /y/.)

(cf. a:ʔi 'he is going (direction unspecified)')

(64b) thiyvha:ʔka 'come in!'

(cf. hiyvha:ʔka 'enter!')

(64c) tsa:hlsto:ni take:ʔsi 'I am going to Bryson City'

(cf. ke:ka 'I am at' -ʔsi adds the idea of motion Bryson City's English name used to be Charleston.)

(b) with non-motion verbs it has a simple locative sense, with orientation unspecified.

(65a) tikato:ʔke:sti 'he will be standing there'

(cf. kato:ʔke:sti 'he will be standing')

(65b) tatsi:koʔv:ki 'I have seen him there'

(cf. tsi:koʔv:ki 'I have seen him')

(c) with non-motion verbs it is used in construction with the perfective stem and the 'motion' suffix -i to form an absolute future (cf. English 'I am going to ...').

(66a) takhanawo:ʔtsi 'he will get cold'

(cf. khanawo:ʔka 'he is cold')

(66b) tatsinoʔli:to:ʔli 'I will hunt'

(cf. tsinoʔli:to:ha 'I am hunting')

(66c) tikaʔtshuhni:so:ʔi 'I am always going to fish'

(cf. kaʔtshúhvsko:ʔi 'I am always fishing')

3.1.7. hi:-/hv:- 'iterative': This morpheme undergoes complex selectional and morphophonemic rules. I will first discuss the selection of allomorphs and then the changes which the allomorphs undergo in combination with the other prefixes.

The allomorph hv:- occurs with verb forms with the suffixes -i 'motion' and -v:ki 'assertive' and before agent nominals, simple past forms and infinitives. Elsewhere, the allomorph hi:- occurs (i.e. with verb forms with the suffix -a 'indicative' and with all of the primary modal suffixes (see 5.4.0. below for this term) except -v:ki, and with imperative forms). This is, as was mentioned above, the same pattern of selection as ti-/ta- 'cislocative' undergoes, with ti- occurring in the same morphological environments as hi:- and hv:- occurring in the same environments as ta-. For reasons discussed in 3.2. below, I take hi:- as the underlying form of this morpheme for a generative description and select hv:- by rule (67).

(67)

$$hi:- \rightarrow hv:- / \left. \begin{array}{l} \text{agentive} \\ \text{past} \\ \text{infinitive} \\ \text{-i 'motion'} \\ \text{-v:ki} \end{array} \right\}$$

(67a) hv:hi:ʔnehv:ki 'you were returning it to him'

(cf. hi:hi:ʔneha 'you are returning it to him')



(67b) hv:hi?lu:hki 'you just came back'

(cf. hi:hi?lu:hki 'come back!')

When either allomorph is preceded by any other prepronominal it loses its /h/.

(68)  $\begin{Bmatrix} \text{hi:-} \\ \text{hv:-} \end{Bmatrix} \rightarrow \begin{Bmatrix} \text{-i:-} \\ \text{-v:-} \end{Bmatrix} / X\_\_ \text{ (Where X is any prepronominal prefix)}$

(68a) wi:ka?lu:hka 'he is going back there'

(cf. hi:ka?lu:hka 'he is coming back')

(68b) tsv:t?a?lu:hts?v:ki 'when you came back'

(cf. hv:t?a?lu:hts?v:ki 'when you come back')

Recall that, after the loss of /h/, te:- 'distributive' contracts with the iterative to become té:- by a rule discussed earlier (p. 68), which I repeat below.

(47)  $\text{te:-} + \begin{Bmatrix} \text{-i:-} \\ \text{-v:-} \end{Bmatrix} \rightarrow \text{té:-}$

(47c) té:tshaneha 'he is giving them back to you'

(cf. hi:tshaneha 'he is giving it back to you')

(47d) té:tshane:lv:ki 'he has given them back to you'

(cf. hv:tshane:lv:ki 'he has given it back to you')

The prefix combination té:- is attached to other prefixes by rules which were discussed under the distributive 3.1.5. (pp. 67-72).

Recall, as well, that ti- and ta- cooccur with and lose their vowels before hi:- and hv:-, respectively, after the latter lose their /h/s by rule (68). I repeat the contraction rules (61) and (62) below.

(61)  $\text{ti-} + \text{-i:-} \rightarrow \text{ti:-}$

(62)  $\text{ta-} + \text{-v:-} \rightarrow \text{tv:-}$

(61b) ti:tsati:nv?si:se:?i 'you were going to throw it  
back' (cf. titsati:nv?si:se:?i 'you were going  
to throw it')

(62b) tv:tsati:nv?si 'you will throw it back'  
(cf. tatsati:nv?si 'you will throw it')

The prefix combinations ti:- and tv:- are attached to the other prefixes by the following rules. Before consonants both are attached directly by rule (8) (p. 25) as we see in the examples of (61) and (62). Before prefixes with an initial /i:/ both ti:- and tv:- undergo contractions. The /i:/ is lost and the prefixes are accented to become tĩ:- and tṽ:-.

(69)  $\left\{ \begin{array}{l} \text{ti:-} \\ \text{tv:-} \end{array} \right\} + i:- \rightarrow \left\{ \begin{array}{l} \text{tĩ:-} \\ \text{tṽ:-} \end{array} \right\}$

(69a) tĩ:tsi:hne:li:se:?i 'you-all were going to give  
it back to him'

(69b) tṽ:tsi:hne:li 'you-all will give it back to him'  
(cf. i:tsi:hneha 'you-all are giving it to him')

Before prefixes beginning with all other vowels ti:- and tv:- both insert a /?/.

(70)  $\left\{ \begin{array}{l} \text{ti:-} \\ \text{tv:-} \end{array} \right\} + V- \rightarrow \left\{ \begin{array}{l} \text{ti:?-} \\ \text{tv:?-} \end{array} \right\} + V-$

(70a) ti:?a:khine:li:si:se:?i 'he was going to give it  
back to me'

(cf. a:khineha 'he is giving it to me')

(70b) tv:?ohsti:hne:li 'he & I will give it back to him'  
(cf. ohsti:hneha 'he & I are giving it to him')

(70c) ti:?u:te:ka 'he is throwing it back this way'  
(cf. u:te:ka 'he is throwing it')

- (70d) tv:ʔe:ni:ʔne:li 'you & I will give it back to him'  
 (cf. e:ni:ʔneha 'you & I are giving it to him')

When the morpheme is unpreceded or is preceded by any prepronominal other than the distributive or cislocative, the following rules of attachment apply. Before prefixes with an initial consonant the attachment is direct by rule (8). Before prefixes with an initial /i:/, the morpheme receives accent and the /i:/ is lost.

$$(71) \begin{Bmatrix} -i:- \\ -v:- \end{Bmatrix} + i:- \rightarrow \begin{Bmatrix} -\acute{i}:- \\ -\acute{v}:- \end{Bmatrix}$$

Note that rule (71) is a more general form of rule (69) and replaces it.

- (71a) n\acute{i}:tsi:weʔa 'you-all are repeating it'  
 (cf. ni:tsi:weʔa 'you-all are saying it')
- (71b) w\acute{v}:ki:tu:ʔka 'we threw it back to them'  
 (cf. wi:ki:tu:ʔka 'we threw it away')

Before other vowels the -i:- or -v:- of the morpheme is lost and the vowel is accented.

$$(72) \begin{Bmatrix} -i:- \\ -v:- \end{Bmatrix} + v- \rightarrow \acute{v}-$$

- (72a) h\acute{a}:khin\acute{e}hti 'he has to give it back to me'  
 (cf. a:khin\acute{e}hti 'he has to give it to me')
- (72b) n\acute{o}hsti:weʔa 'he & I are repeating it'  
 (cf. nohsti:weʔa 'he & I are saying it')
- (72c) w\acute{u}:te:ka 'he is throwing it back there'  
 (cf. wu:te:ka 'he is throwing it away')

The basic meaning of the morpheme is that some aspect of the situation described by the verb is repeated. It has the

following uses and translations.

(a) with verbs of motion it carries the idea of returning to some previous or known location.

(73a) tv:ke:ʔsi 'I am going home'

(cf. take:ʔsi 'I am going there')

(73b) hi:hiyvha:ʔka 'go back in!'

(cf. hiyvha:ʔka 'enter!')

(73c) wi:ʔa:ʔi 'he is going back'

(cf. wa:ʔi 'he is going away')

Note that (73c) reflects a dialect difference discussed at the end of this section.

(b) with non-motion verbs it carries the idea of repetition of the action or state.

(74a) tv:tsi:koʔi 'I will see him again'

(cf. tatsi:koʔi 'I will see him')

(74b) hi:hi:yv:ʔniha 'you are hitting him again'

(cf. hi:yv:ʔniha 'you are hitting him')

(74c) hi:khanawo:ʔka 'he's cold again'

(cf. khanawo:ʔka 'he's cold')

(c) with verbs denoting transfer of an object the idea is that of transferring it back to a previous holder.

(75a) hv:kv:ʔnehv:ki 'I was giving it back to you'

(cf. kv:ʔnehv:ki 'I was giving it to you')

(75b) tsi:hskhvhsi 'give it back to me!'

(cf. skhvhsi 'give it to me!')

(75c) hú:tu:ʔka 'he threw it back'

(cf. u:tu:ʔka 'he threw it')

(d) it occurs in the combination y- 'counterfactual' plus hi:-/hv:- 'iterative' plus ka-/ke:- 'negative' to form verb forms with the translations 'won't' or 'wouldn't have' discussed below under 3.1.8.

There is a fair amount of dialect variation in the morphophonemics of this prefix. I have described here what I believe to be the most usual morphophonemics. Some dialects drop the /h/ of the prefixes initially in seeming free variation with its retention. Some dialects retain the /h/ and insert epenthetic /i/ after all other prepronominals except te:- (cf. example (40) p.64 ). Some dialects insert /ʔ/ between the morpheme and all vowels except /i:/ in most or all contexts (cf. example (73c) p.81 ). This dialect situation has not been thoroughly investigated.

3.1.8. ka-/ke:- 'negative': This is a fairly infrequent morpheme. It undergoes complex selectional and morphophonemic rules. I will first discuss the selection of allomorphs and then discuss the changes which the allomorphs undergo in combination with the other prefixes.

The allomorph ka- occurs before all vowels except /i:/, before ka-/ke- 'animate plural', before ts-/k- 'first singular subject' and before tsa- 'second singular object'. Elsewhere, the allomorph ke:- occurs (i.e. before prefixes with initial /i:/, /h/ or /s/ and before kini:- 'inclusive dual object'). I represent this allomorph selection by (76).

(76) ka- → ke:- / \_\_\_ 2'

In this rule the category 2' represents morphemes which

denote second person singular, dual and plural subjects, inclusive dual and plural subjects and objects, and second person dual and plural (but not singular) objects. This category excludes the second person singular objective prefix 21 tsa- 'you' and prefix 55 kv:- 'I - you' since both of these denote a second person singular object. It also excludes all third person morphemes, the 'animate plural' ka-/ke- , the 'third animate' a-/e- (cf. pp. 50-52) of prefixes 49 thru 54, and all exclusive prefixes since none of these morphemes denotes second person or inclusive. It is interesting, in passing, to compare category 2' to the selectional category in Oneida which Lounsbury (1953 p. 38) indicates by the superscript <sup>2</sup> . Both categories select between phonemes /a/ and /e/ in their respective languages and both include second person and inclusive, but the Oneida category excludes the second person singular subjective prefix while the Cherokee category excludes the second person singular objective prefix.

When either allomorph precedes a consonant the attachment is direct by rule (8).

(77a) u:hsvhi ke:kini:kokv:ki 'he hasn't seen you & me since yesterday' (cf. kini:kohv:ki 'he has seen you & me', u:h hi 'yesterday')

(77b) u:hsvhi katsatawo?v:ki 'you haven't been swimming since yesterday' (cf. tsatawo?v:ki 'you have swum')

Before prefixes with an initial /a:/, except prefix 11 a:ts-/a:k- , the a-plus-a rule, rule (26), operates on the allomorph

ka- and the two /a/s contract to /v:/ (cf. p. 51).

(26) (-)a- + (-)a:- → (-)v:-

(26c) yv:kv:kwv:hnka 'he won't hit me'

(cf. a:kwv:hnka 'he just hit me')

Prefix ll a:ts-/a:k- 'someone - him' becomes e:ts-/e:k- by rule (63) (p.75) and inserts an epenthetic /y/ after ka- by rule (21c) (p. 75), as is discussed below.

The allomorph ka- combines with a prefix-initial /u:/ to give kv:wa-, as does ka- 'animate plural'.

(78) ka- + u:- → kv:wa-

(78a) u:hsvhi kv:wakohv:ki 'he hasn't seen him since yesterday' (cf. u:kohv:ki 'he has seen him')

Before all other vowels ka- inserts an epenthetic /y/ by rule (21c) (cf. p. 75).

(21c)  $\left\{ \begin{array}{l} -a- \\ -v:- \\ -i(:)- \end{array} \right\} + \left\{ \begin{array}{l} -V- \\ -:- \end{array} \right\} \rightarrow \left\{ \begin{array}{l} -a- \\ -v:- \\ -i(:)- \end{array} \right\}y + \left\{ \begin{array}{l} -V- \\ -:- \end{array} \right\}$

(21h) késti kaye:ni:ʔnéhti yiki 'you & I can't give it to him'

(cf. e:ni:ʔnéhti 'you & I have to give it to him')

(21i) yité:kayohsti:hno:ki 'he & I won't sing'

(cf. ohsti:hno:ki 'he & I just sang')

(21j) yv:kaye:kv:ʔnka 'he won't be hit'

(cf. a:kv:ʔnka 'he was just hit')

Before prefixes with an initial /h/ or prefixes with an initial /s/, which insert an /h/ when they are preceded by a prepronominal (cf. p. 57), the allomorph ke:- shortens its vowel.

(79) ke:- + h- → keh-

Note below, however, that this does not render ke:- susceptible to metathesis.

(79a) kehi:ko?v:ki 'you haven't seen him since ...'

(cf. hi:ko?v:ki 'you have seen him')

(79b) yv:kehskhvhsi 'you won't give it to me'

(cf. skhvhsi 'you just gave it to me')

Before prefixes with an initial /i:/ the allomorph ke:- undergoes contraction. The /i:/ is lost and the ke:- inserts a /?/, like ta- 'cislocative'.

(80) ke:- + i:- → ke:?-

(83a) yi:ke:?'tsi:hnohéhle?i 'you-all wouldn't have told the story'

(cf. i:tsi:hnohéhle?i 'you-all have told the story')

The basic meaning of the morpheme is difficult to specify. In syntactic constructions it carries the idea that the situation described by the verb does not obtain. It has the following uses and translations.

(a) in the combination y- 'counterfactual' plus hi:-/hv:- 'iterative' plus ka-/ke:- 'negative', it cooccurs with the tonic form (see 4.1.0.2. for this term) of the verb stems to give forms with translations 'won't', 'wouldn't be' or 'wouldn't have'. This cooccurrence is restricted to forms with the suffixes -a 'indicative', -e:sti 'intentional', -e?i 'reportive', the perfective stem plus -o?i 'habitual' and the simple past. The reasons for these restrictions seem to be semantic rather than morphological, but this question



has not been carefully investigated.

(81a) yi:kakohwe:li?a 'he won't be writing it (now)'

(cf. kohwe:li?a 'he is writing')

(81b) yité:kakhano:ki:ske:sti 'he won't be singing (then)'

(cf. te:khano:ki:ske:sti 'he will be singing')

(81c) yi:katsohwe:la:?ne:?i 'you wouldn'y have written'

(cf. tsohwe:la:?ne:?i 'you have written')

(b) with the perfective stem and the 'assertive' suffix -v:ki it is used to make statements about the interval since an event last occurred.

(82a) u:hsvhi kakv:ko?v:ki 'I haven't seen you since

yesterday' (cf. kv:ko?v:ki 'I have seen you')

(82b) hihski i:yu:wa:hnilv:?i kv:wakáhnnav:ki 'it hasn't

rained for five hours' (cf. u:káhnnav:ki 'it has rained', hihski i:yu:wa:hnilv:?i 'five hours')

(c) with the tonic form of the infinitive it gives forms which can be translated 'can't'. These forms occur both with and without the negative particles késti and v:tsha 'not' but always with the copula iki, ke:?s- plus the counterfactual.

(83a) késti kv:kwahlskí:sti yiki 'I can't dance'

(cf. a:kwahlskí:sti 'I have to dance')

(83b) tsa:ni kv:watawo:?v:hsti yike:?se:?i 'John couldn't go swimming'

(cf. u:tawo:?v:hsti 'he has to go swimming')

(d) with two verb stems it occurs obligatorily. Both of these have some sort of pejorative or emotionally negative

sense.

(84a) kakv:khskihstiha 'they are mistreating me'

(84b) kakv:wasothlv:te?i 'they reviled him'

This latter is a Bible word occurring in its syllabic representation *SEG+PST* ka-kv-wa-so-tlv-te-i in Luke 22:36.<sup>16</sup>

3.2. The internal morphophonemics of the prenominals is straightforward except for the interaction of te:- 'distributive' with hi:-/hv:- 'iterative'. The rules given above give the correct output, but are they in some way preferable to some other rules which give the same output?

A reasonable focus of this question is the interaction of the distributive and the iterative in the infinitive. The expected allomorphs, taking only the selectional rules (48) (p. 69) and (67) (p. 77), would be ti- 'distributive' and (h)v:- 'iterative'. What we get, in fact, is té:-. This

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<sup>16</sup> The Sequoyah syllabary is a set of 85 symbols devised by a native speaker of Cherokee for the representation of the language. It consists of six vowel symbols, 53 symbols representing CV syllables, 24 symbols representing CCV syllables, one symbol representing the phoneme /s/ and a symbol representing the sequence /nah/. This last symbol seems, upon unsystematic investigation, not to be used by any dialect of Cherokee. The majority of speakers of Qualla Cherokee proper employ no /tl/ or /thl/ clusters and thus do not use the symbols for /tla, tle, tli, tlo, tlu, tlv, thla/ when writing their own dialect. They are, however, familiar with these symbols as they encounter them with some regularity in the Scriptures and hear the sounds they represent in the speech of the learned, some speakers from the so-called 3200 Acre Tract and some speakers from Graham County. Some of the more phonetically sensitive speakers of Qualla Cherokee are beginning to employ the unused /tl/ series to represent /hl/ as distinct from /l/, which is, interestingly, parallel to the representation of /hl/ in Oklahoma Cherokee arising under the influence of the gradual merger of /tl/ and /hl/ to /hl/ by many speakers. Qualla Cherokee has /ts/ or /tsh/, or /hs/ where other dialects have /tl/ or /thl/.

té:- could come from any of the combinations represented in (85a) thru (85d), depending on how one were to set up the underlying forms and order the morphophonemic and selectional rules.

(85a)           te:- + -i:-

(85b)           te:- + -v:-

(85c)           ti- + -i:-

(85d)           ti- + -v:-

The combination (85d) seems to be the least likely source, since the vowel color of té:- is not present in either of the elements. I decide against it on this basis and against (85c) as well. The choice between (85a) and (85b) is more difficult. We can choose te:- as the underlying form of the distributive and order the contraction of te:- with the iterative before selectional rule (48), which selects the allomorph ti- , on synchronic grounds. We do this on the basis of the vowel color in the contracted form, but the synchronic data provide us with no such basis for deciding between (85a) and (85b). I arbitrarily choose (85b) as the underlying form of té:- in the infinitive and order the contraction rule after the selectional rule (67), which selects the allomorph hv:- .

What is the basis for selecting hi:- as the underlying form of the iterative rather than hv:- ? I base this decision on some historical speculation and on the relationship between the iterative and the cislocative. The rules of allomorph selection of the iterative and the cislocative are parallel,

with the allomorphs *ti-* and *hi:-* appearing in one set of environments and the allomorphs *ta-* and *hv:-* appearing in the other. Comparative examination of these elements sheds some light on the problem. The pair *ti-* and *hi:-* are less informative since the source of *hi:-* is not clear at this point. The pair *ta-* and *hv:-* are rather more useful. We know from comparison of the pronominals that Cherokee /a/ continues Proto-Iroquoian \*a and Cherokee /v/ continues \*q. This makes the elements /a/ and /v/ of *ta-* and *hv:-*, with very many details to be worked out, good possible cognates for the Northern Iroquoian prepronominal elements *-a-* and *-u-* (or *-a-* and *-q-*, depending on the language), which are morpheme partials of the 'aorist' and/or 'indefinite' tense markers (cf. Lounsbury 1953, p. 44). Since this would give *ta-* and *hv:-* an identifiable possible common element historically, I take these tentatively to be the marked members of their pairs. I take the unmarked elements *ti-* and *hi:-* as the underlying forms of the morphemes. The selectional rules in Cherokee, then, reflect a process which previously added meaning to the forms but whose meaning has subsequently been redistributed to other morphemes.

## CHAPTER FOUR: ASPECT AND STEM FORMATION

4.0.0. Every verb base of a Cherokee verb is inflected for both aspect and mode. In formal terms the aspectual system is a set of non-final suffixes to the verb base which forms aspect stems and the modal system is a set of final suffixes added to verb stems.

4.0.1. The labels 'aspect' and 'mode' make a limited semantic claim about these suffix sets. That claim is that, for the bulk of the suffixes in the class labeled mode, the definition we must give to a suffix more nearly corresponds to those features of the verb called mode in the grammars of other languages than to other sorts of features, and similarly for aspect.

4.0.2. In this chapter I discuss the meaning and formation of the five aspect stems which constitute the lexical entry for a given verb base and give a catalogue of most of the stem-forming suffixes and the verb classes they generate. I also discuss (4.4. pp. 117ff.) three derived stems which complete the paradigm for regular verb bases. These three stems are discussed here, rather than under derivation, because I restrict that discussion to the derivation of verb bases.

The internal structure of verb bases and productive processes for deriving them are discussed in Chapter Six. The modal system and the interaction of mode and aspect are discussed in Chapter Five.

4.1.0.0. Every Cherokee verb has five primary stems.

Two of these, the (modal) imperfective and the present, have a common meaning and are in complementary distribution with respect to the modal suffixes (see Chapter Five). Although these two stems are discussed separately below, they can be considered allomorphs of a single stem. The four stem types resulting from this analysis can be described as three aspect stems and an infinitive. The infinitive is included in the discussion of aspect because it is, like aspect, marked by a non-final suffix attached to the verb base. The three aspect categories are labeled 'imperfective', which includes the (modal) imperfective and present stems, 'perfective', and 'punctual'. These labels are discussed below.

4.1.0.1. With intransitive verbs or with transitive verbs with indefinite objects each verb stem selects either subjective or objective pronominal prefixes, unless the verb base is marked in the lexicon for prefix choice. Thus, for instance, both imperfective stems choose the subjective prefixes, while the perfective stem chooses the objective prefixes, as we see in (86).

(86a) te:khano:kí:skv:ki 'he was singing' imperfective

(86b) tu:hno:kí:sv:ki 'he has sung' perfective

Some verbs, however, are marked in the lexicon as selecting the objective prefixes throughout the paradigm, as in (87).

(87a) u:htsv:kv:ki 'he was sick' imperfective

(87b) u:htsv:tshv:ki 'he got sick' perfective

The majority of these verbs denote states or involuntary actions.

Transitive verbs with animate objects are not subject to

this prefix selection, as we see in a comparison of (88a) and (88b), with indefinite objects, with (88c) and (88d), with animate objects.

(88a)	tsiko?wthfhskv:ki	'I saw it'	imperfective
(88b)	a:kikohv:ki	'I have seen it'	perfective
(88c)	tsi:ko?wthfhskv:ki	'I saw him'	imperfective
(88d)	tsi:ko?v:ki	'I have seen him'	perfective

The discussion below specifies which prefix each stem selects when such selection is not otherwise determined.

4.1.0.2. Each of these five stems occurs in two accent patterns, which are distinct for most verbs. I call these patterns 'tonic' and 'atonic'. The tonic is the accent pattern which occurs in the verbs of independent clauses. The atonic is the accent pattern which occurs in the verb forms in dependent clauses, in adverbial clauses, in the imperative and in derived forms.

The atonic forms of the present, imperfective and perfective stems are always 'suffix-accented' forms. For the imperfective and perfective these forms have the accent on the penultimate vowel, which is the initial vowel of the modal suffix. For the present stem the accent is placed on the vowel preceding the modal suffix -a or -i. The atonic forms of the punctual and the infinitive have several different accent placements depending on the verb class and are discussed individually below for each verb class. A detailed discussion of the other three stems is not given because of the predictability of the accent shift.

The accent patterns of the tonic forms are varied and the rules of accent placement in the tonic are not well understood at this point. For the moment, I consider the accentuation of the tonic to belong to the lexicon entry for each verb. The accent pattern for the atonic is more regular and is predictable for each verb class. The paradigm forms given below are intended to illustrate the suffix morphology using a typical verb base from each class and to show the accentuation of the atonic. They do not attempt to offer a full catalog of accent patterns of the tonic forms in the verb class.

4.1.0.3. The following automatic phonological processes introduce alternation between the tonic and atonic forms of the verb stems and account for the differences in vowel length and segmental phonology between the two stem types.

The accent of the atonic verb form lengthens the vowel which bears it when a single consonant follows.

(89)  $-V̂C-$  →  $-V̂:C-$  / \_\_\_ atonic

(89a) késti ya:kí:ʔa 'he is not eating'

(cf. á:kiʔa 'he is eating')

In example (89a) the vowel of the verb is lengthened under accent in the negative after the negative particle késti 'not', which takes the atonic form of the verb.

The rightmost long vowel of the verb base inserts a following glottal in the atonic if it is not followed by a laryngeal.<sup>17</sup>



(90) -V:(CX)+ → -V:?(CX)+ / atonic

(C ≠ H, X contains no V:, + is the right boundary of the verb base)

(90a) takhane:ʔtsi 'he will speak'

(cf. u:hne:tʂv:ki 'he has spoken')

In example (90a) the /e:/ of the verb base inserts a following /ʔ/ before the perfective suffix -ts- in the ta-future, which is a derived formation built on the atonic stem.

4.1.1. The imperfective stem views the action of the verb as an ongoing (uncompleted) process. Thus in (91a)

(91a) tsa:ni me:li kanv:ʔnehv:ki 'John was giving it to Mary'

the speaker gives no indication whether or not the transfer of ownership was completed by Mary's acceptance. The imperfective stem takes the subjective prefixes.

4.1.2. The perfective stem views the action of the verb as a completed process or achieved state. Thus in (91b),

(91b) tsa:ni me:li u:nv:ʔne:lv:ki 'John has given it to Mary'

using the perfective stem, the speaker makes it clear that the gift was accepted.

The stative nature of these stems is attested to by their choice of the objective prefixes. The imperfective form in (91a) takes the subjective prefix ka-, which is the prefix used with intransitive verbs which denote activities. The perfective form in (91b), on the other hand, takes the objective prefix u:-, which is the prefix used with intransitive verbs which denote states. Compare (92a) with the subjective prefix

with (92b) with the objective prefix.

(92a) ka:ye:hwska 'he is sewing'

(92b) u:ye:tshska 'he is smiling'

4.1.3. The present stem, like the imperfective stem, views the action of the verb as an ongoing event and takes the subjective prefixes. It is semantically equivalent to 2nd in complementary distribution with the imperfective stem. In many cases the present stem is distinct from the other stems, as with the underlined stems of (93a) through (93c).

(93a) a:hwathf<sup>h</sup>skv:ki 'he was finding it' imperfective

(93b) a:hwathf<sup>h</sup>a 'he is finding it' present

(93c) u:hwathvhv:ki 'he has found it' perfective

In other instances it is identical with the imperfective stem as with the underlined stems of (93d) through (93f).

(93d) a:hwiskv:ki 'he was planting' imperfective

(93e) a:hwiska 'he is planting' present

(93f) u:hwisv:ki 'he has planted' perfective

In still other cases the present stem is identical with the perfective stem, as with the stems of (93g) through (93i).

(93g) a:hsto:skv:ki 'he was pounding' imperfective

(93h) a:hsto:?a 'he is pounding' present

(93i) u:hsto:?v:ki 'he has pounded' perfective

4.1.4. The punctual stem views the action of the verb as a single event without regard for its duration or completion. The punctual stem takes the subjective prefixes. Its tonic form is best translated as a simple past time form, as in (91c) (cf. (91a) and (91b)).

(91c) tsa:ni me:li kanv:ʔnihsi 'John gave it to Mary'

This provides a three-way contrast in forms with past-time translations which is approximated in the translations of the forms of (94).

(94a) te:khano:kí:skv:ki 'he was singing' imperfective

(94b) tu:hno:kí:sv:ki 'he has sung' perfective'

(94c) te:khano:ki 'he sang' punctual

The atonic form of the punctual is suffix-accented and is usually translated as an imperative, as in (94d).

(94d) thihno:kí 'sing!'

Recall that the imperative takes a different allomorph of the distributive prefix, as well as of the cislocative and iterative prefixes, than does the simple past. For the remainder of this discussion I will use the term imperative interchangeably with atonic punctual.

4.1.5. The infinitive stem views the action denoted by the verb as an abstract potential, either necessary, as in the tonic form, or simply potential, as in the suffix-accented atonic form.<sup>18</sup> This is reflected in the translations of (95).

(95a) tsa:ni me:li u:nv:ʔti 'John has to give it to Mary'

(95b) tsa:ni me:li u:nv:ʔti:yi a:kwatu:liha 'I want John  
to give it to Mary' ( a:kwatu:liha 'I want it')

The infinitive stem takes the objective prefixes.

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<sup>18</sup> The accent of the tonic form of the infinitive and of the agent nominal (cf. Chapter Five) is higher than the normal degree of pitch of /ʔ/--say a [4] as compared to a normal [3] for /ʔ/. Since this accent is morphologically determined, I have left a more detailed analysis of this for a later date.

4.2. The aspect-stems are formed by various suffixes added to the verb base. Cherokee verbs may be separated into a number of conjugation classes, with respect to the aspect suffixes they take. Chart 4 summarizes the conjugation classes of Cherokee verbs thus determined.

In organizing the chart I have attempted to arrange the classes so that classes which take a common suffix in the imperfective, present or perfective stems are vertically contiguous. This principle, however, dictates that classes with the same punctual or infinitive suffixes are frequently non-contiguous because these latter two elements cross-cut the other classification.

In the chart the following conventions are observed. Except for the present stem of class F, the imperfective, present and perfective suffixes are carried with no indication of modal suffixes. This is done so that instances of identity between the present stem and either of the others will be readily apparent. The punctual, on the other hand, is carried throughout with its suffix since this suffix is not, as it is with the present stem, predictable. The infinitive suffix is, like the first three, carried without a modal suffix.

An entry of  $-\emptyset-$  indicates that the modal suffix is added directly to the verb base. An entry of  $-\emptyset$  indicates that there is no suffix in the punctual. In the listing of base-final elements, an underscored vowel is lost in contact with another vowel and an underscored consonant cluster is

Class	Base Finals	Imperfective		Perf.	Pnct.	Inftv.	
		Modal	Pres.				
A1	t, k, y, ts	-ʔihsk-	-iʔ-	-ʔ-	-a	-ʔihst-	
A2	t, k, l, w	-iʔsk-		-aʔn-	-aʔka	-oʔt-	
A3	hs, st, ht, ʔt	-ihsk-	-ih-	-ahm-	-a	-ohst-	
A4	t, l, n, y, ts, th, hs			-vh-		-vht-	
B1	<u>e</u>	-hsk-	-h-		-v:li	-hst-	
B2	<u>e</u>	-ʔsk-			-a	-ʔst-	
B3	o:		-ʔ-		-tsa		
B4	v:	-sk-		-s-	-na	-st-	
B5	i:				-∅		
C1	ʋ, á, ó, u	-hsk-		-hs-	-hi	-hihst-	
C2	a, i					-∅	-hst-
C3	ya, la, na, ha			-h-			
C4	<u>ʔn</u>				-∅-	-ʔka	-ʔt-*
C5	<u>hn</u>						-ht-*
D1	é		-h-		-v:li		
D2	ó, ʋ	-hib-		-hl-	-ha:ʔka		
D3	é, ó				-:ka	-hst-	
D4	l, n, y				-hka		
D5	l, n, a:, i:, v:	-ʔih		-ʔl	-ʔka	-ʔst-	
E	e:, o:, i:, v:, h, ʔ	-k-		-ts-	-ki	-ihst-	
F	h, n, l, y, ʔ, ts, ths	-i:s-	-i				
G	y, l, h, ʔ, hl	-∅-					

Chart 4: Aspect Suffixes

lost before the infinitive suffix, which is marked with an asterisk.

4.3. The following paradigms give examples of each of the conjugation classes. The forms given are the third singular imperfective with the 'habitual' suffix  $-oʔi/-o:ʔi$ , the first singular present, the third singular perfective with the 'reportive' suffix  $-eʔi/-e:ʔi$ , the second singular simple past, and the tonic form of the first singular infinitive. All of these are the tonic forms of the verb stems. The forms with the suffixes  $-oʔi/-o:ʔi$  'habitual' and  $-eʔi/-e:ʔi$  'reportive' are chosen because these are the only two of the primary modal suffixes which show any alternation in the length of the suffix vowel. The length alternation is conditioned by the verb stem, and any given stem will choose the same length variant of both suffixes. By giving forms with these suffixes we also indicate for each stem class which suffix variant the stems of that class choose. When a verb is transitive and requires an animate object the forms given have the subject indicated and a third singular animate object. When a transitive verb can take either an animate or an indefinite object the forms with the indefinite object are given.

Two phonological facts about each verb class are important. The first is whether or not the suffix laryngeals can metathesize into the verb base, which they can in most cases if the conditions for metathesis are met (cf. p. 7). The second is whether or not laryngeal-alternation, rule (22)

(p. 40), can affect the laryngeals of the suffixes. In most cases the laryngeals of the suffixes will alternate, but in a few verb classes we cannot be certain since no forms are recorded without a laryngeal in the verb base preceding the suffix laryngeals and blocking the application of rule (22) to them. In all cases note is made of how the verb class behaves with respect to these two rules.

4.3.1. Class A: The verbs of class A are built on verb bases ending in consonants and include, in classes A1 and A4, those verb bases which are verb roots consisting of a single consonant. Classes A2 and A3 differ from each other in that, except in the punctual, the suffixes of A2 have a /ʔ/ where the suffixes of A3 have an /h/. Each of the first four major stem classes has one pair of subclasses which are so related, but the semantic implications of this fact--if there are any--have yet to be investigated.

Verbs of class A form five distinct stems using a number of different suffixes. These verbs are characterized by a present stem built on an -iH- suffix (here and following H is either laryngeal) and, except in class A1, perfective stems with a nasal element.

- 4.3.1.1. Class A1: -k- 'eat something'
- |       |             |                    |
|-------|-------------|--------------------|
| (96a) | a:kʔihskoʔi | 'he eats it'       |
| (96b) | tsikiʔa     | 'I am eating it'   |
| (96c) | ú:kʔe:ʔi    | 'he has eaten it'  |
| (96d) | hika        | 'you ate it'       |
| (96e) | a:kikʔihsti | 'I have to eat it' |

The suffixes of this class with laryngeals all have /ʔ/ as their first laryngeal and are thus not subject to alternation. They do not undergo metathesis, as we see in (96b).

The accent pattern for the tonic forms of the verbs in this class is the same as that shown for -k- 'eat', as we see in (97).

- (97a) u:hyvhstakʔihskoʔi 'he gets drunk'  
 (97b) a:khiyvhstákiʔa 'I am getting drunk'  
 (97c) u:hyvhstákʔeʔi 'he has gotten drunk'  
 (97d) tshayvhstáka 'you got drunk'  
 (97e) a:khiyvhstákʔihsti 'I have to get drunk'

The atonic forms are all suffix accented, as in (97f) and (97g).

- (97f) tshayvhstaká 'get drunk!'  
 (97g) a:khiyvhstakʔihstí:yi 'for me to get drunk'

4.3.1.2. Class A2: -:talú:k- 'plow'

- (98a) ka:talú:kíʔskoʔi 'he plows'  
 (98b) tsi:talú:kíʔa 'I am plowing'  
 (98c) u:wa:talú:káʔne:ʔi 'he has plowed'  
 (98d) hi:talú:kaʔka 'you plowed'  
 (98e) a:ki:talú:koʔti 'I have to plow'

The laryngeals of these suffixes are all /ʔ/ and not subject to alternation. They do not metathesize--possibly because of paradigm pressure from the atonic forms of (98d) and (98e), which provide the more frequent unmetathesizable forms as models. We see these in (98f) and (98g).

- (98f) hi:ʔtalú:káʔka 'plow!'



(98g) a:ki:ʔtalukóʔti:yi 'for me to plow'

The accent pattern in the tonic for the verbs of class A2 is consistently that shown, accent on the suffix vowel in the first three forms and on the final stem vowel in the last two. The accent shift in the atonic is likewise consistently that shown with the accent on the suffix vowels in the atonic forms of the punctual and infinitive.

4.3.1.3. Class A3: -atshi:ló:st- 'draw'

- (99a) ta:tshi:ló:stihsko:ʔi 'he draws'  
 (99b) te:katsʔi:ló:stiha 'I am drawing'  
 (99c) tu:tshi:ló:sthane:ʔi 'he has drawn'  
 (99d) te:hatshi:ló:sta 'you drew'  
 (99e) ti:kwatshi:ló:stohti 'I have to draw'

There are no examples in my notes of verb bases of this class without laryngeals in them, so the question of alternation of the suffix laryngeals is not answerable. Only the /h/ of the perfective suffix metathesizes. Its original position is shown in (100) where metathesis is blocked.

(100) u:khtháhne:ʔi 'he has peeked'

The accentuation of the tonic forms of verbs of class A3 must be given in the lexical entry. The atonic forms shift the accent to the suffix in the punctual and to the aspect suffix in the infinitive, as we see in (99f) and (99g).

- (99f) thatshi:lo:ʔstá 'draw!'  
 (99g) ti:kwatshi:lo:ʔstóhti:yi 'for me to draw'

4.3.1.4. Class A4: -a:to:n- 'conjure'

(101a) a:to:nihskoʔi 'he conjures'

- (101b) ka:to:nf'a            'I am conjuring'  
 (101c) u:to:nvhe:'i        'he has conjured'  
 (101d) ha:to:na            'you conjured'  
 (101e) a:kwa:tó:hnti        'I have to conjure'

The only laryngeal metathesis in this class is in the infinitive, as we see in (101e). The suffix laryngeals all alternate (see 2.4.2.), as we see in (101f) through (101h).

- (101f) ka:to:nf'sko'i        'I conjure'  
 (101g) a:to:nfha            'he is conjuring'  
 (101h) taka:to:nv'i        'I will conjure'

This stem does not take a prefix in the infinitive which conditions laryngeal alternation, but (102a) and (102b) show this alternation.

- (102a) tsi:yatu:'ltf:yi      'for me to want him'  
 (102b) a:kwatu:hltf:yi      'for me to want it'

The accent pattern for these verbs is that shown. In the present and imperfective the accent is on the aspect suffix. The perfective stem has no accent in perfective forms but in the ta-future the accent is on the aspect suffix, as we saw in (101h). The punctual is accentless and the infinitive accents the aspect suffix, as we see in the unmetathesized form in (102c).

- (102c) a:kikohwthvhti        'I have to see it'

When metathesis occurs the accent is shifted to the preceding syllable as in (101e). The atonic forms of the punctual and infinitive are suffix accented as in (101i) and (101j).

- (101i) ha:to:ná            'conjure!'

(101j) a:kwa:to:hntf:yi 'for me to conjure'

4.3.2. Class B: The verbs of class B are built on verb bases ending in vowels. The verbs of class B parallel the verbs of class A, in that the present stems are formed by laryngeal suffixes. Class B1 differs from Class B2, in that-- except in the punctual--B1 has a /ʔ/ where B2 has an /h/. The subclasses of B with short base-final vowels have a laryngeal in their imperfective and infinitive stems, while those with long base-final vowels do not. Except for the infinitives of class B1, the suffix laryngeals of Class B do not metathesize. The only subclass of class B with the potential for laryngeal alternation, class B1, does not have any recorded stems without a laryngeal in the base, blocking the alternation, so no positive statement can be made about laryngeal alternation in class B. In B1 thru B3 the present stem is identical with the perfective stem. The verbs of B4 and B5, like those of class A have five distinct stems. Like the verbs of classes C1 and C2, the verbs of B4 and B5 form their perfective stems with an /s/ suffix.

4.3.2.1. Class B1: -anhe:ske- 'build'

- (103a) a:hne:skéhskoʔi 'he builds'  
 (103b) kaʔne:skéha 'I am building it'  
 (103c) u:hné:skehe:ʔi 'he has built it'  
 (103d) hahné:skv:li 'you built it'  
 (103e) a:kwahné:khsti 'I have to build it'

The cluster simplification in (103e) is a regular phonological process which we represent by rule (104).

(104) (-)skhst- → (-)khst-

An instance of rule (104) is seen in (104a).

(104a) khste:lá 'help me!' < sk- 'you - me'  
+ -hste:lá 'help!'

The accent pattern in class B1 is that shown in (103). The present and imperfective stems accent the base-final /e/. The remaining forms accent the vowel preceding the /e/. The atonic forms of the stems are suffix accented, with the imperative accenting the /v/ of the punctual suffix as in (104f)

(104f) hahne:ʔskv̄:li 'build it!'

4.3.2.2. Class B2: -ko:li:ye- 'read'

(105a) a:ko:lí:yeʔsko:ʔi 'he reads'

(105b) tsiko:lí:yeʔa 'I am reading'

(105c) u:ko:lí:yeʔe:ʔi 'he has read'

(105d) hiko:li:ya 'you read'

(105e) a:kiko:lí:yeʔti 'I have to read'

The accent pattern for this class is that shown in (105). The accent is on the vowel preceding the base-final /e/ in all forms except the punctual, which is unaccented. The atonic forms are suffix accented.

The infinitive of -ko:li:ye- is an exception to the usual pattern. The more usual suffix is seen with the stem n--we- 'say'.

(106a) nitsiweʔa 'I am saying it'

(106b) i:ya:kíweʔsti 'I have to say it'

4.3.2.3. Class B3: -hsto:- 'pound'

(107a) a:hstó:skoʔi 'he pounds'

- (107b) tsiʔstó:ʔa 'I am pounding'  
 (107c) u:hstó:ʔeʔi 'he has pounded'  
 (107d) hihsto:tʂa 'you pounded'  
 (107e) a:khstó:sti 'I have to pound'

The accent pattern for the tonic forms of this subclass is that shown in (107). The base-final vowel is accented in all tonic forms except the punctual, which is unaccented. The atonic forms are all suffix-accented. Recall that rule (87) (p. 88) inserts a /ʔ/ after long vowels in the atonic as in the forms of (107f) and (107g).

- (107f) késti ya:hsto:ʔskó:ʔi 'he doesn't pound'  
 (107g) a:khsto:ʔstí:yi 'for me to pound'

The ta-future shortens the stem vowel of the atonic of the perfective stem, as in (107h).

- (107h) tatsiʔstoʔi 'I will pound'

4.3.2.4. Class B4: -hkhv:- 'move (transitive)'

- (108a) a:hkhv:skoʔi 'he moves it'  
 (108b) tsiʔkhv:ʔa 'I am moving it'  
 (108c) u:hkhv:seʔi 'he has moved it'  
 (108d) hihkhv:na 'you moved it'  
 (108e) a:khkhv:sti 'I have to move it'

The accent pattern of the tonic forms for this subclass is that shown in (108). The base-final vowel is accented in all tonic forms except the punctual, which is unaccented. The atonic forms are suffix-accented and insert /ʔ/ by rule (90) (p. 93), as in (108f) thru (108h).

- (108f) késti ya:hkhv:ʔskó:ʔi 'he doesn't move it'

(108g) a:khkhv:ʔstf:yi 'for me to move it'

(108h) tatsiʔkhv:ʔsi 'I will move it'

Note that in (108h) the stem vowel is not shortened in the ta-future as it was in class B3.

4.3.2.5. Class B5: -nohski:- 'steal'

(109a) kanohskí:skoʔi 'he steals'

(109b) tsinoʔski:ʔa 'I am stealing'

(109c) u:nohskí:seʔi 'he has stolen'

(109d) hinohski 'you stole'

(109e) a:kinohskí:sti 'I have to steal'

The failure of the base laryngeal to metathesize in this verb is at present unexplained.

The accent pattern of the tonic forms for this subclass is that shown in (109). The accent is on the base-final vowel in the tonic forms of the imperfective, perfective and infinitive. The atonic forms of the punctual and infinitive are suffix-accented. Rule (87) inserts glottals into those atonic forms which meet its structural description, as we see in (109f) thru (109h).

(109f) késti yikanohski:ʔskó:ʔi 'he doesn't steal'

(109g) tatsinoʔski:ʔsi 'I will steal'

(109h) a:kinohski:ʔstf:yi 'for me to steal'

4.3.3. Class C: The verbs of class C, like those of class D, are built on bases ending in vowels or resonants. In classes C4 and C5 the resonant is an /n/ which vocalizes to /v/ in certain environments. Classes C4 and C5 are parallel in that, except in the punctual, C4 has /h/ where C5 has /ʔ/.

The suffix laryngeals of this class alternate and metathesize where possible.

The present and imperfective stems of verbs in this class are identically formed with an element *-Hsk-*. The verbs of classes C1 and C2, like the verbs of B4 and B5, form their perfective stems on an /s/ (Note that *-Hsk-* = *-Hs-* + *-k-* cf. class E below 4.3.5.). Class C3 forms its perfective stem with an /h/ (cf. class B1 4.3.2.1. above). Classes C4 and C5 form their perfective stems on the /n/ of the bare verb-base (cf. the nasal suffixes of the perfectives of A2 thru A4, 4.3.1.2. thru 4.3.1.4. above).

4.3.3.1. Class C1: *-hwá-* 'buy'

- (110a) *u:hwáhsko:ʔi* 'he buys'  
 (110b) *a:khiwáhska* 'I am buying it'  
 (110c) *u:hwáhseʔi* 'he has bought it'  
 (110d) *tshawáhi* 'you bought it'  
 (110e) *a:khiwáhihsti* 'I have to buy it'

The accent pattern of (110) is characteristic of this subclass. The stem carries its own accent. The atonic form of the punctual is suffix accented but the atonic infinitive accents the /hi/ of the aspect suffix.

- (110f) *tshawahí* 'buy it!'  
 (110g) *a:khiwahíhsti:yi* 'for me to buy it'

The *ta*-future retains the stem accent, as in (110h).

- (110h) *tv:khiwáhsi* 'I will buy it'

4.3.3.2. Class C2: *--ye:wa-* 'sew'

- (111a) *ka:ye:hwsko:ʔi* 'he sews'

- (111b) tsi:ye:ʔwska 'I am sewing'  
 (111c) u:wa:ye:hwseʔi 'he has sewn'  
 (111d) hi:ye:wa 'you sewed'  
 (111e) a:ki:yé:hwsti 'I have to sew'

The accent pattern of (111) is characteristic of this subclass. Only the tonic infinitive has an accent. The atonic forms are all suffix-accented. Note that the base-final vowel is lost to metathesis everywhere except in the punctual.

4.3.3.3. Class C3: -atf:htha- 'drink'

- (112a) a:tf:hthahsko:ʔi 'he drinks'  
 (112b) katf:ʔthahska 'I am drinking'  
 (112c) u:tf:hthahe:ʔi 'he has drunk'  
 (112d) hatf:htha 'you drank'  
 (112e) a:kwatf:hthahsti 'I have to drink'

The accent pattern of (112) is characteristic of this subclass. Like the example in class C1, these verb bases have their own accents which are maintained in the future.

- (112f) takatf:ʔthahi 'I will drink'

The atonic forms are suffix accented.

4.3.3.4. Class C4: -nhe:tsó:ʔn- 'play a sport'

- (113a) a:hne:tsó:ʔvhsko:ʔi 'he plays'  
 (113b) kaʔne:tsó:ʔvhska 'I am playing'  
 (113c) u:hne:tsó:ʔneʔi 'he has played'  
 (113d) hahne:tsó:ʔvʔka 'you played'  
 (113e) a:kwahne:tsó:ʔti 'I have to play'

Note that in this class and in C5 the infinitive suffix -Ht- replaces the base final -Hn- cluster.



This base introduces an alternation which is important for understanding the remaining verbs of class C. The final /n/ of the verb base undergoes regular vocalization to /v/ before HC clusters by rule (114).

(114) -n- + -HC- → -v- + -HC-

We see instances of this vocalization of /n/ in (113a), (113b) and (113d).

The accent pattern in (113) is typical of this subclass as are the accent shifts in the atonic forms. The punctual shifts the accent to the base-final /v/ in the atonic as in

(113f) hahne:tsoʔv:ʔka 'play!'

The length change is an automatic part of the accent shift for this subclass. The atonic infinitive is simply suffix-accented as in (113g).

(113g) a:kwahne:tso:ʔtí:yi 'for me to play'

4.3.3.5. Class C5: -hstúhn- 'shut (transitive)'

(115a) a:hstúhvhsko:ʔi 'he shuts it'

(115b) tsiʔstúhvhska 'I am shutting it'

(115c) u:hstúhneʔi 'he has shut it'

(115d) hihstúhvʔka 'you shut it'

(115e) a:khstúhti 'I have to shut it'

Note that in this class, as in C4, the -Ht- of the infinitive replaces the base-final -Hn- of the verb base. Note also that the alternation of the base-final /n/ described by rule (114) also occurs with these verbs.

The accent pattern of (115) is typical of this subclass as are the accent shifts it undergoes in the atonic forms.

The accent in the atonic form of the punctual shifts to the base-final /v/ as in (115f) (cf. (113f) above).

(115f) hihstuhv:ʔka 'shut it!'

The atonic infinitive is suffix accented.

Some stems of this class undergo metathesis of the suffix laryngeal after vocalization of the base-final /n/ as we see in the forms of -lahn- 'put an object into a container' given in (116).

- (116a) kahláhsko:ʔi 'he puts it in'  
 (116b) tsiʔlahska 'I am putting it in'  
 (116c) u:hlane:ʔi 'he has put it in'  
 (116d) hihlá:ʔka 'you put it in'  
 (116e) a:kíhlti 'I have to put it in'

The accents in these forms are not underlying accents but are probably products of contraction. Note that in (116c) with no metathesis or vowel deletion there is no accent. The derivation of the third person form corresponding to (116b) was given in Chapter One (p.10). I give the derivation of (116d) below for comparison.

- (116f) h- 'you' + -la- 'inside' + -hn- 'put'  
 + -ʔka 'punctual' (underlying form)  
 h+la+hn+ʔka  
 hila+hn+ʔka epenthesis (rule (10))  
 hihlan+ʔka metathesis (rule (1))  
 hihlav+ʔka vocalization (rule (114))  
 hihlaʔka metathesis & deletion (rule (1))  
 hihlá:ʔka contraction rules (perhaps)

Note that in (116e), in which the base final *-hn-* is replaced by the *-ht-* of the infinitive suffix the vowel of the verb base is lost to the first metathesis because /t/ is a non-resonant. The atonic form of the punctual of this base has no accent. The atonic infinitive is suffix accented.

4.3.4. Class D: The verbs of class D, like those of class C, are built on verb bases ending in vowels or resonants. Since the base-final vowels are all either accented or long, metathesis is only possible across the resonants, where it does occur in D4 and D5. Alternation of the suffix laryngeals occurs in all locations where it is not blocked by the presence of a laryngeal in the verb base. classes D4 and D5 are exact parallels in all aspects with D4 having /h/ where D5 has /ʔ/.

Class D verbs are characterized by perfective stems that are formed on an *-Hl-* suffix. All subclasses except D1 form their present and imperfective stems on the same *-Hih-* suffix. Class D1 has a punctual suffix identical to that of B1.

4.3.4.1. Class D1: *-hnohé-* 'tell'

- |        |                     |                     |
|--------|---------------------|---------------------|
| (117a) | <i>khanohéskoʔi</i> | 'he tells it'       |
| (117b) | <i>tsiʔnohéha</i>   | 'I am telling it'   |
| (117c) | <i>u:hnohéhleʔi</i> | 'he has told it'    |
| (117d) | <i>hihnohʋ:li</i>   | 'you told it'       |
| (117e) | <i>a:khinóhéhti</i> | 'I have to tell it' |

The failure of the second /h/ of the base to metathesize is at present unexplained.

The accent pattern of (117) is typical of this subclass,

with a persistent base-final accent, which transfers to the punctual suffix when the base-final vowel is lost. The atonic form of the punctual is identical with the tonic but the atonic infinitive loses its second accent, retaining only the base-final accent, as in (117f).

(117f) a:khinohéhti:yi 'for me to tell it'

4.3.4.2. Class D2: -yv- 'enter'

(118a) a:yvhiho:ʔi 'he enters'

(118b) tsiyvʔiha 'I am entering'

(118c) u:yvhle:ʔi 'he has entered'

(118d) hiyvhá:ʔka 'you entered'

(118e) a:kiyvʔhsti 'I have to enter'

The accent patterning of (118) is typical of this subclass. The failure of metathesis in the punctual is unexplained but possibly a result of analogy with the other forms, with the base-final accent. The atonic form of the punctual is the same as the tonic. The atonic infinitive is suffix accented.

The ta-future maintains the base final accent of the perfective stem, as we see in (118f).

(118f) tatsiyvʔli 'I will enter'

4.3.4.3. Class D3: -ahsé- 'count'

(119a) a:hséhiho:ʔi 'he counts'

(119b) kaʔséhiha 'I am counting'

(119c) u:hséhleʔi 'he has counted'

(119d) hahsé:ka 'you counted'

(119e) a:khwséhsti 'I have to count'

The accent pattern of (119) is typical of this subclass.

This is one of two places in which the elevated accent in the tonic infinitive is in near minimal contrast with the normal accent of the atonic infinitive, so that we have (119f), with [4] pitch, versus (119g), with [3] pitch (cf. F.N. 18, p. 96).

(119f) a:khwséhsti [a:khwséhsti] 'I have to count'

(119g) a:khwséhsti:yi [a:khwséhsti:yi] 'for me to  
count'

As with the other subclasses of D, the atonic punctual is identical with the tonic punctual.

4.3.4.4. Class D4: -v:n- 'hit'

(120a) kv:hniho:ʔi 'he hits it'

(120b) kv:ʔniha 'I am hitting it'

(120c) u:wa:hniile:ʔi 'he has hit it'

(120d) hv:hinka 'you hit it'

(120e) a:kwʷ:hnsti 'I have to hit it'

The forms of (120) show a characteristic accent pattern for this subclass. The tonic infinitive has the only accent of the tonic forms. The atonic punctual and infinitive are suffix-accented. This subclass allows metathesis wherever it is possible. The epenthetic /i/ between the verb base and the aspect suffixes is lost to metathesis in all stems except the perfective, where the /l/ of the aspect suffix preserves it. Unmetathesized forms of the punctual and of some infinitives are used by some speakers, so that (120f) is also heard.

(120f) hv:nihka 'you hit it'

4.3.4.5. Class D5: -hkhalí:- 'fill (transitive)'

(121a) a:hkhalí:ʔiho:ʔi 'he fills it'

- (121b) tsi?khalɪ:ʔiɦa 'I am filling it'  
 (121c) u:hkhalɪ:ʔleʔi 'he has filled it'  
 (121d) hihkhalɪ:tɬa 'you filled it'  
 (121e) a:khkhalɪ:ʔiʔsti 'I have to fill it'

The forms of (121) show a characteristic accent pattern for this subclass. The atonic punctual is suffix accented and the atonic infinitive shifts the accent to the first /i/ of the aspect suffix, as in (121f).

- (121f) a:khkhaliʔiʔsti:yi 'for me to fill it'

Infinitives of this subclass which lack the initial /ʔi/ of the suffix shift the accent to the penultimate /i:/, as in

- (122) tsi:ʔskaʔsti:yi 'for me to fear him'

4.3.5. Class E: The verbs of this class are built on verb bases ending in long vowels or laryngeals. The present, imperfective and punctual stems are all built on the same -k- suffix, which could easily be the continuation of the morpheme which has become the 'continuative' morpheme of Northern Iroquoian (cf. Lounsbury 1953, p. 88). The perfective stem is formed by the suffix -ts- which we know from comparative study has a possible historical source in Proto-Iroquoian \*kh. This suggests a possible parallel between class E and the other classes which utilize an -h- suffix in the perfective.

A typical verb of this class is -ɦne:- 'speak.

- (123a) kɦane:koʔi 'he speaks'  
 (123b) tsiʔne:kɦa 'I am speaking'  
 (123c) u:ɦne:tseʔi 'he has spoken'

(123d) hihne:ki 'you spoke'

(123e) a:khiné:ʔihsti 'I have to speak'

Note that the bases which end in vowels insert a /ʔ/ between the base-final vowel and the /i/ of the infinitive suffix.

The accent pattern in (123) is typical of this subclass. The tonic infinitive has the accent on the last vowel of the base, while the atonic infinitive shifts the accent to the /i/ of the aspect suffix (cf. D5, 4.3.4.5. above) as in (123f).

(123f) a:khineʔihsti:yi 'for me to speak'

Bases which end in a laryngeal have an atonic punctual identical with the tonic punctual, but those ending in vowels distinguish the two by the operation of rule (90) (p. 94) in the atonic, as in (123g)..

(123g) hihne:ʔki 'speak!'

(123h) tatsiʔne:ʔtsi 'I will speak'

4.3.6. Class F: This is the class of verbs of motion whose present is formed with the suffix -i 'motion' rather than the suffix -a 'indicative'. The single modal inflection of this class is formed on a stem which is built on the -i suffix of the present plus an /s/ (cf. classes B4 and B5 and C1 thru C3). The modal stem is called 'imperfective' in the chart because the bases of this class can form perfective, punctual and infinitive stems using derivational suffix sets. The derivational suffixes used are the set called 'approaching' (cf. 6.2.4.).

A typical verb of this class is -ayhu:ʔi:n- 'swim'

(124a) a:hyu:i:ni:soʔi 'he swims'

(124b) ka?yu:ʔi:ni                    'I am swimming'

The accentuation of the tonic stems of these verbs is in the lexical entry. The atonic is suffix-accented.

This class is unusual in several ways. First, it is defective. Second, the present suffix is added directly to the stem. Third, the imperfective stem appears to be built directly on the present form. Fourth, this is the same set of suffixes which is used with the ta-future, which is built on the perfective stem.

4.3.7. Class G: The verbs of this class are also defective, but they form no derived stem forms as do those of class F. Both the suffix -a 'indicative' and the modal suffixes are added directly to the verb base.

Typical verbs of this class are -yheh- 'hold' and -v:y- 'have'.

- (125a) á:hyeho:ʔi                    'he holds it'  
 (125b) tsíʔyeha                    'I am holding it'  
 (125c) u:wá:yoʔi                    'he (always) has it'  
 (125d) a:kwǎ:ya                    'I have it'

The accentuation of the tonic stems of these verbs is in the lexical entry for each. The atonic forms are suffix-accented.

4.4.0. Three derived stems are built on the perfective stem by means of additional suffixes. Each of these has present and modal forms so that each may be described as following either class F or class G with respect to its modal inflection. All three are built on the atonic form of the perfective stem.



4.4.1. The ta-future: This stem views the action of the verb as a single event in the future. It consists of the atonic perfective stem plus the cislocative prenominal prefix (cf. 3.1.6., p. 72 ff.), as in (126).

(126a) takhano:ki:ʔsi 'he will sing'

The ta-future takes the subjective pronominal prefixes and forms its modal stem after the model of class F verbs, as we see in (126b).

(126b) takhano:ki:ʔsi:sv:ki 'he was going to sing'

4.4.2. The pre-inceptive: This stem views the action of the verb as an action about to be begun. It consists of the atonic perfective stem plus the 'pre-inceptive' suffix -i:t- , as in (127).

(127a) u:hno:ki:ʔsi:ti 'he is about to begin singing'

The pre-inceptive stem takes the objective pronominal prefixes and forms its modal stem after the model of the class F verbs, as we see in (127b).

(127b) u:hno:ki:ʔsi:ti:sv:ki 'he was about to begin singing'

4.4.3. The propensitative: This stem indicates that the individual identified has a higher than average likelihood of performing the action or entering the state in question. It consists of the atonic perfective stem plus the suffix -ath- , as in (128).<sup>19</sup>

(128a) u:hno:ki:ʔsatha 'he is apt to sing'

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<sup>19</sup> The /a/ of the suffix -ath- is one of the instances of [ä] discussed in Chapter One (p. 7).

The propensitative stem takes the objective pronominal prefixes and forms its modal stem after the model of class G verbs, as we see in (128b).

(128b) u:hno:ki:ʔsathv:ki 'he was apt to sing'

## CHAPTER FIVE: MODAL SUFFIXES

5.0.0. Every Cherokee finite verb has a modal suffix. These are attached to the stems discussed in Chapter Four and reflect information about the speaker's level of certainty or expectation of the action or state denoted by the verb stem happening or having happened. In this chapter I discuss the modal suffixes and their interaction with each of the stems.

5.1.0. The stems of the regular Cherokee verb are discussed in detail in Chapter Four. They include the five aspect-stems and three derived stems. Their meanings and characteristics are reviewed below.

The imperfective stem views the action of the verb as an ongoing process. It takes the subjective pronominal prefixes, as in (129a).

(129a) a:tale:nfhskv:ki 'it was beginning'

The present stem views the action of the verb as an ongoing process at the time of the utterance. It takes the subjective pronominal prefixes, as in (129b).

(129b) a:tale:nfha 'it is beginning'

The perfective stem views the action of the verb as a completed action. It takes the objective pronominal prefixes, as in (129c).

(129c) u:tale:nvhv:ki 'it has begun'

The punctual stem views the action of the verb as a single event. It takes the subjective pronominal prefixes. The tonic form of this stem has a simple past time trans-

lation, as in (129d).

(129d) a:tale:na 'it began'

The atonic has an imperative translation, as in (129e).

(129e) wa:tale:ná 'let it begin'

The infinitive views the action of the verb stem as an abstract event. It takes the objective pronominal prefixes, as in (129f).

(129f) u:tale:hnti 'it has to begin'

The ta-future views the action of the verb as a single event in the future. It takes the subjective pronominal prefixes, as in (129g).

(129g) tv:tale:nvhi 'it will begin'

The pre-inceptive stem views the action of the verb as an event about to take place. It takes the objective pronominal prefixes, as in (129h).

(129h) u:tale:nvhi:ti 'it is about to begin'

The propensitative stem views the action of the verb as an event of some likelihood. It takes the objective pronominal prefixes, as in (129i).

(129i) u:tale:nvhatha 'it is apt to begin'

5.2.0. To facilitate the discussion of the modal suffixes and to provide data for possible alternative analyses, I give full conjugations of the first person singular of three verb bases below. The stems are -hne:- 'speak', a class E verb, -ahyu:?i:n- 'swim', a class F verb of motion, and -o:túhi 'be beautiful', an uninflectible verb which forms its modal forms by use of the copula ke:?s- 'be'.

5.2.1. The verb -hne:- 'speak' is an intransitive verb of class E. The paradigm below gives all of the first person singular forms of this base. The order of the stems is the same as the order of their presentation in Chapter Four. For the sake of completeness the conjugation includes the 'distributive' prefix te:-/ti-/to:- , giving the sense of speaking about several topics:

Imperfective stem: -hne:k-

- (130a) te:tsi?ne:kv:ki 'I was speaking'  
 (130b) te:tsi?ne:ke?i 'I must have been speaking'  
 (130c) te:tsi?ne:ke:sti 'I will be speaking'  
 (130d) te:tsi?ne:ko?i 'I speak'  
 (130e) te:tsi?ne:?kǎ:?i 'that I am/was speaking'  
 (130f) nite:tsi?ne:?kǎ:na 'that I not be speaking'

Present stem: -hne:k-

- (131) te:tsi?ne:ka 'I am speaking'

Perfective stem: -hne:ts-

- (132a) ta:khine:tsv:ki 'I have spoken'  
 (132b) ta:khine:tse?i 'I must have spoken'  
 (132c) ta:khine:tse:sti 'I will have spoken'  
 (132d) ta:khine:tso?i 'I have always spoken'  
 (132e) ta:khine:?tsǎ:?i 'that I have/had spoken'  
 (132f) nita:khine:?tsǎ:na 'that I haven't spoken'  
 (132g) yita:khine:?tσα 'if/whenever I speak'  
 (132h) ta:khine:tsǎhi '(that) I have spoken'

Punctual stem: -hne:ki

- (133a) tsi?ne:ki 'I spoke'

(133b) wititsi?ne:?ki 'let me speak!' (atonic)

Infinitive stem: -hne:?ihst-

(134a) ti:khiné:?ihsti 'I have to speak'

(134b) ti:khine?fhsti:yi 'for me to speak' (atonic)

ta-Future stem:

(135a) to:tatsi?ne:?tsi 'I will speak'

(135b) to:tatsi?ne:?tsi:sv:ki

'I was going to speak'

(135c) to:titsi?ne:?tsi:se?i

'I must have been going to speak'

(135d) to:titsi?ne:?tsi:se:sti

'I will be going to speak'

(135e) to:titsi?ne:?tsi:so?i

'I am always going to speak'

(135f) to:titsi?ne:?tsi:sv:?i

'that I am/was going to speak'

(135g) nito:titsi?ne:?tsi:sv:na

'that I am/was not going to speak'

Pre-inceptive stem: -hne:?tsi:t-

(136a) ta:khine:?tsi:ti 'I am about to speak'

(136b) ta:khine:?tsi:ti:sv:ki

'I was about to speak'

(136c) ta:khine:?tsi:ti:se?i

'I must have been about to speak'

(136d) ta:khine:?tsi:ti:se:sti

'I will be about to speak'

(136e) ta:khine:ʔtsi:ti:soʔi

'I am always about to speak'

(136f) ta:khine:ʔtsi:ti:sʋ:ʔi

'that I am/was about to speak'

(136g) nita:khine:ʔtsi:ti:sʋ:na

'that I am/was not about to speak'

(136h) ta:khine:ʔtsi:te:na 'just before I spoke'

Propensitative stem: -hne:ʔtsath-

(137a) ta:khine:ʔtsatha 'I am apt to speak'

(137b) ta:khine:ʔtsathv:ki 'I was apt to speak'

(137c) ta:khine:ʔtsathe:ʔi

'I must have been apt to speak'

(137d) ta:khine:ʔtsathe:sti 'I will be apt to speak'

(137e) ta:khine:ʔtsatho:ʔi 'I am always apt to speak'

(137f) ta:khine:ʔtsathʋ:ʔi 'that I am/was apt to speak'

(137g) nita:khine:ʔtsathʋ:na

'that I am/was not apt to speak'

5.2.2. The verb -ahyu:ʔi:n- 'swim' is a verb of motion of class F. It forms only the present stem and the single modal stem which we call the imperfective stem.

(138a) kaʔyu:ʔi:ni 'I am swimming'

(138b) kaʔyu:ʔi:ni:sv:ki 'I was swimming/swam'

(138c) kaʔyu:ʔi:ni:seʔi 'I must have been swimming'

(138d) kaʔyu:ʔi:ni:se:sti 'I will be swimming/swim'

(138e) kaʔyu:ʔi:ni:soʔi 'I swim (habitually)'

(138f) kaʔyu:ʔi:ni:sʋ:ʔi 'that I am/was swimming'

(138g) nikaʔyu:ʔi:ni:sʋ:na 'that I am/was not swimming'

5.2.3. The verb -o:túhi 'be beautiful' is an uninflectible verb. Except for the comparative construction discussed in Chapter Three (p. 65) these verbs do not take modal suffixes other than -i. They form their modal forms by use of the copula ke:ʔs- 'be'.

- (139a) a:kwo:túhi 'I am beautiful'  
 (139b) a:kwo:túhi ke:ʔsv:ki 'I was beautiful'  
 (139c) a:kwo:túhi ke:ʔse:ʔi 'I must have been beautiful'  
 (139d) a:kwo:túhi ke:ʔse:sti 'I will be beautiful'  
 (139e) a:kwo:túhi ke:ʔso:ʔi 'I am always beautiful'  
 (139f) a:kwo:túhi ke:ʔsʋ:ʔi 'that I am/was beautiful'  
 (139g) a:kwo:túhi nike:ʔsʋ:na 'that I am/was not beautiful'

5.3.0. The above paradigms give examples of all the uses of the modal suffixes except the occurrence of the suffix -a with punctual stems which was seen in many of the punctual forms in Chapter Four (cf. Chart 4). The occurrence of -a or -i as the suffix of the punctual is determined by the paradigm class and neither suffix contributes any identifiable meaning to the meaning of the verb form.

The above verb forms, excepting the participles (130e), (130f), (132e), (132f), (135f), (135g), (136f), (136g), (137f), (137g), (138f), (138g), (139f) and (139g), the infinitive, (134b), and the specialized perfective forms (132g) and (132h), are the verb forms which would occur in independent clauses. The suffix-accented varieties of all the above forms except the punctuals, (133a) and (133b), and the tonic infinitive, (134a), would occur in subordinate clauses.



The following discussion attempts to give a more complete idea of the meanings of the modal suffixes than is given by the glosses and to note any special uses of the modal suffixes other than that in subordinate clauses.

5.3.1. The suffix *-a* occurs with the present stem of non-motion verbs, with the propensitative stem, with the perfective stem and with some punctuals. With the first two stems it indicates that the action or state denoted by the verb stem is an objective fact. With the perfective stem and the prefix *y-* 'counterfactual' it forms the 'if' clause of conditional sentences (cf. p. 59), as in

(140) tsa:ni ki:hli yu:we:hlala, v:tsha yita:huhwihsko?i  
'if John feeds the dog, it doesn't bark'

This suggests the following analysis. Since the perfective stem refers to a completed action, the suffix which views the event as an objective fact combines with that stem and the counterfactual prefix to give the idea 'should the completion of X be a fact (i.e. if or whenever)'. This *-a* can then be taken to be the same morpheme as the *-a* with the present stem and with the propensitative stem. We label this morpheme 'indicative'.

The occurrence of the *-a* suffix with the punctual stem may be an instance of the indicative as well. However, since each punctual stem takes only a single suffix, there are no comparison forms to allow us to determine the contribution which this suffix makes to the meaning of the verb form. The *-a* suffix of the punctual cannot therefore be identified with

any certainty as the indicative morpheme.

5.3.2. A suffix *-i* occurs with the present stem of verbs of motion, with the ta-future, with the pre-inceptive stem, and with the un inflectible verbs. These suffixes are probably best analysed as two morphemes. The one suffix *-i* 'motion' occurs with verbs of motion and with the ta-future, as we see from the similarity of the formation of modal stems (cf. (135a) through (135g) and (138a) through (138g)). Both form their modal stems by adding an element *-s-* to the suffix *-i*. The ta-future (135) can thus be analysed as an idiom using the cislocative (cf. 3.1.6.) which can be translated literally as 'I am coming to ...' parallel to English 'I am going to ...' The *-i* of the pre-inceptive stem also forms its modal stem with the *-s-* element and can be analysed as another instance of *-i* 'motion', though the absence of any obvious sense of motion suggests that this is probably an extension from the ta-future rather than another idiom.

The *-i* with the uninflectible verbs does not form a modal stem and is thus distinct from *-i* 'motion'. We identify it with the *-i* suffix occurring in agent nominals, such as (141a), and with the *-i* of root nouns, such as (141b).

(141a) *khané:ki* 'speaker'

(141b) *kohwé:li* 'paper'

(cf. *kohwe:li?a* 'he is writing')

We gloss these uses as *-i* 'nominal'. This *-i* is seen in (139a) through (139g) and with the infinitive stem in (134a).

The absence of comparison forms makes it impossible to

identify the -i suffix of the punctuals with any confidence.

5.4.0. A set of six modal suffixes cooccurs with the imperfective stem, with the perfective stem, with the ta-future stem, with the pre-inceptive stem, and with the propensitative stem. I will refer to these as the primary modal suffixes. They are discussed below in the order that they appear in the paradigms..

5.4.1. -v:ki 'assertive': This suffix is used when the speaker claims knowledge of a situation. The meaning of forms with this suffix are generally past, since the only non-immediate facts about which one may assert knowledge are past situations. The exception to this is that with the perfective stem this suffix may also form a mild imperative, as in (142).

(142a) kv:ko?v:ki 'I'll see you'

(142b) sta:hyti te:hatahli:yvhv:ki 'fight hard'

This use is distinct from the perfect (cf. (132a)) in its choice of prefix. We see in (142b) that these forms choose the subjective prefixes in intransitive uses.

Except in the special use just discussed the usual translation for this suffix is an English past tense. It occurs in (130a), (132a), (135b), (136b), (137b), 138b) and (139b).

5.4.2. -e?i/-e:?i 'reportive': This suffix is used when the speaker is reporting or referring to situations of which he has no direct personal knowledge or when he is making negative statements about past situations. This is the suffix used in questions about past situations. When used with the first person pronominals, it carries the idea that the speaker

is reporting a situation of which he has no memory, as when seeing a film or photograph. This is the common suffix in non-personal narratives. The usual translation for forms with this suffix is an English past tense. It occurs in (130b), (132b), (135c), (136c), (137c), (138c) and (139c).

The choice between the allomorph of this suffix with the short vowel and that with the long vowel is conditioned by the stem to which the suffix is attached. The rule of thumb is that the short allomorph follows a long or accented vowel in the preceding syllable and that the long allomorph occurs elsewhere, but there are exceptions to this. Examples of the allomorph selection with this suffix are seen in the paradigms of Chapter Four. Stems which select the long allomorph of this suffix also select the long allomorph of the habitual (cf. 5.4.4. below) and stems which select the short allomorph of this suffix select the short allomorph of the habitual.

5.4.3.    -e:sti 'intentional': This suffix is used to state the speaker's intention or expectation, either positive or negative, as in (143)

(143a) tsi:ʔkhehi:se:sti 'I will chase him'

(143b) ʋ:tsha yitsi:ʔkhehi:se:sti 'I will not chase him'

It is also used to form periphrastic imperatives of the form 'you will do X!' The usual translation for forms with this suffix is an English future tense. It occurs in (130c), (132c), (135d), (136d), (137d), (138d) and (139d).

5.4.4.    -oʔi/-o:ʔi 'habitual': This suffix is used when the situation denoted by the verb stem is a consistent

fact or when this situation always obtains when some other condition occurs. This is reflected in the different translations in (144).

(144a) te:khano:ki:skoʔi 'he sings'

(144b) yikini:lu:htsa te:khano:ki:skoʔi

'whenever we come he is singing'

(144c) khanawo:ʔkoʔi 'he's always cold'

With the prepronominal n- 'partitive', which carries the idea 'already', and the perfective stem, this suffix gives a verb form which is usually translated as an English past perfect. With the imperfective stem it gives the same habitual sense as the English simple present. With other stems it gives a similar habitual sense. It occurs in (130d), (132d), (135e), (136e), (137e), (138e) and (139e).

As with the reportive suffix (cf. 5.4.2. above), the choice between the allomorph of this suffix with the short vowel and that with the long vowel is conditioned by the verb stem to which the suffix is attached. The rule of thumb is that the short allomorph follows a long or accented vowel in the preceding syllable and that the long allomorph occurs elsewhere, but there are exceptions to this. Examples of the allomorph selection with this suffix are seen in the paradigms of Chapter Four. Stems which select the long allomorph of this suffix also select the long allomorph of the reportive and stems which select the short allomorph of this suffix also select the short allomorph of the reportive.

5.4.5. -ʋ:ʔi 'participle': This suffix is used to

form subordinate clauses which are used in a number of syntactic functions, as absolutes, complements, and the like. With the auxiliary verb, *ke:ʔs-*, it is used to make a non-emphatic present, as in (145).

(145) *a:yó:hski ke:ʔsʋ:ʔi* 'he is a soldier'

The usual translation for forms with this suffix either an English 'that'-clause or an English participle, depending on the requirements of the English sentence. It occurs in (130e), (132e), (135f), (136f), (137f), (138f) and (139f).

5.4.6. *n- -ʋ:na* 'negative participle': This suffix never occurs without the prefix. It is used to form negative subordinate clauses with the same range of uses as those from *-ʋ:ʔi*. With the auxiliary verb, *ke:ʔs-*, it is used to form simple negative statements, such as (146).

(146) *a:yó:hski nike:ʔsʋ:na* 'he isn't a soldier'

The usual translation of forms with this suffix is either a negative 'that'-clause or a negated participle, depending on the requirements of the English sentence. It occurs in (130f), (132f), (135g), (136g), (137g), (138g) and (139g).

5.5. Three other modal suffixes appear in the paradigms. The suffix *-ʋhi* occurs with the perfective stem in (132h). This suffix forms a sort of perfect nominal with the focus on the actor rather than the action. For some younger speakers *-ʋhi* has replaced *-v:ki* as the 'assertive' suffix in all of the environments where *-v:ki* would occur.

The suffix *-e:na* occurs with the pre-inceptive stem to form a time adverbial which can be translated 'before X

happened'. This suffix can be analysed as the verb root -e:- 'go' plus its punctual suffix -na .

The suffix -i:yi occurs with the atonic form of the infinitive stem. Because the other uses of the infinitive stem can best be interpreted as finite verbs, this suffix is glossed as -i:yi 'infinitive'.

5.6. To summarize: The imperfective stem takes the primary modal suffixes. The present stem takes the suffix -a 'indicative' with non-motion verbs or the suffix -i 'motion' with verbs of motion. The perfective stem takes the primary modal suffixes, as well as the suffix -vhi , giving a quasi-nominal perfect, and the suffix -a 'indicative', giving a conditional form with the prefix y- 'counterfactual'.

Selection of the suffix with the punctual is determined by the verb stem. The infinitive stem takes the suffix -i 'nominal' and the suffix -i:yi 'infinitive'. The infinitive stem also serves as the causative-instrumental stem for most verbs (cf. 6.2.2. below).

The ta-future stem takes the suffix -i 'motion' and the primary modal suffixes. The pre-inceptive stem takes the suffix -i 'motion', the primary modal suffixes, and the suffix -e:na , giving a time adverbial. The propensitative stem takes the suffix -a 'indicative' and the primary modal suffixes.

## CHAPTER SIX: VERB BASES

6.0.0. The minimum finite verb form in Cherokee consists of a pronominal prefix, a verb root, an aspect suffix and a modal suffix. A maximum inflected form may have one or more prepronominal prefixes, a pronominal prefix, a complex verb base, an aspect suffix and a modal suffix. This chapter examines the structure of the verb base.

6.0.1. The Cherokee verb base may be made up of a number of elements, including a reflexive morpheme, one or two noun roots, one or two verb roots, a causative-instrumental morpheme, and one or more sequences of perfective stem marker plus derivational suffix.

6.0.2. No verb form in my data includes all of these possible elements together, but the following examples give instances of the various possibilities.

(147a) katawo:ʔa 'I am bathing'

< -ata- 'reflexive' + -wo:- 'bathe'

(147b) tsikoʔwthiha 'I see it'

< -koh- 'see' + -wahth- 'catch sight of'

(147c) tsikʔihsto:ʔa 'I am chewing'

< -kʔ- 'eat' + -hsto:- 'grind'

(147d) kakvʔskwo:ʔa 'I am washing my face'

< -a- 'reflexive' + -kvh- 'face' +  
-hsk- 'head' + -wo:- 'wash, bathe'

(147e) kane:hso:ʔohska 'it is hailing'

< -ne:hs- 'ice, crystal' + -oʔo- 'fall'



- (147f) kaʔlskuhwska 'I am nodding'  
 < -ali- reflexive' + -hsk- 'head' +  
 -uw- 'shake'
- (147g) tsiki:hliyo:ʔka 'I am suffering'  
 < -ki:hli- 'dog' + -yo:ʔ- 'become'
- (147h) tsi:ya:kwav:ʔniha 'I am spanking him'  
 < -a:kwav- 'buttocks' + -v:n- 'hit'
- (147i) tsiʔne:ʔihstiha 'I am talking about it'  
 < -hne:- 'speak' + -ihst- 'instrumental'
- (147j) ke:to:ʔli:to:ha 'I am loafing'  
 < -e:- 'be, go' + -i:to:ʔl- 'ambulative'  
 -i:to:- 'ambulative'

6.1.0. The various elements of the verb base are used at varying levels of productivity. The following paragraphs treat each of these elements briefly. The classificatory verbs of Cherokee are handled in Chapter Nine.

6.1.1.0. The 'reflexive' morpheme -a-/-ata-/-ali-/-atata- has a number of functions in the language. The primary one is to fill out the pronominal paradigm by indicating action of an entity on itself, so that beside (148a) we have (148b).

- (148a) a:kohwthiha 'he sees him'  
 (148b) a:takohwthiha 'he sees himself'

Reciprocal action is indicated by the use of the prefix te:- 'distributive' along with the reflexive, so that we have the contrasting forms of (149)

- (149a) i:ntakohwthiha 'you & I see ourselves'

(149b) té:ntakohwthíha 'you & I see each other'

Note that both of these reflexive forms take the intransitive (subjective) prefix i:n- 'you & I'

The reflexive is also used to detransitiveize some verb stems, as in (150).

(150a) kv:ki:ʔa 'I am unraveling it'

(150b) a:tv:ki:ʔa 'it is unraveling'

Some verbs contain frozen reflexives, whose function is no longer perceived, as in (151).

(151a) nikahlstiha 'it is happening'

-ali- 'reflexive' + -hst- 'cause (?)'

(151b) nikatv:neha 'I am doing it'

-ata- 'reflexive' + -v:ne- 'make (?)'

With both of these verbs the n- 'partitive' is obligatory.

6.1.1.1. The basic conditioning factor in the choice between the -ata- and -ali- allomorphs is the stem-initial phoneme. The -ali- allomorph occurs before laryngeals, as in (147f) and (151a). Elsewhere the -ata- allomorph occurs, as in (147a) and (151b). This latter allomorph loses its final /a/ before vowel-stems, as in (151b) (cf. rule (11) p. 29).

6.1.1.2. The allomorph -a- occurs with a middle voice sense with some verbs, as in (147d). The allomorph -atata- also has a middle voice sense in some of its occurrences which is difficult to translate, as in (152a).

(152a) katata:kohwthíha 'I he is seeing it for himself'

I have these latter only as elicited words. The other common use of -atata- is in reciprocals, such as (152b).

(152b) tata:ʔntata:kohi 'I'll be seeing you'

(lit. 'you & I will be seeing each other')

The reduced form ta- of the distributive prefix is more common in this phrase than to:- .

6.1.2. Noun incorporation is no longer productive in Cherokee. Its use is restricted, in North Carolina, to body parts, as in (147d) and (147h), and a few items of clothing, as in (153).

(153a) te:kalá:ʔsuhlahska 'I am putting on shoes'

(cf. ti:láhsu:lohi 'shoes')

(153b) kaʔlškwe:thuhska 'I am putting on a hat'

(cf. a:hlskweʔthawohi 'hat')

There are a few verbs with no longer recognized incorporated nouns which function as idioms. The most important of these are the classificatory verbs discussed in Chapter Nine. For modern Cherokee, it is simplest to enter all stems with incorporated nouns in the lexicon as separate entities.

6.1.3. Verb stem compounding is likewise not a highly productive process. Examples of this process are (147b) and (147c) and the classificatory verbs of Chapter Nine. Again, it is simplest to enter compound stems in the lexicon as single units.

6.2.0. Derivation of new verb bases by the use of the derivational suffixes is a highly productive process in Cherokee. These suffixes can be attached to almost any semantically compatible verb to form a derived stem of predictable meaning. The derivational suffixes are in some cases traceable

to older verb roots and in others to the derivational morphology of Proto-Iroquoian.

The derivational suffixes are:

-ki:-	'reversive (inflective)'
-ihst-//etc.	'causative instrumental'
-e:-/-hsi	'dative'
-e:-/-u:ʔka	'approaching'
-hi-	'purposive'
-hiʔs-	'reiterative'
-i:to:-/-i:ta	'ambulative'
-ilo:-	'repetitive'
-ohn-	'completive'

Of these suffixes, the dative and causative-instrumental stand apart as altering the case frame (cf. Fillmore 1968, p. 27) associated with the verb. When either of these is added to a verb it transitivezes the verb, if it is intransitive, and specifies the case role of the object as either dative-object or instrumental-object, respectively. The verbs to which they are attached, therefore, always have transitive prefixes, as we see in (154).

(154a) tsa:ni tsi:lo:ʔeha 'I am breaking it for John'

(cf. tsu:lâhski tsilo:ʔa 'I am breaking the pot')

(154b) tsu:lâhski tsilo:ʔihstiha 'I am breaking the pot  
with it/it with the pot'

Several of these suffixes, probably because of the complex nature of their origins, do not fit neatly into the regular conjugation classes. The alternations and meanings of the

derivational suffixes are discussed below.

6.2.i. -ki:- 'reversive (inflective)': This morpheme is attached directly to the base, except that with consonant-final bases an epenthetic /a/ is inserted. It follows the B5 conjugation class (cf. Chart 4). With the verb -u:- 'be in the water' it gives the forms of (155).

- (155a) ku:ki:sko?i 'he takes it from the water'  
 (155b) ku:ki:?a 'I am taking it from the water'  
 (155c) u:wu:ki:se?i 'he has taken it from the water'  
 (155d) hu:ki 'you took it from the water'  
 (155e) a:kwu:ki:sti 'I have to take it from the water'

The meaning of the morpheme is that the action or state denoted by the verb is reversed or undone. Another example is (156).

- (156) kohwe:laki:?a 'he is erasing it'

(cf. kohwe:li?a 'he is writing')

6.2.2. -ihst-//etc. 'causative-instrumental': This morpheme is attached directly to the verb base. It is identical with the infinitive stem suffix for the base. This morpheme takes the aspect suffixes of class A3 except that it has -a:?n- in the perfective. With the verb -ohwe:l- 'write' which takes the causative-instrumental suffix -o?t- it gives the forms of (157).

- (157a) kohwe:ló?tihsko:?i 'he writes with it'  
 (157b) ko?we:ló?tiha 'I am writing with it'  
 (157c) u:wohwe:ló?ta:?ne:?i 'he has written with it'  
 (157d) hohwe:ló?ta 'write with it!'  
 (157e) a:kwohwe:ló?tohti 'I have to write with it'

The meaning of the morpheme is that the action of the verb base is performed by the subject--indirectly--through the manipulation of the object. Thus, in (157) above the action is the same as that denoted by (158), etc.

(158) kohwe:liʔskoʔi 'he writes'

In (157), however, there is specific reference to the instrument, not made in (158), and the object--if expressed--is a writing instrument rather than the item written. If the prefix denotes an animate object then it is understood that the object, rather than the subject, is the actual performer of the action, as in (159).

(159a) kohwe:lɔʔtihsko:ʔi 'he makes him write'

(159b) tsi:yoʔwe:lɔʔtiha 'I am making him write'

6.2.3. -e:-/-hsi 'dative': This morpheme is attached to the atonic perfective stem of the verb, with the adjustments noted below. It gives the following suffix set: -eh- , -eh- , -e:l- , -hsi , -eht- (imperfective, present, perfective, punctual, infinitive). With the verb -hwi- 'plant' we get the forms of (160).

(160a) a:hwihscho:ʔi 'he plants for him'

(160b) tsi:ʔwihseha 'I am planting for him'

(160c) u:hwihscho:leʔi 'he has planted for him'

(160d) hi:ʔwihsihsi 'plant for him!'

(160e) a:khiwihsehti 'I have to plant for him'

Verbs of classes A2 and A3 lose the /n/ of the perfective stem when adding the dative punctual suffix, as we see in (161).

(161a) kohwe:laʔneho:ʔi 'he writes for him'

(161b) hi:yo?we:la?si 'write for him!'

Verbs of classes D2 through D5 add the dative suffixes to a special stem formed by adding /s/ to the imperfective stem, as we see in (162).

(162a) a:hyohihseho:?i 'he brings it for him'

(cf. a:hyo?hiho:?i 'he brings it')

(162b) hi:?yohihsi 'bring it for him!'

Class B1 verbs, with the -h- perfective suffix, lose their base-final /e/ to metathesis when the dative suffix is added, as we see in (163).

(163a) tsi:?sto:hyeha 'I am shaving for him'

(cf. tsi:?sto:yeha 'I am shaving him')

(163b) hi:?sto:hyihsi 'shave for him!'

The meaning of the morpheme is that the action of the verb is performed by the subject for the benefit of the animate object.

6.2.4. -e:-/-u:?ka 'approaching': This morpheme is attached to the atonic perfective stem. In all its forms but the punctual it follows the pattern of the verb -e:- 'go'. It gives the following suffix set: -e:k- , -e:k- , -e:?s- , -u:?ka , -v?st- . With the verb -hne:- 'speak' it gives the forms of (164).

(164a) khane:?tse:ko?i 'he goes there to speak'

(164b) tsi?ne:?tse:ka 'I am going there to speak'

(164c) u:hne:?tse:?se?i 'he has gone there to speak'

(164d) hihne:?tsu:?ka 'go there to speak!'

(164e) a:khine:?tsv?sti 'I have to go there to speak'

The meaning of the morpheme is that the subject is going to

a known location to perform the action of the verb.

6.2.5. -hi- 'purposive': This morpheme is attached to the atonic perfective stem. It follows a modified D3 conjugation, having -l- in the perfective and -hihst- in the infinitive. With the verb -hne:- 'speak' it gives the forms of (165).

- (165a) khane:ʔtshihho:ʔi 'he comes here to speak'  
 (165b) tsiʔne:ʔtshihha 'I am (coming) here to speak'  
 (165c) u:hne:ʔtshile:ʔi 'he has come here to speak'  
 (165d) hihne:ʔtshi:ka 'come here to speak!'  
 (165e) a:khine:ʔtshihsti 'I have to come here to speak'

The meaning of the morpheme is that the subject is at or comes to the place of reference for the purpose of performing the action of the verb.

6.2.6. -hiʔs- 'reiterative': This morpheme is attached to the atonic perfective stem. It follows the A3 conjugation, but has -a:ʔn- in the perfective and -aʔst- in the infinitive. With -hne:- 'speak' it gives the forms of (166).

- (166a) khane:ʔtshiʔsihsko:ʔi 'he reasserts it'  
 (166b) tsiʔne:ʔtshiʔsiha 'I am reasserting it'  
 (166c) u:hne:ʔtshiʔsa:ʔne:ʔi 'he has reasserted it'  
 (166d) hihne:ʔtshiʔsa 'reassert it!'  
 (166e) a:khine:ʔtshiʔsaʔsti 'I have to reassert it'

The meaning of the morpheme is that the action of the verb is repeated for emphasis or in an improved manner.

6.2.7. -i:to:-/-i:ta 'ambulative': This morpheme is attached to the atonic perfective stem. It has its own aspect



suffixes, giving the suffix set: -i:to:h- , -i:to:h-- ,  
-i:to:ʔl- , -i:ta , -i:taʔst- . With the verb -nohl- 'look  
fer' it gives the forms of (167).

- (167a) kanohli:to:ho:ʔi 'he hunts'  
 (167b) tsinoʔli:to:ha 'I am hunting'  
 (167c) u:nohli:to:ʔle:ʔi 'he has hunted'  
 (167d) hinohli:ta 'hunt!'  
 (167e) a:kinohli:taʔsti 'I have to hunt'

The meaning of the morpheme is that the subject is going about performing the action of the verb in various places. An amusing derivation using this suffix is seen in (168).

- (168) ti:ne:ʔsi:to:ʔli:tó:hi 'tourists'  
 < -e:ʔs- 'go' + -i:to:ʔl- 'ambulative' +  
 -i:to:h- 'ambulative' + -i 'nominal'

This reflects the Cherokee perception of the tourists, and is the only example I have found of this sort of double derivation, adding the morpheme to itself. This is the same as (147j).

6.2.8. -ilo:- 'repetitive': This morpheme is attached to the atonic perfective stem. It follows the B3 conjugation. With the verb -hne:- 'speak' it gives the forms of (169).

- (169a) khane:ʔtsilo:skoʔi 'he speaks repeatedly'  
 (169b) tsiʔne:ʔtsilo:ʔa 'I am speaking repeatedly'  
 (169c) u:hne:ʔtsilo:ʔeʔi 'he has spoken repeatedly'  
 (169d) hihne:ʔtsilo:tša 'speak repeatedly!'  
 (169e) a:khine:ʔtsilo:sti 'I have to speak repeatedly'

The meaning of the morpheme is that the action of the verb is performed repeatedly.

6.2.9. -ohn- 'completive': This morpheme is attached to the atonic perfective stem and conjugates as a modified C5, taking -a in the punctual and -hst- in the infinitive. With the verb -hne:- 'speak' it gives the forms of (170).

- (170a) khane:ʔtsohvsko:ʔi 'he finishes speaking'  
 (170b) tsiʔne:ʔtsohvaska 'I am finishing speaking'  
 (170c) u:hne:ʔtsohne:ʔi 'he has finished speaking'  
 (170d) hihne:ʔtsohna 'finish speaking!'  
 (170e) a:khine:ʔtsōhvhti 'I have to finish speaking'

The meaning of the morpheme is that the action of the verb reaches an end point.

6.2.10. The suffixes occur relative to one another in the order in which they have been discussed. Examples of stems with more than one derivational suffix are seen in (171).

- (171a) te:ku:ki:ʔseha 'I am taking it out of the water for him' (reversive + dative).  
 (171b) tsiʔne:ʔtse:le:ka 'I am going there to speak for him' (dative + ambulative)  
 (171c) khane:ʔihsta:ʔnilo:skoʔi 'he speaks about it repeatedly' (instrumental + repetitive)  
 (171d) ta:hne:lohna 'he finished giving them to him' (dative + completive)

There are a few exceptions to this order, such as (172).

- (172) tsi:yv:ʔsohne:lv:ki 'I have finished weaving it for him' (completive + dative)

We tentatively consider these forms to represent a second pass through the derivational morphology, such as that in (168).

## CHAPTER SEVEN: NOUNS

7.0. Cherokee nouns are of four basic types, uninflected nouns, nouns which identify animate beings and inflect for number only, body part words and kin terms which inflect for possessor, and deverbal nouns. All of the last three types use the inflectional morphology already described for the verb.

7.1. The uninflected nouns are the names of concrete objects, such as animals, plants and land forms, as in (173).

(173a)	wa:hka	'cow'
(173b)	áhwí	'deer'
(173c)	tsi:ʔskwa	'bird'
(173d)	kaʔltso:te:	'house'
(173e)	nv:nóhi	'road'
(173f)	tsi:yu	'poplar'
(173g)	se:ti	'walnut'
(173h)	e:kwo:na	'river'

These do not inflect for number and their number is only seen in the inflection of the associated verb, as in (174) and (175).

(174a)	wa:hka tsikoʔwthíha	'I see a cow'
(174b)	wa:hka te:tsikoʔwthíha	'I see cows'
(174c)	wa:hka a:kikohwthíha	'the cow sees me'
(174d)	wa:hka kv:kikohwthíha	'the cows see me'
(175a)	kaʔltso:te: skhine:skheha	'I am building you a house'
(175b)	kaʔltso:te: tehskhine:skheha	'I am building you houses'

7.2.0. Many nouns denoting animate beings inflect for number using the respective third plural subjective or objective pronominal prefix, as in (176) through (178).

- (176a) a:ke:hya 'woman'  
 (176b) a:ni:ke:hya 'women'  
 (177a) a:tshú:tša 'boy'  
 (177b) a:ni:thsú:tša 'boys'  
 (178a) u:kǎ:nowa 'democrat'  
 (178b) u:ni:kǎ:nowa 'democrats'

These nouns will be carried in the lexicon with an indication of whether they take the subjective or objective prefixes.

7.2.1. Nouns which are family names are in this category, as in (179).

- (179a) a:tsi:lató:ʔohski 'Chiltoskey'  
 (lit. 'falling flower')  
 (179b) a:ni:tsi:lató:ʔohski 'the Chiltoskeys'

7.2.2. Nouns from the uninflected category are drawn into this class when they are used as designations for members of a clan or other formally structured group. We see this in the distinction between the sentences of (180).

- (180a) tsi:ʔskwa te:tsikoʔwthfha 'I see some birds'  
 (180b) a:ni:tsi:ʔskwa katsi:koʔwthfha 'I see some  
 (members) of the Bird Clan'

7.3.0. Body part words and kin terms are inflected for possessor. The grammatical devices are different for the two.

7.3.1.0. Body parts, like the animates above, are marked in the lexicon as taking either the subjective or objective

designate the possessor, as we see in (181), with the subjective prefixes, and (182), with the objective prefixes.

- (181a) tsi:ye:satv:ʔi 'my finger'  
 (181b) tsineʔske:ni 'my leg'  
 (181c) tsiʔo:li 'my mouth'  
 (182a) a:kiye:satv:ʔi 'my knuckle'  
 (182b) a:kwoye:ni 'my hand'  
 (182c) a:kina:hwi 'my heart'

The examples of (181) and (182) show that there is no correlation between the suffix morphology and prefix selection. There are some limited semantic generalizations, but these are so specific as to be unenlightening. For the interested I include a list of body parts in Appendix A (p. 193).

7.3.1.1. Number in body parts is indicated by the use of the distributive prefix to indicate plurality. Those body part terms ending in the participle suffix *-v:ʔi* (cf. 5.4.5.) take the pre-verbal alternant *te:-/t-*, while those terms ending in *-ni* or *-li*, with the nominal suffix *-i*, take the pre-nominal alternant *ti-/ts-*. This is the selection described by rule (48) (p. 69). We see examples of these in (183) and (184) (cf. (181) and (182)).

- (183a) te:tsi:ye:satv:ʔi 'my fingers'  
 (183b) ta:kiye:satv:ʔi 'my knuckles'  
 (184a) titsikʔtho:li 'my eyes'  
 (184b) ti:kwo:ye:ni 'my hands'

7.3.2.0. Kin terms take the transitive prefixes.<sup>20</sup> In all cases recorded in my data, except for the word for the

brother of a male, the prefix marks ego as the subject and the kinsman as the object. Thus we have (185) and (186).

- (185a) a:kwe:tsi 'my child'  
 (185b) u:we:tsi 'his child'  
 (186a) a:kito:ta 'my father'  
 (186b) u:to:ta 'his father'

7.3.2.1. The terms for kinsmen of ego's generation and below take the prefixes denoting indefinite subjects, 49 through 54 in Chart 1, for non-third person possessors of those kinsmen, as in (187).<sup>21</sup>

- (187a) v:kilv:ʔi 'my sister (female ego)'  
 (cf. u:lv:ʔi 'her sister')  
 (187b) v:kitóhi 'my sister (male ego)'  
 (cf. u:tóhi 'his sister')  
 (187c) v:kiwi:ni 'my nephew'

7.3.2.2. Some older speakers who still control the full system of inflection for kin terms will produce address forms such as (188) with prefix 58.

- (188) skito:ta 'father' (lit. 'thou (who art) father  
 (lit. 'thou (who art) father to me')

For most speakers in my sample, however, the kin terms simply take the objective prefixes for possessor and the address form

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<sup>20</sup> For a detailed analysis of a related kinship system from a Northern Iroquoian language, see Floyd Lounsbury's (1968) 'The structural Analysis of Kinship Semantics'.

<sup>21</sup> Since this is a discussion of the grammar, rather than the ethnology, of Cherokee kin terms, some of the glosses are very informal and do not show the actual range of the word.

takes a special prefix e:- as in (189).

(189) e:to:ta 'father'

7.3.2.3. The term for the brother of a male is normally a reciprocal construction with the intransitive (subjective) dual or plural pronominal plus the reflexive and the pre-nominal allomorph ti-/ts- of the distributive, as in (190).

(190a) tsohstahlinv:tshi 'my brother'

(190b) tso:tsahlinv:tshi 'my brothers'

7.3.2.4. Plurality of kin terms is, except in the above case, shown by the pre-nominal allomorph ti-/ts- of the distributive prefix, as in (191).

(191a) tsu:lv:ʔi 'her sisters'

(cf. u:lv:ʔi 'her sister')

(191b) ti:kitu:ʔtu 'my uncles'

(cf. a:kitu:ʔtu 'my uncle')

7.4. Deverbal nouns are of two types, agentives and instrumentals. Agentives are formed by adding the suffix -i 'nominal' to the tonic form of the imperfective stem, as in (192).

(192a) tikhano:kf:ski 'singer'

(cf. te:khano:ki:skoʔi 'he sings')

(192b) ti:nohwe:lf:ski 'scribes'

(cf. ta:nohwe:liʔskoʔi 'they write')

Note that agentives also select the ti-/ts- pre-nominal allomorph of the distributive prefix, as described by rule (48) (p. 69), but indicate plurality by the pronominal.

Instrumentals are formed on the tonic infinitive stem,

which is the causative-instrumental verb base (cf. 6.2.2.) by adding the suffix *-i* 'nominal', as in (193).

(193a) a:hst6:sti 'pounder'

(cf. a:hsto:stiha 'he is pounding with it' or

u:hso:ʔstf:yi 'for him to pound')

(193b) tikohwe:l6ʔti 'pencil, pen'

(cf. kohwe:loʔtiha 'he is writing with it' or

u:wohwe:loʔtf:yi 'for him to write')

Note that the instrumentals take the third singular subjective prefix and the pre-nominal allomorph *ti-/ts-* of the distributive prefix, but that the distributive does not pluralize the noun. The distributive indicates plurality of the object operated on by the instrument, so that (193b) might be translated something like 'to write them with'.



## CHAPTER EIGHT: SYNTAX

8.0.0. The discussion of Cherokee syntax in this chapter is divided into two stages. The first stage deals with the syntax of simple sentences. The second stage deals with processes which modify simple sentences, such as negation and interrogation, and processes which involve more than one sentence, such as conjunction, gapping, complementation and relative clause formation.

8.0.1. The syntactic framework used here is a simple version of Charles Fillmore's case grammar, as presented in 'The Case for Case' (Fillmore, 1968) and in his course at the 1970 Linguistic Institute at The Ohio State University.

Fillmore characterizes case grammar as having the following properties:

The propositional core of simple sentences consists of a predicator (verb, adjective or noun) in construction with one or more entities, each of these related to the predicator in one of the semantic functions known as (deep structure) cases. The cases identify the roles which the entities serve in the predication, these roles taken from a repertory defined once and for all for human languages and including that of the instigator of an action, that of the experiencer of a psychological event, that of an object which undergoes change or movement, that of the location of an event, and so on...

The cases exist in a hierarchy and this hierarchy serves to guide the operation of certain syntactic processes, in particular that of subject selection. It figures in subject selection by determining which noun-phrase is to become the subject of the sentence in the "unmarked" instance. That case in the sentence which, according to the hierarchy of cases, outranks the others, is the one which has the noun-phrase it is associated with selected as the subject of the sentence.

Certain predicators have their own lexically determined subject choices, and there are furthermore certain subject choices provided by the language--among them that

provided in English by the passive transformation. A grammar must therefore provide some way of reranking the cases for particular sentences...

The surface cases in case languages, the prepositions or postpositions or other syntactic function indicators in other languages, are determined by various sorts of information about the sentence, just one of these being the identity of the deep structure cases...

(Fillmore 1970, pp. 4-6)

In the following discussion, I shall refer to the following deep structure cases essentially as Fillmore (1970) has defined them: Agentive (A), the instigator of an action; Experiencer (E), the perceiver of a psychological state or event; Instrumental (I), the immediate cause of an event; Objective (O), the entity which is in a state or condition, or which is acted on; Goal (G), the entity (or location) toward which an action is directed.

I shall refer to the surface cases in Cherokee as Subject Case (Sbj), the case of the noun coreferent with the pronoun in the subject slot of the pronominal prefix, and Object Case (Obj), the case of the noun coreferent with the pronoun in the object slot of the pronominal prefix (cf. 8.1.2. below).

8.0.2. The cases are labeled Subject Case and Object Case so as to continue the traditional terms and to reflect the distinction between the Iroquoian subjective and objective prefixes. The case relationships in the prefixes are summarized in Chart 1 (p. 22).

It would be easy to become embroiled in a discussion of the proper case name to assign to the two slots marked by the pronominal prefix. The label pairs nominative and accusative,

nominative and oblique, or nominative and ergative all come to mind. It is my opinion that, when and if new labels are chosen, the distinction described by Fillmore (1968, p. 54) for Dakota, between active and inactive, most nearly fits the facts of Cherokee. Lipkind expresses this active-inactive distinction in Winnebago grammar in terms of active and neutral verb stems. 'Two kinds of verb stems are distinguished by the use of different subject pronouns: (a) verbs expressing an activity and (b) neutral verbs which express a state or condition and take as subjects the pronouns otherwise used as the objects of active verbs.' (1945, p. 22)

The similarity is obvious and I shall not argue the point here. I only note, in passing, that such a similarity to Dakota or Winnebago reflects an interesting, and perhaps significant, continuation of a world view over several millennia of Siouian-Iroquoian divergence.

8.1.0. A simple sentence in Cherokee consists of a finite verb and its associated nouns. The simplest non-elliptical sentence is a fully inflected finite verb form such as (194).

(194) te:khano:ki:ʔa 'he is singing'

The following discussion deals with the mapping of deep structure cases into surface cases in simple sentences.

8.1.1. The discussion of the mapping of deep structure cases into surface cases requires first a discussion of surface case in Cherokee. The following discussion will establish the nature of surface case and surface case marking.

8.1.2. When one thinks of surface case, he usually thinks of languages like Latin or Russian or others with nouns morphologically marked for case. This is not the situation in Cherokee.

Cherokee nouns are not morphologically marked for any case but locative. The case of the noun is defined by the pronominal prefix of the verb. The pronominal prefixes connect two person-number-gender complexes, which I shall call pronouns. The prefixes indicate the case relations between the pronouns they connect as summarized in Chart 1 (p. 22). Thus both the prefixes tsi:- and a:ki- connect first person and third person singular animate, but in (195a)

(195a) tsa:ni tsi:ko?wthiha 'I see John'

the prefix tsi:- has the first person in Sbj and the third person in Obj, while in (195b)

(195b) tsa:ni a:kikohwthiha 'John sees me'

the prefix a:ki- has the third person in Sbj and the first person in Obj.<sup>22</sup>

8.1.3. In most Cherokee sentences context, person and number add various redundancies, which make clear which noun is coreferent with which pronoun. In these sentences word order is fairly free. That is to say, in transformational terms, movement transformations may apply freely.<sup>23</sup>

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<sup>22</sup> Note that in both (195a) and (195b) there is no independent word for the first person singular. As in the other Iroquoian languages, there are independent (i.e. unbound) first and second person pronouns, but these appear on the surface only as bearers of special emphasis

Where the redundancies do not make the mapping between noun and pronoun unambiguous, it is defined syntactically. The limiting case then, for determining the word order of the Cherokee sentence before movement transformations have applied, is the set of sentences which lack all disambiguating redundancies. In the immediately following discussion, I shall consider those sentences which involve only third person human participants.

8.1.4. Verbs involving only two participants are straightforward as to their case assignment. Let us consider the verb stem *-kohwthíha* 'E(xperiencer) see(s) O(bject)'. As we see from (196),

(196) *kv:ko'wthíha* 'I see you'

E is assigned to the Sbj pronoun of the prefix, *kv:-* '1 sg Sbj--2 sg Obj', and O is assigned to the Obj pronoun. In the case of two third person participants then, the name of the E participant will map into the Sbj and the name of the O participant will map into the Obj. In (197a)

(197a) *tsa:ni a:kohwthíha tsi:mi* 'John sees Jim'

the prefix, *a:-* '3 sg Sbj--3 sg Obj', connects two third

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<sup>23</sup> In his thesis Jorge Hankamer (1973) discusses restrictions on transformations which prevent their application when the resulting surface structures are ambiguous. There are restrictions of a similar sort on movement transformations in Cherokee. Movement transformations may apply only when discourse context or person-number relations prevent ambiguity of the resulting surface structure. Possibly this is simply the result of the relationship between movement rules and focus assignment in ways similar to those discussed by Hankamer (p. 137ff.). I have not yet investigated these questions in sufficient detail to provide an explicit statement of the restrictions on movement transformations in Cherokee.

singular pronouns. Where both nouns are human, the syntax places the noun coreferent with the Sbj pronoun first and the noun coreferent with the Obj pronoun second. Note that in (197b)

(197b) tsa:ni tsi:mi a:kohwthfha 'John sees Jim'

the same order holds. In other words, the syntax must place the Sbj NP first and the Obj NP second in the initial word ordering. Note further that it is not the deep structure case which governs the surface order of NPs. In (198)

(198a) tsi:mi u:kohwthfha tsa:ni 'Jim is seen by John'

(198b) tsi:mi tsa:ni u:kohwthfha 'Jim is seen by John'

the prefix u:- '3 sg Sbj acted on by 3 sg Obj' changes the map of E and O into Sbj and Obj, requiring a different order of E and O, but the Sbj-Obj order of NPs stays the predicted one.<sup>24</sup>

Sentences involving three participants also have the Sbj-Obj order. Let us take the verb -ahseheha 'A show O to E' ( -ahseh- 'A point out O'). In (199)

(199) u:kv:wiyuhi kv:ʔyseheha 'I'm showing you the chief'  
we see that the prefix puts A in Sbj and E in Obj. Likewise, in (200)

(200a) tsa:ni a:hseheha me:li u:kv:wiyuhi

(200b) tsa:ni me:li a:hseheha u:kv:wiyuhi

(200c) tsa:ni me:li u:kv:wiyuhi a:hseheha

'John is showing Mary the chief'

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<sup>24</sup> This gloss will be revised in the discussion of object focus, but the basic relations are accurately reflected.

with the prefix a:- , we note that the three possible sequences all have the order Sbj-Obj, with the NP which is not coreferent with either slot of the pronominal third. We shall therefore take the word order of simple sentences before movement transformations have applied--the order on which coreference relations and pronominal prefix selection depend--to be Sbj-Obj-NP.

8.1.5. The position of the verb in the initial simple sentence word order is more difficult to establish. We can see from (197) through (200) that surface structures can have the verb in any non-initial position, with respect to the accompanying NPs.

With respect to the ususally invoked indicators of underlying word order, Cherokee behaves like a verb-first (SVO or VSO), rather than verb-last (SOV) language. That is to say, Cherokee gaps verbs right, has the conjunction preceding the last member of a conjoined sequence and puts relative clauses after their nouns.

In his article 'English as a VSO Language' McCawley (1970) argues that English, which has surface SVO order, can be more efficiently described if it is treated as an underlying VSO language. The basic argument is that if the underlying word order in English is SVO, certain processes, in particular passive formation, require extra extra movement rules in their formulation. The assumption of VSO underlying word order for English, on the other hand, allows the formulation of these processes as single movement rules. Several

processes in Cherokee, including topicalization and question formation, are similarly simplified by the assumption of an underlying VSO word order for Cherokee.

Since the VSO word order also conveniently matches the notational conventions of case grammar, I shall assume that Cherokee has underlying VSO word order with a late rule to prepose the NP immediately following the verb. Those cases in which such preposing fails to occur can then be handled in the entry conditions of the rule. The rule will be roughly of the form

$$(201) \quad \begin{array}{cccc} X & V & NP & Y \\ \hline 1 & 2 & 3 & 4 \end{array} \quad \Rightarrow \quad 1 \ 3 \ 2 \ \emptyset \ 4$$

with the condition that X not be any of the several elements which block the fronting. We see from the alternate versions of (197), (198) and (200) that rule (201) can apply to its own output.

8.1.6. Rule (201) explains one otherwise strange fact. With certain adjectives (the uninflectible verbs of 5.2.3.) the copula is required to bear emphasis or modal inflection. These verbs fail to front their NP in just those instances where the copula is required, so that we have (202)

(202a) me:li u:yo:hsiha 'Mary is hungry'

(202b) me:li u:yo:hsihskv:ki 'Mary was hungry'

with the NP fronted in both cases, but in (203)

(203a) me:li u:wo:túhi 'Mary is beautiful'

(203b) u:wo:túhi ke:ʔsv:ki me:li 'Mary was beautiful'

with the required copula, the NP does not front in (203b).

This is also the case with derived negative adjectives, such



as nu:hska?senv:na 'brave' (lit. 'unafraid'), which are already inflected for mode and thus require the copula to bear further modal inflections. We thus have (204).

(204a) tsa:ni nu:hska?senv:na 'John is brave'

(204b) nu:hska?senv:na ke:?sv:ki tsa:ni 'John was brave'

If the underlying order in Cherokee were SVO, a rule would be required to obligatorily place the NP after the copula. If on the other hand the order is VSO and the NP is fronted in those cases where this happens by rule (201), the phenomenon is already explained since the insertion of the copula causes the sentence to fail to meet the structural description (SD) of the rule which would have fronted the NP.

The copula in these sentences requires a bit more comment. Sentences (203c) and (204c)

(203c) a:kwo:túhi ke:?sv:ki 'I was beautiful'

(204c) na:khska?senv:na ke:?sv:ki 'I was brave'

show that the copula does not agree with the subject NP.<sup>25</sup>

In (203c) and (204c) the subject NP is first singular, but the prefix of the copula is k- 'third singular subjective'.

In fact the copula takes no other prefix. This suggests that these sentences are complex in structure and might more literally be glossed as (203d) and (204d), respectively.

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<sup>25</sup> Here and at several points in the following discussion I use the term 'subject'--written small--in a notional sense. In all these instances it is the NP which would be marked Sbj by rule (206) (see 8.2.1.). The term 'object' is similarly used in a notional sense and is the NP which would be marked Obj by rule (205).

(203d) 'it was so, that I be beautiful'

(204d) 'it was so, that I be brave'

Similar glosses can be given to (203b) and (204b).

Copula insertion in these sentences performs a function similar to do-support in English, in that it is triggered by the presence of the unattached affix or emphatic element. At the same time its pronominal slot takes the empty third singular pronoun.

Note that rule (201) also helps to explain the fact that the surface NP is initial in both (195a) and (195b), even though it is Sbj in (195b) and Obj in (195a). The rule simply permutes the verb with the first NP to its right regardless of its case.

The underlying word order of a simple Cherokee sentence, then, is taken to be VSO(NP).

8.1.7. The term 'underlying word order' is itself still open to much discussion. At first blush it might appear to be simply an artifact of the theory. I shall not argue that point here, since that is not the purpose of this dissertation. I simply note that considerations of descriptive simplicity and explanatory value seem to suggest that it is a useful concept.

8.2.0. Having established the nature of surface case in Cherokee and outlined a position on underlying word order, we now return to the question of mapping deep cases into surface cases. Case grammar had as one of its original purposes to account for the sentence types in a language. Speaking of

the various deep structure case frames available to a language, Fillmore (1968, p. 21) summarizes, 'The various permitted arrays of distinct cases occurring in simple sentences express the notion of "sentence type"... The arrays of cases defining the sentence types of a language have the effect of imposing a classification of the verbs in the language...'

I shall reverse this analytic process and take a few common verb types to demonstrate the major syntactic processes of the language. I will then discuss the generation of the pronominal prefixes.

8.2.1. The choice of Sbj and Obj is the basis for the formation of the pronominal prefixes. Sbj marking and Obj marking are done by two transformations which simply read the string from left to right and change the second case label after the verb to Obj and change the first case label after the verb to Sbj. The Obj Marking transformation

$$(205) \quad \begin{array}{c} V \\ I \end{array} \begin{array}{c} C \\ 1 \end{array} C_i \begin{array}{c} [X] \\ 2 \end{array} \begin{array}{c} Y \\ 3 \end{array} \implies 1 \text{ Obj } [2] \ 3$$

will serve as an example of this process. The transformation takes the case label  $C_i$ , which follows the verb (V) and one other case node (C), and changes it to Obj. In this and the following  $C_i$  ranges over the set of case labels, A, E, I, etc.

The Sbj Marking transformation

$$(206) \quad \begin{array}{c} V \\ I \end{array} C_i \begin{array}{c} [X] \\ 2 \end{array} \begin{array}{c} Y \\ 3 \end{array} \implies 1 \text{ Sbj } [2] \ 3$$

performs a similar relabeling function, changing the label of the case immediately following the verb to Sbj.

8.2.2. The operation of these marking transformations

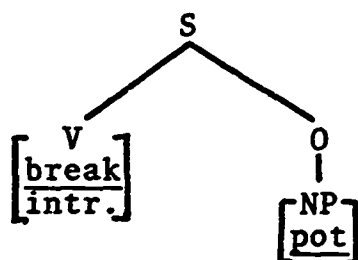
can be seen by taking the example of the verb stem -lo:-  
'break'.

The initial sequence of cases is taken to be universally  
A E I O G, so that if any two of these cases occur with a  
verb stem they will occur in this relative order. In (207)

(207) tsu:láhski kalo:ka 'the pot is breaking'

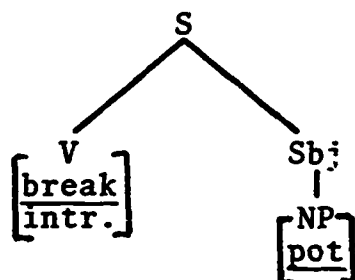
from

(208)



there is only a single case, O, so that no second case is  
available to Obj Marking. The Sbj Marking rule then relabels  
O as Sbj giving

(209)



After the prefix forming transformation has put a third  
singular subjective prefix on the verb, rule (201) moves the  
NP to the front of the sentence to give the proper output.

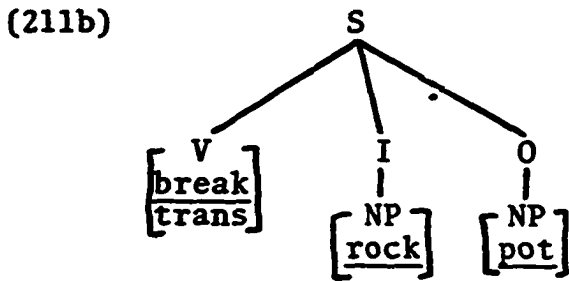
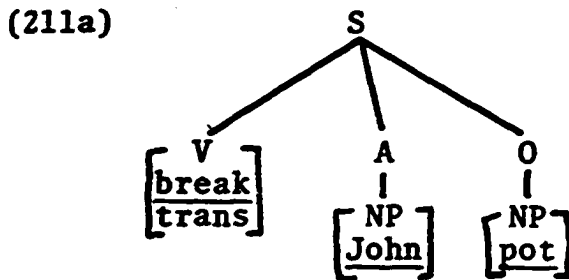
If two cases occur with the verb they will be in the  
relative order specified above, so that we get (210)

(210a) tsa:ni kalo:?a tsu:láhski 'John is breaking the pot'

(210b) nv:ya kalo:?a tsu:láhski

'the rock is breaking the pot'

from (211)

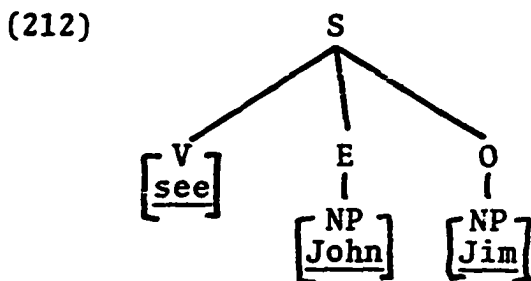


In both sentences Obj Marking reads the second case, O, and relabels it Obj. Sbj Marking then takes the first case, A in (211a) and I in (211b), and relabels it Sbj. After prefix formation puts the proper prefix on the verb, rule (201) fronts the Sbj NP from its post-verbal position, giving the desired output.

Other regular applications of these rules give (197a)

(197a) tsa:ni a:kohwthfha tsi:mi 'John sees Jim'

from (212)



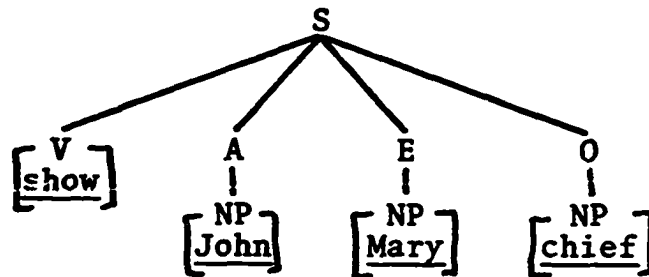
and (200a)

(200a) tsa:ni a:hseheha me:li u:kv:wiyuhi

'John is showing Mary the chief'

from (213)

(213)



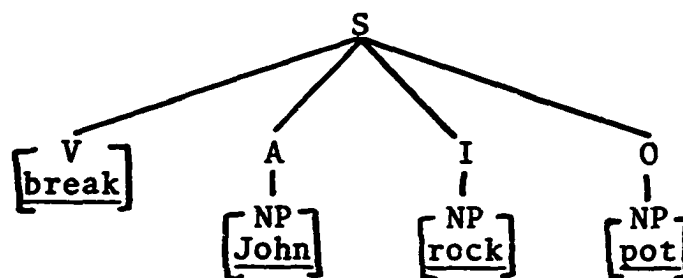
Note that in (200a) the O NP is unmarked, except by relative position. Other deep structure cases leave traces in surface structure, as in (214).

(214) tsa:ni kalo:ʔa tsu:lāhski nv:ya kv:hti

'John is breaking the pot with the rock'

where I leaves a surface trace in the marker kv:hti 'with'. The reader will have noted, however, that, given the order of underlying cases, the underlying structure of (214) must be (215).

(215)



In (214) a rule which we shall call Instrumental Shunting

(216)  $\frac{V}{1} \frac{C}{2} \frac{I}{3} \frac{C}{3} \frac{X}{3} \Rightarrow 1 \emptyset 3 2$  (Optional)

has operated before Obj Marking to put I in a position which is not accessible to Obj Marking. Note, however, that (216) is optional. If it is not applied then I will, in fact, be relabeled Obj, but only after the verb has been marked as taking the instrumental suffix by an obligatory rule, (217).

$$(217) \quad \frac{V}{I} \frac{C}{Z} \frac{I}{3} X \quad \Rightarrow \quad [+instr.]^1 \quad 2 \quad 3$$

Deep structure (215) therefore also underlies (218),

(218) tsa:ni kalo:ʔihstiha nv:ya tsu:lāhski

'John is using the rock to break the pot'

with the causative-instrumental suffix -ihst- .

A process like (217) will mark the verb as taking the dative suffix if the second case is E.

$$(219) \quad \frac{V}{I} \frac{C}{Z} \frac{E}{3} X \quad \Rightarrow \quad [+dative]^1 \quad 2 \quad 3$$

The effect of this rule can be seen in (220).

(220) tsa:ni kalo:ʔeha tsi:mi tsu:lāhski

'John is breaking the pot for Jim'

8.3.0. The process of Obj Marking and Sbj Marking are the basis for the generation of the pronominal prefixes. The pronominal prefix is formed by a process which attaches information about the person, gender and number of the Sbj and Obj NPs to the verb.

$$(221) \quad \frac{X}{I} \frac{V}{Z} \quad \frac{\text{Sbj} \left[ \begin{array}{c} \text{NP} \\ F_{1a} \\ \vdots \\ F_{na} \end{array} \right]}{\quad} \left( \frac{\text{Obj} \left[ \begin{array}{c} \text{NP} \\ F_{1b} \\ \vdots \\ F_{nb} \end{array} \right]}{\quad} \right) \quad \frac{Y}{4}$$

$$\quad \Rightarrow \quad 1 \quad \left[ \begin{array}{c} \text{Pre-Sbj} \left[ \begin{array}{c} F_{1a} \\ \vdots \\ F_{na} \end{array} \right] \left( \text{Obj} \left[ \begin{array}{c} F_{1b} \\ \vdots \\ F_{nb} \end{array} \right] \right) \end{array} \right] + 2 \quad 3$$

Rule (221) Chomsky-adjoints a component Pre to the verb and

copies into Pre the person, gender, number and focus features from the Sbj and Obj NPs. After a few operations to reduce the amount of information in Pre, lexical insertion will select a pronominal prefix from the lexicon whose feature specification matches the features in Pre.

8.3.1. The most important of the processes which reduce the information in Pre is the one which neutralizes the distinction between the subjective prefixes and the corresponding transitive prefix with the same subject acting on a third person indefinite object. This process simply deletes the Obj slot of Pre when it contains the features [-definite] or [-animate].

$$(222) \quad \begin{array}{c} \text{X} \\ \text{I} \end{array} \text{Pre} \left[ \begin{array}{c} \text{Sbj} \\ \text{Obj} \left[ \begin{array}{l} \text{-def} \\ \text{-anim} \\ \langle +\text{pl} \rangle \end{array} \right] \end{array} \right] \begin{array}{c} \text{V} \\ \text{Y} \end{array} \begin{array}{c} \text{4} \\ \text{5} \end{array}$$


---


$$\Rightarrow 1 \ 2 \ \emptyset \left[ \begin{array}{c} \text{4} \\ \langle +\text{distr} \rangle \end{array} \right] \text{5}$$

Note that rule (222) also marks the verb [+distributive] just in the case that the Obj is plural. This part of the process conveniently summarizes the rightmost column of Chart 1, which is precisely the subjective prefixes plus the distributive prefix.

In rule (222), as in rules (217) and (219) above, we assume that inflections such as instrumental, dative and distributive are features of the verb. This is not unreasonable since, beside the verbs which are transformationally marked for these inflections, there are verbs in the lexicon which



have these inflections obligatorily. By introducing these as features of the verb stem where they are not obligatory and marking them in the lexical entry for the verb where they are, we can have the same rules handle lexical insertion of the affix for both obligatory and transformationally assigned occurrences of the inflection.

8.4.0. Not all Cherokee verbs show the surface case marking resulting from the above rules. Some such as (223),

(223a) tsa:ni u:tu:liha 'John wants it'

(223b) tsi:mi u:yo:hsiha 'Jim is hungry'

(223c) me:li u:wo:túhi 'Mary is beautiful'

which choose the objective prefixes, put the subject NP in *Ot* rather than *Sbj*.

These are generally verbs of qualities or experiences and are generally intransitive, but not always. In (224)

(224a) a:khiwahska 'I am buying it'

(224b) nv:ya a:kíhyoha 'I am looking for a rock'

the verbs are transitive, as is (223a). There is no simple way to identify these verbs by common root meanings or underlying case frames. The obvious semantic interpretation suggested is that the subject is viewed as a non-active participant (cf. 8.0.2.)--with 'buy', for instance, as the recipient of the thing bought.

Since no obvious redundancy rule suggests itself, these verbs will be marked in the lexicon as [+stative]. Remember that a subset of these verbs will be those I call 'uninflectible' (cf. 5.2.3.).

Let us examine the syntactic properties of these verbs. The intransitive verbs of this set take the objective prefixes. The transitive verbs of the set take the objective prefixes with [-animate] objects, putting the subject in Obj. Plurality of [-animate] objects is indicated by the distributive prefix. When the object is [+animate] the transitive verbs take the usual transitive prefixes.

Since the transitives with [+animate] objects take the transitive prefixes, we do not need a rule to mark the subject NP generally as Obj. Considering the first two properties cited, what seems to be needed is a rule which deals specifically with sentences with zero or third inanimate objects.

Recall that rule (222) collapses exactly these two types giving a Pre that contains only [Sbj] features. If we can then simply relabel the Sbj slot of Pre as Obj, we will have accomplished the desired collapsing of prefixes and adjusted the case relations of the prefix as well. We do this in (225).

$$(225) \quad \begin{array}{c} X \\ \hline 1 \end{array} \text{Pre}_{[Sbj]} \left[ \begin{array}{c} \text{features} \\ \hline 2 \end{array} \right] \left[ \begin{array}{c} V \\ \hline +stative \\ \hline 3 \end{array} \right] \begin{array}{c} Y \\ \hline 4 \end{array} \\ \Rightarrow \quad 1 \text{Pre}_{[Obj]} [2] \quad 3 \quad 4$$

By having this rule apply to Pre's which contain only Sbj features, we have identified exactly the class desired. Note further that by having this rule apply to the output of rule (222), the verb is already marked [+distributive] whenever the object NP is plural.

This last fact shows that the rule must operate on Pre rather than the Obj NP since the information about the number

of the Obj NP is needed to mark the verb as [+distributive].

8.4.1. One further property of these verbs needs to be noted. When the object of one of these verbs is plural animate, the prefix is the normal transitive prefix, as in (226),

(226) katsf:ʔyoha 'I am looking for them'

except for the case in which both subject and object are third person animate. In that case the prefix is still the objective prefix with the plurality of the object indicated by the distributive prefix, as in (227).

(227) tsa:ni tũ:hyoha a:ni:yohski

'John is looking for the soldiers'

If we write a rule which reduces the structure of Pre in those cases where the person of both Sbj and Obj are the same, if the third plural object is not in focus,

(228)

$$\begin{array}{c} \text{X} \\ \text{I} \\ \hline \end{array} \begin{array}{c} \text{Pre} \\ \left[ \text{Sbj} \right] \\ \hline 2 \end{array} \begin{array}{c} \text{Obj} \\ \left[ \begin{array}{l} \left\langle \begin{array}{l} \text{foc} \\ +3d \\ +pl \end{array} \right\rangle \end{array} \right] \\ \hline 3 \end{array} \end{array} \begin{array}{c} \text{V} \\ \hline 4 \end{array} \begin{array}{c} \text{Y} \\ \hline 5 \end{array}$$

$$\Rightarrow 1 \quad 2 \quad \emptyset \quad \left[ \left\langle \begin{array}{l} + \\ \text{distr} \end{array} \right\rangle \right]^4 \quad 5$$

(Condition: Sbj [person] = Obj [person])

this rule can provide the input into rule (225) to give the proper output for (227).

8.4.2. Rule (228) has another interesting consequence. Cherokee reflexives of non-stative verbs take the subjective prefixes with the reflexive morpheme, so that we have (229).

(229) kata:koʔwthfha 'I see myself'

Rule (228) accounts nicely for the prefix choice since its

output is <sup>Pre</sup>[Sbj]. When rule (228) in turn feeds rule (225), the output is once again correct, since the statives take the objective prefixes with the reflexive, as in (230).

(230) a:kwata:kohv:ki 'I have seen myself'

8.4.3. Example (230) brings us to the other area of application of the above rules for stative verbs, perfective verb forms. The reader will recall that when any non-stative verb is inflected in the perfective, it takes the objective prefixes if it is intransitive. Let us look in detail at the syntactic properties of the perfective verb forms.

The intransitive verbs of this set take the objective prefixes. The transitive verbs of the set take the objective prefixes with [-animate] objects, putting the subject in Obj. Plurality of [-animate] objects is indicated by the distributive prefix. When the object is [+animate] the transitive verbs take the usual transitive prefixes. With verbs which have third person subject and third person object, the objective prefixes are used if the Obj NP is [-focus].

These are exactly the syntactic properties of the stative verbs discussed above (8.4.0. - 8.4.2.), and the rules which give the correct output for one set will give the correct output for the other. We simply include in the grammar a rule which marks perfective verbs as [+stative].

(231) 
$$\left[ \begin{array}{c} V \\ +\text{perfective} \end{array} \right] \Rightarrow \left[ \begin{array}{c} V \\ +\text{stative} \end{array} \right]$$

8.5.0. A good portion of the above discussion is involved in accounting for the behavior of the third person

prefixes, the difficulties with which arise in large measure from the collapse of the Proto-Iroquoian gender system in Cherokee. The other problem area with these prefixes is the one referred to in Chapter Two as 'object focus'. Unlike the above processes, object focus can also effect a change in word order, as we saw in the sentences of (7) (pp. 21-24).

The term 'focus' has been used in several different ways in linguistic literature. A general discussion of the term is found in Hankamer (1971, pp. 166ff.).

In this study it is used in the sense of discourse focus or foregrounded item. The focused item is the item that the containing discourse is about. Since focus is a discourse-level fact rather than a clause-level fact (cf. Wolfart 1973, p. 25) it corresponds to the union of Halliday's (1967) theme and given information. Since in most cases the union and intersection of these two is identical this presents no problem. In most cases the focused item will correspond to Hankamer's presupposed element.

The reader will note that the use of the term focus for Halliday's given information runs exactly counter to his own use of the term--in the sense of information focus. For Halliday the focus is new information. The sense in which the term is used in this study and the resulting relationships will be made clear by a discussion of the subject focus and object focus pronominals in Cherokee.

Let us look again at the sentences with third-to-third person prefixes. With two surface NPs the case relations are

the ones predicted by the rules already discussed, as in (232).

(232) tsa:ni a:kohwthfha tsi:mi 'John sees Jim'

However, when only one surface NP appears the relations are at first glance surprising, as in (233).

(233) tsa:ni a:kohwthfha 'he sees John'<sup>26</sup>

It is not the NP coreferent with the focused pronoun, Sbj, which appears, but the other, non-focused, NP. Note that the case relation between the single surface NP and the non-appearing NP in (233), with the third singular subjective prefix, is analogous to the case relation between the single surface NP and the non-appearing NP in a sentence with a non-third person subjective prefix, as for instance (234).

(234) nv:ya tsik?wthfha 'I see the rock'

(cf. tsa:ni tsi:ko?wthfha 'I see John')

Recall that no surface NP normally appears for first or second person. Once Pre has been formed, pronominalization is simply a matter of deletion. If we consider the above data in this light, the deleted element in (233), as in (234), is the pronominalized item. If we then recall that the first requirement of pronominalization is that the pronoun have an antecedent--either in the sentence or in the preceding discourse--we can start to zero in on the nature of the property which I have

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<sup>26</sup> Sentence (233) can also mean 'John sees it', but, since we are at present concerned with sentences which lack gender and number disambiguation we shall disregard this other meaning. It ought, however, be remarked that every native speaker questioned translated (233) in isolation as 'he sees John' and noticed the alternate translation only when supplied with a specific context.

labeled (discourse) focus. The focused element is that element which has an immediately accessible antecedent. This is exactly Hankamer's presupposed element.

Both Halliday and Hankamer note that first and second persons may be taken generally as given or presupposed to every discourse, defining a convenient parallel between the behavior of third and non-third pronominals with a single surface NP. The deleted NP is always the focused (presupposed) element.

The whole terminological mess here needs a major sorting out. I shall not, at present, abandon the word focus, since the sense in which I am using it (discourse focus) matches rather interestingly with the sense in which Wolfart (1973, p. 25) uses it in his discussion of obviation in Cree, and with the way Chafe (1970, pp. 224, 226) uses it in his discussion of new and old information.

With the object focus prefixes the relations described above also hold, but with one additional twist. When two surface NPs are present, the order of the NPs is changed so that we have (235).

(235) tsa:ni u:kohwthiha tsi:mi 'John is seen by Jim'  
We can write a simple rule to effect this change after Pre formation and before NP fronting.

(236)  $\frac{X}{1} \quad \frac{Sbj}{2} \quad \frac{Obj [+focus]}{3} \quad \frac{Y}{4} \quad \Rightarrow \quad 1 \ 3 \ 2 \ \emptyset \ 4$

Note, however, that to account for (236) and (237)

(237) a:ni:yohski u:ni:kohwthfha tsa:ni

'the soldiers are seen by John'

We must either enter alternative representations for u:- and u:ni:- in the lexicon--one with the intransitive or transitive with indefinite object sense and the other with this quasi-passive sense--or we must have a structure reducing rule to collapse the two objective prefixes with the two Obj focus prefixes.

$$(238) \quad \text{Pre} \left[ \begin{array}{c} \text{Sbj} [+3d] \\ [+sg] \end{array} \right] \left[ \begin{array}{c} \text{Obj} [+focus] \\ [-3d] \end{array} \right] \Rightarrow \emptyset \quad 2$$

1                      2

Notice that the case with [-third] Obj is needed in any event to handle the identity between the objective prefixes and the transitive prefixes with third singular subjects and non-third person objects. If we recall that non-third person pronouns are redundantly [+focus]. we can drop the specification [-third] from the rule and rewrite (238) as (239),

$$(239) \quad \text{Pre} \left[ \begin{array}{c} \text{Sbj} [3sg] \\ \end{array} \right] \left[ \begin{array}{c} \text{Obj} [+focus] \\ \end{array} \right] \Rightarrow \emptyset \quad 2$$

1                      2

and account for the collapsing in the objective prefixes by what is a universal discourse fact about first and second person pronouns.

8.6.0. Let us now consider some processes which modify the simple sentences whose structure has been described above. Negation is the simplest of these processes.

To negate a simple sentence in Cherokee, one simply puts a negative word ( *v:tsha* 'not', *tshahno* 'and not', etc.) at the front of the sentence and prefixes 'counterfactual' y-



to the sentence's verb.

(240)  $\frac{\text{Neg}}{1} \quad \frac{X}{2} \quad \frac{V}{3} \quad \frac{Y}{4} \quad \Rightarrow \quad 1 \quad 2 \quad [{}^3_{+ctrfac}] \quad 4$

This gives us (241a).

(241a)  $\acute{v}$ :tsha tsa:ni ya:kohwthfha tsi:mi

'John doesn't see Jim'

Note that  $\acute{v}$ :tsha is not one of those elements which block fronting of the NP. It is, however, possible to front the NP across  $\acute{v}$ :tsha, as in (241b).

(241b) tsa:ni  $\acute{v}$ :tsha ya:kohwthfha tsi:mi

'John doesn't see Jim'

8.6.1 Topicalization is another process which affects the syntax of simple sentences and is interesting in the light of the preceding discussion of the third person pronominals. Topicalization is the process of marking an item which is not in focus by the normal discourse rules as discourse focused by marking it phonologically or syntactically. In other words, the speaker takes an item and says, in effect, 'Let's talk about this now.'

The essential facts about the process of topicalization are two. It marks an item of the sentence as the discourse focus, and the item which it marks is not the item which by the usual discourse rules would be in focus.

The implication of these two properties of topicalization is that the item which is in discourse focus cannot be topicalized, since there is no need to mark the focused item as focused. That is to say, very few people will say, 'Let's

talk about what we're talking about now.'

Cherokee marks the topicalized item both phonologically and syntactically. The topicalized item is put first in the sentence and a phonological break [,] is inserted after it.

$$(242) \quad \frac{V \text{ (X)}}{1} \left[ \begin{array}{c} \text{NP} \\ +\text{top} \end{array} \right] \frac{Y}{3} \quad \Rightarrow \quad 2 + [,] \quad 1 \quad \emptyset \quad 3$$

2

This gives us sentences such as (243)

(243a) tsa:ni, a:kohwthfha tsi:mi 'it is John, Jim sees'

Note that the introduction of the phonological break blocks NP fronting. The pronominal relations here are those of the two NP sentence, and, since an NP already in focus need not be topicalized, the unmoved NP is understood as the previously focused NP. This interpretation is borne out by (243b).

(243b) tsa:ni, u:kohwthfha tsi:mi

'it is John, Jim is seen by'

This points out the incongruence between (discourse) focus and Halliday's given information and theme. It is precisely at this point, where theme and given are non-identical, that the nature of focus as a discourse-level fact is clear. The old focus (given) element is marked by the prefix, while the new focus (theme)--the item which the speaker is defining as the focus of the following discourse--is marked by position.

8.6.2 The primary question-forming processes involve the use of question words ( khá:ʔko 'who', to:ʔiyú:hsti 'what', etc.) or the use of the interrogative enclitic -sko . The essential fact about Cherokee questions is shown in (244a).

(244a) khá:ʔko, a:kohwthfha tsa:ni 'who does John see'

The reader will note the similarity between (244a) and (243a). In (244a) the unmoved--unpronominalized--NP is coreferent with the focused pronoun, just as the unmoved NP of (243a) is coreferent with the focused pronoun. It seems intuitively reasonable to say that the question word is, in some sense, the topic of the sentence in which it occurs. The interrogator is bringing the questioned element into discourse focus, just as topicalization brings a non-focus element into discourse focus, without regard for the focus assignment of the previous discourse. Halliday (1967, pp. 212-13) discusses the thematizing property of WH-words (i.e. question or relative words) in English.

This very fact of the topicalizing nature of question words introduces an interesting complication into the process of question formation in Cherokee. Since the NP in focus cannot be topicalized, it is necessary, in the case where the subject NP is to be questioned, to assign focus to the Obj NP before forming the question. We must have a rule, such as (245) to make this focus assignment.

$$(245) \quad \begin{array}{c} X \\ \hline 1 \end{array} \quad \begin{array}{c} \text{Sbj} \\ \hline 2 \end{array} \quad \begin{array}{c} [+WH] \\ \hline 2 \end{array} \quad \begin{array}{c} \text{Obj} \\ \hline 3 \end{array} \quad \begin{array}{c} Y \\ \hline 4 \end{array} \quad \Rightarrow \quad 1 \quad 2 \quad \begin{array}{c} 3 \\ [+focus] \end{array} \quad 4$$

We can then generate (244b).

(244b) *khá:ʔko, u:kohwthfha tsa:ni* 'who sees John'

The interrogative enclitic *-sko* is likewise added to the topicalized word, as we see in (246).

(246a) *tsa:nisko, a:kohwthfha tsi:mi*

'is it John, Jim sees'

(246b) tsa:nisko, u:kohwthíha tsi:mi

'is it John, Jim is seen by'

The difference, roughly, is that in (244) the NPs are [+pro] (i.e. pronouns) by virtue of lacking a noun root, while in (246) the NPs contain noun roots.

8.6.3. The third major syntactic process in Cherokee which involves focus assignment within the sentence is relative clause formation. This is illustrated by the clauses in (247).

(247a) ...a:hskaya, tsa:kohwthí:ha tsa:ni...

'...the man that John sees...'

(247b) ...a:hskaya, tsu:kohwthí:ha tsa:ni...

'...the man that sees John...'

Relative clauses without the prefix ts- 'positive' also occur. These are marked by the suffix-accented verb form and by the syntactic break, so that beside (247a) we have (247c).

(247c) ...a:hskaya, a:kohwthí:ha tsa:ni

'...the man that John sees...'

Here again the WH-word causes the focus to be reassigned when it is Sbj, as we see in (247b). This is, however, already predicted by rule (245).

8.7.0. Relative clause formation is one of several processes in Cherokee which combine two sentences. Complementation and various forms of conjunction also combine sentences. These processes are discussed below.

8.7.1. The complementizers which a verb takes must be lexically marked for each verb. Complements in Cherokee are

infinitives, participles and tsi-clauses, which correspond in most respects to English infinitives, participles and 'that'-clauses.

Infinitive clauses are required by a number of Cherokee verbs, prominent among which is -atu:lfha 'want'. We have for instance (248).

(248a) ti:khino:ki:ʔstf:yi a:kwatu:lfha 'I want to sing'

(248b) ti:khino:ki:ʔstf:yi u:tu:lfha 'he wants me to sing'

(248c) tsa:ni tsu:hno:ki:ʔstf:yi a:kwatu:lfha

'I want John to sing'

(248d) tsa:ni tu:hno:ki:ʔstf:yi u:tu:lfha tsi:mi

'Jim wants John to sing'

Infinitives behave like normal stative verbs with respect to the pronominal prefixes. The infinitive takes the single modal suffix -i:yi 'infinitive'. Negation of infinitive clauses requires the insertion of the copula to bear the negative element, as in (248e)

(248e) tsa:ni tsu:hno:ki:ʔstf:yi nike:ʔsʷ:na a:kwatu:lfha

'I want John not to sing'

Note that the complement blocks fronting of the NP of the matrix sentence. Why the occurrence of nike:ʔsʷ:na did not block NP fronting in the complement sentence is not clear.

Other verbs select participles as complements. For instance -ahthv:ki:ʔa 'hear' or -kohwthfha 'see' give (249).

(249a) tsa:ni te:khano:ki:skʷ:ʔi kaʔthv:ki:ʔa

'I hear John singing'

(249b) a:ni:ke:hya ta:ni:hno:ki:skʷ:ʔi kaʔthv:ki:ʔa

'I hear the women singing'

(249c) tsa:ni tsi:koʔv:ki tsv:hniɦʷ:ʔi

'I saw John hitting you'

(249d) tsa:ni tsi:koʔv:ki tsv:hniɦʷ:ʔi

'I saw John hit you'

Recall that participles can be formed on the imperfective, the perfective, the ta-future, the pre-inceptive and the pro-pensitative stems, so that they retain all of the inflectional information about the verb of the embedded sentence except modality. Negation in participle clauses is indicated by the choice of the negative participle of the verb plus the participle of the copula. For instance, with the verb -hnoɦihse:- 'tell someone something' we get (250).

(250a) a:khinohihse:lv:ki tsa:nʰ nitsv:hniɦʷ:na ke:ʔsʷ:ʔi

'he told me that John wasn't hitting you'

(250b) a:khinohihse:lv:ki tsa:ni nitsv:hniɦʷ:na ke:ʔsʷ:ʔi

'he told me that John didn't hit you'

The third complement type is the tsi-clause. This is formed by prefixing ts- 'positive' to the verb of the embedded sentence. For instance with the verb -hnoɦihse:-, which takes both participle and tsi-clause complements, we get (251).

(251a) a:khinohihseha tsite:khano:kf:ʔa tsa:ni

'he tells me that John is singing'

(251b) v:khinohihse:lv:ki tsitakalu:htsi

'I have been told that he will arrive'

Negation in tsi-clauses is indicated by the negative participle of the verb plus the appropriate modal inflection of the copula with *ts-*. Note that this parallels the situation with the participle, where the participle suffix moves to the copula. This process is seen in (252), with the verb *-khthaha* 'know'.

(252a) *tsikʔthaha nititsv:hnilʋ:na tsiki.*

'I know that he isn't going to hit you'

(252b) *tsikʔthaha nikhano:ki:sʋ:na tsike:ʔse:sti*

'I know that he won't be singing'

The reader will have noted that all of the complement sentences indicate negation by the use of the modal inflection *n--ʋ:na* 'negative participle' attached to the verb or to the copula. This is characteristic of embedded sentences, as is the realization of WH-words as *i:yu:hsti* 'which one/kind' as in (253).

(253) *tsa:ni a:khinohihse:lv:ki i:yu:hsti tsu:kohʋ:ki*

'John told me who/what he saw'

Cherokee complements define a neutralization hierarchy with respect to the amount of aspectual and modal information they maintain from the embedded sentence. The infinitive maintains no aspectual or modal information, viewing the action of the verb as an abstract phenomenon. The participle maintains aspectual information, and the tsi-clause maintains both the aspect and mode of the embedded sentence.

8.8.0 The other major syntactic process which can combine sentences in Cherokee is conjunction. We will first

look at the simplest case of conjunction, NP conjunction, and then consider sentential conjunction and related processes.

8.8.1. To conjoin NPs one simply inserts the conjunction a:le before the last member of the sequence. If the conjoined units function as Sbj or Obj they select a non-singular pronominal, as in (254).

(254a) tsa:ni a:le me:li ta:ni:hno:ki:ʔa

'John and Mary are singing'

(254b) tsa:ni a:le me:li tu:ni:htsv:kv:ki

'John and Mary were sick'

(254c) tsa:ni tsi:mi a:le me:li katsi:koʔwthfha

'I see John, Jim and Mary'

Note that in (254b) the distributive prefix is added to the verb. Most verbs denoting states or conditions add the distributive in the non-singular, as in (254d).

(254d) tsa:ni a:le tsi:mi ta:ni:hnowo:ʔke:sti

'John and Jim will be cold'

8.8.2. Sentential conjunction joins sentences with various potential reductions of structure. When the subjects of the sentences are the same, the second occurrence of the Sbj NP is deleted by Conjunction Reduction and the conjunction is realized as either a:le or -hno depending on the structure of the second conjunct.

(255)  $\frac{[\text{and}]}{1} \frac{[\text{V}]}{2} \text{Sbj} \frac{[\text{NP}]}{2} \frac{X}{3} \frac{[\text{V}]}{3} \text{Sbj} \frac{[\text{NP}]}{4} \frac{Y}{5}$   
 $\Rightarrow 1 \quad 2 \quad 3 \quad \emptyset \quad 5 \quad (\text{Condition: } 2 = 4)$

(256)  $\frac{[\text{and}]}{1} \frac{S}{2} \frac{S}{2} \frac{[\text{V} X]}{3} \Rightarrow \emptyset \quad 2 \quad \text{a:le} \quad 3$



$$(257) \quad \frac{[\text{and}]_1}{\frac{S}{2}} \frac{S}{3} \frac{[\text{NP } X]_4}{\frac{X}{4}} \implies \emptyset \quad 2 \quad 3 \quad + \quad \underline{\text{-hno}} \quad 4$$

These processes give (258).

(258a) tsa:ni a:hlski:ʔa a:le te:khano:ki:ʔa  
'John is dancing and singing'

(258b) a:ni:hskaya u:ni:yo:hsiha a:le tu:ni:htsv:ka  
'the men are hungry and sick'

(258c) tsa:ni a:kohwthfha me:li se:lihno a:hthv:ki:ʔa  
'John sees Mary and hears Sally'

Note that a:le appears in sentence conjunction when there is no fronted NP. If an NP has been fronted then the conjunction is realized as postpositive -hno .

When the verbs are identical Gapping occurs and the conjunction is realized as -hno by (257).

$$(259) \quad \frac{[\text{and}]_1}{\frac{S}{2}} \frac{S}{3} \frac{[V X]_4}{\frac{X}{4}} \frac{S}{5} \frac{[V Y]_6}{\frac{Y}{6}} \implies 1 \quad 2 \quad 3 \quad \emptyset \quad 5$$

(Condition: 2 = 4)

This process gives us (260).

(260) tsa:ni kv:hniha me:li tsi:mihno se:li  
'John is hitting Mary and Jim Sally'

Objects are, likewise, deleted from the right conjunct if they are identical to the object of the right conjunct by (261).

$$(261) \quad \frac{[\text{and}]_1}{\frac{[V \text{ Sbj}]_2}{\frac{Sbj}{2}}} \text{Obj} \frac{[\text{NP}]_3}{\frac{NP}{3}} \frac{X}{4} \frac{[V (C)]_5}{\frac{C}{5}} \text{Obj} \frac{[\text{NP}]_6}{\frac{NP}{6}} \frac{Y}{7}$$

$$\implies 1 \quad 2 \quad 3 \quad \emptyset \quad 4 \quad 5 \quad (\text{Condition: } 2 = 4)$$

This gives us sentences like (262).

- (262) tsa:ni u:hlv:ki šhwi me:lihno u:wa:ni:hsta:ʔnv:ki  
 'John shot and Mary cooked the deer' or  
 'John shot the deer and Mary cooked it'

Note that, since there is already a pronominal copy of the object NP attached to the second verb, there is no way to tell whether this is gapping or simply pronominalization deleting a like NP.

Rules (256) and (257) represent the usual realization of the conjunction in North Carolina in the case of conjoined sentences in which there is a perceived parallelism between the two sentences in terms of their case relations. For instance, there are two possible translations for sentence (263a).

- (263a) tsa:ni a:kohwthfha me:li tsi:mihno a:hthv:ki:ʔa  
 'John sees Mary and Jim hears her'  
 'John sees Mary and hears Jim'

Both of these translations, however, reflect the perceived parallelism of case relations between the sentences. Jim can occupy either case role in the second sentence, but the other case role must be filled by the same player who filled it in the first sentence. Thus, if Jim is Sbj Mary must be Obj, but if Jim is Obj John is Sbj. Sentences conjoined with -hno have these parallel structures.

Sentences conjoined with a:le, on the other hand, except for the case described by (256), do not necessarily have parallel structures, as we see in the two translations of (263b).

(263b) tsa:ni a:kohwthfha me:li a:le tsi:mi a:hthv:ki:ʔa

'John sees Mary and (he) hears Jim'

'John sees Mary and she hears Jim'

The translations of (263b) reflect the perception of the second sentence as a simple pronominalization in which either player from the first sentence can fill the pronominalized role. The syntactic dependency between the two sentences is lacking, and Mary's role in the second sentence is independent of her role in the first.

## CHAPTER NINE: CLASSIFICATORY VERBS

9.0.0. Cherokee has a set of so-called classificatory verbs. Mary Haas (1948) in her article 'Classificatory Verbs in Muskogee' characterizes this general phenomenon as follows. 'A number of American Indian languages are known to have fairly elaborate sets of verbs semantically differentiated as to the form or shape (or some characteristic) of the entity which serves as subject (intransitive verbs) or object (transitive verbs).'

Cherokee classificatory verbs distinguish, though not in all cases, five classes. The classes are: round or lump-like (R), long rigid (L), flexible (F), liquid (Q), and animate (A).

9.0.1. William Reyburn in his doctoral dissertation (1952, p. 81) observes that these stems 'exhibit considerable variation and may reflect an earlier stage of the language. The variation in structure is seen in the position of the classifier morphemes... Classifier forms may occur immediately following the [pronominal] morphemes...[or] Classifier morphemes may occur immediately preceding the [thematic] alternant.'

This analysis is essentially correct. This chapter simply makes explicit, in the light of the foregoing analysis, the nature and shape of these 'classifier forms' and 'classifier morphemes'.

9.1.0. If we consider the verb forms of (264)

- |        |              |                       |
|--------|--------------|-----------------------|
| (264a) | tsi'vhska    | 'I am putting down R' |
| (264b) | tsiti'a      | 'I am putting down L' |
| (264c) | tsinv:'vhska | 'I am putting down F' |
| (264d) | tsine:'vhska | 'I am putting down Q' |

we can extract the corresponding verb bases (265).

- |        |        |    |         |
|--------|--------|----|---------|
| (265a) | -hn-   | c) | -nv:'n- |
|        | b) -t- | d) | -ne:hn- |

Comparison of these bases suggests the analysis of (265a) as consisting of -ne:- plus -hn-, which is (265a). Further comparison with the verbs of (266)

- |        |           |            |
|--------|-----------|------------|
| (266a) | a:kiha    | 'I have R' |
| (266b) | a:kwv:ya  | 'I have L' |
| (266c) | a:kina'a  | 'I have F' |
| (266d) | a:kine:ha | 'I have Q' |

from which we can extract the corresponding verb bases (267)

- |        |          |    |        |
|--------|----------|----|--------|
| (267a) | -h-      | c) | -na-   |
|        | b) -v:y- | d) | -ne:h- |

reveals a similar correspondence between (267a) and (267d).

The conclusion that -ne:- is an incorporated morpheme--noun root--with the meaning 'liquid' is supported by the fact that Oneida, a Northern Iroquoian language, has a root -hnek- 'liquid, water, whiskey'.

Next let us consider the forms of (268).

- |        |              |                             |
|--------|--------------|-----------------------------|
| (268a) | tsi'lahska   | 'I am putting R in'         |
| (268b) | tsilati'a    | 'I am putting L in'         |
| (268c) | tsilv:'vhska | 'I am putting F in'         |
| (268d) | tsitsi'a     | 'I am putting Q in/pouring' |

If we know that there is an Oneida root -l- 'in it' and that consonant-final stems are joined to consonant-initial stems in that language by an -a-, the picture of Cherokee classificatory verbs begins to emerge. They are for the most part common garden-variety Iroquoian compound stems.

This conclusion is not transparently obvious from the surface forms, however. We must look at the verb bases of (268) which are given in (269).

- |               |            |
|---------------|------------|
| (269a) -lahn- | c) -lv:ʔv- |
| b) -lat-      | d) -ts-    |

If we recognize that the stem -ts- 'pour' is not part of the pattern of derivation we are developing, but is rather a verb root whose meaning is roughly equivalent to 'put Q in', we can treat it as a suppletive member of this set of verbs. The base which is not obvious from the verb forms is (269a). The derivation of the surface form from this verb base was discussed in Chapter One and again in 4.3.3.5. The derivation is summarized in (270)

- |                     |                                   |
|---------------------|-----------------------------------|
| (270) tsi+lahn+hska |                                   |
| tsi+hlan+hska       | metathesis (rule (1))             |
| tsi+hlav-hska       | vocalization of /n/ (rule (114))  |
| tsi+hlahska         | metathesis (rule (1)) deletes /v/ |
| tsiʔlahska          | h → ʔ                             |

It is the action of metathesis and n-vocalization which destroys the transparency of the paradigm. Given this analysis then, the verb bases (269a) through (269c) consist of the verb root -l- 'be inside' plus the verb roots meaning to place

objects of various shapes, which we saw in (265a) through (265c) above.

The remaining problem for this analysis comes from (265c). Comparison with (269c) suggests that the verb root is  $-v:ʔn-$ . Where, then, might the initial  $-n-$  of (265c) come from? The answer is to be found in (267c). Base (265c) is  $-na-$  plus  $-v:ʔn-$ , with the loss of /a/ before another vowel, just as /a/ is lost from the pronominals before vowels.

We have now discovered five productive morphemes from our examples, which are summarized in (271).

- (271a)  $-hn-$  'position a (round) object'  
 (271b)  $-t-$  'position a long object'  
 (271c)  $-v:ʔn-$  'position a flexible object'  
 (271d)  $-na-$  'flexible object'  
 (271e)  $-ne:-$  'liquid'

The first three of these combine with various other stems to give us the following verb sets. Liquid, when not associated with a special verb base, is classed with round--the unmarked class. Informants say this is 'for the container'. Animate in most cases is classed with flexible, making the distinction by the animate prefix choice.

The root  $-hsa-$  'elevated position' gives (272).

- (272a)  $tsiʔsahvhska$  'I am putting R up'  
 (272b)  $tsiʔsatiʔa$  'I am putting L up'  
 (272c)  $tsiʔsv:ʔvhska$  'I am putting F up'

The verb base  $-v:hskala-$  'hidden' gives (273).

- (273a)  $kv:ʔskahlahska$  'I am hiding R'

(273b) kv:ʔskalatiʔa 'I am hiding L'

(273c) kv:ʔskalv:ʔvhska 'I am hiding F'

In this set too metathesis obscures the shape of the base with found object.

The stem -u:- 'in the water' gives (274a) and (274b).

(274a) ku:ʔvhska 'I am putting R in the water'

(274b) tsiʔu:tiʔa 'I am putting L in the water'

(274c) te:kvʔska 'I am putting F in the water'

The base of (274c), -vn- , is a suppletive form. The -h- of the base -hu:t- of (274b) appears in other L forms below.

The stem -ata- 'hanging up' gives (275a) and (275c).

(275a) katʔahska 'I am hanging R up'

(275b) kaʔthosatiʔa 'I am hanging L up'

(275c) katv:ʔvhska 'I am hanging F up'

In (275a) metathesis has affected the base -atahn- . In (275b) the expected -t- , (271b), is present, but the stem is complex and has a specialized meaning similar to the 'swing' in 'swing a door'.

With the derivational suffix -e:- 'dative' our verb roots of positioning give us verbs with the meaning 'give', as in (276).

(276a) tsi:ʔneha 'I am giving him R'

(276b) tsi:teha 'I am giving him L'

(276c) tsi:yv:ʔneha 'I am giving him F'

With the morphemes -v- and -ta- which together carry the meaning 'in the fire' we get the forms of (277).

(277a) kvʔahska 'I am putting R in the fire'



(277b) tsiʔvthahska 'I am putting L in the fire'

(277c) kvʔtv:ʔvhska 'I am putting F in the fire'

These forms come from the bases (278).

(278a) -vtahn- c) -vhtv:ʔn-

b) -hvtahn-

With the effects of metathesis removed (278a) is transparent.

Base (278b) is formed from (278a) plus the morpheme -h- .

This -h- appears to be a morpheme meaning 'long object', which is redundantly present in (274b), just as -na- 'flexible object' is present in (264c)=(265c).

The -h- 'long object' of (278b) is positionally distinct from the -h- of (278c), which may mean 'flexible object'. Both of these morphemes occur in (279) as well.

(279a) kvtaki:ʔa 'I am taking R from the fire'

(279b) tsiʔvtaki:ʔa 'I am taking L from the fire'

(279c) kvʔtaki:ʔa 'I am taking F from the fire'

These bases are built on the root -ki:- 'pick up'.

The verb root -ki:- with -na- 'flexible object' and -ne:- 'liquid' give us (280a), (280c) and (280d).

(280a) tsiki:ʔa 'I am picking up R'

(280b) tsiyiʔa 'I am picking up L'

(280c) tsinaki:ʔa 'I am picking up F'

(280d) tsine:ki:ʔa 'I am picking up Q'

The verb root -y- 'pick up a long object' is suppletive in this set.

The root -u:- 'in the water' together with -ki:- and -y- give (281a) and (281b).

(281a) ku:ki:ʔa 'I am taking R from the water'

(281b) tsiʔu:yihsiha 'I am taking L from the water'

(281c) kvʔki:ʔa 'I am taking F from the water'

The suffix *-ihs-* of (281b) is unexplained. The remainder of that verb base, *-hu:y-*, contains the same *-h-* as *-hu:t-* 'put L in the water'. The base *-vnhki:-* of (281c), with the effects of metathesis removed, is the *-vn-* 'put F in the water' of (274c) plus the *-h-* 'flexible object of (278c), in its expected position, plus *-ki:-*.

The root *-ki:-* cooccurs with *-hsa-* 'elevated position' to give the unclassified verb for 'take down'.

(282) tsiʔsaki:ʔa 'I am taking it down'

The noun roots *-na-* 'flexible object' and *-ne:-* 'liquid' combine with the root *-wahth-* 'find' in (283).

(283a) tsiʔwahthfha 'I am finding R'

(283b) tsiyvʔwthfha 'I am finding L'

(283c) tsinaʔwthfha 'I am finding F'

(283d) tsine:ʔwthfha 'I am finding Q'

The *-h-* of *-hwahth-* 'find R' is probably related to *-h-* 'have R' in (266a)=(267a). The *-yv-* of (283b) is unexplained. It may be related to *-y-* 'pick up L' of (280b).

The famous Cherokee verbs for 'wash' include two classificatory stems. Both of these are built on the verb root *-i:lo:-* 'wash'.

(284a) ku:ʔi:lo:ʔa 'I am washing R'

(284b) kvʔki:lo:ʔa 'I am washing F'

The stem of (284b) appears to contain the base *-vnhki:-*

'take F from the water'. The status of the -h- in the base -u:hi:lo:- of (284a) is not certain but the -u:- is surely 'in the water'.

Two remaining classificatory verbs do not participate in the regularities so far discussed and remain to be analysed. They are the verbs for 'eat' and 'fall'.

Three of the verbs for 'eat' are built on the verb root -k- 'eat'. The fourth carries a meaning close to the English 'sop'.

(285a)	tsiki?a	'I am eating R'
(285b)	tsi?sti:ki?a	'I am eating L'
(285c)	tsi?ya:ki?a	'I am eating F'
(285d)	tsi?su:?a	'I am eating Q'

The words for 'fall' are built on stems of the general shape -oHo- , where H can be either laryngeal. They mark animate subject rather than liquid.

(286a)	kohohska	'R is falling'
(286b)	a:hso?ohska	'L is falling'
(286c)	a:to?ohska	'F is falling'
(286d)	kalo?ohska	'A is falling'

This discussion by no means covers all of the classificatory verbs of Cherokee. This list is, however, long enough to display the mechanisms involved.

## APPENDIX A: BODY PARTS

The following list of body parts with the first singular pronominals is provided for readers interested in comparative study.

- a:khskwɔ:hlf:ʔi 'my abdomen/belly'  
a:kwakhse:ni 'my anus'  
tsiʔno:ké:ni 'my arm'  
tsiʔsohi:ʔi 'my back'  
tsikiʔlké:ni 'the back of my neck'  
tsiʔanu:lvhʋ:ʔi 'my beard'  
tsiye:lʋ:ʔi 'my body'  
a:kinv:tsf:ta 'my brain'  
titsinv:tf:ʔi 'my breasts'  
tsilo:tiké:ni 'my brow'  
tsiʔlé:ni 'my ear'  
tsiʔkhuhské:ni 'my elbow'  
tsikʔtho:li 'my eye'  
a:kikhthé:sayu:wanʋ:ʔi 'my eyebrow'  
a:kwakhathʋ:ʔi 'my face'  
tsikv:také:ni 'my forehead'  
tsf:ye:hsatʋ:ʔi 'my finger'  
a:kwáhlsi:hté:ni 'my foot'  
a:khstiyehkv:ʔi 'my hair'  
a:kwo:yé:ni 'my hand'  
tsiʔskó:li 'my head'

a:kina:hwf 'my heart'  
 tsiti:ʔké:ni 'my heel'  
 tsiʔyuhké:ni 'my jaw'  
 tsinv:ʔské:ni 'my leg'  
 a:khine:kaʔlʋ:ʔi 'my lip'  
 a:kwati:tatʔʋ:ʔi 'my navel'  
 tsiʔo:li 'my mouth'  
 tsiʔyvhtsé:ni 'my neck'  
 tsiʔyvhsó:li 'my nose'  
 a:kw:ʔthó:li 'my penis'  
 tsinv:wó:ʔi 'my shoulder'  
 kaʔthohʋhi 'his tail'  
 tsi:kalo:ʔi 'my thigh'  
 tsiʔnahsatʋ:ʔi 'my toe'  
 tsiʔntohkv:ʔi 'my tooth'  
 a:kwale:stahlv:ʔi 'my vulva'

## APPENDIX B: KIN TERMS

The following list of kin terms with the first singular possessor is provided for those readers interested in comparative study.

- a:kili:si 'my maternal grandmother'
- a:kit:ʔtu 'my maternal grandfather'
- a:kini:hsi 'my paternal grandparent'
- a:kĩtsi 'my mother/maternal aunt'
- a:kitu:tsi 'my maternal uncle'
- a:kito:ta 'my father/paternal uncle'
- a:kĩhlo:ki 'my paternal aunt'
- v:kitóhi 'my sibling of the opposite sex'
- v:kilv:ʔi 'my sister (female ego)'
- tsohstahlinʔ:tshi 'my brother (male ego)'
- a:kwataliʔi 'my wife'
- a:kihyéhi 'my husband'
- a:kwe:tsi 'my child'
- v:kwá:tha 'my niece'
- v:kiwi:na 'my nephew'
- a:kitsóhi 'my daughter-in-law'
- a:kihnatsi 'my son-in-law'
- v:kiʔlo:hsi 'my son-in-law'
- ta:kwahlthinaʔʔ:ʔi 'my family'
- ti:kiyv:wí 'my clan'

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