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24

The Iroquoian Language Family

Marianne Mithun

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The Iroquoian languages of North America are often taken as prototypical examples of polysynthesis: they have potentially elaborate morphological structure, particularly in verbs, and they are head marking, with core arguments identified on predicates. All but one show extensive noun incorporation. They vary in degree of fusion, though none are strictly agglutinating.

The family consists of two branches (see Map 24.1 for the distribution of Iroquoian languages). Southern Iroquoian is represented only by modern Cherokee. At contact, the Cherokee inhabited a large area of the Southeast. In 1838–9 most were forced to march to Oklahoma, where they live today, though some remain in western North Carolina (see Map 24.2 for the distribution of speakers of Iroquoian languages before contact).

Northern Iroquoian has undergone several splits. First to separate were the Tuscarora and Nottoway. The Tuscarora were in eastern North Carolina at the time of first contacts with Europeans, but in the early eighteenth century they moved north, eventually settling in western New York State and southern Ontario. The Nottoway were in Virginia; their language has not been spoken since the nineteenth century. Next to separate were the Wendat (Huron). They were first encountered in southern Ontario, but in the mid seventeenth century they were decimated by warfare. Some survivors moved east toward Quebec City, where their descendants live today. Others took refuge among Five Nations Iroquois groups in New York State. Still others joined neighbouring Northern Iroquoians whose languages are not well known: the Petun or Tionontati, the Neutral, the Wenro and the Erie. This mixed group, known as the Wyandot, migrated toward Detroit and ultimately into Oklahoma. Wendat was probably last spoken in the late nineteenth century, and Wyandot in the late twentieth.

The remaining Northern Iroquoians developed into the Susquehannock and the Five Nations Iroquois: Seneca, Cayuga, Onondaga, Oneida and Mohawk. The Susquehannock, also known as the Andaste, were first encountered by Europeans about 1615 in south-eastern Pennsylvania. Their

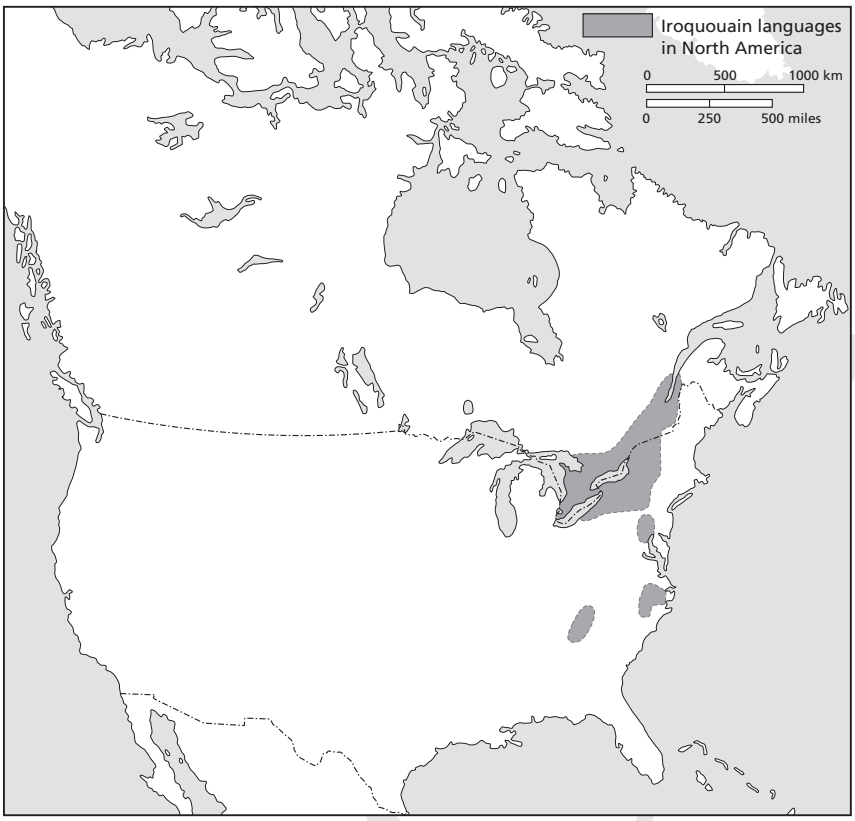
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Map 24.1 Iroquoian languages in North America. Licensed under Wikipedia Commons (reproduced by David Cox for Cambridge University Press)

language was last spoken in the mid eighteenth century. The Five Nations formed the powerful League of the Iroquois, with territory stretching across modern New York State. The Seneca were at the western edge, the Cayuga to their east, the Onondaga in the centre near modern Syracuse, the Oneida to their east, and the Mohawk at the eastern edge. Most Seneca still reside in

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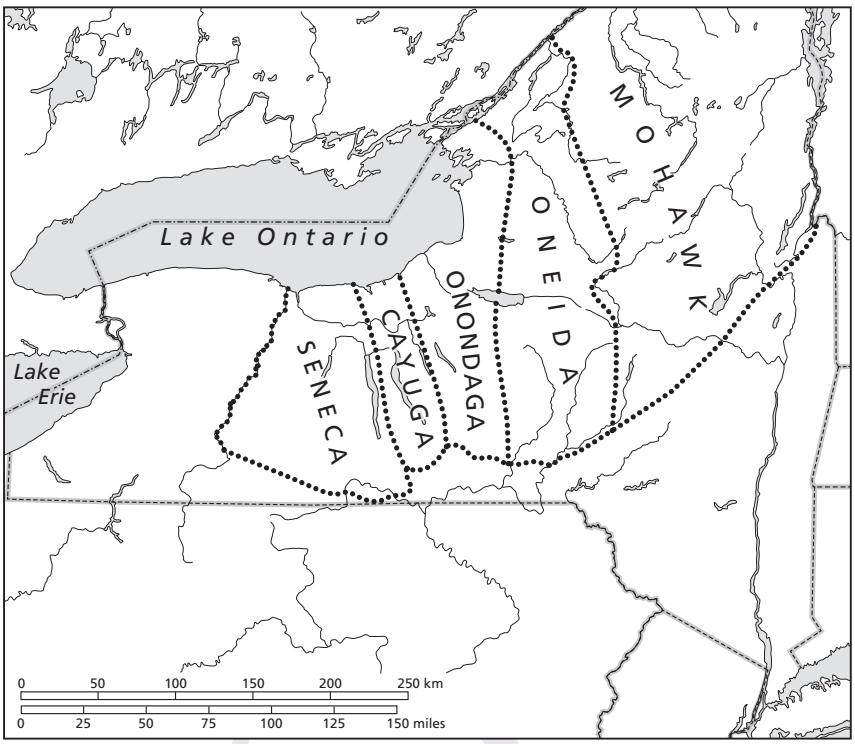
Map 24.2 Iroquoians at first contact. © Geological Survey (reproduced by David Cox for Cambridge University Press)

western New York. Most Cayuga moved to Six Nations, Ontario, after the American Revolution, though some went to Oklahoma. The Onondaga now reside in central New York and at Six Nations. Most Oneida moved to southern Ontario, and from there some moved on to Green Bay, Wisconsin. Nearly all Mohawk left eastern New York during the seventeenth and eighteenth centuries. There are now six Mohawk communities in Ontario, Quebec and New York State. Still other Northern Iroquoians, known as the Laurentian, were encountered by Jacques Cartier when he sailed up the Saint Lawrence River in 1534 and 1535, but by the time Champlain arrived in 1603, they had vanished (see Map 24.3 for the Iroquois five nations).

Genetic relations among the languages with documentation beyond vocabulary are sketched in Figure 24.1.

All show effects of contact. Cherokee shares a few features with the unrelated Muskogean languages in the Southeast. Wendat influences can be seen in each of the Five Nations languages. The influence of Five Nations languages can be seen in Tuscarora. After the American Revolution, Onondagas and Cayugas joined the Senecas in western New York for a period, and they share important innovations from that time.

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Map 24.3 Iroquois five nations. © Canadian Encyclopedia (reproduced by David Coxf or Cambridge University Press)

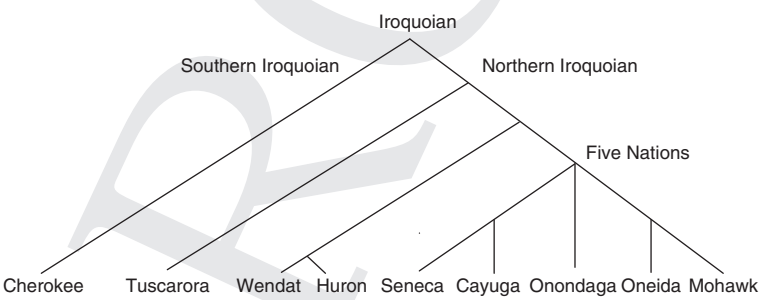


Figure 24.1 Genetic relationships among major Iroquoian languages

24.1 Phonology

The consonant and vowel inventories of the languages are small. Most have consonants *t, č, k, kʷ; s, h, ʔ; n, r/l, w, y* [IPA j]. Most have four or five oral vowels and one or two nasal vowels.

Typologically the inventory is noteworthy for the scarcity of labials. Cherokee and Wyandot have developed an *m* generally from *w* adjacent to a nasal vowel or in loans. Cherokee *ama* and Wyandot *amę?* 'water',

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for example, have cognates in Tuscarora *à:wę?*, Nottoway *auwa* (as spelled by nineteenth-century English speakers), Wendat *aoüen* (as spelled by seventeenth-century French speakers), and in the Five Nations languages with a place ending **ʔke*, Onondaga *awę́ʔke*, Oneida *awʌ́:ke* and Mohawk *awèn:ke* referring to a body of water such as a pond, river, lake, etc.[1]

Obstruents are voiced before voiced sounds to varying degrees in the different languages. Some community orthographies represent plain stops as <d> and <g>, and stop+h clusters as <t> and <k>. There is some evidence that in Seneca these clusters are being reanalysed as single aspirated consonants. In Proto-Northern-Iroquoian, open stressed syllables were lengthened, but closed syllables remained short. Syllable boundaries separated stop+h clusters: **yo.ték.haʔ* 'it is burning'. In modern Seneca, th and kh no longer close syllables: *o.d**e:**.kaʔ*.

Of special typological interest are developments involving laryngeals, stress, accent, pitch and tone. In Proto-Northern-Iroquoian, stress was basically penultimate (not including an epenthetic linker), and, as noted, open stressed syllables were lengthened. A single *h* following a stressed vowel was ambisyllabic, however, closing the preceding syllable: *oháhaʔ 'road'.

Tuscarora continues the pattern with a phonetic innovation in pitch. Most stressed syllables show high pitch if short and rising pitch if long, as in Proto-Northern-Iroquoian. An open stressed syllable before a single sonorant (*n, r, w, y*) followed by a short vowel, however, shows falling pitch: *ratšhù:rih* 'he is eating', *rakę̀:yaws* 'he empties it', but *rá:nę:* 'he is generous'. Pretonic syllables before a sonorant also show length and falling pitch: *ù:rà:neh* 'corn soup'.

Seneca has developed complex patterns of vowel length and accent. A detailed discussion is in Chafe (2015). The final forms cited below are in the community orthography.

(1) Seneca vowel length
   a. Lengthen vowels before a single, final non-laryngeal consonant.
      *waʔkek > *oʔkek > oʔke:k = o'ge:g 'I ate it'
   b. Lengthen vowels (except *a*) in odd penultimate syllables not followed by a laryngeal.
      *waʔkniyǫtęʔ > oʔkhni:yǫtęʔ = o'kniyö:dëde' 'I hung it'
   c. Lengthen all vowels in even penultimate syllables except before a laryngeal.
      *hrayętʰwahs > hayę:thwas = hayë:twas 'he plants'

Accent is realized primarily as high pitch. There may be multiple accented syllables in a word.

(2) Seneca accent
   a. Ignore the initial syllable.

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b. Accent the first syllable of a trochee if either or both of its syllables are closed.
Syllables are closed if they end in an obstruent. Single laryngeals are ambisyllabic.

*te	hę nę?	ní kǫh	ra węn	yá? tha?	>	dę́në'nígöënyá'ta'
1	2	3	4			'they enjoy themselves'

Here foot 1 is strong because the second syllable *ne?* ends in a laryngeal *?*, so its first syllable is accented. Foot 2 is strong because the second syllable *kǫh* ends in a laryngeal *h*, so its first syllable is accented. Foot 3 is weak because neither syllable is closed. Foot 4 is strong because both syllables end in laryngeals, so again the first syllable is accented.

(2) c. Final syllables are never accented.

*hra	tí yęth	wahs	>	hadíyëtwas
1				'they plant'

Many Seneca words contain no accented syllables because they contain no strong trochaic feet: *teyakotawęnye:h > *deyagodawënye:h* 'people are moving about'.

The loss of *r and intervocalic *h has resulted in sequences of vowels. If the second vowel in a sequence is accented, the accent spreads leftward to include both: *ęhratekhǫni? > *ę́ǫ́tekhǫ:ni?* = *ę́ǫ́dekö:ni'* 'he will eat'. If the first is accented, however, the accent does not move rightward, and the result is a falling pitch: *onęhakwekǫh > *onę́ǫkwe:kǫh* = *onë́ögwe:göh* 'whole corn'. Utterance-medial forms receive ultimate accent.

Cayuga has developed a complex stress system which also involves syllable count from both ends of the word. Stress is realized primarily as high pitch.

(3) Cayuga stress and length

a. Stress even-numbered penultimate syllables.
Lengthen the vowel unless it is closed by a laryngeal.
kakaho?tsí:ya?s 'it cuts grass' = 'lawnmower'

b. Stress odd-numbered open penultimate syllables (except most containing *a*).
Lengthen the stressed vowel.
ękathętǫ́:ni? 'I will garden'
(ha?sátawę: 'swim this way')

c. Lengthen the antepenultimate vowel before a stressed penult, unless it is followed by a laryngeal.
aka:thǫ́:te? 'I heard it'
(osáhe?ta? 'bean')

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d. If the odd-numbered penult is closed or contains *a*, stress the antepenultimate.
ękektęháyętho? 'I will plant carrots/beets/turnips'
tsǫháhatih 'across the road'

v. If the second of two adjacent vowels would be stressed, move stress to the first.
áekhne:? 'we two should go'

If none of the above conditions are met, the word may have no stress: *itke?s* 'I am here', *ihe?s* 'he is here'. As in Seneca, utterance-medial forms receive ultimate stress.

Cayuga has also developed interesting patterns of laryngeal spreading. In odd-numbered syllables closed by a laryngeal, laryngeal features spread leftward across the syllable. If the laryngeal is *h*, the syllable is voiceless, as in the third and fifth syllables of *akatą̇hohtǫ̇háe'*.

satahǫhtóhae 'Wash your ears!'
akatą̇hohtǫ̇háe' 'I have washed my ears'

If the laryngeal is a glottal stop, the syllable is creaky and the onset consonant glottalized, as in *akatṅ̥tsóhae'*.

satnu'tsǫ̇háe 'Brush your teeth!'
akatṅ̥tsóhae' 'I have brushed my teeth'.

If the onset is a laryngeal, however, the spreading does not take place, as in the third syllable of *satahǫhtóhae* above. (In Oklahoma Cayuga, this restriction has disappeared.)

Mohawk has generally retained the ancestral pattern of penultimate stress and vowel length in open stressed syllables, but laryngeals affect pitch. Most stressed syllables show high or rising pitch: *ráhstha'* 'he uses it', *rará:ta's* 'he steps on it'. If, however, a stressed vowel is followed by *h* plus a sonorant (ÝhR), or by a glottal stop (Ý?), the laryngeal produces a special pitch pattern, an extra high rise followed by a plunge to below the baseline. Before another consonant, the laryngeal disappears, leaving length.

*okáhra? > *okà:ra'* 'eye'
*rakahrá?ke > *rakhrà:ke* '(on) his eye'.

If the glottal is not followed by another consonant, the stressed syllable still shows falling pitch and length, but the glottal remains:

*ní?i > *nì:'i* 'I myself'.

When a word with an open stressed syllable is phrase-medial, the pitch rise continues into the following syllable: *akwé:kón enwá:ton'* 'Everything is possible'.

Oklahoma Cherokee has developed a more complex accent and tone system, described in detail in Uchihara (2013). Uchihara identifies six pitch

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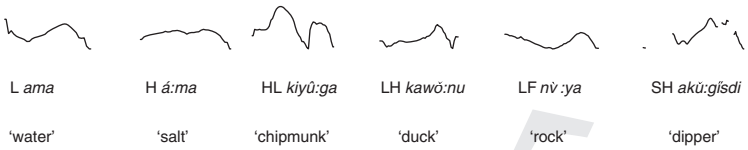


Figure 24.2 The six pitch patterns in Oklahoma Cherokee (Uchihara 2013: 2)

patterns on syllables: low, high, low-high, high-low, lowfall and superhigh (see Figure 24.2).

The emergence of tone is recent, and its source can be traced. Uchihara shows that the six pitch patterns can be organized into four contrastive tones: low, high, lowfall and superhigh. The default is low. There are at least four sources of the high tone: H1 from glottal stop (< *ʔC, *Cʔ, *VʔV), H2 on stem-final mora, H3 on prepronominal prefixes and H4 a variant of superhigh accent. The source of the lowfall is *ʔC. The source of the superhigh is accent. The tone-bearing unit for the lowfall, H3, H4 and superhigh types is the syllable; for the low and H1 and H2, it is the mora. The low, lowfall and H4 tones do not spread. The H1, H3 and the superhigh tones spread leftward. H2 spreads rightward. As Uchihara points out, the system is of typological interest for a number of reasons in addition to the fact that it occurs in a polysynthetic language: the source of both high and lowfall tones in glottal stop, the coexistence of rightward and leftward tone spreading, the coexistence of tone and accent, and the morphosyntactic use of accent.

Cherokee also shows other patterns involving laryngeals (King 1975: 41–2; Cook 1979: 7–12; Scancarelli 1987; Flemming 1996; Munro 1996; Montgomery-Anderson 2008: 70–2; Uchihara 2013: 65–92). One has been described as metathesis. If a short low-tone (neutral) vowel is followed by *h*, the two metathesize: [arrows]CVh –> ChV. If there is no onset or the onset is *h*, the process does not occur. If the sequence is followed by an obstruent (ChVT), the short vowel is then lost (CVhT –> ChVT –> ChT). If the sequence is followed by a vowel, the short vowel is optionally lost, but only if the onset is an obstruent: TVhV –> ThVV –> Th(V)V. In *t**a**hihívsi* –> *thihívsi* 'you will set it down', the *a* of the original initial syllable is lost, but the *i* of the original second syllable remains, since it is preceded by *h*. If the sequence is followed by a sonorant, the vowel remains (ChVR): *ak**i**hnvvwáànvʔi* –> *aà**khi**nvvwáànv* 'he cured me'. If the onset is a sonorant, it is devoiced (R̥): *w**i**hik**a**hthi* –> *hwikhthi* [ẉikhthi] 'you're heading there'. These processes could alternatively be described as laryngeal spreading, with devoicing spreading leftward across the preceding syllable followed by a loss of voiceless vowels. Vowels are also lost from CV sequences under the same conditions.

Flemming (1996: 23) notes that in at least some Oklahoma dialects, coda glottal stops are pronounced as glottalization and lengthening of the

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preceding vowel. Cook (1979: 6) notes that in some North Carolina dialects, they are realized as glottalization of the preceding vowel and a fall in pitch. This is reminiscent of the Cayuga and Mohawk patterns. Cherokee shows an additional process involving laryngeals, laryngeal alternation (Munro 1996; Uchihara 2013: 93–111). Certain pronominal prefixes, among them the first person singular agent and those involving animate patients, trigger replacement of the first *h* in the following stem with a glottal stop.

h-grade	*à-**h**vvʔa*	3SG.AGENT-move.PRES.PROG	'she's moving it'
glottal grade	*jì-ʔvvʔa*	1SG.AGENT-move.PRES.PROG	'I'm moving it'

Before a consonant, the laryngeal is lost and the preceding syllable has a lowfall tone. Uchihara provides detailed discussion of the interaction of laryngeals and tone.

24.2 Morphology

Three or four lexical categories can be distinguished on the basis of morphological structure: particles, nouns, verbs and, in Cherokee, adjectives. Classes of noun and verb roots are distinct: noun roots serve only as the basis for nouns or are incorporated, and verb roots only as the basis for verbs or nominalization. Categories defined in terms of morphological structure do not necessarily coincide with those defined in terms of syntactic function, however (Mithun 2000).

There are numerous prefixes and suffixes, but no infixes. The morphology is strongly templatic. The templates are largely similar across the languages except at the edges, where small differences have developed in the various branches.

24.2.1 Particles

By definition particles have no internal structure, but they may be compound. Some are discernibly descended from verbs, but most are now unanalysable. Particles serve a variety of lexical, syntactic, and discourse functions. Typical Mohawk particles include *thí:ken* 'that', *thó:* 'there', *ó:nen* 'at the time, now, then', *shé:kon* 'still, again', negative *iáh*, prohibitive *tóhsa'* 'don't', polar interrogative *kén*, interrogative pronouns *ónhka'* 'who', *kátke* 'where', conjunctions *tánon'* 'and', *nektsi* 'because', intensifier *kwáh* 'quite', evidential *iá:ken'* 'it is said', and other discourse and interactive particles like *ki'* 'as a matter of fact', *(h)én* 'yes', *hánio'* 'OK, come on'. Similar (but not necessarily cognate) particles appear in all of the other languages.

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24.2.2 Nouns

In the Northern Iroquoian languages, basic morphological nouns contain a gender prefix, noun stem and noun suffix.

(4) Basic Mohawk nouns

ká-khw-a’	o-hsì:t-a’
NEUTER-food-NOUN.SUFFIX	NEUTER-foot-NOUN.SUFFIX
‘food, meal’	‘foot’

Morphological nouns are all neuter. (Words referring to persons, such as ‘man’ and ‘boy’, are morphological verbs, which must be overtly nominalized to be incorporated. Gender categories on verbs are described in §24.2.3.2.) The neuter prefixes, which do not distinguish number, resemble the pronominal prefixes on verbs. Mohawk *ka-* and *w-* are neuter agent verbal prefixes (with *w-* before vowels *a, e, ę*); *io-* and *iaw-* are neuter patient prefixes. The noun forms lack initial glides. Tuscarora basic native nouns all begin with neuter *u-*, cognate to Five Nations *o-*. Similar prefixes can be discerned in Cherokee *kanʌ́nowa* ‘pipe(s)’ and *uukama* ‘soup’. All of the languages also contain unanalysable words that function as nouns, such as Cherokee *jooli* ‘tobacco’, *nohji* ‘pine’ and *seélu* ‘corn’.

Noun stems may be roots, like Mohawk *-khw-* ‘food’ above, or derived. In the Northern languages, noun stems can be formed with nominalizing suffixes added to verb stems.

(5) Mohawk
kahiatón**hser**a’
ka-hiaton-hser-a’
NEUTER-write-**NOMINALIZER**-NOUN.SUFFIX
‘paper’

In Cherokee, whole verbs already inflected for arguments and aspect may be nominalized with suffixes. Cherokee examples cited here are drawn from Montgomery-Anderson (2008).

(6) Cherokee (Montgomery-Anderson 2008: 442)
anééhluhvsk-**i**
anii-eehluhvks-óʔi
3PL.AGT-should.INCOMPL-**NOMINALIZER**
‘cheerleaders’

In all Iroquoian languages, possession is indicated by pronominal prefixes in place of the gender prefixes on nouns. In the Northern languages, prefixes resembling the verbal agent pronouns indicate inalienable possession, and prefixes resembling verbal patient pronouns indicate alienable possession (Mithun 1996, 2001).

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(7) Mohawk

khnia'sà:ke	**ak**hnià:sa'
k-hnia's-a'ke	**ak**-hnia's-a'
1SG.INAL.POSS-throat-place	**1SG.AL.POSS**-collar-NOUN.SUFFIX
'my throat (place)'	'my collar'

The languages vary somewhat in the distinctions made in the possessive prefixes. In Mohawk, inalienable prefixes distinguish first, second and third persons; inclusive and exclusive first persons; singular, dual and plural number, and, in third person, inanimate neuter, neuter/zoic/feminine, feminine/indefinite and masculine genders. Alienable possessive prefixes do not distinguish inclusive and exclusive first persons, nor dual and plural third persons.

In the Northern languages most body parts are classified as inalienable. Those with an external surface, like 'throat' above, consistently appear with a place suffix. Disconnected body parts are generally classified as alienable. Fingernails are inalienable when attached to the finger: Mohawk ***k****-tsi'erà:ke* '**my** nail(s)'. Fingernail clippings, however, are alienable: ***ak****-tsi'erà:ke*. There is variation with nouns for eyebrows and eyelashes, but hair is grammatically alienable whether attached or not. And a number of nouns referring to internal organs appear with alienable possessive prefixes and no place ending, such as 'heart', 'liver', 'kidney', lung', 'blood' and 'bone'.

In Cherokee, prefixes resembling the agent and patient pronominal prefixes on verbs (usually termed set A and set B respectively) are also used to identify possessors, but the alienability distinction is not quite as clear as in the North.

(8) Cherokee (Montgomery-Anderson 2008: 424)

jiìhnko	**akw**oyééni
ji-xʌ̀hnko	**akw**-oyééni
1SG.A-tongue	**1SG.B**-hand
'**my** tongue'	'**my** hand'

Body part terms that occur with set A possessors include 'ear', 'nose', 'finger', 'tooth', 'shoulder', 'leg', 'backbone', 'thigh', 'heel', 'forehead', 'mouth', 'body', 'cheek', 'arm', 'throat', 'hip', 'eye' and 'head'. Those that occur with set B prefixes include 'fingernail', 'skin', 'lips', 'face', 'foot', 'heart', 'navel', 'chin', 'hair', 'fur' and 'liver'. The noun *-aakwali* 'butt' occurs with set A prefixes, but the noun *-aksééni*, also glossed 'butt', occurs with set B (Montgomery-Anderson 2008: 400–1). Plurality can be indicated by a prepronominal distributive prefix: ***ti****-ka-nvʌ̀skééni* 'his leg-**s**'. Alienable possession of other objects such as clothing is indicated with grammatical patient or set B prefixes: ***akw****-aasalééni* '**my** coat'.

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In many languages, inalienable possessions include kinship terms, but in Iroquoian most kinsmen are not classified as possessions at all. Kinsmen are designated by morphological verbs expressing relationships. Terms for asymmetrical relationships include pronominal prefixes resembling transitive prefixes in verbs, with the senior kinsman as agent and the junior kinsman as patient. For most terms, the root also indicates the direction of the relationship.

(9) Mohawk
rakhsótha
rak-hsot=ha
M.SG>1SG-be.grandparent.to=DIM
'he is grandparent to me' = 'my grandfather'
riiaterè:'a
rii-atere'=a
1SG>M.SG-have.as.grandchild=DIM
'I have him as grandchild' = 'my grandson'

Symmetrical relations are expressed in reciprocal verb forms.

(10) Mohawk
onkiara'sè:'a
onki-ar-a'se'=a
1DU.PAT-REFL-be.cousin.to=DIM
'We two are cousins to each other' = 'my cousin'

Cherokee kinship terminology patterns much the same way, with fewer distinctions in third person. Transitive prefixes with third person agents match intransitives with just patients: set B forms are used.

(11) Cherokee (Montgomery-Anderson 2008: 444, 436)
akiji
aki-ji
1SG.B-mother
'she is mother to me' = 'my mother'

tiintaanv́v́thl
ti-anii-ataat-nv́v́thla
DIST-3PL.AGT-REFL-brother.of.man
'they are brothers to each other' = 'his brother'

Possessive constructions are rarer in Iroquoian than in many other languages. In the Northern languages, noun incorporation is often used where possessive constructions would be used in other languages.

(12) Mohawk
Ensakahrani'kerón:ko'.
en-sa-kahr-an-i'ker-on-ko-'
FUT-2SG.PAT-eye-MID-float-DIST-REVERSIVE-PFV
'Your eye will twitch.'

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This construction does not directly express possession. It describes the effect of twitching on the listener, adding detail about the location with the incorporated noun. Incorporated nouns in such constructions are not restricted to those that would appear with inalienable possessive prefixes as independent nouns.

(13) Mohawk
Ia'tesa'kharaké:tote'.
ia'-t-esa-'khar-a-ketot-e'
TRANSLOCATIVE-DV-2SG.PAT-slip-LINKER-peek-STATIVE
'Your slip is showing.'

Noun incorporation is discussed further in section 24.2.3.3.

In the Northern languages, words that function syntactically as nominals can be followed by enclitics: an augmentative, diminutive, distributive, characterizer, residential, decessive, an ending deriving a term for a location, or one meaning 'original, authentic, prototypical'. They may co-occur, as in the Mohawk *onkwe=honwe=hnéha'* person=original=CHARACTERIZER 'Indian language, style, etc.'

24.2.3 Verbs

As is typical of polysynthetic languages, verbs can show the most morphological complexity. All verbs contain minimally a pronominal prefix identifying the core arguments of the clause, a verb root and an aspect suffix, in bold in Figure 24.3. Verbs may additionally contain one or more prepronominal prefixes, a reflexive or middle prefix, one or more derivational suffixes and a final suffix.

In the Northern languages, a noun stem may be incorporated directly before the verb root. Relics of incorporated nouns can be seen in Cherokee, but incorporation is no longer productive.

The prepronominal prefixes in the two branches are shown in Figure 24.4. Most are cognate. As in many languages, negative constructions have undergone renewal in both branches.

The derivational and inflectional suffixes in the two branches are shown in Figure 24.5.

The pronominal prefixes distinguish grammatical role, person, number and, in some languages, gender, though not all are distinguished in every form.

PREPRONOMINAL PREFIXES	**PRONOMINAL PREFIXES**	REFLEXIVE PREFIX	NOUN STEM	**VERB ROOT**	DERIVATIONAL SUFFIXES	**ASPECT SUFFIXES**	FINAL SUFFIXES

Figure 24.3 Iroquoian verb morphology

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SOUTHERN IROQUOIAN

NEGATIVE	TRANSLOCATIVE	PARTITIVE	DISTRIBUTIVE	CISLOCATIVE	REPETITIVE	NEGATIVE
RELATIVE				FUTURE		

NORTHERN IROQUOIAN

CONTRASTIVE	TRANSLOCATIVE	FACTUAL	DUPLI-CATIVE	FUTURE	CISLOCATIVE
PARTITIVE NEGATIVE				OPTATIVE	REPETITIVE

Figure 24.4 Iroquoian prepronominal prefixes

SOUTHERN IROQUOIAN

REVERSIVE	CAUSATIVE INSTR	BEN APPLIC	ANDATIVE	PUR-POSIVE	ITER	PROG	REP	COMPL	ASPECT	MODE

NORTHERN IROQUOIAN

REVERSIVE	CAUSATIVE INSTR	BEN APPLIC	ANDATIVE	PURPOSIVE	DIST	PROG	ASPECT	TENSE

Figure 24.5 Iroquoian suffixes

24.2.3.1 Grammatical Roles

There is no evidence of either nominative/accusative or ergative/absolutive alignment. The roles of core arguments are indicated solely by pronominal prefixes on verbs (Mithun 1991). There are three pronominal prefix paradigms: grammatical agents, grammatical patients and transitives.

(14) Mohawk grammatical agents

k-atkétskwahs	'**I** get up'
k-atitáhkwahs	'**I** climb out'
ke-rákwahs	'**I** choose'
ke-'nikonhrà:tha'	'**I** cheat'
ke-'niá:ken's	'**I** escape'
k-atá:wenhs	'**I** bathe'
ke-nhó:tonhs	'**I** close (a door)'
k-ia'táta's	'**I** bury (things)'

(15) Mohawk grammatical patients

wak-atshenón:ni	'**I** am happy'
wák-hteron's	'**I** am scared'
wak-í:ten	'**I** am poor'
wak-ó:kas	'**I** have a blister'
wake-'nkonhráksens	'**I** am sad, crying'
wak-ata'karí:te'	'**I** am in good health'
waké-ka's	'**I** like it, find it tasty'
wak-í:ta's	'**I** sleep'

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(16) Mohawk transitives

khei-otiesáhtha'	'**I** cause **her** distress'
khè-nonks	'**I** call **her**'
khe-ia'tohtáhrhos	'**I** alienate **her**'
khe-hshénhtha'	'**I** insult **her**'
khé:-tenhre'	'**I** pity **her**'
khe-hrewáhtha'	'**I** punish **her**'
khé:-nis	'**I** lend **her** (things)'
khena'tón:ha's	'**I** show **her** (things)'

This might at first appear to be an active/stative system. Getting up in the morning and climbing out of a car are actions, while being happy or scared are states. A closer look shows that aspect is not the criterial feature. Iroquoian verbs are obligatorily inflected for aspect. The Northern languages distinguish habituals, perfectives and statives. The verbs in (17) are all habitual, but they have patient prefixes.

(17) Mohawk

wak-ia'tishónhkhwa'	'**I** shiver'
wake-nà:khwenhs	'**I** get angry'
wake-'nikónhrhens	'**I** forget'
wak-ahtón:ni	'**I** lose things'
wake-nonniá:nis	'**I** get fed up'
te-**wak**steríhens	'**I** hurry'
te-**wak**-henréhtha'	'**I** yell'

The verbs in (18) are statives, but they have agent prefixes.

(18) Mohawk

ke-'nikòn:rara'	'**I** am careful'
ke-ná:ie	'**I** am conceited'
k-atón:ron	'**I** am adept'
k-hseró:hen'	'**I** am quick-tempered'
k-entórha'	'**I** am lazy'
k-kénie's	'**I** am able'

The primary difference between the verbs here with agents and those with patients is control. Getting up and climbing out typically involve some control, as do being careful and conceited. Being frightened and sleeping involve less control, as do shivering, getting angry and forgetting. A given verb stem can normally appear with only one prefix paradigm, but one can compare the verb *-anonwet* 'sleep over, spend the night', which requires agents, and *-ita'* 'sleep', which requires patients: ***k****-anón:wets* '**I** sleep over, spend the night', ***wak****-í:ta's* '**I** sleep'. Some other smaller patterns can be discerned: many verbs for inherent states require agents, for example, and many for resultant states require patients.

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The rationale behind paradigm choice is not always transparent synchronically. The agent prefix in ***k****-atenniskwátha'* '**I** am tardy' might seem puzzling, but this verb is also translated '**I** take my time'. The patient prefix in ***wak****-ahtón:ni* '**I** lose (things)' is not surprising, but it is even more easily understood in terms of its etymology. This stem consists of the root *-ahton* 'disappear' followed by the benefactive applicative suffix *-ni*: '(things) disappear on me'. The patient prefix in *en-**wake**-ríohte'* '**I** (PATIENT) will die from it' is not surprising, but this verb stem also has internal structure: *-rio-ht-* kill-INSTRUMENTAL. APPLICATIVE: 'I will be killed with it'.

One pattern has become regularized. Northern Iroquoian verbs fall into two classes with respect to aspect inflection: event verbs and stative-only verbs. Event verbs have habitual, perfective and stative forms: habitual *katkétskwahs* 'I get up', perfective *wa'katkétsko'* 'I got up', stative *wakatkéskwen* 'I have got up'. Stative-only verbs have only stative forms: *kónnhe'* 'I am alive'. The stative forms of event verbs, particularly those with consequences, often take on perfect meanings. These all require patient prefixes.

(19) Mohawk

wak-atkétskwen	'**I** have got up'
wake-rákwen	'**I** have chosen'
wak-atitáhkwen	'**I** have climbed out'
wake-'nikonhrhà:ton	'**I** have cheated'
wake-'niakèn:'en	'**I** have escaped'
wak-atá:wen	'**I** have bathed'
wake-nhó:ton	'**I** have closed (it)'
wak-ia'táten	'**I** have buried (it)'

The use of stative forms for perfects is not surprising: perfects denote states resulting from previous events. If I have got up, I am now up, no longer volitionally controlling the event.

The Cherokee system is similar. Set A agent prefixes, cognate with the Northern Iroquoian agent prefixes, occur with both actions and states.

(20) Cherokee Set A agent prefixes (Montgomery-Anderson 2008: 171)

ji-wóoniha	'**I** am talking'
ji-iyewska	'**I** am sewing (it)'
ji-kaàthiíya	'**I** am waiting for it'
ji-ʔsamááti	'**I** am smart'
ji-jalaki	'**I** am Cherokee'
ji-kayʏ́vl	'**I** am old'

Set B patient prefixes, cognate with the Northern Iroquoian patient prefixes, also occur with both events and states.

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(21) Cherokee Set B patient prefixes (Montgomery-Anderson 2008: 232, 244)

aki-yeelv̌	'**I** am deaf'
aàki-yoósiha	'**I** am hungry'
aki-yeelvvhá'aʔi	'**I** am naked'
aàk-htlv́v́ka	'**I** am sick'
aki-lvv́khwtha	'**I** like it'
aàk-eehluuhv́ska	'**I** am screaming'

Other verbs with set B patient prefixes include states like being hot, angry, wrinkled, in hiding, hungry and tired, as well as events of coming into states like getting sick, dizzy, angry, drunk and warm, or sitting down or perching, but also other uncontrolled events such as tripping, fainting, slipping/sliding, coughing and yawning.

These are not 'split S' systems. In all Iroquoian languages, there are transitive verbs that occur with a patient, identified by set B prefixes, and another participant, like Cherokee 'feel, know (something)', 'wear', 'crave', 'be curious about', 'listen to', 'smell' and 'believe'.

As in the Northern languages, speakers do not make paradigm choices as they speak; the appropriate paradigm is learned with each verb, but paradigm choice has become regularized for one of the aspects. Cherokee distinguishes present progressive, incompletive, immediate and completive aspects. When completives are used for past events, the set B patient prefixes are used. The present progressive ***ji****-nvvkalíha* 'I am cleaning it' and the incompletive habitual ***ji****-nvvkaliisko* '**I** clean it' both have set A agent prefixes, for example, but the completive ***aàki****-nvvkalvvhvʔi* '**I** cleaned it' has a set B patient prefix.

(22) Cherokee completives (Montgomery-Anderson 2008: 270)

aàkw-vvnoosahv	'**I** swept it'
aàkw-akhtoóstanv	'**I** looked at it'
aàkw-alstvvhlúnvv̌ʔi	'**I** sat down'
t-**aàkw**-ateehyoóhnvv̌ʔi	'**I** taught'
aàkw-uuhiilóoʔv	'**I** washed it'

In all Iroquoian languages, transitive verbs with two animate arguments use the same transitive prefixes in all aspects: Cherokee ***jii****-nvvkalvvhvʔi* '**I** cleaned **him'**.

These are secundative systems. Because there are positions in the verb template for only two core arguments, there are no ditransitive constructions. Events involving a semantic agent, patient/goal/theme, and recipient, are expressed in transitives with the recipient or beneficiary (usually a human or personified animal) cast as the grammatical patient. A patient/goal/theme may or may not be mentioned in an incorporated noun.

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(23) Mohawk
En**kón:i**on'
en-**koni**-on-'
FUT-**1SG>2SG**-give-PFV
'**I** will give (it) to **you**.'

24.2.3.2 Person, Gender and Number

Pronominal prefixes in all of the languages distinguish person, gender and number, but not in every form. First, second and third persons are distinguished, and within first, inclusive and exclusive. In the Northern languages, inclusives and exclusives are distinguished only for agents.

Gender is distinguished only in third person. Cherokee distinguishes just two genders, a basic third person and an indefinite animate. This is an element in transitive prefixes with indefinite/unspecified/generic agents and in those with animate patients. In Northern Iroquoian an additional masculine gender was added, reducing the original third person category to just feminine and neuter. Wendat continues this system with three genders: feminine/neuter, masculine and indefinite/generic. At a certain point, speakers of Five Nations languages began using the generic 'one' as a sign of respect for certain female persons. This continues to be the situation in modern Mohawk, Oneida and Onondaga. In Cayuga, Seneca and Tuscarora, the generic has been extended to all female persons. Inanimate neuters are overtly identified in the pronominal prefix only if there is no other argument.

Singular, dual and plural number are distinguished in all of the languages, but not in every form. In Cherokee there are distinct dual forms only for first and second persons. In the Northern languages, dual and plural number are distinguished for first and second persons, and third person animate agents. Tuscarora has innovated dual forms for third person patients as well.

Sample intransitive agent and patient pronominal prefix paradigms from the three major branches, Cherokee, Tuscarora and Mohawk, are in the Appendix.

24.2.3.3 Noun Incorporation

Noun incorporation consists of the compounding of a noun stem with a verb stem to form a new verb stem. It is highly productive in the Northern Iroquoian languages, but there remain only faint traces of it in Southern Iroquoian. As in noun-noun compounding, the dependent noun is not referential. It simply qualifies the head in some way. It may evoke an identifiable entity: if I say in English *I have a headache*, my listener will know what head is involved, but if I follow that with *It is huge*, my listener will not assume that I am referring to my head.

In the Northern Iroquoian languages, nouns are compounded with both intransitive and transitive verb stems. Examples here are all drawn from

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Mohawk. When the verb stem is transitive, the resulting stem may be syntactically intransitive or transitive.

(24) Eni**ohser**esónhake'
en-i-**ohser**-eson-hak-e'
FUT-N.AGT-**winter**-be.long-CONTIN-PFV
'It will be a long winter.'

Enhse**rihw**a:ronke'
en-hse-**rihw**-ahronk-e'
FUT-2SG.AGT-**matter**-hear-PFV
'You will hear news.'

If the resulting stem is transitive, the incorporated noun may be related semantically to an independent lexical nominal, like *-nahskw-* 'domestic animal' below, narrowing the meaning of the verb, here 'livestock-have'. (An epenthetic linker *-a-* is inserted between a consonant-final incorporated noun stem and a consonant-initial verb root.)

(25)	Tiótkon	ni'	ionkwa**náhskw**aien'		ki:,	**kítkit**
	tiotkon	ni'i	ionkwa-nahskw-a-ien-'		kiken	kitkit
	always	1	1PL.PAT-**domestic.animal**-LINKER-lie-STATIVE		this	**chicken**

'We always used to have chickens.'

But there may also be no relation between the incorporated noun and independent lexical nominals, like *-rist-* 'metal' in 'metal-drag' = 'survey'.

(26)	Rati**rist**ì:sere's	onkwehonwè:ne.
	rati-**rist**-i'sere'-s	onkwe=honwe=hne
	MPL.AGT-metal-drag-HAB	person=real=place

'They were surveying Indian land.'

As in noun-noun compounding, the semantic relation of the dependent noun to the head is not specified by the structure, though certain kinds of semantic relations often appear because they are useful for qualifying verbs. Incorporated nouns often evoke types of semantic patients, but they may also evoke semantic instruments, locations, and other kinds of entities.

(27) Tenkoni**ahsir**awèn:'eke'
t-en-koni-**ahsir**-a-wen'ek-e'
DUPLICATIVE-FUT-1SG>2SG-**blanket**-LK-wrap-PFV
'I will blanket-wrap you' = 'I will wrap you up in a blanket.'

(28) Tontahiate**rist**íta'
t-onta-hi-ate-**rist**-it-'a-'
DUPLICATIVE-CIS.FACT-M.DU.AGT-MID-**iron**-be.in-INCH-PFV
'They travelled back along the railroad tracks.'

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Noun incorporation in the Northern languages can be highly productive, but it is a word-formation process. The productivity is not a property of the construction as a whole, but of individual noun and verb stems. Some noun stems are exploited often for new formations, some less often and some never. Some that are particularly productive tend to be useful for qualifying situations, such as *-ia't-* 'body' which indicates physical effects and *-'nikonhr-* 'mind' for mental effects. Similarly, some verb roots incorporate extensively, some often, some occasionally and some never. Some verb roots with general meaning, such as *-iio* 'be good' and *-ke* 'be multiple', never occur in Mohawk without an incorporated noun. The strength of lexicalization of noun–verb combinations varies partly with the productivity of the components. But most are processed as chunks by speakers who know which combinations exist and their precise meanings and uses.

Incorporation can appear to be recursive, but each combination is formed by a separate word-formation process, with an established, lexicalized noun stem.

(29) Ahsani'tskwahra'tsherakarhátho'.
aa-hs-[an-i'tskw-a-hr-a'tsher]-a-karhat-ho-'
IRR-2SG.AGT-[MID-rump-LINKER-set.on-NMLZ]-LINKER-turn-REVERSIVE-PFV
'You might [thing you set your rump on] tip over' = 'You might tip over a chair'

Noun incorporation serves lexical, syntactic and discourse functions in Northern Iroquoian. It can create vocabulary for specific concepts, like 'survey' above. It can provide speakers with choices in argument structure as below, where the incorporation of 'ear' allows the addressee to be cast as the core argument instead of the ear.

(30) Tenhsahonhtá:kahre'.
t-en-hs-ahonht-a-kahr-e'
DUPLICATIVE-FUT-2SG.AGENT-ear-LINKER-make.noise-PFV
'You will ear-be.noisy.' = 'Your ears will ring.'

Incorporation also allows speakers to manipulate the flow of information through discourse. At the first mention of a significant referent, speakers might use a separate noun to direct attention to it. Once established, the idea might be carried along by incorporated nouns. In the passage below, the soup was first introduced with the noun *onón:tara'*. It was next maintained as part of the scene by the incorporated noun *-nontar-* in 'soup-serve'.

(31)	É'	thó:	kana'tsáhere'	karistà:ke	**onón:tara'**.
	e'	tho:	ka-na'ts-a-her-e'	ka-rist-a'ke	o-nontar-a'
	there	there	N-pot-LINK-set-STATIVE	N-iron-place	N-soup-NOUN. SUFFIX

'There was a pot of **soup** sitting on the stove.'

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[They invited her to sit down to eat with them.]

Wa'e**nontar**arónnion'	ne	iakón:kwe.
wa'-e-**nontar**-a-r-onnion-'	ne	iak-onkwe
FACT-FI.AGT-**soup**-LINKER-put.in-DIST-PFV	the.aforementioned	FI-person

'The woman kept **soup**-serving' = 'The woman kept serving the soup.'

Light verbs with incorporated nouns are also used as presentatives.

(32)

Kanonhsó: tahkwe'	iá;ken',	tekaronta'serónnion'.
ka-**nonhs**-ot-ahkwe'	iak-en-'	te-ka-ront-a'ser-onnion-'
N.AGT-house-stand-PAST	FI-say-HAB	DUPLICATIVE-N.AGT-log-pile-DIST-STATIVE
it used to house stand	HEARSAY	it is log piled on top of log

'There used to be a house there they say, a log cabin.'

Noun incorporation is no longer productive in Cherokee, but traces can be discerned. There are modern, synchronically unanalysable verb roots with elements that are cognate with nouns in Northern languages.

(33)

Noókwútvv	jitasuúla
noókwu=tvv	ji-tee-a-asuúl-a
now=FOC	REL-DISTRSW-3SG.AGT-wash.hands-IMMED

'He just washed his hands.' (Montgomery-Anderson 2008: 320)

The Cherokee verb root *-asuúl-* is now simply 'wash hands', but it appears cognate to its Northern counterparts like Mohawk *-ahtsi-ohare-* and Oneida *-ahtsy-ohale-* 'hand-wash'. A number of Cherokee verbs involving liquids contain an element *-neh-*, like *-neha* 'have.liquid'.

(34)

Uúkáma	aàkinéha.
uúkáma	aki-néha
soup	1SG.PAT-have.liquid.PRES

`I have soup.' (Montgomery-Anderson 2008: 276)

The element *-neh-* appears to be cognate with the Northern noun root *-hnek-* 'liquid'.

A number of Cherokee verbs distinguish as part of their meaning the shape or consistency of a closely involved participant. Termed 'classificatory verbs' (Haas 1948; Reyburn 1952: 81, 1954; King 1975: 97–106; Cook 1979: 185–92; Blankenship 1996; Montgomery-Anderson 2008: 264–6), they often pertain to handling physical objects, with meanings such as

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'have', 'hold', 'handle', 'break', 'drop', 'give', 'carry', 'hang up', 'take down', 'hide', 'find', 'pick up', 'set down', 'place in a row', 'push aside', 'put into water', 'take out of water', 'put into fire', 'take out of fire', 'put into a container' and 'take out of a container'. Some are intransitive verbs of motion or position, in some cases related to handling verbs, such as 'fall', 'be hanging', 'be in water', 'be on a raised surface' and 'be on the ground'. Some, such as 'give', distinguish five types of entities: animate, liquid, flexible, long and rigid, neutral/compact.

(35) Oklahoma Cherokee classificatory verbs (Blankenship 1996: 61)
a. Wèésa gà-**káà**-nèè'a.
cat 3SG>3SG-**animate**-give.PRES.PROG
'She is giving him a cat.'
b. Àma gà-**nèèh**-néé'a.
water 3SG>3SG-**liquid**-give.PRES.PROG
'She is giving him water.'
c. Àhnàwo gà-**nvv́**-nèè'a.
shirt 3SG>3SG-**flexible**-give.PRES.PROG
'She is giving him a shirt.'
d. Gànsda àa-**d**-éé'a.
stick 3SG>3SG-**long**-give.PRES.PROG
'She is giving him a stick.'
e. Kwàna àà-**h**-nèè'a.
peach 3SG>3SG-**compact**-give.PRES.PROG
'She is giving him a peach.'

Other verbs distinguish only some. Not surprisingly, there are no forms for washing or cutting off something liquid, or for eating or cutting off something animate. King (1975: 104–6) provides a list of thirty sets of classificatory verbs. In many cases, elements of the roots can be discerned which correspond to the classes. These elements occur in a position in the verb comparable to that of incorporated nouns in the Northern languages, after the pronominal prefix and before the rest of the verb root.

24.2.3.4 Verb Functions

As in other languages, morphological verbs can serve as syntactic predicates. They can also serve as complete clauses in themselves. In the Northern languages, they also often function as referring expressions with no overt nominalization. Examples are again from Mohawk.

(36)

Sà:newe'	ne	**iatonhwentsí:saks**.
sa-hn-ew-e'	ne	i-at-onhwents-isak-s
REP.FACT-M.DU.AGT-arrive-PFV	ne	M.DU.AGT-MID-land-seek-HAB
they two arrived back	the	**they two land-seek**

'The **explorers** returned home.'

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Wahakena'tónha'se'	to:	nika'shátste'	thi:
wa-hake-na'ton-ha's-e'	to:	ni-ka-'shatst-e'	thiken
FACT-M.SG>1SG-show-BEN.APPL-PFV	how	PRT-N.AGT-be.strong-STATIVE	that

tewa'kenhrakwáhtha'.
te-w-a'kenhr-a-kw-aht-ha'
DUPLICATIVE-N.AGT-dirt-LINKER-pick.up-INS.APPL-HAB
it picks up dirt
'He showed me how strong the **vacuum cleaner** was.'

Some are nonce forms, but more are lexicalized. Some occur with the verbal forms of pronominal prefixes, with glides like the *w-* here, while others, particularly well-established ones, appear with the noun forms that lack glides, like *o-hwist-a-nó:ron* 'gold' (NEUTER-metal-LINKER-be.precious).

24.2.4 Adjectives

In the Northern Iroquoian languages, there is no distinct adjective category. Qualities expressed by adjectives- in other languages are generally expressed by stative verbs in these languages. They serve as predicates on their own, without a copula. Many incorporate nouns.

(37) Keksa'taksénhne.
ke-ksa't-aks-en-hne
1SG.AGT-child-be.bad-STATIVE-PAST
'I was a naughty child.'

In Cherokee, many property concepts are expressed with verbs, as in Northern Iroquoian.

(39) Aàliiheélíìkvʔi.
a-aliiheélíìk-vʔi
3SG.AGT-be.happy.INCOMPL-EXPERIENCED.PAST
'He was happy.' (Montgomery-Anderson 2008: 493)

But the language has also developed a small discernible adjective category (Lindsay and Scancarelli 1985). Like verbs, Cherokee adjectives contain pronominal prefixes. Those with agents include *éékwa* 'huge, large', *-ahyathééna* 'wide', *-kééta* 'heavy', *-khééwi* 'blind', *-alijóóhita* 'fat', *-chinóósta* 'straight', *sakhoóníkééʔi* 'blue', *-kííkákéeʔi* 'red', *eehlawééʔi* 'quiet', *-vvjahlánvvhi* 'fried'. Some that appear with patients are *-ăthana* 'big, large', *-yóóʔi* 'bad', *-ééthi* 'old' (of objects), *-nééka* 'white', *-ootúúhi* 'pretty', *-hyvvtla* 'cold', *-skanóóli* 'slow', *-thlóóyi* 'same', *-vkhééwi* 'deaf and dumb', *-waàsvvhi* 'numb', *-astíiʔi* 'little', *-eéhanʔi* 'rich' *-khayóóta* 'dry', *-aleesóóta* 'skinny', *-alskééta* 'important, sacred', *-alstuʔííta* 'open' and *-alsuúhwita* 'coloured' (Montgomery-Anderson 2008: 499–500). Unlike verbs, adjectives do not distinguish tense or aspect.

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(40) Júúskwakahli
ti-uu-ŕskwakahli
DIST-3SG.PAT-spotted
'spotted', 'it is spotted' (Montgomery-Anderson 2008: 500)

Tense and aspect can be added with a copula.

(41) Kalijóóhit jikeesv
ka-alijóóhita ji-kees-vv̀ʔi
3SG.AGT-fat REL-be.INCOMPL-EXPERIENCED.PAST
'He was fat.' (Montgomery-Anderson 2008: 493)

Number for animates is distinguished in the pronominal prefixes, as for verbs. Plurality of inanimates is indicated by a distributive prefix *ti-*.

(42) **An**óóst soókwíli
anii-óósta soókwíli
3PL.AGT-good horse
'good horses'
jóóst tikahljoóte
ti-óósta ti-kahljoóte
DIST-good DIST-house
'good houses' (Montgomery-Anderson 2008: 502)

Distributive prefixes appear on both verbs and nouns in Cherokee, but in slightly different forms. The form on adjectives matches that on nouns: *ti-*. (On verbs, the plural pronominal prefixes are used only for humans, but on adjectives, they are used for all animates.) Montgomery-Anderson (2008: 503) notes that for purposes of number marking on adjectives, fruits and vegetables are classified as animate.

Many Cherokee adjectives are derived. Most are formed from verbs with the deverbalizer suffix *-vv̀ʔi*, the participial *-ta* or the negative deverbalizer *-vv́na* in combination with the partitive prefix *ni-*. They are used predicatively and attributively, and as nouns on their own.

(43) Nookw juuyvwéechon**v̋** keese
nookwu ti-uu-yvwéej-ohn-**vv̀ʔi** kees-éʔi
now DIST-3SG.PAT-be.tired. be.INCOMPL-NON.EXP
COMPL-TRM-**DEVERBAL**
jiist.
jiistu
rabbit
'The rabbit was wore out.' (Montgomery-Anderson 2008: 501)

(44) Uwóóthi**ta** uùtskwalvvthv́vi.
uu-oothi-**ta** uu-tskwalvvthć́vʔi
3SG.PAT-swell- 3SG.AL.POSS-ankle
PARTICIPIAL
'His ankle is swollen.' (Montgomery-Anderson 2008: 492)

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(45) **N**analiiheélíik**ʸ́ʸ́na** tiiniiyóóthli
ni-anii-aliiheélíik-ʸ́ʸ́na ti-anii-yóóthli
PRT-3PL.AGT-be.happy.INCOMPL-**NEG. DEVERBALIZER** DIST-3PL.AGT-child
kookiihnooseélv.
kookii-hnooseél-ʸ́ʔi
3PL>1PL.EXCL-tell.COMPL-EXP
'The unhappy children told us.'
(Montgomery-Anderson 2008: 508)

The deverbalizer, added to the completive form of the stem, has nearly the same shape as the experienced past suffix, but it differs in tone: *-ʸ́ʸ́ʔi* rather than *-ʸ́ʔi.*

Other adjectives are derived mainly from mass nouns with the attributive suffix *-hᵃ́ᵃ́ʔi.* They appear with agent prefixes and are used both predicatively and attributively.

(46) Jikaataahᵃ́ᵃ́ʔi
ji-kaataa-hᵃ́ᵃ́ʔi
1SG.AGT-dirt-ATTRIBUTIVE
'I am dirty.' (Montgomery-Anderson 2008: 495)

(47) Uunvvkalvvhv
uu-nvvkalvvh-vʸ́ʔi
3SG.PAT-clean.COMPL-EXP.PAST

khostuu**hᵃ́**	koohweel	tiithlvʸ̀ti
khostuu-hᵃ́ᵃ́ʔi	koohweeli	ti-a-thlvvt-i
dust-**ATTRIBUTIVE**	book	DIST-3SG.AGT-put.on. DEVERBAL-NMLZ

'He cleaned the **dusty** bookshelf.' (Montgomery-Anderson 2008: 509)

Adjectives derived with the attributive suffix include *atahᵃ́'aʔi* 'woody', *khoòstuhᵃ́ᵃ́ʔi* 'dusty', *noyuh'aᵃ́ᵃ́ʔi* 'sandy', *kaataah'a'aʔi* 'dirty', *amayih'a'aʔi* 'watery', *kikahᵃ́ᵃ́ʔi* 'bloody', *alihᵃ́ᵃ́ʔi* 'sweaty', *ohlah'aᵃ́ᵃ́ʔi* 'soapy', *hlawoòthuuhᵃ́ᵃ́i* 'muddy', and *koʔihᵃ́'aʔi* 'greasy, oily' (Montgomery-Anderson 2008: 509).

Comparatives can be formed from root adjectives with the addition of an intensifier suffix *-kééʔi, -iiya* or *-kha: kalʸ́láti* 'high', *kalvʸ́láti-kééʔi* 'high-er', *asamᵃ́ᵃ́ti* 'smart', *aàsamat-iiya* 'smart-er', *uustʸ́ʸ́* 'small', *uustʸ́ʸ́-kha* 'small-er'. The suffixes are considered phonologically and lexically conditioned allomorphs. An intensifying adverb *uutli* or *uukóòti* may also be used: *uutli uukhayóóta* 'more dry', *uukóòti úúthana* 'bigger'.

24.3 Syntax

Iroquoian languages are thus polysynthetic and head marking: grammatical relations are specified only by pronominal prefixes in the verb, and

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many other distinctions expressed only syntactically in some languages can be expressed morphologically in Iroquoian verbs. Nevertheless, even in Iroquoian languages there is a clear distinction between morphology and syntax. Numerous phonological processes apply within words but not across word boundaries. Speakers never pause within words and then continue. They know the meanings of whole words and can manipulate the morphology in sometimes dazzling ways, but without linguistic training, they cannot identify bound morphemes or their functions, something they can certainly do with independent words. The order of morphemes within Iroquoian words is rigid: violating it would render the word unrecognizable to speakers. The order of words within sentences, by contrast, is extremely fluid. The fact that so much is expressed morphologically is probably not unrelated to the rarity of multi-word constituents. The richness of the morphology has a powerful effect on speech: it means that speakers often have choices about whether to express particular ideas morphologically or syntactically, and the choices are principled and meaningful.

24.3.1 Holophrasis

Iroquoian languages could be said to be holophrastic in a specific sense: a single word, a morphological verb, can and often does function as a complete sentence in itself. All verbs contain both predicate and arguments. These are not 'pro drop' languages: the counterparts of regular unstressed pronouns in languages like English are present in every verb. The languages do contain independent pronouns as well, but these are relatively rare in speech and highly marked pragmatically, indicating various kinds of contrast or occurring when there is no verb (Mithun 2013). They do not alternate with the pronominal prefixes, but occur in addition to them, usually with distinctive prosodic patterns.

(48) Mohawk
Ì:' *khwistarò:rok.*
ì:'i k-hwist-a-rohrok
1 1SG.AGT-money-LINKER-gather
'Let **me** collect the money [not you].'

(49) Cherokee (Montgomery-Anderson 2008: 477)
a. **Ahyv** kéeka
ahyv k-éeka
1 1SG.AGT-go.PRES.PROG
'**I** am going (even if nobody else is).'

b. Káako uujeeli hi?a kiihli? **Aya**.
káako uu-jeeli hi?a kiihli aya
who 3SG.AL-possession this dog 1
'Whose dog is this?' '**Mine**.'

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The independent pronouns make fewer distinctions than the pronominal prefixes. The first person independent pronoun, for example, represents first person singulars, duals and plurals; inclusives and exclusives; and grammatical agents, patients, inalienable possessors and alienable possessors. The independent pronouns are not cognate across Northern and Southern Iroquoian, though the prefixes are.

24.3.2 Word and Constituent Order

In spontaneous speech, Iroquoian sentences generally contain noticeably fewer words than languages like English. This difference is undoubtedly related to the amount of information contained within verbs. The extent of complex constituent structure beyond the word is limited.

Constituent order is nearly fully pragmatically determined. Apart from initial discourse particles, constituents are generally ordered in decreasing order of newsworthiness. A constituent may be newsworthy because it introduces a significant new referent or event, it signals a shift in topic or it highlights a contrast of some kind. Interrogative pronouns, the focus of content questions, appear initially.

Such patterns can be seen in the excerpts below from a Mohawk anecdote. A hunter customarily distributed extra meat to his neighbours. One day a white salesman came by. The important new idea here was this visitor; the word 'whiteman' appeared before the light presentative verb 'he came'.

(50) ['So then after a while it seems that]
ra'serón:ni éh nontà:re'.
he axe makes there there he came
a whiteman came by there.'

The salesman offered to give the hunter something. He then elaborated, introducing a new referent, a box, before repeating the verb 'I will give you'.

(51) **Karontò:tshera'** enkónion'.
box I will give you
'I'll give you a **box**.'

He promised that the hunter would never again need to feed his neighbours, because he could keep his meat in the box. The hunter was happy. Now the box, an established part of the scene, appeared after the verb.

(52) Tó:ske tsi rotshennón:ni
really how he was happy
'He was really happy
ó:nen sha'tethonhawíhton ki:ken, **karontò:tshera'**.
now when he would bring him this box
that he would bring him this thing, a **box**.'

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The box (a freezer) was delivered and set up. When the salesman asked about plugging it in, the verb 'he said', a new event, appeared first, before the salesman, who was already an established part of the scene.

(53) Wahèn:ron' ne.. ra'serón:ni, '. . .'
he said the.aforementioned he axe makes
'The whiteman said, ". . . "'

Once the freezer was connected, the salesman announced that no matter how much meat the hunter had, he would never again need to give it to his neighbours. In his next sentence, the noun 'box' appeared before the verb, this time because it contrasted with the neighbours as a destination for the meat.

(54) Akwé: kénh nón: **karonto'tsherá:kon** enhséta'.
all here place box interior you will insert
'You'll put everything in the box.'

As can be seen in the above excerpts, complex constituent structure is very limited. An article 'the aforementioned' can appear immediately before nominals, as in ***n**e ra'serón:ni* '**the** (aforementioned) whiteman' above. But demonstratives do not generally form demonstrative constituents with coreferential lexical nominals. They sometimes appear immediately before or after them, but they more often appear on their own, even in a separate intonation unit as in *ó:nen sha'tethonhawíhton ki:ken, . . . karontò: tshera'* above, 'now he would bring him this, . . . box'. They also co-occur with articles.

(55) Wahathnió:ten' **thí:ken**.
he stood it upright that
'He stood it upright, **that thing**.'

(56) **Thí:** nè:'e wahatitáhko' ki'na, ken' niká: **ne kawistóhtha'**.
that it.is he took it out I guess small so it is sized the it makes it cold
'**That thing** he took out I guess, it was pretty small, **the freezer**.'

Quantifiers like *akwê:* 'everything' in (54) tend to appear clause-initially.

24.3.3 Complex Sentences

Some constituency can be seen in complex sentence constructions. In the Northern languages all verbs are finite, inflected for arguments and aspect. Complex sentences can consist simply of juxtaposed clauses, the second of which could be interpreted as an argument of the first. Often the whole is spoken under a single overall prosodic contour, with full terminal fall only at the end. The irrealis verbs in the complement clauses below could occur on their own as sentences: 'I might/would/could waste it', 'she would roast them'.

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(57) Mohawk

Iáh	tè:kehre’	a:katié:sahte’.
iah	te’-k-ehr-e’	aa-k-at-iesaht-e’
not	NEG-1SG.AGT-want-STATIVE	IRR-1SG.AGT-MID-waste-PFV

‘I do not want [to waste it].’

(58) Mohawk

Iáh	newén:ton	tha’teiotenhwentsióhon
iah	newenton	tha’-te-io-aten-hwentsioh-on
not	ever	CONTR-DUPLICATIVE-N.PAT-MID-necessary-STATIVE

‘Never will it be necessary

ónhka’ok	thé:	ó:ia’	aonsahshé:nonte’.
onhka’=ok	thenen	oia’	a-onsa-hshe-nont-e’
who=ever	anything	other	IRR-REPETITIVE -2SG>FI-feed-PFV

[for you to feed anyone again].’

(59) Tuscarora

Yaku?neθwé:kih	aryę?θkę́hsę?.
yaku-a?ne-θwek-ih	ar-ye-a?θ-kęhsę-?
F.SG.PAT-MID-want-STATIVE	IRR-F.SG.AGT-body-roast-PFV

‘She wanted [to roast them].’

(60) Tuscarora

Kwęhs	ahrakwè:ni?	ęθáhračnęht
kwęhs	aa-hra-kweni-?	ę-θa-hr-ačnęht
no	IRR-M.SG.AGT-be.able-PFV	FUT-REP-M.SG.AGT-descend.PFV

‘He would be unable [to get down].’

In the Northern languages complements can also be preceded by a particle, though the particles are not necessarily cognate across the languages. Mohawk complements are sometimes preceded by a demonstrative ‘this’ or ‘that’, usually in the same intonation unit as the matrix, by the particle *tsi* ‘at, as, how’, or by the article *ne* ‘the aforementioned.’

(61) Mohawk

Iáh	newén:ton	tha’teiotenhwentsóhon	thi:
iah	newenton	tha’-te-io-aten-hwentsoh-on	thiken
not	ever	CONTR-DV-N.PAT-MID-be.necessary-STATIVE	that

‘It will never be necessary

[aonsahshé:ion’	thi	onkwehón:we
a-onsa-hshei-on-’	thiken	onkwe=honwe
IRR-REP-2SG>3PL-give-PFV	that	person=real

[for you to give that to those Indians

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iáh thé: tehontiérha'].
iah thenen te-hon-at-ier-ha'
not anything NEG-M.PL.AGT-MID-do-HAB
who do nothing].'

Tuscarora complements can be preceded by a demonstrative or the article *haʔ*, originally 'the aforementioned'. The sentence below with *haʔ* occurred several sentences after the one above without the particle.

(62) Tuscarora complement
Kwęhs ahrakwè:niʔ
kwęhs aa-hra-kweni-ʔ
no IRR-M.SG.AGT-be.able-PFV
'He would be unable

haʔ ęθáhračnęht
haʔ ę-θa-hr-ačnęht
the.aforementioned FUT-REP-M.SG.AGT-descend.PFV
[to get down].'

In the Northern languages, temporal adverbial clauses are set off by particles. Relative clauses are rare; information about a referent is added more often with another juxtaposed clause. Relative clauses, also rare in Tuscarora, can also be set off with *haʔ*.

Cherokee, by contrast, generally marks subordination morphologically. Complement clauses are overtly nominalized by final suffixes on the verb.

(63) Juuhnookiìst**i** uùlvv́khwti.
ti-uu-hnookiìst-i uu-lv́kwohti
DIST-3SG.PAT-sing.DEVERBAL-**NMLZ** 3SG.PAT-like.PRES.PROG
'He likes [to sing].' (Montgomery-Anderson 2008: 266)

Adverbial clauses are formed with a deverbalizer suffix *-vv́ʔi* added to completive or incompletive verbs, or an adverbalizer suffix *-a*.

(64) [Uuwóoniisohn**vv́ʔi** káayuul]
uu-wóoniis-ohn-vv́ʔi káayuula
3SG.PAT-speak.COMPL-TERMINAL.COMPL- already
DEVERBALIZER
'[**When** he had finished talking],

khil wai?lúhjv
khila wi-aki-ʔlúj-vv́ʔi
just TRANSLOCATIVE-1SG.PAT-arrive.COMPL-EXP.PAST
only then did I arrive.'

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(65) Uuhyvvsóól aàjikwenuukíise
uu-hyvvsóóli aji-kwenuukíis-é?i
3SG.PAT-nose I>3SG-scratch.COMPL-NON.EXP
'His nose got scratched
kahliihyv̋.
ka-hliihy-**v̋v̋?i**
3SG.AGT-sleep.COMPL-**DEVERBALIZER**
[**while** he slept].'

(66) Ateél uukóóh**a** katóóhi aahv
ateéla uu-kooh-**a** katóóhi aahv
money 3SG.AGT-see.COMPL-**ADVERBIALIZER** on.ground there
'**When he saw** money on the ground,

uùkisvv̋?i
uu-kis-vv̋?i
3SG.PAT-pick.up.COMPL-EXP.PAST
he picked it up.' (Montgomery-Anderson 2008: 538, 541, 263)

Relative clauses are formed with the prepronominal prefix *ji-* and a highfall tone on the rightmost long vowel, a mark of subordination.

(67) Askaya **ji**jiiyaliìnohehtiiskv̋ aàhnika.
a-skaya ji-jii-ali-hnohehtiisk-v̋v̋?i a-ahnika
3SG.AGT-man REL-1SG>3AN-MID-talk. SG.AGT-leave.IMM
with.INCOMPL-SUB
'The man [I was talking to] just left.' (Montgomery-Anderson 2008: 131)

24.4 Conclusion

The Iroquoian family exhibits a number of typologically interesting features. Especially noteworthy[,] phonologically[,] are interactions among laryngeals, pitch and tone. Morphologically they are prototypical polysynthetic, head-marking languages, with sometimes elaborate prefixing, suffixing and noun incorporation. Their morphologies have implications for syntax, with generally fewer words per clause, few multi-word constituents and primarily pragmatically determined word and constituent orders. They vary among themselves, however, with complex syntactic structure either unmarked or indicated by particles in Northern Iroquoian, but marked morphologically in Southern Iroquoian.

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Appendix: Intransitive paradigms in the three main branches of Iroquoian

Only basic forms are given. All undergo extensive phonological processes.

Oklahoma Cherokee: Montgomery-Anderson (2008)

	AGENT (A)	PATIENT (B)
1SG	*k-, ji-*	*aki-/akw-*
2SG	*hi-*	*ja-*
3SG	*ka-, a-*	*uu-, uw*
1INCL.DU	*iinii-*	*kinii-*
1EXCL.DU	*oostii-*	*ookinii-*
2DU	*stii-*	*stii-*
1INCL.PL	*iitii-*	*iikii-*
1EXCL.PL	*oojii-*	*ookii-*
2PL	*iijii-*	*iijii-*
3DP	*anii-*	*uunii-*

Tuscarora

	AGENTS	PATIENTS
1SG	*k-*	*wak-*
2SG	*(-h)s-*	*(-e)θa*
NZ	*ka-, w-*	*yu-*
FI.SG	*ye-*	*yaku-*
M.SG	*(-h)ra-*	*(-h)ru-*
1INCL.DU	*(-e)ʔti-*	*yekti-*
1EXCL.DU	*yakti-*	*yekti-*
2DU	*(-e)θti-*	*(-e)θti-*
Z.DU	*(-ʔ)neka-, (-ʔ)nw-*	*(-ʔ)nyu-*
F.DU	*(-ʔ)neye-*	*(-ʔ)neka-*
M.DU	*(-ʔ)neye-*	*(-ʔ)nyaku-*
1INCL.PL	*(-e)ʔtwa-*	*yekwa-*
1EXCL.PL	*yakwa-*	*yekwa-*
2PL	*(-e)θwa-*	*(-e)θwa-*
HU.PL	*kaye-*	*kaku-*

Mohawk

	AGENT	PATIENT
1SG	*k-*	*wak-*
2SG	*(-h)s-*	*(-e)sa-*
N, FZ.SG	*ka-, w-*	*io-*
FI.SG	*ie-*	*iako-*
M.SG	*(-h)ra-*	*(-h)ro-*
1INCL.DU	*teni-*	*ionkeni-*

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1EXCL.DU	*iakeni-*	*ionkeni-*
2DU	*seni-*	*seni-*
FZ.DU	*keni-*	*ioti-*
M.DU	*(-h)ni-*	*roti-*
1INCL.PL	*tewa-*	*ionkwa-*
1EXCL.PL	*iakwa-*	*ionkwa-*
2PL	*sewa-*	*sewa-*
FZ.PL	*konti-*	*ioti-*
M.PL	*rati-*	*roti-*

Notes

1. The following speakers have generously shared their expertise about their languages: Elton Greene and Howard Hill for Tuscarora, Myrtle Peterson and Sandy Crouse for Seneca, Jimmy Skye and Reginald Henry for Cayuga, and Kaia'titáhkhe' Jacobs and Carolee Konwatién:se Jacobs for Mohawk.

   Most Iroquoian languages have been spelled with a variety of orthographies. Here Cherokee forms are written in that used in Montgomery-Anderson 2008, and Seneca and Mohawk in the community orthographies. Symbols represent their approximate IPA or Americanist values, apart from some special usages. For Cherokee, <y> = IPA [j] and <j> = [tʃ]; voiceless sonorants are written with h: <hl> = [ɬ], <hn> = [n̥], <hw> = [w̥] and hy = [j̊], and <v> represents a central nasalized vowel [ə̨]. Vowel length is represented by double vowels. In the Seneca orthography, plain and aspirated stops are distinguished: <d> = [t], <t> = [tʰ]; <g> = [k], <k> = [kʰ]. Nasalization on vowels is marked with a diaeresis: <ë> = [ɛ̨], <ö> = [o̜]; <ä> = [æ]. Vowel length is represented by a colon <:>. In the Mohawk orthography, the palatal glide [j], which occurs only before vowels, is represented by <;> nasal vowels are digraphs for [ʌ̨] and <on> for [ʊ̨]; glottal stop is an apostrophe <'>; stress with high or rising tone is indicated with an acute accent <ó> and stress with falling tone with a grave accent <ò>; vowel length is marked with a colon <:>. For all of the other languages, the glide [j] is written <y>, an acute accent represents stress with high or rising pitch, a grave accent indicates falling tone and a colon <:> indicates vowel length. For Cayuga, circles under vowels indicate voicelessness: <o̜>. Wendat/Huron forms are given in their original transcriptions by seventeenth- and eighteenth-century French missionaries.

References

Blankenship, Barbara. 1996. Classificatory verbs in Cherokee. In Pamela Munro (ed.), *Cherokee papers from UCLA*, pp. 61–74. (UCLA Occasional Papers in Linguistics 16). Los Angeles: University of California.

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C:/ITOOLS/WMS/CUP-NEW/8612672/WORKINGFOLDER/AKND/9781107091955C24.3D 780 [747–781] 17.9.2016 6:23PM

Chafe, Wallace. 2015. *A grammar of the Seneca language*. (University of California Publications in Linguistics). Berkeley and Los Angeles: University of California Press.

Cook, William 1979. *A grammar of North Carolina Cherokee*. PhD dissertation, Yale University.

Flemming, Edward 1996 Laryngeal metathesis and vowel deletion in Cherokee. In Pamela Munro (ed.),*Cherokee papers from UCLA*, pp. 23–44. (UCLA Occasional Papers in Linguistics 16). Los Angeles: University of California.

Haas, Mary 1948. Classificatory verbs in Muskogee. *International Journal of American Linguistics* 14: 242–5.

King, Duane 1975. A grammar and dictionary of the Cherokee language. PhD dissertation, University of Georgia.

Lindsay, Geoffrey and Janine Scancarelli 1985. Where have all the adjectives come from? The case of Cherokee. In Mary Niepokuj, Mary Van Clay, Vassiliki Nikiforidou and Deborah Feder (eds.), *Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society, February 16–18, 1985*, pp. 207–15. Berkeley: University of California.

Mithun, Marianne 1991. Active/Agentive case marking and its motivations. *Language* 67: 510–46.

1996. Multiple reflections of inalienability in Mohawk. In Hilary Chappell and William McGregor (eds.),*The grammar of inalienability: Typological perspectives on body part terms and the part-whole relation*, pp. 633–49. Berlin: Mouton de Gruyter.

2000. Noun and verb in Iroquoian languages: Multicategorisation from multiple criteria. In Petra M. Vogel and Bernard Comrie (eds.), *An anthology of word classes, pp*. 379–420. Berlin: Mouton de Gruyter.

2001.The difference a category makes in the expression of possession and inalienability. In Michael Herslund, Finn Sørensen and Irène Baron (eds.), *Dimensions of possession*, pp. 285–310. (Typological Studies in Language 47). Amsterdam: John Benjamins.

2013. Prosody and independence: Free and bound person marking. In Dik Bakker and Martin Haspelmath (eds.), *Language across boundaries: Studies in memory of Anna Siewierska*, pp. 291–312. Berlin: Mouton de Gruyter.

Montgomery-Anderson, Brad. 2008. *A reference grammar of Oklahoma Cherokee*. PhD dissertation, University of Kansas.

Munro, Pamela 1996. The Cherokee laryngeal alternation rule. In Pamela Munro (ed.), *Cherokee papers from UCLA*, pp. 45–60. (UCLA Occasional Papers in Linguistics 15). Los Angeles: University of California.

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Reyburn, William 1952. *Cherokee verb morphology*. PhD dissertation, University of Pennsylvania.

Scancarelli, Janine 1987. Grammatical relations and verb agreement in Cherokee. PhD dissertation in linguistics, UCLA.

Uchihara, Hiroto 2013. Tone and accent in Oklahoma Cherokee. PhD dissertation, State University of New York at Buffalo.

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The Cambridge Handbook of Linguistic Typology

Linguistic typology identifies both how languages vary and what they all have in common. This handbook provides a state-of-the art survey of the aims and methods of linguistic typology, and the conclusions we can draw from them. Part I covers phonological typology, morphological typology, sociolinguistic typology and the relationships between typology, historical linguistics and grammaticalization. It also addresses typological features of mixed languages, creole languages, sign languages and secret languages. Part II features contributions on the typology of morphological processes, noun categorization devices, negation, frustrative modality, logophoricity, switch reference and motion events.

Finally, Part III focuses on typological profiles of the mainland South Asia area, Australia, Quechuan and Aymaran, Eskimo-Aleut, Iroquoian, the Kampa subgroup of Arawak, Omotic, Semitic, Dravidian, the Oceanic subgroup of Austronesian, and the Awuyu-Ndumut family (in West Papua). Uniting the expertise of a stellar selection of scholars, this *Handbook* highlights linguistic typology as a major discipline within the field of linguistics.

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The Cambridge Handbook of Linguistic Typology

Edited by

Alexandra Y. Aikhenvald and R. M. W. Dixon

Language and Culture Research Centre, James Cook University

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Abbreviations

1	first person
1 > 2, 2 > 3, etc.	first person acts on second person, second person acts on third person, etc.
2	second person
3	third person
3.3′.CJ	third person subject with third person object conjunct order verb
4	first person inclusive or fourth person
4	impersonal pronoun
A	transitive subject function; Actor macrorole; Actor
ABE	abessive
ABL	ablative
ABS	absolutive
ACC	accusative
ACT	active
AD	addressee deictic
ADD	additive
ADEL	adelative
ADJ	adjective
ADV	adverb
ADVST	adversative
AFF	affirmative
aFOC	argument focus marker
AG	agentive
AGAIN	repetitive aspect, topic shift
AGR	agreement
AGT	agent
AL	alienable
ALL	allative

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AN	animate
ANA	action narrowly averted
ANAPH	anaphoric
AND	andative non-singular, singular transitive
ANIM.INTR	animate intransitive
ANP	adnominal verb
ANT	anterior
ANTIC	anticipatory
ANTICAUS	anti-causative
ANTIP	antipassive
AntSu	anticipatory subject
AOR	aorist
APPL, APPLIC	applicative
AREA	areal
ARG	argument
ART	article
ASS.P	associative plural
ASP	aspect
ASS	assertive
ASSOC	associative
ATR	Advanced Tongue Root
ATTN	attenuative
aug	augmented
AUX	auxiliary
Aym.	Aymaran
BEN	benefactive
C	common gender; consonant; controlling clause
CAUS	causative
CIRC	circumstantial
CIS	cislocative
CJ	conjugation
CL	class
CLF	classifier
CLT	clitic
CMPL	completive
CND	conditional
CNG	connegative
CNJ	conjunctive verb
CNSTR	construct
CNTREXP	counterexpectation
CNTR.FACT	counterfactual condition
CNV	converb
COMIT	comitative affix
COMP	complementiser
COMPL	completive

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COND	conditional
CONJ	conjectural (evidential)/conjunction
CONN	connective
CONSTR	construct
CONT	contemporative
CONTIN	continuative
CONTR	contrast
CONV	converb
COORD	coordination
COP	copula
CT	circumstantial topic
CT	class term
CUST	customary
CVB	converb
D	dependent
D.CLF	d-classifier
DAT	dative
DEC, DECL	declarative
DEF	definitive, definite
DEIC	deictic particle
DEM	demonstrative
DepSu	dependent clause subject
DESID	desiderative
DET	determiner
DIM	diminutive
DIR	directive
DIST	distal
DISTR	distributive
DL	dual
DNA	Direct Negation Avoidance
DO	direct object
DOM	differential object marking
DR	different reference
DS	different subject
DSTL	distal demonstrative
DU	dual
DUR	durative aspect
DV	duplicative
E	epenthetic element
EMP, EMPH	emphatic
EP	epenthetic
ERG	ergative
ES	echo subject
EV	direct evidential
EVI	evidential

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EX	existential
EXC, exc, EXCL	exclusive
EXH.FOC	exhaustive focus
EXIST	existential
EXP	experienced
F, f	feminine
FACT	factitive
FAR.PST	far past
FEM	feminine
FI	feminine/indefinite
Fj/J	the ratio of fusional morpheme junctures to all morpheme junctures
FOC	focus
FOOT	'foot' as body part prefix
FP	free pronoun
FREQ	frequentative
fric	fricative
FRUST	frustrative
FS	factual stem
FUT	future
GEN	genitive
GER	gerund
H	high tone or pitch
HAB	habitual
HEDGE	hedging device
HL	Highlighter
HN	head noun
HON	honorific
HRSY	hearsay
HUM	human
IDPH	ideophone
IE	Indo-European
IMMED	immediate
IMP	imperative
IMPERS	impersonal
IMPF	imperfective
IMPL	implicated
IMPST	immediate past
INAL	inalienable
INAN	inanimate
INC, inc	inclusive
INCEP	inceptive
INCL	inclusive
INCOMPL	incompletive
IND	indicative

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INDEF	indefinite
INDEP	independent
INESS	inessive
INF	infinitive
INFL	inflection
INFR	inferred evidential
INFRN	inferential
INGR	ingressive
INST	instrumental
INSV	inessive
INT	intensifier
INTENT	intentional
INTER	interrogative
INTERJ	interjection
INTR	intransitive
INTS	intensive
INTSINT	International Transciption System for Intonation
INV	inverse
IPFV	imperfective
IRR	irrealis
ITER	iterative
ITG	intangible
IVC	impersonal verb construction
KBo	Keilschrifttexte aus Boghazköi
L	low tone or pitch
LF	low fall
LIG	ligature
LIM	limitative case
LK	linker
LOC	locative
LOG	logophoric pronoun
LogA	speaker logophoric pronoun
LogB	addressee logophoric pronoun
LP	linking particle
M, m	masculine
M	mid tone
MAL	malefactive
MASC	masculine
MED	medial (function similar to that of 'converb')
MID	middle
min	minimal
MIR	mirative
MOD	modifier
M.PL.AGT	masculine plural agent
M/W	the number of morphemes per grammatical word

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N	neuter gender
N	noun
NARR	narrative marker
NCL	noun class
NEG	negative
NENA	Northeastern Neo-Aramaic
NEWSIT	new situation
NF	non-finite
NFUT	non-future
NFS	non-factual stem
NH	non-human
NHYP	non-hypothetical
NM, nmasc	non-masculine
n-min	non-minimal
NMLZ	nominalizer
NMR	non-macrorole argument
NMZ	nominalizer
NOM	nominative
NOML	nominal
NON-EXP	non-experienced
NONFUT	non-future
NONPUNCT	nonpunctual
NON3	non-third person
NON_SBJ	non-subject
NOUN.CL	noun classifier
NP	noun phrase
NPST	nonpast
NREF	non-referential
NS	non-singular
NSG, nsg, n-sg	non-singular
NTS	non-topic subject
NUM.CL	numeral classifier
O	object
OBJ	object
OBL	oblique
OBV	obviative
OPT	optative
OV	object-verb order
P	patient-like
P2	second position
PAA	Proto-Afroasiatic
PAR	partitive
PART	participle
PART.SG	partitive singular
PASS	passive

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PAT	patient
PERF	perfective aspect
PERS	person
PERT	pertensive
PF	perfect
PFV	perfective
PI	polar interrogative
PIE	Proto-Indo-European
PK	personal knowledge
PL, pl, plur	plural
PNG	person/number/gender
POL	polite
POS	positive
POSS	possessive, possession
POSS.CL	possessive classifier
POSTP	postpositional
POSTP:PURP	purposive postpositional
POT	potential
PP	past perfect
PP, Pp	postposition
PR	present
PR.PART	pragmatic particle
Pr	preposition
PRED	predicate
PREP	preposition
PRES	present
PRF	prefix
PRO	pronoun
PROG	progressive
PROX	proximal
PRS PRF	present perfect tense
PRT	preterit
PS	past
PSA	privileged syntactic argument
PSR	possessor
PST	past
PTC	particle
PTCP	participial
Q	question element
QT	quotative marker
Qu.	Quechuan
QUAL	qualifier
QUOT	quotative
R	realis; also recipient
RCP	reciprocal

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RDP	reduplicant
RED	reduplicative
REDUPL	reduplication
REAL	realis
REC.PST	recent past
REFL	reflexive
REGR	regressive
REL	relative; relative clause marker
REL.CL	relational classifier
REM	remote
REMP	remote past tense
REP	reportative (evidential)
RES	resultative
REV	revisionary
RLS	realis
RP	referential phrase; also reporting pronoun
RPT	repetitive
RRG	Role and Reference Grammar
RS	relativized subject
RV	Rigveda
S	intransitive subject; subject; also singular
SAP	Speech Act Participant
SBJ	subject
SBJV	subjunctive
SC	stem class
SEP	separative
SEQ	sequential
SF	singular feminine
SG/sg	singular
SGLT	singulative
Sh	short
SH	superhigh tone or pitch
SIM/SIMUL	simultaneous
Skr./Skt.	Sanskrit
SM	singular masculine
SMI	semeliterative
SMR	same reference
SN	singular neuter
SO	same object
SOC	sociative
SOV	subject-object-verb order
SP	specifier
SQ	sequential
SR	switch reference
SS	same subject

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StBoT	Studien zu den Bogazköy-Texten
ST.PL	stative plural
STAT	stative
STR	strong
StressTyp	stress typology database
SU, SUB, SUBJ	subject
SUBJV	subjunctive
SUBORD	subordinate
SUFF	suffix
SylTyp	syllable typology database
T	theme
TI2	transitive inanimate verb type 2
TA	transitive animate verb
TAM	tense and/or aspect and/or modality and/or mood
TEL	telic, contrastive emphasis
TEMP	temporal
TERM	terminative
THM	thematic
ToBI	tone and break indices
TODP	today's past tense
TOP	topic
TOT	totalitative
TR, TRANS	transitive
TRC	transitive controlling clause
TRM	terminative derivational suffix
TR.2	type 2 transitive verb
TV	terminal vowel
U	undergoer macrorole
ua	unit augmented
UNSP	unspecified
UPSID	Universal Phonological Segment Inventory Database
V, VB	verb
VBZ	verbalizer
vcl	voiceless
VCL	verbal classifier; also verb closing element
VIS	visual evidential
VN	verbal noun
VO	verb-object order
VOC	vocative
VOT	voice onset time
vow	vowel
VP	verb phrase
vv	voice/valence
Xtone	cross-linguistic tonal database

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Glosses for Sign Languages

SIGN	gloss for a manual sign
SIGN-SIGN	hyphenated gloss for a single sign that needs more than one word to express its meaning
SIGN–	sign held in its final position for a length of time
IX or INDEX	pointing signs, followed by further information about the reference of the point
1,2	subscripts indicating first and second person reference
SIGN#SIGN	simultaneous morphology
SIGN^SIGN	host-clitic combination
_____t	non-manual marking for topicalisation
_____y/n	non-manual marking for polar question
_____low-br	lowered eyebrows
_____brow-raise	raised eyebrows
_____neg-tilt	backward head til for negation
|	clause boundary

Further Conventions

= clitic break
– affix boundary
≈ varies with

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