## Data presentation: Cherokee

1. Basic information and phonological system
(1) Basic language information
(a) Language name: Cherokee Alternate name: Tsalagi, Tslagi (Ethnologue)
(b) Classification: Iroquoian > Southern Iroquoian (Ethnologue)
(c) Spoken: Oklahoma, North Carolina (King 1975 (henceforth K): 2)
(d) Number of speakers: • 11,000 total / 1050 in NC (K: 1)

- 15,000 to 22,500 total / 1000 in NC (1986, 1997; Ethnologue)
(2) Consonant chart (K: 17; Qualla (NC) dialect)

|  | Bilabial | Dental | Palatal | Velar | Glottal |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Oral stops |  | t |  | k | $?$ |
| Fricatives |  | s |  |  | h |
| Affricate |  | ts |  |  |  |
| Nasals | m | n |  |  |  |
| Liquid |  | 1 |  |  |  |
| Glides |  |  | j | w |  |

- NB: No bilabial stops (characteristic of Iroquoian; typologically unusual) (K: 8, 16)
(3) Vowel chart (K: 17; Qualla dialect)

|  | Front | Central | Back |
| :--- | :---: | :---: | :---: |
| High | i |  | u |
| Mid | e | $\tilde{\Lambda}$ | o |
| Low |  | a |  |

- Vowel length and pitch accent are also contrastive categories (K: 18)

2. Morphological typology
(4) Morphological type: "polysynthetic" (K: 4, 162)
"each regular verb stem can have over 21,000 possible forms" (K: 34)
(a) Minimal verb (K: 36, 162): pronominal prefix + root + aspect suffix + modal suffix
k - e: - k - a [ke:ka]
1sG go ASP:PRES MOD:PRES [sic] 'I am going'
(b) Maximally complex verb ( $\mathrm{K}: 37$ ), with respect to number of morphemes
ji - w - akw - ata - sk - kwalo-st - ain - (i)to - ?1-i COND DISTANT Osubj.1sGobj REFL head bump CAUS ASP:PRFAMB ASP MOD:PRF [jiwakwata:skwalo:sta?nito?li] 'if I go about bumping my head at a distant place'

- AMB = ambulative; /sk/ 'head' is incorporated
- Verbs that fill every position in this structure are actually rare (K: 37)
(c) If K is right that (b) is a grammatical word, then Cherokee certainly looks polysynthetic
(5) Morpheme types found in Cherokee
(a) Free morphemes
- Some nouns are free morphemes: /se:lu/ 'corn' /tsihstu/ 'rabbit'
- "Particles" - "sequences of phonemes comprising one or two morphemes which express modification of or relationship between nouns and/or verbs" (K: 40) implication is that some particles are free morphemes (but which? morpheme analysis not given for examples in text)
(b) Affixes: Many
- Prefixes (examples)
(i) On verbs (K: 35, 58, 60): pre-pronominal prefixes (/ka-/ neg, /ts(i)-/ EmpIRICAL), pronominal prefixes (see below), reflexive prefixes (/at(a)-/, /al(i)-, /a-/)
(ii) On nouns (K: 39, 60): distributive prefix (/te-/, a type of pre-pronominal prefix), pronominal prefixes (see below)
- Suffixes (examples)
(i) On verbs (K: 35, 78, 87): "derivative" suffixes (/ihst/ causative), aspect suffixes (/?-/ PRESENT [sic]), modal suffixes (/-a/ indicative)
(ii) On nouns (K: 39): "attributive" suffixes (/-ja/ 'real')
(iii) On "particles" (K: 40) (prepositions and adverbs?): "attributive" suffixes (/-kwo/ 'still', /-ju/ 'very')
(6) Has noun incorporation, but mostly only with body parts, articles of clothing (K: 37); see example in (4b) above
(a) Apparently no synchronic evidence presented that this really is incorporation
(b) "Since noun incorporation is much more important in the Northern Iroquoian languages, it is assumed that the occurrences in Cherokee are vestiges of a once previously elaborate system." (K: 153)
- Thus, Cherokee is expected to have incorporation on genetic grounds


## 3. Inflectional morphology

(7) Example phenomenon: Pronominal prefixes (K: 49)
(a) - "specify the semantic category of the participant or the participants"

- "obligatorily precede every verb and inalienably possessed noun stem"
- "Pronominal prefixes used with nouns are the same as those used with verbs. ... only ten sets are used with noun stems, while sixty sets are used with verbs..."
(b) Morphosyntactic features involved (K: 49)
- case: subject, object
- person: 1, 2, 3, inclusive, exclusive, "zero (absence of subject or object)"
- number: singular, dual, plural
- gender: "in some instances animate and indefinite in the third person"
(c) These prefixes appear to show some simultaneous exponence

Noun prefix examples (K: 51)

| person, <br> number | 1sG | 1dU.EX | 1PL.EX | 1DU.IN | 1PL.IN | 2sG | 2DU | 2PL | 3sG | 3DU/P <br> L |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| active | tsi-,k- | o:st(i)- | o:ts(i)- | i:n(i)- | i:t(i)- | h(i)- | st(i)- | i:ts(i)- | ka-/k-/ <br> a-/zero | an(i)- <br> stative |
| aki-,ak <br> w- | o:kin(i)- | o:k(i)- | ikin(i)- | i:k(i)- | ts(a)- | st(i)- | i:ts(i)- | u:- | u:n(i)- |  |

(8) Analysis: Pronominal prefixes appear to be inflectional because:

- pretty clearly morphosyntactic meaning
- obligatory for V, certain N
- agreement: "...every verb must agree in person, number, and gender (where applicable) with both the subject and the object of the verb. Thus, the pronominal prefix for a verb is selected for compliance with this rule."

4. Derivational morphology and compounding
(9) Example of derivational morphology

Nouns can be derived from verbs with the addition of /-ski/ AGENTIVE or an "infinitive suffix" (K: 39) (morphological analysis not provided)
[tekatsilo:stiha] 'I am drawing it' vs. [titatsilo:stiski] 'camera'
[tsiluhjska] 'I am chopping' vs. [ka:luhjsti] 'ax' ([sti] sic)
(10) Example of compounding
"Some" verb roots can form compounds (K: 36)
[tsiki:Ra] 'I am eating', [tsistoRa] 'I am pounding it' vs. [tsiki:stoRa] 'I am chewing'

- NB: K does not provide morphological analysis; $\begin{array}{llllll}\text { apparently: / tsi } & \text { ki: } & \text { sto } & ? & \text { a / } \\ & \text { 1sG.ACTIVE } & \text { eat } & \text { pound } & \text { ASP:PRES } & \text { MOOD:INDIC }\end{array}$

5. Theoretical questions and discussion
(11) Definition of word (K: 34)
(a) "The Cherokee word is a unit of meaning or meanings composed of a sequence of phonemes isolated from other sequences by junctures or pauses."

- This looks like a (partial?) definition of phonological word
(b) "It is a unit of one or more morphemes whose presence and arrangement are governed by syntactic rules."
- Syntactic here may simply be referring to structure-based rules; in any case, this looks more like a definition of grammatical word
(c) No cases of mismatch between phonological and grammatical words seem to be discussed
(12) Interesting phenomenon: "Classificatory verbs"
(a) Description (K: 97)
"...verbs which recognize semantic categories for subjects of transitive verbs and objects of intransitive verbs. Not only do these verbs describe action but they also convey the substantive nature of the subject or object involved in the action. More than thirty sets of classificatory verbs have been recorded ... These verbs differentiate netween five semantic categories: flexible, long and rigid, liquid, animate, and an all-inclusive category which encompasses items which do not fit in any of the other classes. For convenience, this category is referred to as round." (K: 97)
- Some of the verbs in this set are suppletive, while in other cases, compositional morphemes can be identified (K: 98)
(b) Examples (K: 105-106)

|  | round | flexible | long and rigid | liquid | animate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'leave it' | -hi:j- | -Rní:j- | -it?si:j- | -hi:j- | -khahi:j- |
| 'place in a row' | -ne:- | -n^ne:- | -te:- | - | -khane- |
| 'place on ground' | -? - $^{\text {- }}$ | -nи́:?^- | -t- | - | -nи́:?^- |
| 'be on the ground' | -h- | -hna- | -tsi:j- | -neh- | -hnP- |

(c) Analysis

- Choice of verb here depends on characteristics of subject or object
- Not agreement, but seems to qualify as government (Stump 1998) and therefore as a type of inflectional morphology
- Resembles a noun-class (gender) system, except for the lack of actual agreement
(d) Possible origin
- K reports that some researchers think this system is a remnant of earlier noun incorporation patterns
- "Evidence to support this is found by way of comparison with related languages. Chafe (1967:54 lists -nek- as the Seneca noun root for liquid, water, drink, and whiskey," vs. compositional LiQuID morpheme /-ne-/ in Cherokee (K: 99)
(e) If this is a case of incorporation (which involves lexical morphemes) becoming government (inflection), this would be an example of grammaticalization (as discussed in Aikhenvald 2007)


## Reference

King, Duane Harold. 1975. A Grammar and Dictionary of the Cherokee Language. Doctoral dissertation, University of Georgia.

