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MOHAWK MORPHOLOGY

by

JOHN BEATTY

A dissertation submitted to the
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1972

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INTRODUCTION

1.1 The Caughnawaga Reserve and Its Inhabitants

The Caughnawaga Mohawk Reserve (where most of the field work for this dissertation was carried out) lies at the south end of the Mercier Bridge, just southwest of Montreal.

About 5000 Mohawks are enrolled on the Caughnawaga band roles. Not all of these speak Mohawk. There are, however Mohawk speakers who are not enrolled. Mohawk women who grew up in Caughnawaga, and were band members lost their status when they married outside of the band. Such women may speak the language fluently, but are not enrolled. The offspring of women who are not on the band roles may also be Mohawk speakers, but like their mothers, can not be enrolled.

Some enrolled band members have left the reserve and have taken up residence in cities like New York City, Buffalo, Albany and so on. Some of the non-enrolled Mohawks also live away from the reserve, although some have elected to rent homes at Caughnawaga. (Mohawks who are not enrolled can not own homes on the reserve).

Approximately half of the Mohawks speak the language fluently. An estimate of about 2000 Mohawk speakers of the Caughnawaga dialect would probably not be far wrong.

Whatever the actual number of Mohawks and Mohawk speakers, the population of Caughnawaga is constantly changing as people move away and return. There is often an increase in the population in the summer months when

"off-reservation" Mohawks return to spend the summer with their relatives.

In addition, the adult male population is engaged primarily in iron work, and as a result live away from the reserve during the week when they stay in the cities where their jobs have taken them. Every Sunday evening, the men travel in car pools to Buffalo, New Haven, Boston, New York City or wherever iron work is to be found. There they stay for the week. On Friday night, after work, the men return to the reserve for the week-end.

The reservation itself is divided into town and farm land. Children who grow up on the farms are more likely to speak Mohawk than those who grow up in the town.

Although most of the adult population of Caughnawaga is bi-lingual (and many are tri-lingual, speaking Mohawk, English and French), there are one or two old people who are primarily monolingual Mohawks, although these have some comprehension of English. Many of the younger people speak only English, although they have some degree of comprehension of Mohawk. Thirty years of age seems to be as good a cut-off point as possible for speakers versus non-speakers of Mohawk, although there are a few fluent speakers who are in their teens and younger. Many Mohawks have pointed out that children who were born in households after a television had been installed understand much less of the language than those who were born in the household before the television. This

seems to be a fairly valid claim.

1.2 Language and Teaching

There is some concern by the older people that the children no longer speak the language, and some attempts have been made to remedy this situation. Elementary schools on the reserve have native speakers teaching the children songs which are then memorized. Recently, Billings High School in Chateaugay (which most of the Caughnawaga Mohawks attend) instituted a non-credit course in Mohawk, which for reasons best known to them, employs a native speaker of St. Regis Mohawk, whose pronunciation is somewhat different than that of the Mohawks who live at Caughnawaga.

The learning of the language is somewhat hindered by the lack of an orderly presentation and by a problem of orthography.

Mohawks have been writing the language for several hundred years in an orthography devised by the Jesuit missionaries. Although functional for native speakers, it is somewhat deficient for those trying to learn the language. The problems of the orthography are discussed in Appendix I.

1.3 Mohawk and Its Linguistic Affiliation

Caughnawaga Mohawk is one of several dialects of Mohawk spoken in the United States and Canada. Although there is some variation among Caughnawaga speakers, it is rather minimal. The most obvious is that some speakers do not always use the morphophonemic rules $\acute{V}^?C \rightarrow \acute{V}\cdot C$ and $\acute{V}hR \rightarrow \acute{V}\cdot R$ (stressed vowel followed by glottal stop and a consonant

becomes a long stressed vowel with falling tone followed by the consonant and; a stressed vowel followed by /h/ and a resonant also becomes a stressed long vowel with falling tone followed by the resonant).

Mohawk is a member of the northern branch of the Iroquoian language family. Other members of the branch that are still spoken are Oneida, Onondaga, Cayuga, Seneca and Tuscarora. There are several other members of the Northern Iroquoian family which are extinct, such as Nottaway, Wyndot, and Laurentian.

The southern branch of the Iroquoian family contains the dialects of Cherokee. Lounsbury has suggested a time depth of about 4,000 years between the Northern and Southern branches of Iroquoian.

Early in 1971, Wallace Chafe gave a lecture at Yale University in which he suggested some evidence for the linking of Caddoan, Siouan and Iroquoian as related languages. Although the evidence is not overpowering, as Chafe himself admits, it is certainly highly suggestive and well worth noting. Chafe estimated at that time, that the time depth for the separation of Caddoan, Siouan and Iroquoian is about 8,000 years.

There is no evidence as yet to substantiate the placing of Iroquoian-Caddoan-Siouan into the Hokan-Siouan phylum as was done by Sapir in 1929. It should, however, be noted that there is no evidence to place it in any other phylum.

1.4 The Iroquoian languages are polysynthetic-fusional in character, and contain a noun incorporating feature in the verbs. The polysynthetic-fusional aspect of the language complicates the analysis to a very large degree.

In this type of language, there are large numbers of morphemes per word, and morphemes undergo a great deal of change in accomodating to neighboring morphemes. Morphemes are frequently so fused that it is difficult to identify their boundries. Such languages do not lend themselves easily to the standard procedures and techniques of morphological analysis.

In discussing grammatical models, Hockett (1954) examines two methods of analysis which he calls "Item and Arrange. " (IA) and "Item and Process" (IP). He also mentions the possibility of a third method, "Word and Paradigm" (WP), but he does not elaborate on how such a model would be used. It is, however, the "Word and Paradigm" model that Gleason (1955) suggests for the analysis of polysynthetic fusional languages.

A "Word and Paradigm" model would simply list all the various inflections with which certain classes of words (e.g. nouns, verbs) can occur. This is basically the approach used by many grammars of Latin and Greek, where the classes of words are shown with full conjugations or declensions. No attempt is made to analyze the forms any further for the student.

It is frequently the case, however, that when such

paradigmatic forms are exhibited, certain phonological sequences seem to be associated with certain "bits" of meaning. In an IA or IP analysis these probably would be segmented and called morphemes.

In fusional languages however, the segmentation of fused segments is frequently not very profitable. Since the "morphemes" undergo a great deal of change in their appearance which is conditioned by the neighboring "morphemes", one also needs a description of the changes involved, and rules to predict the correct shape of the morpheme. With languages as fusional as Mohawk, the number of rules needed to produce all the correct forms may even equal or outnumber the forms produced.

One must distinguish segmentations which are profitable and economical from those which involve recurrent phonological sequences, which though tempting to segment, would require the formulation of a larger number of rules than the forms which would be accounted for, by these rules. The analysis of these recurrent segments which can only be predicted by large numbers of rules is more etymology than morphology. Unfortunately, in languages like Mohawk, the dividing line between etymology and morphology is very hazy, and not at all clearly defined. One thing does seem clear, and that is that etymology certainly benefits from historical data.

It has been an unfortunate circumstance that since F. de Saussure, historical evidence is generally ruled out of consideration in synchronic analysis. Mary Haas, in a

lecture at Columbia University in 1971 pointed out that some scholars have gone so far as to chose, rather "perversely", a non-historically accurate solution, even when a historically accurate explanation was available.

Recourse to historical explanation is not something to be done randomly. Historical evidence should be used only when it is well documented and serves to illuminate or clarify some point which would otherwise be obscure. All languages are points in ongoing developmental processes, and all that has gone before has some bearing on the current state of the language. To refuse to see a language as a part of a process is to deny the idea that languages are in a constant state of change. Therefore if sufficient evidence exists to make historical reconstructions, then such reconstructions have validity and should be admissable in getting insight into alternate synchronic analyses of a language.

Fortunately, Prof. Floyd Lounsbury of Yale has worked extensively with Iroquoian languages. He has done field work with all of the currently spoken Iroquoian languages, and has made great strides into the reconstruction of Proto-Iroquoian. The present analysis of Mohawk has profitted immeasurably from his generously shared insights into Proto-Iroquoian.

Access to some historical evidence allows us to consider the Mohawk that is spoken today as part of an ongoing process, rather than just an event isolated in time. There

are still unsolved problems in the reconstruction of Proto-Iroquoian, and as a result, some of the synchronic problems remain problems, even in the light of our present knowledge of the historical situation. One such problem is discussed in section 5.3⁰.

For the purposes of this analysis, recourse to historical evidence is used only when some problem is not easily viewed from a solely synchronic viewpoint. As a result, historical solutions do not occur throughout, but only when they appear more helpful than using synchronic evidence alone. This is not to indicate that historical explanations can not be used throughout, but simply to indicate there are times when they are redundant or superfluous.

1.5 A clear example of a situation in which historical data is helpful in understanding a synchronic problem can be found in the analysis of the second person dual which has the form /ts/ when occurring with "a-stem" verbs, such as {-atkatho-} "to see".

The form for "You two see it" is /tsatkáthos/. The expected form would have combined a second person marker {-s-}; a dual marker, which has the shape {-y-} with verb stems beginning with /a/; a verb stem {-atkatho-}; and the serial aspect marker {-s-}. Concatenated, this would have produced */syatkáthos/ rather than /tsatkáthos/.

The problem can be resolved from historical evidence, which indicates that the obstruents /t/, /k/, and /s/

could all cluster with /y/ in Proto-Iroquoian. These clusters underwent various changes. The following indicates the changes in two of the Mohawk dialects.

Proto-Iroquoian	ty	ky	sy
St. Regis	ky	ky	tsy [j]
Caughnawaga	[j]	[j]	ts

It is now apparent that the initial /sy/ sequence in the expected form */syatkáthos/ would in fact lead to the current form, since Proto-Iroquoian /sy/ → /tsy/ [j] in Mohawk (the St. Regis form is /tsyatkáthos/) and then became /ts/ in the Caughnawaga dialect yielding /tsatkáthos/.

Note that both /ky/ and /ty/ have become [j] in Caughnawaga. Where the sequence is the result of the positioning of two morphemes, Caughnawagans will, in most cases restore the proper morpheme division and pronounce the proper phoneme to the sequence. However, where these sequences have occurred within a morpheme, the sequence is invariably given as /ky/ even when historically it is /ty/. The word for "nine", for example /kyóhtōʔ/, is historically /ty/.

In the following analysis, [j] is restored to /ky/ or /ty/ on morphological evidence. When there is no evidence as to which sequence underlies the [j], it is written as /ky/.

PHONOLOGY AND MORPHOPHONEMICS

2.1 Phonemically Mohawk is uncomplicated. The consonantal phonemes are divided into obstruents (/t/, /k/, and /s/), laryngeals (/h/, /ʔ/) and resonants (/n/, /y/, /r/ and /w/).

There are two subsets of vowels; oral (/i/, /e/, /o/, and /a/) and nasal (/ẽ/ and /õ/). In addition, Mohawk exhibits phonemic stress and length, as well as two junctures /,/ and /./ (See Chart One).

The obstruents all pattern similarly.

Obstruent → voiceless lenis (begins voiceless become voiced)

#_V, C_V

→ voiced V_V

→ palatalized _y

→ voiceless elsewhere

More specifically the obstruents exhibit the following allophony.

/t/ an apico-alveolar stop

/t/ → [D] voiceless lenis #_V and C_V

→ [d] voiced V_V

→ [t^h] released and aspirated _k, _h

→ [j] palatalized _y

→ [t] unreleased elsewhere

The following are examples of the allophony.

/takó·s/ → [Dagó·s] "cat"; /ó·nēsteʔ/ → [ó·nēsDeʔ] "corn";

/otá·raʔ/ → [odá·raʔ] "brim of a hat"

CHART ONE - PHONEMES

CONSONANTS

	Alveolar	Palatal	Velar	Laryngeal
Obstruents	t		k	
	s			
Laryngeals				h
				ʔ
Resonants	n			
	r	y	w	

VOWELS

	Front	Central	Back
high	i		ɔ̃
mid	e	ẽ	o
low		a	

Length /·/

Stress with even pitch / ˘ /, with falling pitch / ˋ /

Juncture /, / and /./

/ótkõʔ/ → [ó^htGũʔ] "spirit"

/sátyẽ/ → [Zájẽ] "sit down"

/sáshet/ → [Záshet] "count"

/k/ is a dorso-velar stop with the following allophony.

/k/ → [G] voiceless lenis (as above) #_V, C_V

→ [g] voiced V_V

→ [k^h] released and aspirated _h, _k, _s

→ [j] palatalized _y

→ [k] unreleased elsewhere

The following forms exemplify the allophony.

/kahnawáʔke/ → [Gahnawà·ge] "on the rapids"

/skanyatarí·yo/ → [sGanyadarí·yo] "Handsome Lake"

/í·keks/ → [í·geks] "I eat"

/khé·kēs/ → [k^hé·gēs] "I see them"

/wákkẽʔ/ → [wá^hkGẽʔ] "I saw it"

/ók^hsa/ → [ók^hza] "hurry up"

/wákyẽ/ → [wájẽ] "I have"

/wísk/ → [wísk] five

/s/ undergoes the following allophonic changes:

/s/ → [Z] voiceless lenis (as above) #_V, C_V

→ [z] V_V

→ [ś] somewhat palatalized _y, _ty, _ky

→ [s] elsewhere

The allophony is illustrated below.

/sáshet/ → [Záshet] "count"

/ók^hsa/ → [ók^hza] "hurry up"

/í·seʔ/ → [í·zeʔ] "you"

/syá·tõs/ → [sýá·dũs] "you write"

/ó·nẽsteʔ/ → [ó·nẽsDeʔ] "corn"

The sequences /ts/ and /kw/ pattern phonologically like the obstruents.

/ts/ → [DZ] #_V, C_V

→ [dz] V_V

→ [ts] elsewhere

Examples of these can be seen in the following words.

/tsá·tah/ → [DZá·dah] "seven"

/otsikhéʔtaʔ/ → [odzikhéʔdaʔ] "sugar"

/ká·ts/ → [Gá·ts] "come on"

/kw/ → [GW] #_V, C_V

→ [gw] V_V

The sequence /kw/ has been found in no other positions.

Examples of its occurrence appear below.

/kwéskwes/ → [GWésGWes] "pig"

/akwatẽʔt/ → [agwatẽ·t] "my aunt" (French borrowing)

/akwáhiʔ/ → [agwáhiʔ] "my fruit"

The laryngeal /h/ has a more strongly fricative voiceless allophone before consonants, which tends to include some oral friction at the point of articulation of the preceding vowel. /ʔ/ is often co-articulated with a following /k/, which causes a "creaky" quality to the preceding vowel.

The resonants are /n/, an alveolar nasal; /y/, an unrounded palatal semi-vowel; /r/, a retroflexed alveolar tap; and /w/ a velar semi-vowel with little or no lip rounding, but coarticulated with spread lips (slit opening). When /wh/ occurs

the result is a sound ranging from a weak [f] to [ɸ].

The resonants have voiced allophones before vowels and voiced resonants. They are voiceless elsewhere.

The oral vowels exhibit little allophony. /i/ is a high front unrounded vowel; /e/ is a mid front unrounded vowel. There is a low central vowel /a/ and a mid back unrounded vowel /o/. All of the vowels are slightly higher when lengthened.

The nasal vowel /ẽ/ is a mid central vowel which ranges in pronunciation from schwa to [ʌ]. In the most precise speech, it is always nasalized, although in normal speech it tends to be nasalized only when stressed or when in terminal position.

The high back unrounded nasal vowel /õ/, like /ẽ/ is always nasalized in the most careful speech, but in more rapid speech is nasalized only when stressed or terminal. When /õ/ is stressed and is followed by /h/, it often approaches a syllabic [m] in articulation.

It is to be noted that the tilde used in symbolizing these two vowels represents not only nasalization, but change of position as well. What is transcribed here as /ẽ/ is [ɛ̃], with or without nasalization. Similarly /õ/ is [u] or [ũ]. Neither of these vowels is ever articulated in the position of the purely oral vowels /e/ or /o/.

2.2 There are three suprasegmentals; stress, length and tone, the last of which is derived morphophonemically.

Stress is nearly predictable. In the majority of

words it falls on the penultimate syllable. In those cases where it does not, it is usually on the antepenultimate syllable (e.g. /ó·nēsteʔ/). This can be accounted for by assuming that the rule of stress placement (i.e. on the penultimate syllable) must precede vowel epenthesis. Epenthetic vowels are inserted in accordance with rules stated in section .2.2. In the word "corn", /ó·nēsteʔ/, given above as an example, the underlying form is a sequence of morphemes {-o-} "noun prefix", {-nēst-} the stem for "corn", and {-ʔ} noun suffix. Stress placement and then vowel epenthesis operate on the string in that order. Thus $o \downarrow nēst \downarrow ʔ \rightarrow \acute{o} \cdot nēstʔ$ (vowel length is automatic here - see section 2.3) $\rightarrow \acute{o} \cdot nēsteʔ$.

There are, however, a few words in which the stress falls on the last syllable. Two examples are /takó·s/ "cat" and /istá/ "mother".

Since there are sufficient words in which the stress is not immediately predictable (if at all), stress will be marked on all forms.

2.3 Like stress, vowel length is nearly predictable. A vowel which is stressed and occurs before a single consonant is long, in most cases. There are no cases where a long vowel occurs in a position other than before a single consonant and under stress. There are however, some words where a vowel is stressed before a single consonant and is not long. The near minimal pair /í·seʔ/ "you" and /ísiʔ/ "there" indicate that length needs to be marked.

For some speakers of Mohawk tone is, strictly speaking, phonemic. There are minimal pairs, such as /oká·raʔ/ "story" and /okà·raʔ/ "eye". It can be demonstrated however, that tone is derived from a morphophonemic rule which involves an underlying /h/ or /ʔ/. The specific rules are given in section 2.5 . Since the underlying /h/ or /ʔ/ can always be discovered, tone is not marked in the writing, but rather the underlying laryngeal is printed.

2.4 Mohawk morphophonemics are often complex and highly specific. The highly specific rules will be dealt with in the sections where the actual morphemes involved in the morphophonemics occur. There are some general morphophonemic rules which can be dealt with without reference to specific morphemes.

Mohawk has three vowels which can be used epenthetically, /i/, /a/ and /e/. The first of these, /i/ is used solely before words of one syllable and bears the stress. /i·keks/ "I eat", has an underlying form of /i/ epenthetic for stress placement (length is automatic) {-k-} "I", {-ek-} "to eat" and {-s-} serial aspect. The string of morphemes would have produced a monosyllabic word, with no place to put the stress (which should fall on the penultimate syllable). The /i/ appears to bear the stress.

The second two epenthetic vowels /e/ and /a/ will not bear stress. /e/ is used to break the following consonant clusters.

Obstruent ↓ /n/ → Obstruent ↓ /en/

/tn/ → /ten/

/teniwiſtos/ "We two (inclusive) are cold"

{-t-} "we, inclusive"

{-ni-} dual

{-wiſto-} "to be cold"

{-s-} serial aspect

/kn/ → /ken/

/yakeniwiſtos/ "We two, (exclusive) are cold"

{-y-} exclusive

{-a-} subject follows

{-k~} first person

{ni} dual

{-wiſto-} "to be cold"

{-s-} serial aspect

/sn/ → /sen/

/seniwiſtos/ "You two are cold"

{-s-} you

{-ni-} dual

{-wiſto-} to be cold

{-s-} serial aspect

In all of the above cases, an epenthetic /e/ is inserted between the pronominal prefix and the dual marker. Obstruent /w/ → Obstruent /ew/ (except for /kw/ which becomes /kew/ only between the four major divisions of the verb, i.e. between the pre-pronominal prefixes and the pronominal prefixes; between the pronominal prefixes and the stem; between the stem and the aspect). Within any of those major divisions,

or within a single morpheme the sequence /kw/ remains /kw/.

/tw/ → /tew/

/tewawístos/ "We plural are cold" (inclusive)

{-t-} "we, inclusive"

{-wa-} plural

{-wisto-} "to be cold"

{-s-} serial aspect

/sw/ → /sew/

/sewawístos/ "You plural are cold"

{-s-} "you"

{-wa-} plural

{-wistos} "to be cold"

{-s-} serial aspect

/kw/ → /kew/ (See above for the conditions when this occurs)

/kewístos/ "I am cold"

{-k-} "I"

{-wisto-} "to be cold"

{-s-} serial aspect

The epenthetic /e/ is inserted here between the pronominal division and the stem division. Within a division, such as the pronominal division, the /e/ will not be inserted.

/yakwawístos/ "We, plural (exclusive), are cold"

{-y-} exclusive

{-a-} subject follows

{-k-} first person

{-wa-} plural

{-wisto-} "to be cold"

{-s-} serial aspect

Within a single morpheme, /kw/ remains /kw/. "Pig" /kwéskweə/, indicates the /kw/ sequence remaining /kw/ within the morpheme.

An epenthetic /e/ is also placed between a consonant and a following glottal stop. Cʔ → Ceʔ

/ó·nēsteʔ/ "corn"

{-o-} "noun marker"

{-nēst-} "corn"

{-ʔ-} noun suffix

The epenthetic /a/ is placed between an incorporated noun stem which ends in a consonant, and a verb stem which begins with a consonant which follows.

/kanēstayēthos/ "She or it" plants the corn."

{-ka-} "she or it"

{-nēst-} "corn"

{-yētho-} "to plant"

{-s-} serial aspect

2.5 The laryngeals morphophonemically account for the appearance of tone. A stressed vowel, followed by /h/ and a resonant, become a stressed vowel with length and falling tone followed by a resonant. VhR → V̄·R

/okáhraʔ/ → /okà·raʔ/ "eye"

A stressed vowel with length and falling tone can also result from an underlying sequence of stressed vowel followed by ʔC.

/akkahráʔke/ "on my eye" → /akkahrà·ke/

A few examples have been found where $\acute{V}^{\circ}C$ did not become $\acute{V}\cdot C$. One example, $/akí^{\circ}whare^{\circ}/$ "my fur", has never been heard as $/ak\grave{I}\cdot whare^{\circ}/$. In all examples where the rule does not operate, there is an underlying (or overt) $/i/$ which is under stress. $/ó^{\circ}whare^{\circ}/$ "fur", has an $/i/$ underlying the stressed $/o/$, and is always pronounced with the glottal stop.

The phoneme $/h/$ is lost in initial position before a consonant. $\#hC \rightarrow \#C$

$/shnéht\tilde{e}k/$ "eat gum"

$\{-hs-\}$ "you singular"

$\{hneht-\}$ "gum" ($/ohnéhta^{\circ}/$)

$\{-k-\}$ "to eat" (irregular verb has variant shapes)

$\{-\emptyset-\}$ lack of aspect marker indicates imperative

Compare the above with $/\acute{I}hs\tilde{e}ks/$ "You eat" where the $/h/$ occurs when $\{-hs-\}$ is removed from initial position.

Initially before vowels, $/h/ \rightarrow /r/$.

$/r\acute{I}\cdot k\tilde{e}s/$ "I see him"

$/hi/$ a first person singular acts on a third person
singular masculine

$/k\tilde{e}/$ "to see"

$/-s-/$ serial aspect

Compare the above with $/\tilde{e}h\acute{I}\cdot k\tilde{e}^{\circ}/$ "I will see him", where the morpheme $/hi/$ is in non-initial position. (The final glottal stop is a punctual aspect marker required by the future tense marker $\{-\tilde{e}-\}$).

The phonemic sequence $/^{\circ}h/ \rightarrow /h/$.

/wahí·kẽʔ/ "I saw him"

{-w-} past tense

{-aʔ-} empty. Required in this position. See 4/

{-hi-} first person singular acts on third person
singular masculine

{-kẽ-} "to see"

{-ʔ-} punctual aspect. Required with tense markers

Compare the above with /waʔkhé·kẽʔ/ "I saw them" and
/khé·kẽs/ "I see them".

In general, Mohawk does not permit vowel clusters.
Only /ao/ and /aõ/ have been found. A general rule $V_1V_2 \rightarrow V_2$
explains most cases. "Fur", /óʔwhareʔ/ is the result of the
following string.

{-o-} noun prefix

{iʔwhar-} "fur"

{-ʔ-} noun suffix

Compare the above with /akíʔwhareʔ/ "my fur" where
the /i/ re-appears when not preceded by another vowel.

There are two exceptions to the rule. /a/ plus /i/
becomes /ẽ/.

/kẽtsõʔ/ "fish"

{-ka-} prefix for some nouns

{-its-} "fish"

{-õʔ-} noun suffix

Compare with /kitsókqwẽs/ "I take a fish out of water"
and /kókwẽs/ "I take it out of water"

The second exception is /o/ plus /a/ yields /o/.

/yagotí·wē/ "She is skinny"

{-yako-} "She"

{-atí·wē} "to be skinny"

Compare the above with /wakatíwē/ "I am skinny" which results from an underlying {-wak-} "I" and {-atiwē-} "to be skinny".

WORD CLASSES

3.1 Words can be defined structurally or functionally. A functional analysis of word classes is based on the function of the word in syntactic structures. Structurally, a word can be defined in terms of its component parts, without reference to its grammatical usage. Since the analysis here is morphological, and syntax is not examined, the word classes are defined here from a structural rather than functional viewpoint.

3.2 Structurally, there are three classes of words in Mohawk; verbs, nouns and particles. The verbs are the most complex. Mohawk verbs can be identified by their occurrence with tense morphemes. Only verbs can occur with tense morphemes. The tense morphemes are found in the first of the four major divisions from which morphemes are selected. The four divisions (in their order of occurrence in a verb) are (1) pre-pronominal prefixes, (2) pronominal prefixes (3) stems and (4) aspect suffixes. Each major division has more than one position class. All of the phonological rules discussed in Chapter Two operate across division boundaries, and all except /kw/ → /kew/ operate within the divisions.

Fusion presents the greatest problem in the analysis. In some forms, the localization of meaning is all but impossible if one requires a morpheme to be a discrete form and a discrete meaning. The example given by Lounsbury (1953) will illustrate the problem.

- (1) /katkáthos/ "I see it"
 (2) / watkáthos/ "She or it sees it"
 (3) / wa[?]katkátho[?]/ "I saw it"
 (4) / ðtkátho[?]/ "She or it saw it"

The segmentation of the first three forms is as follows.

/katkáthos/ "I see it"

{-k-} First person singular "I"

{-atkatho-} stem "to see"

{-s-} serial aspect

/watkáthos/ "She or it sees it"

{-w-} "She or it"

{-atkatho-} stem "to see"

{-s-} serial aspect

/wa[?]katkátho[?]/ "I saw it"

{w-} past tense

{-a[?]-} empty morph, required in this position

{-k-} first person singular "I"

{-atkatho-} stem "to see"

{-[?]-} punctual aspect, required with tense markers

The last form /ðtkáthos/ is not so easily segmented.

An underlying sequence */wa[?]watkátho[?]/ can be postulated along with a rule that turns sequences of /(w)a([?])wa/ → /ð/ when such sequences occur in the pronominal prefix division. (Elsewhere /(w)a([?])wa/ can occur).

Another possibility is to assume the fusion of the meanings of past tense, third person singular "She or it",

and the information that the following verb is an a-stem verb are contained in the phonological shape /ɔ/ and not postulate underlying phonological shapes. In the following analysis, segmentation of highly fused forms that require highly specific rules for analysis are to be regarded as etymological in nature.

3.3 Nouns are composed of a noun prefix (either /ka/ or /o/ which appear to be morphologically conditioned) and a noun suffix (either /ʔ/, /aʔ/ or /oʔ/ also morphologically conditioned).

Particles are uninflected. There are several words /kwéskwes/ and /kítkit/ ("pig" and "chicken") for example, which are uninflected, but it would be unwise to classify them as particles. They are unusual in their structure (both are duplicative) and appear to be borrowings from French. In all probability they are the sounds used to call the animals.

3.4 The following five chapters discuss each of the four major divisions of the verb and the structure of the nouns.

THE PRE-PRONOMINAL PREFIXES

4.1 The pre-pronominal prefix division contains all of the morphemes which can occur before any of the pronominal prefixes. There are eleven such morphemes, and they are indicated in their relative positions in Chart Two.

While there is some variation in the phonemic shapes of some of the morphemes, it is not great. The greatest complexity arises from the appearance of empty morphs, and the selection rules which determine which of the two past tense markers, {-w-} (position class 2) and {-a-} (position class 6) is to appear.

There are two empty morphs which have the phonemic shapes /-aʔ-/ and /-ǝ-/. The first, /-aʔ-/ is inserted after position class two, in accordance with the following rules.

- 1) Insert /-aʔ-/ whenever a member of position class one or two occurs with the dualic.
- 2) Insert /-aʔ-/ whenever any member of position class one or two occurs and is immediately followed by a pronominal prefix and a verb stem in a punctual aspect.

The empty morph /-ǝ-/ occurs between position class four and five. The rules for its insertion are as follows.

- 1) Insert /-ǝ-/ whenever position class 5 and 6 are filled, and at least one member of position class 1, 2, 3, or 4 occurs (with the exception of the future tense marker {-ǝ-}).

Chart III indicates the combinatorial possibilities

of the morphemes which form the pre-pronominal prefix division. Variant shapes are discussed below, as are the ranges of meaning for each of the morphemes.

4.2 The partitive {-n-} is used to indicate the number three or more, and is generally translated as 'number of times', 'amount of' etc.

/kayé·ri nikahwístake?/ "Four dollars"

/wísk nihíkēs/ "I see him five times"

/wísk/ "five"

/nihí·kēs/ "I see him that many times"

{-n-} a partitive. Has the shape /-ni-/ when it precedes directly any member of position class five, or a pronominal prefix.

{-hi-} "I to him" first person singular acts on a third person singular masculine

{-kē-} verb root "to see"

{-s-} serial aspect

4.3 The coincident {-sh-} is used to indicate that events occurred at the same time.

/shikewístos/ "When I was cold"

{-sh-} coincident. Has phonetic shape /shi/ when it precedes immediately a member of position class five, or a pronominal prefix.

{-k-} first person singular

/-e-/ epenthetic

{-wisto-} verb root "to be cold"

{-s-} serial aspect (generally translated as present tense)

The contrastive {-th-} is used to indicate that the action is somehow different than normal.

/thihik^h·reks/ "I tap him with my fist" (compare with
/rik^h·reks/ "I punch him"

{th-} contrastive (has shape /thi/ when occurs immediately preceding a member of position class five or a pronominal prefix)

{-hi-} first person singular acts on a third person singular masculine

{-k^hrek-} verb stem "to punch"

{-s-} serial aspect.

The contrastive is also used as a negative prefix in all cases where the negative prefix does not occur (i.e. the negative prefix {te^h-} occurs only when no other pre-pronominal prefix is present, or only a member from position class five is present.) When used as a negative, it is preceded by the negative particle {yáh}.

/yáh tha^htehayáhya^hks/ "He doesn't cross over it"

{yáh} negative particle

{th-} contrastive, here used as a negative

/-a^h-/ empty morph. See rules in section 4.1

{-te-} dualic used to indicate change of state or position

{-ha-} pronominal prefix "he"

{-yahya^hk-} verb stem "to cross over" (requires dualic)

{-s-} serial aspect

The past tense markers {-w-} in position class two, and {-a-} in position class six both have the meaning "past tense". The {-w-} is generally found followed by the empty morph /-aʔ-/. The exceptions occur when the past tense marker is followed by the pronominal prefixes for the second person dual and plural (nominative), first person dual and plural inclusive (nominative), and the second person dual and plural (in the oblique cases). Under these circumstances the past tense appears as {-we-}. The second exception occurs when the past tense and the third person neuter zoic form {-w-} (i.e. "she or it") occur with an a-stem verb. In this instance the past tense, the neuterzoic and the /a/ of the a-stem all appear to be contained in a single phoneme /ō/
 /waʔkhé·kēʔ/ I saw them

{-w-} past tense

{-aʔ-} empty morph

{-khe-} first person singular acts on third person plural (i.e. I act on them)

{kē-} stem "to see"

{-ʔ-} punctual aspect. Required with {-w-}

/wetewatkáthoʔ/ "We all (inclusive) saw it"

{-w-} past tense marker, here in the form /-we-/
 as required when followed by first person plural inclusive (nominative) pronoun.

{-t-} first person inclusive

/e/ epenthetic

{-wa-} plural

{-atkatho-} verb stem "To see"

{-ʔ-} punctual aspect (required with {-w-})

/ōtkáthoʔ/ "She (neuter zoic) saw it"

{-ō-} contains the meanings of past tense, third-person singular "she or it" (neuter-zoic), and the information that the stem is an a-stem verb.

{-atkatho-} verb stem "to see". The /a/ is lost in this construction

{-ʔ-} punctual aspect

The past tense marker {-a-} occurs whenever the fifth position class is filled and the verb is in a punctual aspect, and no other definite tense marker occurs.

/sahí·kēʔ/ "I saw him again"

{-s-} iterative

{-a-} past tense

{-hi-} first person singular acts on a third person singular masculine (i.e. I act on him)

{-kē-} verb root "to see"

{-ʔ-} punctual aspect (required with past tense)

Compare the above with /shí·kēs/ "I see him again"

The translocative morpheme, {-ye-}, when used with verbs of motion indicates a direction away from the speaker. With stative verbs it indicates the event occurred at some distance from the speaker.

/yehihyá·tõs/ "I write to him"

{-ye-} translocative; direction away from speaker

{-hi-} I act on him

{-hyatõ-} verb stem "to write"

{-s-} serial aspect

Compare the above with /rihyá·tõs/ "I write on him" and /tehakhyá·tõs/ "He writes to me". The first indicates the loss of motion when the translocative morpheme is removed. The second contains the cislocative morpheme /t/ which has the phonetic shape /te/ when it occurs with no other tense markers and indicates direction toward the speaker. It is followed by the morpheme {-hak-} "he acts on me". The rest is as above. The two locatives are required to give direction and it is clear from the examples that the direction in regard to speaker, when the speaker is one of the actors, determines which will be used.

/yaʔtehayáhyaʔks/ "He goes across it" (from this side to the other)

{-ye-} translocative (the /e/ is lost when followed by a vowel, as here (Seerule V₁V₂ → V₂ p.27)

/-aʔ-/ empty morph

{-te-} dualic

{-ha-} "he"

{-yahyaʔk-} verb stem "to cross over"

{-s-} serial aspect

/yaʔhí·kẽʔ/ "I saw him over there"

{-ye-} translocative

- /-aʔ-/ empty morph
- {-hi-} I to him
- {-kẽ-} verb stem "to see"
- {-ʔ-} punctual aspect.

The dualic morpheme is used in enumerating two objects. It has the phonemic shape /-te-/ when there are no tense markers. Otherwise it has the shape /-t-/.
/tekahwátstakeʔ/ "two dollars"

It also occurs with verbs which require two agents.
/tesatatyé·na/ Wrestle!

- {-t-} dualic (has shape /-te-/ when no other tense markers occur.
- {-s-} second person
- {-atatyena-} stem "to wrestle"

The dualic is also used to indicate change of state or position

/waʔthayaḡyahkeʔ/ He crossed over it

- {-w-} past tense
- /-aʔ-/ empty morph
- {-t-} dualic
- {-ha-} "he"
- {-yahyahk-} stem "to cross over"
- {-s-} serial aspect

The future tense marker has two shapes /-ẽ-/ and /-o-/. The first occurs in all cases except when the following pronominal prefix is a feminine indefinite acting on any oblique except the second person dual.

/əhí·kēʔ/ "I will see him"

{-ē-} future tense

{-hi-} first person singular acts on a third
person singular masculine (I act on him)

{-kē-} verb stem "to see"

{-ʔ-} punctual aspect (required with {-ē-})

/oyōkēʔ/ She will see me

{-o-} future tense in shape it has with feminine-
indefinite pronominals.

{-yōk-} She (feminine- indefinite; used for very
young, or very old women, and women who
are entitled to respect. Also used for
"one" as an indefinite)

{-kē-} "to see"

{-ʔ-} punctual aspect

The indefinite tense has a range of meaning from
optative to subjunctive. It has the basic shape {-a-}

/ahí·kēʔ/ "Let me see him"

{-a-} indefinite

{-hi-} I act on him

{-kē-} stem "to see"

{-ʔ-} punctual aspect

/tahayáyahkeʔ/ "for him to cross over it"

{-t-} dualic

{-a-} indefinite

{-ha-} "he"

{-yahyahk-} stem "to cross over"

/e/ epenthetic

{-ʔ-} punctual aspect

The iterative {-s-} has, as its most common meaning, "again".

/sahí·kẽʔ/ "I saw him again"

{-s-} iterative

{-a-} past tense, when position class 5 is filled

{-hi-} I act on him

{-kẽ-} stem "to see"

{-ʔ-} punctual aspect

With the verb root {-ti-}, the iterative has the meaning "on the other side of".

/skahnéhtati/ "On the other side of the pine trees"

{-s-} iterative

{-ka-} pronominal prefix "it" (neuter zoic)

{-hneht-} "pine tree"

/a/ stem joiner, epenthetic

{-ti-} stem "to be located"

The iterative also appears in some words to mean "the one characterized by".

/skahnyõhsaʔ/ "moose" (i.e. the one characterized by a nose)

{-s-} iterative

{-ka-} third person neuter zoic "it"

{-hnyõhsaʔ-} "nose"

The cislocative {-t-} has as one of its meanings, direction toward the speaker.

/tõtahayáhyahkeʔ/ "He came across it" (i.e. toward me)

{-t-} dualic (required by the stem {-yahyahk-})

/õ/ empty morph

{-t-} cislocative; motion towards me

{-a-} past tense

{-ha-} third person singular masculine "he"

{-yahyahk-} "to cross over"

/e/ epenthetic

{-ʔ-} punctual aspect (required by past tense)

The cislocative is used to denote the superlative in verbs of quality.

/tkakhwáksẽ/ The worst food

{-t-} cislocative

{-ka-} third person singular neuter zoic (it)

{-khw-} "food"

{-aksẽ-} "to be bad"

Compare the above with /kakhwáksẽ/ "bad food"

4.4 Chart Three shows the segmented pre-pronominal prefixes. They have been segmented from the illustrative paradigms which follow. The examples occur in the order of presentation on Chart Three.

/ẽhí·kẽʔ/ "I will see him"

{-ẽ-} future tense

{-hi-} I act on him

{-kẽ-} "to see"

{-ʔ-} punctual aspect

/wahí·kẽʔ/ "I saw him"

{-w-} past tense

/-aʔ-/ empty morph
 {-hi-} I act on him
 {kē-} "to see"
 {-ʔ-} punctual aspect

/ahí·kēʔ/ "let me see him"
 {-a-} indefinite tense
 {-hi-} I act on him
 {-kē-} "to see"
 {-ʔ-} punctual aspect

/shí·kēs/ "I see him again"
 {-s-} iterative
 {-hi-} I act on him
 {-kē-} "to see"
 {-s-} serial aspect

/ēshí·kēʔ/ "I will see him again"
 {-ē-} future tense
 {-s-} iterative
 {-hi-} I act on him
 {-kē-} "to see"
 {-ʔ-} punctual aspect

/sahí·kēʔ/ "I saw him again"
 {-s-} iterative
 {-a-} past tense
 {-hi-} I act on him
 {-kē-} "to see"
 {-ʔ-} punctual aspect

/aōsahíkēʔ/ "for me to see him again"

{-a-} indefinite
 /-õ-/ empty morph
 {-s-} iterative
 {-a-} past tense
 {-hi-} I act on him
 {-kê-} "to see"
 {-?-} punctual aspect

/thakhyá·tõs/ "He writes to me"

{-t-} cislocative
 {-hak-} he acts on me
 {-hyatõ-} "to write"
 {-s-} serial aspect

/êthakhyátõ?/ "He will write to me"

{-ê-} future
 {-t-} cislocative
 {-hak-} he acts on me
 {-hyatõ-} "to write"
 {-?-} punctual aspect

/tahakhyá·tõ?/ "He wrote to me"

{-t-} cislocative
 {-a-} past tense
 {-hak-} he acts on me
 {-hyatõ-} "to write"
 {-?-} punctual aspect

/aõtahakhyá·tõ?/ "let him write to me"

{-a-} indefinite
 /-õ-/ empty

{-t-} cislocative
 {-a-} past tense
 {-hak-} he acts on me
 {-hyatō-} "to write"
 {-ʔ-} punctual

/tehayáhyaʔks/ "He crosses over it"

{-te-} dualic
 {-ha-} "he"
 {-yahyaʔk-} "to cross over" (has shape /-yahyahk-/
 when it is followed by another syllable)
 {-s-} serial aspect

/tēhayáhyankeʔ/ He will cross over it

{-t-} dualic
 {-ē-} future
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/waʔthayáhyankeʔ/ He crossed over it

{-w-} past tense
 /-aʔ-/ empty morph
 {-t-} dualic
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/tahayáhyanke?/ For him to cross over it

- {-t-} dualic
- {-a-} indefinite
- {-ha-} "he"
- {-yahyahk-} "to cross over it"
- /e/ epenthetic
- {-ʔ-} punctual aspect

/yehí·kēs/ "I see him over there"

- {-ye-} translocative
- {-hi-} I act on him
- {-kē-} "to see"
- {-s-} serial aspect

/yēhí·kēs/ I will see him over there

- {-y-} translocative
- {-ē-} future tense
- {-hi-} I act on him
- {-kē-} "to see"
- {-s-} serial aspect

/yaŋkhé·kē?/ I saw them over there

- {-y-} translocative
- /-a?-/ empty morph
- {-khe-} I act on them
- {-kē-} "to see"
- {-ʔ-} punctual aspect

/yahí·kē?/ "Let me see him over there"

- {-y-} translocative
- {-a-} indefinite

{-hi-} I act on him
 {-kẽ-} "to see"
 {-ʔ-} punctual aspect

/teshayáhyaʔks/ He crosses over it again

{-te-} dualic
 {-s-} iterative
 {-ha-} "he"
 {-yahyaʔk-} "to cross over"
 {-s-} serial aspect

/tẽshayáhyahkeʔ/ He will cross over it again

{-t-} dualic
 {-ẽ-} future
 {-s-} iterative
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/tõsahayáhyahkeʔ/ "he crossed over it again"

{-t-} dualic
 /õ/ empty morph
 {-s-} iterative
 {-a-} past tense
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/taõsahayáhyahke?/ for him to cross over it again

- {-t-} dualic
- {-a-} indefinite
- /õ/ empty morph
- {-s-} iterative
- {-a-} past tense
- {-ha-} "he"
- {-yahyahk-} "to cross over"
- /e/ epenthetic
- {-?-} punctual aspect

/tethayáhyaks/ He comes across it (i.e. toward me)

- {-te} dualic
- {-t-} cislocative
- {-ha-} "he"
- {-yahyak-} "to cross over"
- {-s-} serial aspect

/tẽthayahyahke?/ He will cross over it (i.e. toward me)

- {-t-} dualic
- {-ẽ-} future tense
- {-t-} cislocative
- {-ha-} "he"
- {-yahyahk-} "to cross over"
- /e/ epenthetic
- {-?-} punctual aspect

/tõtahayáhyahke?/ He crossed over it (i.e. toward me)

- {-t-} dualic
- /õ/ empty morph

{-t-} cislocative
 {-a-} past tense
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/taōtahayáhyahkeʔ/ let him cross over it (i.e. toward me)

{-t-} dualic
 {-a-} indefinite
 /-ø-/ empty
 {-t-} cislocative
 {-a-} past tense
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/epenthetic
 {-ʔ-} punctual aspect

/yeshí·kēs/ "I see him over there again"

{-ye-} translocative
 {-s-} iterative
 {-hi-} I act on him
 {-kē-} "to see"
 {-s-} serial aspect

/yēshí·kēʔ/ "I will see him over there again"

{-y-} translocative
 {-ē-} future tense
 {-s-} iterative
 {-hi-} I act on him

/yõsahí·kẽ?/ I saw him over there again

- {-y-} translocative
- /-õ-/ empty morph
- {-s-} iterative
- {-a-} past tense
- {-hi-} I act on him
- {-kẽ-} "to see"
- {-?-} punctual aspect

/yaõsahí·kẽ?/ For me to see him over there again

- {-y-} translocative
- {-a-} indefinite
- {-õ-} empty morph
- {-s-} iterative
- {-a-} past tense
- {-hi-} I act on him
- {-kẽ-} "to see"
- {-?-} punctual aspect

/ya?tehayáhya?ks/ "He goes across it" (i.e. away from me)

- {-y-} translocative
- /-a?-/ empty morph
- {-te-} dualic
- {-ha-} "he-
- {-yahyaʔk-} "to cross over"
- {-s-} serial aspect

/ya?tẽhayahya?ke?/ He will go across it (away from me)

- {-y-} translocative
- {-a?-} empty morph

{-t-} dualic
 {-ē-} future tense
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/yaʔthayáhkyahkeʔ/ He went across it (away from me)

{-y-} translocative
 {-aʔ-} empty
 {-t-} dualic
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/yaʔtahayáhhyahkeʔ/ "For him to go across it"

{-y-} translocative
 {-aʔ-} empty
 {-t-} dualic
 {-a-} past
 {-ha-} "he"
 {-yahyahk-} "to cross over"
 /e/ epenthetic
 {-ʔ-} punctual aspect

/yaʔteshayáhhyahks/ "He goes across it again (away from me)"

{-y-} translocative
 {-aʔ-} empty morph
 {-te} dualic

{-s-} iterative

{-ha-} "he"

{-yahyaʔk-} "to cross over"

{-s-} serial aspect

/yaʔtēshayáhyahkeʔ/ "He will go across it again"(away from me)

{-y-} translocative

{-aʔ-} empty morph

{-t-} dualic

{-ē-} future tense

{-s-} iterative

{-ha-} "he"

{-yahyahk-} to go across

/e/epenthetic

{-ʔ-} punctual aspect

/yaʔtēshahayáhyahkeʔ/ "He went across it again" (Away from me)

{-y-} translocative

{-aʔ-} empty morpheme

{-t-} dualic

/-ē-/ empty morpheme

{-s-/ iterative

{-a-} past tense

{-ha-} "he"

{-yahyahk-} "to cross over"

/e/ epenthetic

{-ʔ-} punctual aspect

/yaʔtašshahayáhyahkeʔ/ "For him to go across it again"

{-y-} tranlocative

{-aʔ-} empty morph

{-t-} dualic

{-a-} indefinite

{-ō-} empty morph

{-s-} iterative

{-a-} past tense

{-ha-} "he"

{-yahyahk-} "to cross over"

/e/ epenthetic

{-ʔ-} punctual aspect

/wisk nikhé·kēs/ "I see them five times"

{-wisk-} five

{-ni-} partitive

{-khe-} I act on them

{-kē-} "to see"

{-s-} serial aspect

/wisk nēkhé·kēʔ/ "I will see them five times"

{wisk} five

{-n-} partitive

{-ē-} future tense

{-khe-} "I act on them"

{-kē-} "to see"

{-ʔ-} punctual aspect

/wisk naʔkhé·kēʔ/ "I saw them five times"

{wisk} five

{-n-} partitive

{-aʔ-} empty

{-khe-} I act on them

{-kē-} to see

{-?-} punctual aspect

/wisk nakhékē?/ Let me see them five times

{-wisk-} five

{-n-} partitive

{-a-} indefinite

{-khe-} I act on them

{-kē-} "to see"

{-?-} punctual aspect

/wisk niskhékēs/ Again I see them five times

{wisk} five

{-ni-} partitive

{-s-} iterative

{-khe-} I act on them

{-kē-} "to see"

{-s-} serial aspect

/wisk nēskhé·kēs/ Again I will see them five times

{wisk} five

{-n-} partitive

{-ē-} future

{-s-} iterative

{-khe-} I act on them

{-kē-} "to see"

{-?-} punctual aspect

/wisk nōsakhé·kē?/ Again I saw them five times

{wisk} five

{-n-} partitive

/-õ-/ empty morph
 {-s-} iterative
 {-a-} past tense
 {-khe-} I act on them
 {-kẽ-} "to see"
 {-ʔ-} punctual aspect

/wisk naõsakhé·kẽʔ/ For me to see them five times

{wisk} five
 {n-} partitive
 {-a-} indefinite
 {-õ-} empty morph
 {-s-} iterative
 {-a-} past tense
 {-khe-} I act on them
 {-kẽ-} to see
 {-ʔ-} punctual aspect

/wisk nithakhyá·tõs/ "He writes to me five times"

{wisk} five
 {ni-} partitive
 {-t-} cislocative
 {-hak-} he acts on me
 {-hyatõ-} "to write"
 {-s-} serial aspect

/wisk nõthakhyá·tõʔ/ He will write to me five times

{wisk} five
 {n-} partitive
 {-ẽ-} future tense

{-t-} cislocative
 {-hak-} he acts on me
 {-hyatõ-} to write
 {-ʔ-} punctual aspect

/wisk nõtahakhyá·tõʔ/ He wrote to me five times

{wisk} five
 {n-} partitive
 {-õ-} empty morph
 {-t-} cislocative
 {-a-} past tense
 {-hak-} he acts on me
 {-hyatõ-} to write
 {-ʔ-} punctual aspect

/wisk naõtahakhyá·tõʔ/ for him to write to me five times

{wisk} five
 {n-} partitive
 {-a-} indefinite
 {-õ-} empty morph
 {-t-} cislocative
 {-a-} indefinite

/wisk naʔtehayáhyaʔks/ He crosses over it five times

{wisk} five
 {n-} partitive
 {-aʔ-} empty morph
 {-te-} dualic
 {-ha-} "he"
 {-yahyaʔk-} "to cross over"

{-s-} serial aspect

/wisk na[?]tēhayáhyahke[?]/ He will cross over it five times

{wisk} five

{n-} partitive

{-a[?]-} empty morph

{-t-} dualic

{-ē-} future tense

{-ha-} he

{-yahyahk-} "to cross over"

/e/ epenthetic

{-[?]-} punctual aspect

/wisk na[?]thayáhyahke[?]/ He crossed over it five times

{wisk} five

{n-} partitive

{-a[?]-} empty morph

{-t-} dualic

{-ha-} he

{-yahyahk-} "to cross over"

/e/ epenthetic

{-[?]-} punctual aspect

/ wisk na[?]taōhayáhyahke[?]/ for him to cross over five times

{wisk} five

{n-} partitive

/-a[?]-/ empty morph

{-t-} dualic

{-a-} indefinite

{-ō-} empty morph

{-na-} "he"

{-yahyahk-} to cross over

/e/ epenthetic

{-ʔ-} punctual aspect

/wisk nyekhé·kēs/ I see them over there five times

{wisk} five

{n-} partitive

{-ye-} translocative

{-khe-} I act on them

{-kē-} to see

{-s-} serial aspect

/wisk nyēkhé·kēʔ/ I will see him over there five times

{wisk} five

{n-} partitive

{-y-} translocative

{-ē-} future tense

{-khe-} I act on them

{-kē-} "to see"

{-ʔ-} punctual aspect

/wisk nyaʔkhé·kēʔ/ I saw him over there five times

{wisk} five

{N-} partitive

{-y-} translocative

/-aʔ-/ empty morph

{-khe-} I act on them

{-kē-} to see

{-ʔ-} punctual aspect

/wisk nyakhé·kẽ/ for me to see him over there five times

{wisk} five

{n-} partitive

{-ya} translocative

{-a-} indefinite

{-khe-} I act on them

{-kẽ-} to see

{-?-} punctual aspect

CHART TWO - PRE-PRONOMINAL PREFIXES

I	II		III	IV		V	VI
n(i)	w	(a [?])	t(e)	a	(ǝ)	s	a
ts(i)	ye			ẽ		t	
sh(i)							

-----te?-----

Vowels which occur in an allomorph appear above in parenthesis, as do empty morphs.

The morphemes occurring in this division are:

Position I

{n(i)-}	partitive
{ts(i)-}	coincident
{sh(i)-}	contrastive

Position II

{-w-}	past tense
{-ye-}	translocative

Position III

{-t(e)-}	dualic
----------	--------

Position IV

{-a-}	indefinite
{-ẽ-}	future

Position V

{-s-}	iterative
{-t-}	cislocative

Position VI

{-a-}	past tense
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CHART THREE

	No tense	Future	Past	Indefinite
1 Tense alone	-	ẽ-	waʔ	a-
2 Iterative	s-	ẽs-	sa-	aõsa-
3 Cisloc	t-	ẽt-	ta-	aõta
4 Dualic	te-	tẽ-	waʔt-	ta-
5 Transloc.	ye-	yẽ-	yaʔ-	ya-
6 Dua. & It.	tes-	tẽs-	tõsa-	taõsa-
7 Dua. & Cis.	tet-	tẽt-	tõta-	taõta-
8 Trans & It	yes-	yẽs-	yõsa-	yaõsa-
9 Trans & Dua.	yaʔte-	yaʔtẽ-	yaʔt-	yaʔta-
10 Tr, Du, It	yaʔtes-	yaʔtẽs-	yaʔtõsa-	yaʔtaõsa-
11 Partitive	ni-	nẽ-	naʔ-	na-
12 Part & It	nis-	nẽs-	nõsa-	naõsa-
13 Part & Cis	nit-	nẽt-	nõta-	naõta-
14 Part & Du	naʔte-	naʔtẽ-	naʔt-	naʔtaõ
15 Part & trans	nye-	nyẽ-	nyaʔ-	nya-
16 Part, Du, It	---Prefix naʔ to Row 6 -----			
17 Part, Du, Cis	--Prefix naʔ to Row 7 -----			
18 Part, Trans, It	-Prefix n to Row 8-----			
19 Part, Trans, Du.	- Prefix n to Row 9-----			
20 Part, Trans, Du It.	---Prefix n to Row 10-----			
21 Coincident	--- substitute sh for n Rows 16-20 -			
22 Contrastive	---substitute th for n Rows 16-20			
23 Neg. Aux	teʔ-	The contrastive is used in place of the {-teʔ-} for all other cases		
24 Neg, It.	teʔs-			
25 Neg, Cis	teʔt-			

PRONOMINAL PREFIXES

5.1 The pronominal prefix division contains many phonological sequences which frequently occur with the same meaning. Like the pre-pronominal prefixes, it is somewhat difficult to decide whether these sequences can be classified as morphemes, since there is much variation as well as similarity. Rules are needed to predict the various phonological shapes as well as the order of the sequences. As with the pre-pronominal prefixes, the required number of rules outnumbers the forms produced. It may therefore be preferable to regard any sequence of phonemes between the pre-pronominal prefix division (if there is one; if not, then from the start of the word) to the stem as a single morpheme, which can be etymologically broken into components. All the possible pronominal forms can be displayed in accordance with the "word-paradigm" model, and then analyzed.

5.2 It is necessary even with the W-P approach to specify two classes of pronominal prefixes - those that occur with transitive verbs, and those that occur with intransitive verbs.

The most obvious difference between the two is that the pronominal prefixes occurring with transitive verbs mark both the subject and oblique (i.e. any non-subject category). Those pronominal prefixes occurring with intransitive verbs mark only the subject.

The semantic field for the two classes is somewhat different (see Chart Four). The pronominal prefixes occurring

with intransitive verbs distinguish a singular, dual and plural number and a first, second and third person. The first person dual and plural are marked for inclusivity and exclusivity. The third person singular maintains a three way contrast. A masculine form is used for all males (male names, which are grammatically non-masculine require the masculine form with the verbs they are the subjects of. E.g. /skanyatarí·yo/ "Handsome Lake" is a male name and requires the male prefix {-ha-} (or {ra-} in initial position) as in /skanyatarí·yow rawístos/ "Handsome Lake is cold"). The neuter-zoic is used for inanimate objects, animals (regardless of sex, unless one wishes to emphasise that the animal was male, in which case the masculine is used), women of one's own age group, and women of child bearing age. The final form, the female-indefinite is used for "little old ladies", young girls, and one's female relatives of ascending generations. It is also used to connotate daintiness. It also functions as an indefinite for either sex.

The dual and plural third person forms distinguish masculine and non-masculine categories.

5.3 The transitive verb pronominal prefixes distinguish a somewhat different semantic field. In addition, the same distinctions are not made for the subjects as are for the obliques.

5.4 The subjects reveal a three way distinction in number; singular, dual and plural; and a three way distinction in person: a first second and third. The dual, however, lacks

CHART FOUR

SEMANTICS OF THE PRONOMINAL PREFIXES

Transitive Verb Pronominal Prefixes

<u>Subjects</u>	<u>Objects</u>
First Singular	First Singular
Second Singular	Second Singluar
Third Singular Masculine	Third Singular Masculine
Third Singular Neuter-Zoic	Third Singular Neuter-Zoic
First Dual Inclusive	First Dual
First Dual Exclusive	
Second Dual	Second Dual
First Plural	First Plural
Second Plural	Second Plural
Third Plural (also F-I)	Third Plural*

*distinguishes masculine vs. non-masculine only with
third person plural subject

NOTE: Not all combinations are possible

Intransitive Verb Pronominal Prefixes

	Singular	Dual	Plural
First person	"I"	We two (inclusive)	We Plural (inclusive)
		We two (exclusive)	We Plural (exclusive)
Second Person	You (Sing.)	You (dual)	You (plural)
Third Person	Masculine Neuter-Zoic Fem.-Indef.	Masculine Non-masculine	Masculine Non-masculine

a third person, and when there are two actors, they are regarded with the transitive verbs, as plural. The third person singular distinguishes a masculine and neuter-zoic; the feminine-indefinite is expressed as a third person plural. The distinction between the inclusive and exclusive first person dual and plurals is lost in all but one case: "We two inclusive act on a neuter-zoic" (/htshakeni-/) and "We two exclusive act on a neuter zoic" (/hshakeni-/). (The translation "Acts on" is used as a device to mark a subject (i.e. the actor) and a non-subject (i.e. the one acted on). The phrase "acts on" is not to be taken literally).

5.5 In the obliques three numbers and three persons are distinguished. Like the subject forms, all three persons are distinguished in the singular and plural, but only two are distinguished in the dual. The inclusive-exclusive distinction is lost entirely. The third person plural expresses a masculine non-masculine distinction only when acted upon by a third person plural subject.

5.6 A final distinction between the intransitive verb pronominal prefixes and those which occur with the transitive verbs is revealed when the verbs are inflected for the "perfective aspect" (see chapter seven). Intransitive verbs use a different set of pronominal prefixes with perfective aspects than are used with non-perfective aspects. No such change occurs with the transitive verb pronominal prefixes.

5.7 One other point should be made here. The forms of transitive verb prefixes ~~that~~ occur with a neuter-zoic

object are almost identical to those found with the non-perfective pronominal prefixes for the same person (e.g. "I" subject; "it" object is {-k-}). "I" as the subject of an intransitive verb in a non-perfective aspect is also {-k-}). One may also analyze these forms as not marking the "it" object.

The transitive pronominal prefixes that occur with a neuter-zoic actor, are basically the same as the pronominal prefixes that are used with intransitive verbs in the perfective aspect (e.g. "it" subject, "me" object, {-wak-}; "I" as the subject of an intransitive verb in the perfective aspect {-wak-}).

5.8 Although the forgoing indicates all the critical distinctions, it is not a clear or correct view of the actual Mohawk categories, since not all of the distinctions are always made (for example, a first person dual object is distinguished from a first person plural object when a third person masculine actor acts on them, but is not made when a second person plural acts on them).

Further, the same Mohawk terms cover several different relationships. /-keni-/, for example is used on three different occasions: (a) first person singular subject acting on a second person dual object, (b) a first person dual subject acting on a second person singular object, (c) first person dual subject acting on a second person dual object. It is preferable to define /-keni-/ as "a first person acts on a second person when either or both are

dual and neither is plural.

The following analysis lists the forms by the Mohawk component of the subject-oblique, and then analyzes them for recurrent sequences that may contain semantic components. Letters in parenthesis are epenthetic.

5.10 A short example will help clarify the analysis:

1→2	kō	k(e)ni	kwa	yakwa
	S→S	S→D D→S D→D	S→P D→P	P→S P→D P→P

This is to be read as "A first person acting on a second". The first form /kō/ occurs when a singular acts on a singular; the second form /k(e)ni/ (the /e/ is epenthetic) with a first singular acting on a dual plural and also for a dual first person acting on a second singular person, and also for a first person dual acting on a second person dual. The third form /kwa/ is used for a first person singular acting on a plural and also for a first person dual acting on a second person plural. The final form /yakwa/ is used for a first person plural acting on a second person singular and also for a first person plural acting on a second person dual and also for a first person plural acting on a second person plural.

5.11 Following the analysis is a chart of English pronominal categories, which can be used to locate the forms used for similar categories in Mohawk. There is also a table alphabetically listing the Mohawk forms, indicating the person and numbers involved in the form and parenthetically the section in the analysis where the form is discussed.

CHART FIVE

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	IS	2S	3SM	3NZ	ID	2D	IP	2P	3P
IS		kō	hi	k		keni		kwa	khe
2S	hsek		ts	hs	hskeni		hskwa		hshe
3SM	hak	hya	ho	ha	hshōkeni	hts'iseni	hshōkwa	hts'iseni	hshako
3SN	wak	sa	ho	yo	yōkeni	seni	yōkwa	sewa	yako
ID(I)			htshakeni	teni					yethi
ID(E)		keni	hshakeni	yakeni		keni		kwa	yakhi
2D	hskeni		hts'iseni	seni	hskeni		hskwa		yetsi
IP(I)			hts'akwa	yakwa					yethi
IP(E)		yakwa	hts'akwa	yakwa		yakwa		yakwa	yethi
2P	hskwa		hts'isewa	sewa	hskwa		hskwa		yetsi
3P	yōk	yōsa	hōwa	kōwa	yōkhi	yetsi	yōkhi	yetsi	hōwati (masc.) kōwati (femin.)

5.12

1→2	<u>kõ</u>	<u>k(e)ni</u>	<u>kwa</u>	<u>yakwa</u>
	S→S	S→D D→S D→D	S→P D→P	P→S P→D P→P

{-kõ-} first singular acts on a second singular

/k/ first person

/õ/ object follows (in all the 1→2, no marker appears for the second person)

{-k(e)ni-} first acts on second where either or both are dual, and neither is plural.

/k/ first person

/ni/ dual (with following a-stems becomes /y/).

{-kwa-} first acts on second where object is plural and subject is anything but plural.

/k/ first person

/wa/ plural

{-yakwa-} first acts on second where subject is plural

/y/ exclusive marker. Its use here is probably to indicate a second person is not involved in the subject (see section 5.16 also)

/a/ subject follows

/k/ first person

/wa/ plural marker

5.13

2→1	<u>hsek</u>	<u>hsk(e)ni</u>	<u>hskwa</u>
	S→S	S→D D→S D→D	S→P D→P P→P P→S P→D

{-hsek-} second person acts on first when both are singular.

/hs/ second person (/h/ is lost in all forms where /s/ occurs before the vowel of another member of pronominal prefixes or before an epenthetic /e/).

/e/ this /e/ may be epenthetic, although there is no phonological rule to place it here. It does not appear in other /hsk/ sequences in the pronominal prefixes (see {-hsk(e)ni-} in this section)

/k/ first person

{-hsk(e)ni-} Second person acts on a first when one or both is dual and neither is plural

/hs/ second person (see above)

/k/ first person

/ni/ dual (see section 5.12)

{-hskwa-} second person acts on first when at least one is plural

/hs/ second person (see above)

/k/ first person

/wa/ plural

5.14

i→3M	<u>hi</u>	<u>khe</u>	<u>htsak(e)ni</u>	<u>hshak(e)ni</u>	<u>htsakwa</u>	<u>yakhi</u>	<u>yethi</u>
	S→S	S→P	D(I)→S	D(E)→S	P→S	D(E)→P	P→P D(I)→P

{-hi-} singular person acts on singular. Not analyzable.

May be related to {-ha-} "he" and {iʔi} "I".

{-khe-} Singular acts on plural

/k/ first person

/he/ they (?) occurs also with {-hshe-} (see section 5.18)

{-htshak(e)ni-} dual inclusive (you & I) acts on
a singular

/htsh/ third person masculine (has this shape as oblique when subject is a first person plural, first dual inclusive or second dual. It also has this shape as subject when second dual is the oblique. Appears as /hsh/ when acting as subject and the oblique is a first person dual or plural or third person plural. Appears as /hsh/ when a first person dual exclusive is acting upon it. Another possibility would be to segment as /h/ "third person", /t/ "inclusive" and /sh/ generalized third person.

/a/ subject follows

/k/ first person

/ni/ dual (see section 5.12)

{-htshakwa-} a plural subject acts on a singular object

/htsh/ third person masculine (see above)

/a/ subject follows

/k/ first person

/wa/ plural

{-yakhi-} a dual exclusive subject acts on a plural object

/y/ meaning not certain. May be related to the

neuter {-yo-} or the feminine indefinite
 {-ye-} of the intransitive verb prefixes. May
 carry the meaning of indefinite third person

/a/ subject follows

/k/ first person

/hi/ meaning unknown. May relate to /he/ "third
 plural object (see {-khe-} section 5.14) and
 {-hshe-} section 5.18)

{-yethi-} a dual inclusive of a plural subject acts on
 a plural object

/ye/ May be /y/ plu epenthetic /e/ (see above)

/t/ inclusive

/hi/ see above

5.15

3M→1	<u>hak</u>	<u>hshōk(e)ni</u>	<u>hshōkwa</u>	<u>yōk</u>	<u>yōkhi</u>
	S→S	S→D	S→P	P→S	P→D P→P

{-hak-} singular acts on singular

/ha/ third person singular masculine

/k/ first person

{-hshōk(e)ni-} a singular acts on a dual

/hsh/ third person masculine (see 5.14)

/ō/ object follows

/k/ first person

/ni/ dual (see 5.12)

{-yōk-} a plural subject acts on a singular object

/y/ meaning unclear (see section 5.14)

/ō/ object follows

/k/ first person
 {-yōkhi-} a plural acts on a non-singular object
 /y/ meaning unclear (see section 5.14)
 /ō/ object follows
 /k/ first person
 /hi/ third person plural object (?) see 5.14

5.16

1→3N	<u>k</u>	<u>t(e)ni</u>	<u>yak(e)ni</u>	<u>yakwa</u>
	S→S	D(I)→S	D(E)→S	P→S

{-k-} singular acts on singular

/k/ first person (See 5.7)

{-t(e)ni-} inclusive dual acts on singular neuter

/t/ inclusive

/ni/ dual (see 5.12)

{-yak(e)ni-} first person dual exclusive acts on singular

/y/ exclusive

/a/ subject follows

/k/ first person

/ni/ dual

{-yakwa-} a plural subject acts on a neuter zoic

/y/ exclusive

/a/ subject follows

/k/ first person

/wa/ plural

These four forms occur as the subject markers
 for intransitive verbs in non-perfective aspects.

5.17

3nZ→1	<u>wak</u>	<u>yōk(e)ni</u>	<u>yōkwa</u>
	S→S	S→D	S→P

{-wak-} a singular neuter-zoic acts on a first singular
 /wa/ meaning uncertain - possibly third person object
 /k/ first person

{-yōk(e)ni-} singular acts on dual
 /yōk/ possibly /ya/ indefinite plus /wak/
 /ni/ dual

{-yōkwa-} a neuter zoic singular acts on a first plural
 /yōk/ see above
 /wa/ plural

5.18

2→3M	<u>ts</u>	<u>htshis(e)ni</u>	<u>htshis(e)wa</u>	<u>hshe</u>	<u>yetsi</u>
------	-----------	--------------------	--------------------	-------------	--------------

{-ts-} singular acts on singular
 /ts/ unsegmentable. Bears relation to /(h)s/ "you"

{-htshis(e)ni-} a dual acts on a singular (see 5.19)
 /htsh/ see 5.14
 /is/ second person with dual or plural subject
 or object or singular is second is object.
 /ni/ dual

{-htshis(e)wa-} a plural acts on a singular (see 5.19)
 /htsh-/ see 5.14
 /is/ see above
 /wa/ plural

{hshe-} singular acts on plural
 /hs/ second person singular

/he/ third person plural (?) (see 5.18, 5.19)
 {-yetsi-} a non-singular acts on a plural (see 5.19)
 /ye/ unclear see 5.14
 /ts/ a second person singular acts on a third
 person masculine
 /i/ unknown

5.19

3M→2	<u>hya</u>	<u>yōsa</u>	<u>htshis(e)ni</u>	<u>htshis(e) wa</u>	<u>yetsi</u>
	S→S	P→S	S→D	S→P	P→D P→S

{-hya-} singular acts on singular

/hya/ unsegmentable, /h/ could be third person
 leaving /ya/ unknown

{-yōsa-} plural acts on singular

/y/ related to indefinite (see 5.14)

/ō/ object follows

/sa/ object form of second person singular

{-htshis(e)ni-} a singular acts on dual (see 5.18)

{-htshis(e)wa-} a singular acts on a plural (see 5.18)

{-yetsi-} a plural acts on a non-singular (see 5.18)

5.20

2→3N	<u>hs</u>	<u>s(e)ni</u>	<u>s(e)wa</u>
	S→S	D→S	P→S

{-hs-} singular acts on singular

/hs/ second person (see 5.7)

{-s(e)ni-} a dual subject acts on a singular

/s/ second person

/ni/ dual see (5.12)

{-s(e)wa-} a plural subject acts on a singular object

/s/ second person

/wa/ plural

These are the same forms that occur with the intransitive verbs in non-perfective aspects for the second person singular, dual and plural respectively.

5.21

3N→2 $\frac{sa}{S \rightarrow S}$ $\frac{s(e)ni}{S \rightarrow D}$ $\frac{s(e)wa}{S \rightarrow P}$

{-sa-} singular acts on singular

/sa/ second person object

{-s(e)ni-} singular acts on dual (see 5.20)

{-s(e)wa-} singular acts on plural (see 5.20)

5.22

3M→3M $\frac{ho}{S \rightarrow S}$ $\frac{hshako}{S \rightarrow P}$ $\frac{h\tilde{owa}}{P \rightarrow S}$ $\frac{h\tilde{owati}}{P \rightarrow P \text{ (Masculine)}}$

{-ho-} singular acts on singular (see 5.23)

/ho/ unsegmentable

{-hshako-} third person singular acts on a plural

/hsh/ third person (see 5.14)

/ako/ unknown. This sequence also occurs in

/yako/ 3NS→3P, where ot presumably relates

to the third person plural object.

{-h \tilde{owa} -} plural acts on a singular object

/h/ third person. Probably originally /hawa/

which would yield /h \tilde{o} / since /awa/ → / \tilde{o} /

in the pronominal prefix division. Later

a second plural /wa/ may have been added again.

The full underlying form would then be
 /hawawa/ with the underlying phonemes becoming
 /ɔ̃/ before the final /wa/ is added.

{-hōwati-} a plural acts on a masculine plural

/hōwa/ see above

/ti/ plural marker of object

5.23

3N→3M

$$\frac{ho}{S \rightarrow S}$$

$$\frac{yako}{S \rightarrow P}$$

{-ho-} singular acts on singular

/ho/ (see section 5.22)

{-yako-} singular acts on plural

/y/ indefinite (?) see 5.14

/ako/ unclear see 5.22

5.24

3M→3N

$$\frac{ha}{S \rightarrow S}$$

$$\frac{kōwa}{P \rightarrow S}$$

$$\frac{kōwati}{P \rightarrow P} \text{ (non-masculine)}$$

{-ha} singular acts on singular

/ha/ third person (same shape occurs for third
 person masculine pronominal prefix for
 intransitive verbs in non-perfective aspects.
 See 5.30)

{-kōwa-} plural acts on singular

/kō/ from underlying /k/ third person neuter zoic
 with intransitive verbs in non-perfective
 aspect, plus /a/ indefinite third person in
 intransitive verb constructions plus /wa/
 which may be either a plural or third person

marker. The resulting sequence /kawa/ > ?kō/.

See also 5.22 and 5.30

/wa/ plural (possibly redundant) see above

{-kōwati-} plural subject acts on plural non-masculine
object.

/kōwa/ see above

/ti/ plural of object

5.25

3N→3N $\frac{yo}{S \rightarrow S}$

{-yo-} singular acts on singular

/yo/ not segmentable. (see 514)

5.26 The intransitive verb pronominal prefixes occurring with
non-perfective aspects have the following shapes:

	Singular	Dual	Plural
1	k	teni (incl)	tewa (incl)
		yakeni (excl)	yakwa (excl)
2	hs	seni	sewa
3M	ha	hni	hati
		hya (with a-stem)	hō (with a-stem)
3NZ	ka	keni	kōti
(with a-stems)	wa	ky	kō
3FI	ye (before C and /i/ which drops) yak (before /e/, /o/, /ē/ and /ō/) yō (from ya↓ w before /a/ → yō)	-----	-----

CHART SIX

MOHAWK PRONOMINAL PREFIXES; TRANSLATIONS AND RELEVANT SECTIONS

-ha-	3SM→3SN (5.24)
-hak-	3SM→IS (5.15)
-hi-	1S→3MS (5.14)
-ho-	3SM→3SM; 3SN→3SM (5.22; 5.23)
-hōwa-	3P→3SM (5.22)
-hōwati-	3P→3PM (5.22)
-hs-	2S→3SN (5.20)
-hsek-	2S→1S (5.13)
-hshakeni-	ID(E) → 3SM (5.14)
-hshako-	3SM→3P (5.22)
-hshe-	2S→3P (5.18)
-hshōkeni-	3SM→ID (5.15)
-hshōkwa-	3SM→IP (5.15)
-hskeni-	2S→1D; 2D→1S; 2D→1D (5.13)
-hskwa-	2S→1P; 2D→1P; 2P→1S; 2P→1D; 2P→1P (5.13)
-htshakwa-	1P→3MS (5.14)
-htshiseni-	3SM→2D (5.19); 2D→3SM (5.18)
-hya-	3SM→2S (5.19)
-k-	1S→3SN (5.16)
-keni-	1S→2D; 1D→2S; 1D→2D (5.12)
-khe-	1S→3P (5.14)
-kō-	1S→2S (5.12)
-kōwa-	3P→3SN (5.24)
-kōwati-	3P→3SN (5.24)
-kwa-	1S→2P; 1D→2P (5.12)

CHART SIX (CONTINUED)

-sa-	3SN→2S (5.21)
-seni-	3SN→2D (5.21); 2D→3SN (5.20)
-sewa-	2P→3SN (5.20); 3SN→2P (5.21)
-teni-	1D(I) → 3SN (5.16)
-ts-	2S→3SM (5.18)
-wak-	3SN→1S (5.17)
-yakeni-	1D(E)→3SN (5.16)
-yakhi-	1D(E) → 3P (5.14)
-yako-	3SN→3P (5.23)
-yakwa-	1P→2S; 1P→2D; 1P→2P (5.12); 1P→3NS (5.16)
-yethi-	2D→3P; 2P→3P (5.18); 3P→2D; 3P→2P (5.19)
-yo-	3SN→3SN (5.25)
-yōk-	3P→1S (5.15)
-yōkeni-	3SN→1D (5.17)
-yōkhi-	3P→1D; 3P→1P (5.15)
-yōkwa-	3SN→1P (5.17)
-yōsa-	3P → 2S (5.19)

CHART SEVEN

Person	Non-"a-stems" {-wisto-}	"a-stem {-atkatho-}
1S	k(e) wístos	k atkáthos
1D(I)	t(e)ni wístos	ty atkáthos
1D(E)	yak(e)ni wístos	yaky atkáthos
1P(I)	t(e)wa wístos	t(e)wa atkáthos
2S	hs(e) wístos (#hs→#s)	hs atkáthos
2D	s(e)ni wístos	ts atkáthos
2P	s(e)wa wístos	s(e)wa atkáthos
3SM	ha wístos (#hV→#rV)	ha atkáthos
3SN-Z	ka wístos	wa atkáthos
3F-I	ye wístos	yōtkáthos
3DM	hni wístos (#hC→#C)	y atkáthos
3DMN*	k(e)ni wístos	ky atkáthos
3PM	hati wístos (#hV→#rV)	hōtkáthos (#hV→#rV)
3PNM*	kōti wístos	kōtkáthos

* NM stands for "non-masculine"

Both verbs have a serial aspect {-s-} which appear in all of the above forms.

For further explanation see section 5.26

The forms in 5.26 are shown in Chart Seven with the verb stems {-wisto-} "to be cold" and {-atkatho-} "to see". Both verbs have the serial aspect {-s-}.

In the Chart, "e"s which appear parenthetically are epenthetic. Since the rules $V_1V_2 \rightarrow V_2$ even when the two vowels are the same, the terminal /a/ of the forms shown in 5.26 will be lost before the initial /a/ of the a-stem verb {-atkatho-} "to see".

A space has been left between the pronominal prefix and the stem, in Chart Seven, when there is no fusion across the pronominal prefix - stem boundary.

The analysis of the pronominal prefixes of Chart Seven is as follows:

5.27 First person forms

{-k-} first person

/k/ first person

{-t(e)ni-} first person dual inclusive

/t/ inclusive

/ni/ dual (becomes /y/ before a-stems)

{-yak(e)ni-} first person dual exclusive

/y/ exclusive

/a/ subject follows

/k/ first person

/ni/ dual (becomes /y/ before a-stems)

{-t(e)wa-} first person plural inclusive

/t/ inclusive

/wa/ plural

{-yakwa-} first person plural exclusive

/y/ exclusive

/a/ subject follows

/k/ first person

/wa/ plural

5.28 Second person forms

{-hs-} second person singular

/hs/ second person singular

{-s(e)ni-} second person dual with non a-stems

/s/ second person

/ni/ dual (becomes /y/ before a-stems)

{-ts-} second person dual with a-stems

/ts/ derived from proto */sy/→*/tsy/→/ts/

See section 1.9

{-s(e)wa-} second person plural

/s/ second person

/wa/ plural

5.29 Third person forms

{-ha-} third person masculine singular

/h/ masculine

/a/ third singular (see 5.30)

{-ka-} third person singular neuter-zoic (non a-stems)

/k/ neuter zoic or non-masculine

/a/ third person (see 5.30)

{-wa-} third person neuter zoic (a-stem form)

/w/ neuter zoic or non-masculine

/a/ third person singular (see 5.30)

- {-ye-} third person feminine indefinite
 /ye/ third feminine indefinite (5.26)
 with a-stems /yaw/ → /yō/
- {-k(e)ni-} third person non-masculine dual (non a-stems)
 /k/ third non-masculine or neuter zoic
 /ni/ dual (becomes /y/ before a-stems)
- {-ky.-} third person dual non-masculine (a-stem form)
 /k/ 3rd non-masculine or neuter zoic
 /y/ dual (before /a/ - elsewhere is /ni/)
- {-hni-} third person, dual masculine (non-a-stem)
 /h/ masculine
 /ni/ dual (becomes /y/ before /a/)
- {-hy-} third person dual masculine with a-stems
 /h/ masculine
 /y/ dual with a-stems
- {-hō-} third person masculine plural (with a-stems)
 /h/ masculine
 /ō/ derived from underlying /a/ indefinite plus
 /wa/ plural. /hawa/ → /hō/ (see 3.3, 3.4 & 3.5)
- {-hati-} third person plural masculine (non a-stem)
 /h/ third masculine
 /a/ third person
 /ti/ plural (see 5.30)
- {-kō-} third person plural non-masculine (a-stem form)
 /k/ third neuter zoic or non-masculine
 /ō/ derived from /a/ plus /wa/ see above)

{-kõti-} third person non-masculine plural (non a-stems)

/k/ third neuter zoic or non masculine

/a/ third person

/wa/ plural

/ti/ plural (see {-kõ-} and {-hati-} above

and also section 5.30)

5.30 The major complication in the pronominal prefixes which occur with the non-perfective forms of the intransitive verbs arises in the third person forms.

The singular forms /ka/, /ha/ and /wa/ can be segmented after comparing them to the dual forms /k(e)ni/ and /hni/. Such segmentation allows one to assign the meaning of 'neuter-zoic or non-masculine' to /k/ and /w/ (/k/ occurs with non-a-stems, while /w/ occurs with a-stems); 'masculine' to /h/; 'third singular' to /a/ and 'dual' to /ni/.

Such an interpretation would lead to the generating of the plural forms as */hwa/ (/h/ 'masculine' and /wa/ 'plural') and */kwa/ (/k/ 'neuter-zoic or non masculine' and /wa/ 'plural') These forms do not occur. Only if the /a/ (third person singular) is retained can the sequences /hawa/ and /kawa/ be obtained which are needed to form /hõ/ and /kõ/ respectively. Presumably the plural marker /ti/ was added later to the already existing form /kõ/ (i.e. /kawa) somewhat redundantly and to the form /ha/ (and not /hõ/) thereby producing /hati/ rather than /hõti/.

Unfortunately, from the point of view of an orderly analysis, the /a/ 'singular' fused with the person markers

/k/ and /h/ only in the plural and not in the dual.

5.31 Perfective verb constructions can be translated into English not only as perfectives, but frequently as adjectives with the present tense of the verb "to be". For example, the verb stem {-atiw-} is translated as "to lose weight" in the non-perfective forms, and as "to be skinny" in the perfective forms. /ká·tiweʔ/ "I am losing weight" and /wakatf·wẽ/ "I'm skinny".

5.32 The phonological shape of the pronominal prefixes varies. The variation is conditioned by the initial vowel in the stem position. One set of forms is used for a-stems, the other set for all other stems. Most of the variation is based on strict phonological rules, the fact that the dual marker has the shape /y/ before /a/ and /ni/ elsewhere. There is one difference between the a-stem prefixes and the non-a-stem prefixes that can not be accounted for by the above statements. The third person dual and plural forms for the masculine are /hon/ for a-stem verbs and /hoti/ for non a-stem verbs. The non-masculine form of the third person dual and plural is /yon/ for the a-stems verbs and /yoti/ with all others.

The following analysis indicates the segmentation which is possible for the pronominal prefixes that occur with the perfective aspects of the intransitive verbs.

5.33 First person forms

{-wak-} first person singular

/wak/ first person singular. /k/ is probably from the first person /k/. The /wa/ may be related to the third person /wa/. See

also section 5.17)

{-yōk(e)ni-} first person dual (with non-a-stems)

/y/ exclusive

/ō/ object follows

/k/ first person

/ni/ dual (with a-stems becomes /y/)

{-yōky-} first person dual (with a-stems)

/y/ exclusive

/ō/ object follows

/k/ first person

/y/ dual with a-stems (elsewhere /ni/)

{-yōkwa-} first person plural

/y/ exclusive

/ō/ object follows

/k/ first person

/wa/ plural

5.34 Second person forms

{-sa-} second person singular (with non-a-stems)

/sa/ possibly from /s/ second person /a/ subject follows

{-s(e)ni-} second person dual with non-a-stems

/s/ second person

/ni/ dual (becomes /y/ before /a/)

{-ts-} second person dual with a-stems

/ts/ from /s/ 'second person' and /y/ dual with a-stems. Historically */sy/→*/tsy/→/ts/

{-s(e)wa-} second person plural

/s/ second person

/wa/ plural

5.35 Third person forms

{-ho-} third person masculine singular

/h/ third person masculine

/o/ object for third person

{-yo-} third person neuter zoic or non-masculine

/y/ neuter zoic

/o/ object marker for third person

{-yako-} third person feminine-indefinite

/yak/ third person feminine indefinite

possibly /y/ is feminine indefinite

(see 5.29) /ak/ is unknown

/o/ object marker for third person

{-hoti-} third person masculine plural (non-a-stem)

/h/ third person masculine

/o/ object marker for third person

/ti/ plural for object

{-hon-} third person masculine plural (with a-stems)

/h/ masculine

/o/ object marker for third person

/n/ possible plural marker for third person with
a- stems

{-yoti-} third person plural non masculine with non-

a-stems

/y/ third person non-masculine or neuter zoic

/o/ object marker for third person

/ti/ plural

{-yon-} third person plural non masculine with a-stems

/y/ third person non-masculine or neuter-zoic

/o/ third person object

/n/ plural marker with a-stems

CHART EIGHT

CATEGORIES EXHIBITED BY PRONOMINAL PREFIXES IN PERFECTIVE ASPECTS

With Non A-Stems

<u>Person</u>	<u>Singular</u>	<u>Dual</u>	<u>Plural</u>
1	wak	yōkeni	yōkwa
2	sa	seni	sewa
3M	ho	-----hoti-----	
3NZ	yo	-----yoti-----	
3FI	yako		

With A-Stems

<u>Person</u>	<u>Singular</u>	<u>Dual</u>	<u>Plural</u>
1	wak	yōky	yōkwa
2	sa	ts	sewa
3M	ho	-----hon-----	
3NZ	yo	-----yon-----	
3FI	yako		

THE STEM DIVISION

6.1 The stem position is the core of the Mohawk verb. The initial phoneme of the stem determines the shape of the pronominal prefix morpheme, while the root, with or without case morphemes, morphologically conditions the choice of the variant forms of the serial, punctual and perfective aspects.

The stem position contains five major sections (1) the reflexive position, (2) the incorporated noun position, (3) the verb position, (4) the case positions and (5) the purposive position

6.2 The reflexive position contains three morphemes, the semi-reflexive or middle voice {-at-}; the reciprocal {-atat-} and the intensifier {-i[?]ta-}, which is regarded by most Mohawks as slang.

The semi-reflexive {-at-} also has the shape {-atē-}, which occurs before some but not all morphemes beginning with /n/.

One of the functions of the semi-reflexive is to alter the meaning of certain verbs.

/wa[?]kó[?]ktē[?]/ "I finished it"

{-w-} past tense

/-a[?]-/ emph morph

{ k-} first person "I"

{-oktē-} to finish

{-[?]-} punctual aspect

/waʔkatóktẽʔ/ "I ran out of it"

{-w-} past tense

/-aʔ-/ empty morph

{-k-} first person "I"

{-at-} semi-reflexive or middle voice

{-oʔktẽ-} to finish

{-ʔ-} punctual aspect

/wahaní haʔ/ "He borrowed it"

{-w-} past

/-aʔ-/ empty

{-ha-} he

{-niha-} to lend (without semi reflexive)

to borrow (with semi reflexive)

{-ʔ-} punctual aspect

/wahatẽní haʔ/ "He lent it"

{-w-} past tense

/-a-/ empty morph

{-ha-} "he"

{-atẽ-} semi flexive or middle voice (before /n/)

{-niha-} to borrow (with semi-reflective)

to lend (without semi reflexive)

{-ʔ-} punctual aspect

The semi-reflexive is also used to make a transitive verb intransitive.

/thó wahá·yẽʔ/ He set it down there

{tho} there

{-w-} past tense

/-a/ empty morph

/-ha-/ "he"

{-yẽ-} "to set down"
{-ʔ-} punctual aspect

/thó wahátyẽ?/ He sat down there (i.e. He set himself down there)

{thó} there

{-w-} past tense

/-a-/ empty morph

{-ha-} "he"

{-at-} semi-reflexive

{-yẽ-} "to set down"
{-ʔ-} punctual aspect

Active verbs can be rendered passive by using the

semi-reflexive.

/yonẽstayẽthõ/ She has planted the corn.

{-yo-} She or it acts on another (neuter-zoic acts
on neuter-zoic)

{-nẽst-} "corn"

/a/ stem joiner (breaks CC between incorporated noun
and following verb)

{-yẽthõ-} "to plant" perfective aspect

/yotenẽstayẽthõ/ The corn has been planted

{-yo-} She or it acts another (neuter-zoic acts
on another neuter-zoic)

{-at-} semi-reflexive (

/e/ epethetic

{-nẽst-} "corn"

/a/ stem joiner (breaks CC between incorporated
noun and following verb stem)

{-yēthō-} "to plant perfective aspect"

The reciprocal /-atat-/ has several functions. It can be used as a true reflexive (as opposed to middle voice).

/waʔkatátkēʔ/ "I saw myself"

{-w-} past tense

{-aʔ-} empty morph

{-k-} first person

{-atat-} reciprocal

{-kē-} "to see"

{-ʔ-} punctual aspect

The reciprocal is also used to express action which is reciprocal between two subjects.

/waʔthyatátkēʔ/ "Two men saw each other"

{-w-} past tense

{-aʔ-} empty morph

{-t-} dualic

{-h-} masculine

{-y-} dual

{-atat-} full reciprocal reflexive

{-kē-} "to see"

{-ʔ-} punctual aspect

Lastly the reciprocal is used to indicate a feminine-indefinite subject acting on a feminine-indefinite oblique.

/yōtatkēs/ "One sees her"

{-y-} feminine-indefinite acts on a feminine-indefinite (See section 5.25)

{-atat-} full reciprocal or reflexive

{-kê-} "to see"

{-s-} serial aspect

The reflexive position can also be filled by an intensifier /-iʔta-/ which is generally translated as "real" or "hell of a...". Most speakers consider it to be lang.

/wakeʔserɛhtɪ·yo/ "I have a good car"

{-wak-} first person singular (see 5.33)

/e/ epenthetic

/ʔserɛht-} "car" (from verb "to drag")

{-iyo-} "to be good" (perfective only)

/wakiʔtaʔserɛhtɪ·yo/ "I have a hell of a good car"

{-wak-} first person singular (see 5.33)

{-iʔta-} intensifier

{-ʔserɛht-} "car" see above

{-iyo-} "to be good" (perfective only)

6.3 The incorporated noun position may be filled with three different types of noun stems (1) noun roots, (2) a verb plus a nominalizer and (3) an empty morph.

A noun root can be used in the incorporated noun position by itself.

/ranêstayêthos/ "He plants corn"

{-ha-} "he"

{-nêst-} "corn"

/a/ stem joiner. Used to break CC between incorporated

noun and following verb stem.

{-yētho-} "to plant"

{-s-} serial aspect

A nominalized verb (a verb stem plus nominalizer)

can also occur in the incorporated noun position. The

nominalizer has the shape /-hser-/. The allomorph

/-tser-/ occurs after verbs ending in /ʔ/.

/rathyatōhserahninóhes/ He sells books.

{-na-} "he"

{2at-} reflexive

{-hyatō-} "to write" (hence books)

{-hser-} nominalizer

/a/ stem joiner

{-hninohe-} "to sell"

{-s-} serial aspect

Some verbs require the incorporated noun position to be filled at all times. If no noun is incorporated, then an empty morph is used.

/yonaʔná·wē/ It is wet

{-yo-} indefinite pronoun

{-naʔ-/ empty morph

{-nawē-} to be wet (perfective only)

/yawētanáwē/ Days when the snow melts

{-yo-} indefinite

{-awēt-} "time of day"

{-a-} stem joiner

{-nawē-} to be wet (perfective only)

6.4 The verb position in the stem can be filled by various types of verb stems. Seven types have been isolated.

Stems may consist of (a) a verb root alone, (b) a reflexive plus a verb root, (c) a noun and a verb root (d) a verb plus a verb (e) a verb and a distributive and (f) a verb and case. A final stem type consists of a verb plus a perfective aspect plus a suffixed progressive morpheme (see Chapter Seven)

There are two different classes of verbs, relative to the stems - those that can occur with a serial, a punctual and a perfective aspect and those that can only occur with the perfective. The aspects are discussed fully in Chapter Seven.

Those verbs which occur only in a perfective aspect are adjectival (in English translations)

The following examples show words where the stem position is filled by a verb root alone.

/rayēthos/ "He plants"

{-ha-} "he"

{-yēthē-} "to plant"

{-s-} serial aspect

/i·keks/ "I eat"

/i/ epenthetic vowel for stress placement

{-k-} "I"

{-ek-} "eat"

{-s-} serial aspect

/ranēskwas/ "He steals"

{-ha-} "he"

{-nēskwa-} "to steal"

{-s-} serial aspect

The verb stem that is composed of a reflexive plus a verb stem can not structurally be identified as such unless an incorporated noun is present. The reflexive plus verb stem is considered here to be a stem only if the reflexive element can occur after an incorporated noun. Thus the sequence of pronoun, reflexive, incorporated noun, verb root, aspect would not be considered a stem of a reflexive plus verb root whereas a sequence which had an incorporated noun before the reflexive would.

/tsiʔ nityorihwatyeraʔtō/ "the thing she does"

{-ni-} partitive

{-t-} cislocative

{-yo-} neuter zoic acts on neuter zoic

{-rihw-} "thing"

{-at-} reflexive (as part of stem)

{-yeraʔtō-} "to do something (perfective)"

/tsiʔ nityorihwayerá·tō/"The way in which she does a thing"

{-ni-} partitive

{-t-} cislocative

{-yo-} neuter zoic acts on neuter zoic

{-rihw-} "thing"

{-yeratō-} perfective aspect of "to do something"

A stem that consists of a noun root plus verb root can be distinguished if and only if another noun is incorp-

orated. If only one incorporated noun occurs, then it is taken as occupying the incorporated noun position and not as being part of the stem.

/wahakyaʔtanõhstateʔ/ "He protects me"

{-w-} past tense

/aʔ/ empty morph

{-hak-} he acts on me

{-yaʔt-} body

/a/ stem joiner

{-nõhs-} house

{-tat-} to point out

/e/ epenthetic

{-ʔ-} punctual aspect

The above is derived from the form /wahanõhstateʔ/
 "He points out the house" (An invitation, hence "to invite").
 Lounsbury gives /wahakyaʔtanõhstateʔ/ as "He invites me to
 tay at his house". The semantic shift may have occurred as
 a result of a guest being entitled to the protection of the
 host.

Two verb roots may occur in sequence to produce a stem.

/rayẽthókwas/ "He is harvesting"

{-ra-} (from {-ha-}) "he"

{-yẽtho-} "to plant"

{-kwa-} "to pick off"

{-s-} serial aspect

The distributive morpheme /-ny-/ can be affixed

to a stem to form a new base. The distributive has several shapes /-nyǝ-/, /-hserǝ-/ and /-ǝ-/. These seem to be in free variation, although there may be some morphological conditioning in some cases. When the distributive occurs as part of the verb base, it is recognized by the appearance of the distributive in a second occurrence following it. In those cases where two distributives occur, the second always has the form /-nyǝ-/.

/kanǝhsó·tǝ/ Houses standing

{-ka-} pronominal prefix "it"

{-nǝhs-} "house"

{-ot-} "to stand," "to be erected"

{-ǝ-} distributive

Compare the above with /kanǝhsote?/ "A house stands"

/kanǝhsotǝnyǝ/ "Houses are standing" (there seems to be no difference between this and the above form).

{-ka-} pronominal prefix "it"

{-nǝhs-} "house"

{-ot-} "to stand"

{-ǝ-} distributive

{-nyǝ-} distributive

The case positions have morphemes for two instrumentals and a dative. The two instrumentals can co-occur with one another.

The first of the two instrumentals has three shapes: /-ht-/, /-ʔt-/ and /-st-/. The three appear to be morphologically conditioned, but there is also some free variation.

Before presenting an example it is necessary to examine the morphophonemic changes in the allomorph {- (h)t-}.

When {- (h)t-} follows a consonant it becomes /t/. Before /h/, {- (h)t-} becomes {-t-}. Terminally {- (h)t-} also become {-T-}. These rules may be written:

$C \downarrow \{-ht-\} \rightarrow Ct$

$\{-ht-\} \downarrow /h/ \rightarrow /th/$

$\{-ht\# \} \rightarrow /t/$

Consider the two forms /rayẽthótha?/ and /rayẽthó?tha?/. Both mean "He plants with it". The first is the string {-ha-} "he" \downarrow {-yẽtho-} "plant" \downarrow {-ht-} "instrumental" \downarrow {-ha?-} "serial aspect". The /h/ of the allomorph {-ht-} is lost before /h/.

The second is exactly the same, except that it contains the allomorph of the instrumental with the shape {-?t-}.

Instrumental I, {- (h)t-} discussed above requires the serial aspect {-ha?-}, the punctual aspect {-?-}, and the perfective aspect {-õ-}. The instrumental has several functions. The form /rayẽthótha?/ "He plants with it" discussed above can refer to an instrument or tool, the seed used in planting, the field used for planting or a planting machine. Another example appears below.

/yotkõwarórakstha?/ "mask" (what is used to cover the face)

{-yo-} indefinite "one"

{-at-} semi-reflexive

{-kõwar-} "face"

{-orak-} "to cover"
 {-st-} instrumental I
 {-ha?-} serial aspect

The Instrumental I morpheme can also be used as a causative. Compare the following pair.

/rayéhe?/ "He is going to wake up"

{-ha-} "he"
 {-ye-} "to wake up"
 {-he?-} serial aspect

/rayétha?/ He wakes her up

{-ha-} he acts on a neuter zoiç "her or it"
 {-ye-} "to wake up"
 {-(h)t-} Instrumental I (loses /h/ before /h/
 {-ha?-} serial aspect

The second instrumental {-hkw-} occurs with a serial aspect {-ha?-}, a punctual aspect {-?-} and a perfective aspect {-ẽ-}. When followed by the serial aspect {-ha?-}, the result is {-hkhwa?-}.

/rayéthónkhwa?/ He plants with it

{-ha-} "he"
 {-yẽtho-} "to plant"
 {-hkhwa?-} Instrumental II {-hkw-} with serial aspect
 {-ha?-}

Instrumental I and Instrumental II often occur in sequence as /-htahkw-/, which generally has a more restricted meaning than either of the two separately.

/yeyēthohtákhwa?/ What one uses to plant with, a planting
machine

{-ye-} "one" (indefinite person)

{yētho-} "to plant"

{-htákhwa?-} Instrumental I{-ht-} and II with
serial aspect {-hkhwa?-} with an
epenthetic /a/ stem joiner.

The two Instrumentals seem to have slightly
different meanings, the first translated as "with it"
and the second as "used for". Together they indicate a more
specific object than the more generalized meanings of
the first two, alone.

The dative morpheme {-ʔs(e)-} loses the /e/ when it
occurs with the punctual aspect. It is generally translated
as "for" or "for the benefit of". {-ʔse-}, which occurs
with the serial and perfective aspects is sometimes replaced
by {-ni-}. The choice of allomorph is generally morphologically
conditioned, but on occasion either can occur with the
same verb with no apparent difference in meaning.

Compare the two following words.

/royēthóʔsehe?/ He plants for him, and /royēthó·nihe?/, which
has the same meaning. Both contain the same morphemes with
the exception of the two datives.

{-ho-} he acts on him

{-yētho-} "to plant"

{{-ʔse-} dative (in the first form - {-ni-} in the
second.

{-heʔ-} serial aspect

The Purposive position {-hser-} corresponds to the English "going to".

/rayẽthóhsereʔ/ He is going to plant

{-ha-} he

{-yẽtho-} "to plant"

{-hser-} purposive

/e/ epenthetic

{-ʔ-} serial aspect.

An allomorph of the purposive /ʔn/ occurs with some verbs with which /hser/ does not. There are however verbs like {-yẽtho-} which can occur with either form, with no apparant change in meaning.

/rayẽthoʔneʔ/ He is going to plant

{-ha-} he

{-yẽtho-} "to plant"

{-ʔn-} purposive

{-eʔ-} serial aspect.

THE ASPECT DIVISION

The final division in the verb structure contains the aspect suffixes. There are eight aspects; (1) serial (2) punctual (3) perfective (4) continuative (5) perfective serial (6) remote past (7) former past and (8) progressive.

The serial, punctual and perfective have morphologically conditioned allomorphs. The forms of each verb which reveal these three morphemes (generally they translate as present, past and perfective) are the principle parts of these verbs. Each verb is assigned to a specific conjugation class based on the phonological shape of the serial, punctual and perfective morphemes. The following sets of those three aspects have been found.

- (1) serial {-s-}, punctual {-ʔ-}, perfective - unmarked
/ranóhares/, /wahanóhareʔ/ /rohóhare/ "He washes" etc.
- (2) serial {-s-}, punctual {-ʔ-}, perfective {-ẽ-}
/rayé·nas/, /wahayé·naʔ/ /royé·nẽ/ "He holds" etc.
- (3) serial {-aʔ-}, punctual {-heʔ-}, perfective {-õ-}
/tehayahyáʔktaʔ/, /waʔthayahyáʔktheʔ/, /tehoayahyáʔktõ/
"He lays it across"
- (4) serial {-haʔ-}, punctual {-ẽʔ-} perfective {-õ-}
/rahnyóthaʔ/, /wahahnyó·tẽʔ/ /rohnyó·tõ/ "he puts it up"
- (5) serial {-eʔ-}, punctual {-aʔ-} perfective {-õ-}
/ratorátheʔ/ /wahatoráthaʔ//rotoráthõ/ "He goes hunting"
- (6) serial {-haʔ-}, punctual {-ʔ-}, perfective {-õ-}
/tehoẽrehthaʔ/, /waʔthohẽrehteʔ/, /tehoẽrehthõ/ "He yeals"

(7) serial {-as-}, punctual {-ʔ}, perfective {-ō-}

/rashétas/, /wahásheteʔ/, /roshé·tō/ "He counts"

The serial aspect {-s-} can be followed by the former past {-kweʔ}; the continuative, with or without the punctual (any form that does not end in a serial, punctual, or perfective is considered an imperative).

The perfective {-ō-} can be followed by the remote past morpheme {-hneʔ}; the continuative with ~~or~~ ~~with~~ the punctual; and the perfective serial with or without the punctual.

The punctual can follow the stem directly, or it can follow the continuative and perfective continuative, It is always terminal, however, when it occurs.

The progressive morpheme is added to the perfective morpheme. The progressive morpheme can then be inflected as part of a new base for a serial, punctual and perfective form.

The co-occurrence possibilities of the tense markers with the aspects is restrictive. Chart and Chart show the possible occurrences of the tense morphemes with the various aspects. The first of the two charts deals with aspects added to the serial aspect, the second with aspects added to the perfective. The charts are divided in thirds from top to bottom, and in half from right to left. The top third indicates the forms that are non-imperatives and can not occur with tense markers. The middle section contains the forms that are non-imperatives

and can occur with tense markers. The bottom third contains the imperatives. Only one imperative has been collected with a tense marker /ahoyēthōhak/. It is translated as a command "Let him keep planting it". It contrasts with /royēthōhak/ which simply lacks the indefinite tense marker of the first. This indicates that in all probability there should be imperatives with tense markers, however, not only have they evaded detection, but they are reject when constructed.

The right half of the charts contains all the forms that contain an aspect other than the punctual alone.

The forms on the chart are analyzed as follows.

/rayēthos/ He plants

{-ha-} "he"

{-yētho-} "to plant"

{-s-} serial aspect

/raythoskwe?/ He used to plant

{-ha-} he

{-yētho-} "to plant"

{-s-} serial aspect

{-kwe?-} former past

/ahayētho?/ Let him plant

{-a-} indefinite

{-ha-} he

{-yētho-} to plant

{-?} punctual aspect

CHART NINE

rayēthos "He plants it"

rayēthoskwe? "He used to plant it"

ahayētho? For him to
plant

ahayēthohseke? for him to continue
to plant

ēhayētho? He will plant

ēhayēthohseke? He'll go on planting

wahayētho? He planted it

rayētho Let him plant

rayēthohsek let him continue to
plant

CHART TEN

royēthō he has planted it

royēthūne he planted it long ago

ahoyēthōke he should
have planted it

ahoyēthōhake? for him to keep on
planting it

ohoyēthōke? He will
continue to plant it

ohoyēthōhake? He will always be
planting it

ahoyēthōhak Let him keep planting it

royēthōhak Let him keep planting it

/ēhayētho?/ He will plant

- {-ē-} future
- {-ha-} he
- {-yētho-} to plant
- {-?} punctual aspect

/wahayētho?/ He planted

- {-w-} past tense
- {-a-} empty morph
- {-ha2} he
- {-yētho-} to plant
- {-?-} punctual aspect

/ahayēthohseke?/ for him to keep on planting

- {-a-} indefinite
- {-ha-} he
- {-yētho-} to plant
- {-hs-} serial aspect (has shape /hs/ when followed
by continuative

/e/ epenthetic

{-k-} continuative

/e/ epenthetic

{-?} punctual aspect

/ēhayēthohseke?/ He will go on planting it

- {-ē-} future
- {-hayēthohseke?} same as above

/rayētho/ Let him plant

- {-ha-} he
- {-yētho-} { Plant (no aspect is imperative)

/rayēthohsek/ Let him continue to plant

{-ha-} He

{-yēthohsek} as above (no aspect is imperative)

/royēthō/ He has planted

{-ho-} he (shape used with perfectives)

{yētho-} to plant

{-ō-} perfective

/royēthōhne/ He planted long ago

{royēthōhne} as above plus {-hne} distant past

/ahoyēthōke?/ He should have planted it

{-a-} indefinite

{-ho-} he 9shape require by perfective)

{-yētho-} to plant

{-ō-} perfective

{-k-} continuative

/e/ epenthetic

{-ʔ} punctual

/ohoyēthōke?/ he will continue to plant

Same as above except /o/ replaces the indefinite {-a-}.

{-o-} is the shape the future morpheme has with perfectives

/ahoyēthōhake?/ for him to keep on planting

{-a-} indefinite

{-ho-} he (form with perfective

{-yētho-} to plant

{-ō-} perfective

{-hak-} serial perfective continuative

/e/ epenthetic

{-ʔ} punctual

/ohoyēthōhakeʔ/ he will always be planting it

Same as above except the future tense morpheme
with the shape /o/ which it has with perfectives
replaces the indefinite {-a-}

/ahoyēthōhak/ Let him keep planting

{-a-} indefinite

{-ho-} he

{-yētho-} to plant

{-ō-} perfective

{-hak-} perfective serial

/royēthōhak/ Let him keep planting

Same as above but lacks {-a-} indefinite

NOUNS

The noun can be defined structurally in Mohawk as any word which can have a noun prefix and a noun suffix. Nouns occur with one of two noun prefixes /o/ and /ka/. Their occurrence appears to be morphologically conditioned.

Four noun suffix shapes have been isolated and they, like the prefixes appear to be morphologically conditioned. The three most common are /aʔ/, /ōʔ/ and /ʔ/. A fourth /oʔ/, occurs infrequently. All four of these occur with the noun prefix {-ka-}, but only two have been found with the prefix {-o-}. These are /aʔ/ and /ʔ/.

Examples of the combinations follow. Each is followed by an example of the stem without the affixes.

{kanōhsaʔ} House

{-ka-} noun prefix

{-nōhs-} stem "house"

{-aʔ-} noun suffix

/ronōhsesró·nō/ A long house man

{-ho-} third person singular masculine

{-nōhs-} "house"

{-es-} "to be long"

{-ronō-} "the one from"

/kētsōʔ/ fish

{-ka-} noun prefix

{-its-} stem "fish" (a ↓ i → ē)

{-ō-} noun suffix

/kítseks/ "I eat fish"

{-k-} "I"
 {-its-} fishe
 {-ek-} stem "To eat"
 {-s-} serial aspect

/kanáʔtaróʔ/ "bread"

{-ka-} noun prefix
 {-naʔtar-} "bread"
 {-oʔ/ noun suffix

/ranaʔtaranēskwēs/ He steals the bread

{-ha-} "He"
 {{-naʔtar-/ bread
 {/a/ stem joiner
 {-nēskwē-} to steal
 {-s-} serial aspect

/oká·raʔ/ "story"

{-o-} noun prefix
 {-kar-} "story"
 {-aʔ-} noun suffix

/takakaratatyeʔ/ There was a story going around

{-t-} cislocative
 {-a-} past tense
 {-ka-} third person neuter zoic
 {-kar-} story
 /a/ stem joiner
 {tēt̃ye/ to be going around
 {-ʔ-} punctual aspect

/ó·nēste?/ corn

{-o-} nou prefix

{-nēst-} corn

/e/ epenthetic

{-ʔ-} noun suffix

/ranēstayēthos/ He plants corn

{-ha-} third person singular masculine

{-nēst-} corn

/a/ stem joiner

{-yēthos} to plant

{-s-} serial aspect

Nouns also occur with possessive pronominal morphemes. These bear a striking ~~xxxxxxxxxxxx~~ resemblance to the pronominal prefixes. Like the pronominal prefixes that occur with verbs, the possessive prefixes have somewhat different shapes when they occur with nouns beginning with /a/ than they do at other times. (See Chart XI)

The possessive propouns exhibit a three way contrast in number and person. All three persons occur in the singular and plural, but the dual lacks a third person form (the third plural is used). The third person singular distinguishes a masculine, a neuter zoic and a feminine indefinite. The third person plural distinguishes a masculine and non-masculine.

The segmented pronominal possessive prefixes listed in Chart XI are analyzed below.

First person possessive pronominal prefixes.

- {-ak-} first person possessive with non a-stems
 /a/ possessive marker for first person singular
 {-k-} first person singular
- {-akw-} first person singular possessive with a-stems
 {-a-} possessive marker for the first person singular
 {-kw-} first person singular possessive with a-stems
- {-ōkeni-} first person dual with non-a-stems
 {-ō-} possessive with first person dual and plural
 {-k-} first person
 /e/ epenthetic
 {-ni-} dual (/y/ with a-stems)
- {-ōky-} first person possessive dual with a-stems
 {-ō-} possessive with the first person dual and plural
 {-k-} first person
 {-y-} dual with a-stems
- {ōkwa-} first person possessive plural
 {-ō-} possessive (see above)
 {-k-} first person
 {-wa-} plural
- {-sa-} second person possessive singular
 {-sa-} a third person neuter acts on a second person
 (both singular)
- {-seni-} second person possessive dual with non-a-stems.
 {-s-} second person
 /e/ epenthetic
 {-ni-} dual (/y/ with a-stems)

- {-ts-} second person possessive dual with a-stems
 /ts/ from underlying */sy/ → */tsy/→*/ts/ (See I.5)
- {-sewa-} second person plural possessive
 {-s-} second person
 /e/ epenthetic
 {-wa-} plural
- {-hao-} third person singular masculine possessive
 {-ha-} third person masculine
 {-o-} possessive with third person forms
- {-ao-} third person neuter-zoic possessive (Singular)
 {-a-} third person indefinite (see 5.30)
 {-o-} possessive for third person forms
- {-akao-} third person possessive feminine indefinite
 {-ak-} feminine indefinite
 {-a-} indefinite
 {-o-} possessive for third person forms
- {-haoti-} third person plural masculine possessive (non-a-stems)
 {-ha-} third person masculine
 {-o-} possessive for third person forms
 {-ti-} plural (see 5.30)
- {-haon-} third person plural masculine possessive with a-stems
 {-ha-} third person masculine
 {-o-} possessive for third person forms
 {-n-} plural for third person with a-stems
- {-aoti-} third person plural non-masculine possessive with
 non-a-stems
 {-a-} third person indefinite

- {-o-} possessive for third person forms
- {-ti-} plural
- {-aon-} third person plural possessive non-masculine with a-stems
- {-a-} third person indefinite (See 5.30)
- {-o-} possessive with third person forms
- {-n-} plural with third person and a-stems.

CHART ELEVEN

SEGMENTED POSSESSIVE PRONOMINAL PREFIXES

PERSON	With non a-stems	with both	with a-stem
1S	ak		akw
2S		sa	
3SM		hao	
3SNZ		ao	
3FI		akao	
1D	õk(e)ni		õky
2D	s(e)ni		ts
1P		õkwa	
2P		s(e)wa	
3PM	raoti		raon
3PNM	aoti		aon

Paranthesis enclose epethetic vowels.

CHART TWELVE

POSSESSIVE PREFIXES WITH NON A-STEMS AND A-STEMS

Person	Non-a-stem {-na ʔtar} "bread"	A-stems {-ahi-} "fruit"
1S	ak(e)náʔtaróʔ	akwáhiʔ
2S	sanáʔtaróʔ	sáhiʔ
3SM	raonáʔtaróʔ	raóhiʔ
3SNZ	aonáʔtaróʔ	aóhiʔ
3FI	akaonáʔtaróʔ	akaóhiʔ
1D	õk(e)nináʔtaróʔ	õkyáhiʔ
2D	s(e)nináʔtaróʔ	tsáhiʔ
1P	õkwanáʔtaróʔ	õkwáhiʔ
2P	s(e)wanáʔtaróʔ	s(e)wáhiʔ
3PM	raotináʔtaróʔ	raonáhiʔ
3PNM	aotináʔtaróʔ	aonáhiʔ

Parentheses enclose epenthetic vowels.

PARTICLES

Particles in Mohawk are morphemes to which the verbal and nominal prefixes can not be directly affixed. There are two classes of particles in Mohawk; those which occur as free forms, and those which are added to nouns and verbs.

The free particles are usually demonstrative or syntactic. Demonstrative forms such as /thó/ "there", /ónke/ "who", /ó·nē/ "now" and /kát1/ are numerous and easily translated by the Mohawks. There are also some particles which are compounds /thíkē/, "that one" and /kí·kē/

"this one". These are demonstratives as well and equally rapidly translated. The pronouns, which are used generally only for emphasis /í?i/ "I", /í·se?/ "you", /raóna/ "he", /aóna/ neuter-zoic and /akaóna/ feminine indefinite also are members of the particle class of words.

The syntactic particles are usually left untranslated by the Mohawks, and they are generally at a loss as to how to translate them, when confronted with any of them in isolation. They are not well understood at this time.

The most common of these syntactic particles are used in forming interrogative sentences. They occur in sentence final position. The particle /kē/, is used to transform a declarative sentence into an interrogative.

/rayéthos kē/ "Does he plant?" " (/rayéthos/ "He plants" "x

The second /wáhi/ questions the validity of the sentence and is best translated by "Isn't it?" or "Doesn't he".

/rayéthos wáhi/ "He plants, doesn't he?"

The syntactic particle /ne/ occurs before obliques, but its function is not at all clear at this time. The two sentences which follow are both translated as 'I saw the bear'. Mohawks agree that the two sentences are slightly different, but none have been able to specify the difference or indicate the context in which the difference is apparent.

/waʔkkêʔ nokwá•riʔ/ and /waʔkkêʔ okwá•riʔ/

Another marker, /tsi/, seems to indicate that the following sequence of words is a subordinate clause.

Two bound particles have been found /-ke/ and /-kowa/. The first is a locative having the meaning "at" or "on". It has an allomorph /-ne/. /-ke/ occurs after /ʔ/, and /-ne/ occurs in all other positions. Since most verbs in the serial aspect end in {-s-}, /-ne/ is the allomorph which follows and is translated as "where something happens". Thus /ahkwesahsne/ "Where the partridge drums"

{ahkwes-} "partridge"

{-ahs} to drum

{-serial aspect

{-ne} locative

The /-ke/ form can be seen in /kahnawa[?]ke/ "on the rapids"

{-ka-}

{-hnawa[?]-} rapids

{-ke} locative

The final morpheme to be considered is /-kowa/, which is used to indicate greatness of size. Thus /kan^hhsa[?]/ "house" /kan^hhsa[?]kó·wa/ A huge house.

{-ka-} noun prefix

{-n^hhs-} house

{-a[?]-} noun suffix

{-kowa-} "great or large"

APPENDIX ONE - ORTHOGRAPHY

The orthographic system used by the Caughnawaga Mohawks was developed by the missionaries more than 250 years ago. Although it serves its purpose rather well for fluent speakers (although even they, on occasion have some difficulty with it), it is very difficult to use in teaching.

There are five phonemes which are either not transcribed at all, or are ambiguously transcribed. These are /ʔ/, /h/, /ɔ̃/, /ẽ/ and /'/.

The glottal stop, /ʔ/ is never transcribed. As a result, minimal pairs such as /otá·raʔ/ and /óʔtáraʔ/ "brim of a hat" and "clan" respectively, are written identically as "otara". For native speakers, context normally disambiguates the pairs. In isolation, the forms as currently written are ambiguous to all Mohawks, fluent or not.

In most cases Mohawk is written syllabically, with a space or a dash between the syllables. As a word is being written, each writer pronounces the syllable as it is being written. Since /h/ is lost in word final or syllable final position (when the syllables are said in isolation), /h/'s in those terminal positions are lost. Thus /okáhraʔ/ "eye", /oká·raʔ/ "story" and /ohká·raʔ/ "kindling wood" are all written as "okara".

The nasal vowels /ɔ̃/ and /ẽ/ are written as "on" and "en" respectively. If a person writes a Mohawk word without leaving spaces between the syllables, the orthographic sequences "on" and "en" are not distinguishable from the phonemic sequences /on/ and /en/ (as opposed to /ɔ̃/ and

/ẽ/). However, when spaces are left between the syllables, the differences are apparent. When a syllable closes with "on" or "en", then they are taken to be nasalized vowels. If the syllable boundry falls between the vowel and the nasal, then the reader regards them as successive phonemes.

Stress is never marked. As a result, even the most fluent of Mohawk speakers frequently has to read a word more than once to decide where the stress is to be placed.

Some writers of Mohawk write /y/, but not all. Those who do not, write /i/ in its place. Likewise there is some variation with "f", which is generally written /wh/, but a few prefer to use "f".

Chart 13 lists the phonemes and the orthographic representation of those phonemes in the current writing system.

CHART THIRTEEN

PHONEMIC TRANSCRIPTION	ORTHOGRAPHIC TRANSCRIPTION
t	t
k	k
s	s
h	h (not written in syllable or word final position)
ʔ	- Does not occur
n	n
r	r
w	w
y	i (generally - on occasion "y")
a	a
e	e
i	i
o	o
ẽ	en
õ	on
ʼ	- Not transcribed
•	- Not transcribed
wh	wh (or sometimes "f")
ty	ty (or sometimes "j")
ky	ky (or sometimes "j")

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