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Announcement
Affixation and Morphological Longevity

MARIANNE MITHUN

1. INTRODUCTION

Often some of the oldest morphemes in a language are affixes, in part because they represent a later stage in natural processes of grammaticization; over time, lexical items may become grammatical markers and ultimately lose some of their formal substance. But what of the diachronic process of affixation itself? Does a transition from the status of free word to bound affix have any effect on the lifespan of an individual morpheme? The histories of certain grammatical systems indicate that the process of affixation can indeed affect longevity significantly, but in radically different directions. The direction of the effect depends on the function of the morpheme in question.

A moment’s reflection shows how affixation can contribute to the vitality of morphemes. Affixes can be more resistant to replacement than free morphemes because of lexicalization. While a free morpheme may disappear as soon as it is replaced by another word, an affix may be learned and stored as part of large numbers of lexical items, not disappearing entirely from a language until every word containing it has been replaced.

At the same time, however, the very process of affixation can introduce instability when it results in a misfit between form and function. In what follows, this effect will be examined in one of the first constructions to be discussed in work on grammaticization: negation (Meillet 1912). The development of negative constructions will be traced in languages of the Iroquoian family. It will be shown that although negative markers became affixed to the verb very early, they have shown continued instability throughout their history, in contrast with the many other verbal prefixes that serve a variety of other functions.

2. THE IROQUOIAN LANGUAGES

The Iroquoian family of languages is now centered in northeastern North America. The documented Iroquoian languages are Cherokee, Nottoway, Tuscarora, Huron, Wyandot, Seneca, Cayuga, Onondaga, Susquehannock, Oneida, and Mohawk.¹ Genetic relationships among them are usually diagrammed as in (1).

Not all of the attested languages are still spoken. Nottoway is known to us only through two word lists collected in Virginia early in the nineteenth century (Wood 1820; Trezvant 1826). Huron proper has not been spoken for nearly a century, but French missionaries living among the Huron during the

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seventeenth century left records of that language (Sagard 1632; Chaumonot in Fraser 1920 and others). Wyandot, a descendant of Huron plus several other unattested Northern Iroquoian languages, was last spoken in Oklahoma in the mid-twentieth century, but texts and some grammatical information were collected half a century earlier (Barbeau 1960). Susquehannock, last spoken in Pennsylvania in the mid-eighteenth century, is known only through vocabulary recorded in the mid-seventeenth century by a Swedish missionary to the Delaware (Campanius 1696; Holm 1702; Mithun 1981). Two word lists identified as 'Laurentian' were appended to the accounts of Jacques Cartier's voyages up the Saint Lawrence River in 1534 and 1535. These lists represent a mixture of Iroquoian languages, but their speakers had disappeared from the area by the time Champlain arrived there in 1603 (Mithun 1982).

3. IROQUOIAN VERBAL MORPHOLOGY

All of the Iroquoian languages are characterized by relatively elaborate verbal morphology. Verbs contain minimally a pronominal prefix, a verb root, and an aspectual suffix. They may contain pre-pronominal prefixes as well as a more elaborate verb stem, which might include a reflexive or reciprocal prefix, an incorporated noun root, and various derivational suffixes.

(2) The Iroquoian Verb

<table>
<thead>
<tr>
<th>PRE-PRONOMINAL</th>
<th>PRONOMINAL</th>
<th>REFLEXIVE</th>
<th>NOUN</th>
<th>VERB</th>
<th>DERIVATIONAL</th>
<th>ASPECT</th>
<th>SUFFIXES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFIXES</td>
<td>ROOT</td>
<td>ROOT</td>
<td></td>
<td></td>
<td>SUFFIXES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REFLEXES</td>
<td>RECIPROCAL</td>
<td>ROOT</td>
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</tr>
</tbody>
</table>

Much of the verbal morphology is quite old. The basic pronominal prefixes, for example, which distinguish three persons and two cases, are clearly cognate across the family. (An age of nearly 4000 years has been suggested for the family, although this can be only a hypothesis (Lounsbury 1961).) Most of the basic pronominal forms even predate Proto-Iroquoian. There is evidence that the Iroquoian languages are distantly related to at least one other group
of languages in North America: the Caddoan languages Arikara, Pawnee, Kitsai, Wichita, and Caddo (Chafe 1964, 1976; Mithun 1991, 1993). The relationship between Iroquoian and Caddoan is estimated to be more remote than that among the branches of Indo-European. The Caddoan languages also contain agent and patient pronominal prefixes within verbs, all of which systematically resemble their Iroquoian counterparts. The stability of the pronominal prefixes over thousands of years is not entirely surprising. Pronominal prefixes are obligatory components of every verb in all of the languages, as they were in their common parent, so they are learned early and reinforced continually. They express functions necessary to all languages at all times, so they could not slip out of use without a replacement. They are also fully transparent in meaning, so there is relatively little chance of reinterpretation. Finally, they constitute a relatively closed set.

The pronominal prefixes were probably among the first morphemes to become affixed to verbs in the history of these languages, since they occupy the innermost position with verbs, immediately adjacent to roots, and since cognates can be traced through all daughter languages. They are not the only affixes to show such permanence, however. Most of the other Iroquoian verbal prefixes have also shown great stability over time. Their stability is remarkable, since they are not obligatory in the same sense as the pronouns; they are less frequent in speech, they do not serve functions necessary to all languages at all times, they are not as transparent in meaning, and they do not form the same kind of closed sets. The pre-pronominal prefixes (excluding negative markers) in the Southern and Northern Iroquoian branches of the family can be seen in (3).

(3) The Pre-pronominal prefixes

Southern Iroquoian

<table>
<thead>
<tr>
<th>RELATIVE</th>
<th>TRANSLOCATIVE</th>
<th>PARTITIVE</th>
<th>PLURAL</th>
<th>CISLOC</th>
<th>REPETITIVE</th>
<th>DIST.IMPV</th>
<th>PRONOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITIONAL</td>
<td>FUTURE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>since</td>
<td></td>
</tr>
</tbody>
</table>

Northern Iroquoian

<table>
<thead>
<tr>
<th>PARTITIVE</th>
<th>TRANSLOCATIVE</th>
<th>AORIST</th>
<th>DUALIC</th>
<th>OPTATIVE</th>
<th>CISLOCATIVE</th>
<th>PRONOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRASTIVE</td>
<td>FUTURE</td>
<td></td>
<td></td>
<td>REPEETITIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(COINCIDENT)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Between the two branches, the partitives, translocatives (‘thither’), plural/dualic, and cislocatives (‘hither’) still show cognate forms. Within the Northern branch, dated by Lounsbury at 1900–2400 years, the pre-pronominal prefixes have remained strikingly stable. The prefixes generally show the same functions, positions, and even idiosyncratic alternations in form across contexts (apart from the coincident, an innovation within the Lake languages).
One of the prefixes deviates sharply from the other in stability, however. Negative markers share with the pronominal prefixes many characteristics that should lead to longevity: they are frequent in speech, transparent in meaning, necessary to all languages at all times, and part of a relatively closed set. There is even evidence that negative morphemes were prefixed early in the development of the Iroquoian languages. Yet the modern languages differ strikingly in their negative constructions.

4. NEGATION INIROQUOIAN

In this section, the negative constructions in each of the languages will be described. Readers not interested in the particular details of each might prefer to skim through these descriptions more quickly, noting the summaries at the end of each subsection and the overall comparative survey at the end of the section.

4.1. Cherokee

Cherokee, the only representative of the Southern branch of the Iroquoian family, was spoken at contact over an area that included parts of modern Tennessee, North Carolina, South Carolina, Georgia and Alabama. There were at least three dialects: the Lower or Underhill, the Middle, and the Western or Overhill. In 1839, most Cherokee were forced to move to Oklahoma. Today various dialects can be distinguished in both North Carolina and Oklahoma, but the Cherokee now spoken in Oklahoma is descended primarily from the Overhill dialect, and that spoken on the Qualla Boundary in North Carolina from the Middle dialect.

The most common negative constructions in Cherokee are structurally somewhat similar to those in French: two markers operate together. In Cherokee, sentences are negated with a negative particle plus a verbal prefix \( y(i) \). This prefix precedes all others within the verb. Pulte 1975 lists the Oklahoma negative particle as \( hla \) or \( tla \) 'no'.

(4) Oklahoma Cherokee (Pulte 1975: 241)

\[
\begin{align*}
\text{akowhthiha} & \quad \text{`he sees it'} \\
\text{hla y-akowhthiha} & \quad \text{`he doesn't see it'} \\
\end{align*}
\]

(Voicing of obstruents is not distinctive in Iroquoian languages. The spelling of the Oklahoma Cherokee from Pulte has been regularized here with respect to that feature only, to facilitate comparison.)

Describing the North Carolina Cherokee of the Qualla Boundary, King 1975 and Cook 1979 list additional negative particles: \( *tsha, tshahno \) ('no'), \( tshahkhe \) ('or'), and \( k\text{\acute{e}}\text{\text{\acute{}}t}\text{\text{\acute{}}} \). The first, \( *tsha \), also means 'no'. The same verb-initial prefix \( y(i) \) - is used.
(5) North Carolina Cherokee (Cook 1979: 60)

tsiko?wthiha 'I see it'
\(\dot{A}:tsha\ yi-tsiko?wthiha 'I don't see it'

tsiki?a 'I am eating'
késti yi-tsiki:a 'I am not eating'

Without a negative particle, the prefix \(y(i)\)- functions as a conditional or counterfactual marker in all dialects.

(6) Oklahoma Cherokee (Pulte 1975: 242; Cook 1979: 60)
kawoniha 'he is speaking'
yi-kawoniha 'if he is speaking'
katawò:a 'I am swimming'
yi-katawò:a 'I would be swimming'

Another Cherokee prefix shows negation in more restricted contexts. The prefix \(n(i)\)- in combination with the modal suffix \(-\dot{A}:na\) indicates nonexistent states or forms negative dependent clauses. This prefix, whose other functions are listed as partitive and perfect, occurs midway in the sequence of verbal prefixes. In its function as a negative, however, it never cooccurs with prefixes earlier in the sequence, so it always appears at the beginning of the word.

(7) Cherokee (Pulte 1975: 246; Cook 1979: 66)

uyosisk\(k\)ì?i 'he was hungry'
n-uyosisk-\(\ddot{a}\)na 'he is without hunger'
k\(\ddot{a}\):ko\(\ddot{a}\):?i tsiki 'that I saw you'
ni-k\(\ddot{a}\):ko\(\ddot{a}\):?i-na tsiki 'that I don't see you'

King and Cook describe a third negative marker in North Carolina Cherokee that appears only in certain idiomatic constructions. It is the innermost pre-pronominal prefix \(ka\)-. In combination with the infinitive suffix, \(ka\)- adds the meaning 'can't'. This construction occurs both with and without the negative particles késti or \(\dot{A}:tsha\) 'not' but it is always followed by the word \(y\)iki, consisting of the counterfactual prefix \(y\)- plus the copula \(iki\). (The sequence \(ka\)- plus \(-a\)- yields \(y\)\(a\)-.)

(8) North Cherokee (Cook 1979: 86)

a:kwahlski:sti 'I have to dance'

késti k-\(\ddot{a}\):kwahlski:sti \(y\)iki 'I can't dance.'

In combination with the counterfactual \(y\)- and the iterative \(i\)-, the prefix \(ka\)- adds the meaning 'won't', 'wouldn't be', or 'wouldn't have'.

(9) North Carolina Cherokee (Cook 1979: 86)
kohwe:li?a 'he is writing'
y-\(i\)k-\(ka\)-kohwe:li?a 'he won't be writing (it)'
Finally, with the perfective stem and assertive suffix, the prefix *ka-* is used "to make statements about the interval since an event last occurred" (Cook 1979: 87).

(10) North Carolina Cherokee (Cook 1979: 87)

ká:koʔá:ki    u:hsáhi ka-ká:koʔá:ki
I have seen you     'I haven't seen you since yesterday'

Traces of this inner prefix also remain in some idiomatic lexical items. Cook notes that it has been lexicalized with certain Cherokee verb roots resulting in verbs with pejorative or emotionally negative senses.

(11) North Carolina Cherokee (Cook 1979: 87)

ka-ká:khshkištiiha  ka-ká:wasothlá:teʔi
'they are mistreating me'     'they reviled him'

The same prefix is listed by Pulte for Oklahoma Cherokee, but only with the meaning "since".

(12) Oklahoma Cherokee (Pulte 1976: 255)

akikohaʔi    k-ákikohaʔi
'I saw it'    'since I saw it'

Cherokee thus exhibits a number of negative constructions. General clausal negation is shown by a negative particle plus a verb-initial counterfactual prefix y(i)-. Negation of states and dependent clauses is indicated by the perfect/partitive prefix n(i)-, which appears midway within the sequence of pre-pronominal prefixes. Certain more idiomatic constructions involve a third marker, ka-, which occurs last in the sequence of pre-pronominal prefixes, adjacent to the pronoun. The positions of these three markers within the sequence of pre-pronominal prefixes in Cherokee can be seen in (13).

(13) Positions of Cherokee negative markers within the pre-pronominal prefixes

<table>
<thead>
<tr>
<th>RELATIVE</th>
<th>TRANSLOCATIVE</th>
<th>PARTITIVE</th>
<th>PLURAL</th>
<th>CISLOC</th>
<th>FUTURE</th>
<th>REPETITIVE</th>
<th>DIST.IMPV</th>
<th>PRONOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>y-</td>
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<td>n-</td>
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<tr>
<td>ka-</td>
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</tbody>
</table>

4.2. Tuscarora

Clauses are negated in Tuscarora by means of a particle alone. Several different particles are used for this purpose: kwáhs, iskah, téʔ, and théʔ. None quite matches the word *kwéhs* "no" in form. Kwáhs is used both for prohibitives and to negate declarative clauses. All four of the negative particles occur
in the same declarative contexts, although *iskah* appears somewhat more often with perfectives.

\[(14)\] Tuscarora: kwəhs/iskah/taʔ?/thaʔ? (Elton Greene p.c.)

\[
\begin{align*}
akakwə:ní? & \quad \text{they could'} \\
kwəhs\ akakwə:ní? & \quad \text{they couldn't'} \\
waʔkhæ:yəkkə? & \quad \text{they saw me'} \\
iskah\ waʔkhæ:yəkkə? & \quad \text{they didn't see me'} \\
wəʔakyæhyáhra? & \quad \text{she thought of it'} \\
taʔ?\ waʔakyæhyáhra? & \quad \text{she didn't think of it'} \\
akə:nú:rək & \quad \text{it would be scarce, precious'} \\
thaʔ?\ akə:nú:rək & \quad \text{it is not scarce'}
\end{align*}
\]

For some speakers, the particle *thaʔ?* appears to be an alternate form of *taʔ?*. Some use only one, some use only the other, and some use both. All of the negative particles appear in the texts transcribed by J. N. B. Hewitt a century ago, including both *taʔ?* and *thaʔ?* (published in Rudes & Crouse 1987).

There is insufficient documentation of Nottoway connected speech to determine the form of the negative declarative construction there.

### 4.3. Huron

As noted earlier, Huron is no longer spoken, but good documentation of the language is available in the work of French missionaries. Material cited here comes from the seventeenth century grammar by Chaumonot, reproduced in Fraser 1920. Clauses are negated in Huron with an optional particle *(dan)stan* ‘no’ plus a verb-initial negative prefix. In Huron, as in all of the other Lake languages, the precise shape of the prefix changes according to what verbal prefix immediately follows it. If the first prefix on the verb to be negated is an inner prefix, i.e. a pronoun, the cislocative ‘here’, or the repetitive ‘again’, the negative prefix is written *te*- or *te*- in the manuscripts. Comparative evidence suggests that the actual form of the prefix was *te(ʔ)*.

\[(15)\] Huron (Chaumonot in Fraser 1920: 768)

\[
\begin{align*}
hirask8ach & \quad \text{he goes'} \\
stan\ te-hirask8ach & \quad \text{he does not go'} \\
et\ hirask8ach & \quad \text{he comes from that place'} \\
stan\ te-hirask8ach & \quad \text{he does not come here'} \\
sarask8ach & \quad \text{he goes for the second time'} \\
stan\ te-sarask8ach & \quad \text{he does not go for the second time'}
\end{align*}
\]

Moving leftward over the sequence of pre-pronominal prefixes, we see that the future and optative prefixes do not cooccur with negation. A
periphrastic construction is substituted. Negation of future events is expressed with a purposive verb containing a suffix such as -he ‘going to’ and the regular pre-pronominal negative prefix te[?]-, appropriate in the absence of outer prefixes. Negation of optatives is expressed by suffixing a past tense marker -mm to the purposive verb yielding ‘was going to’ and prefixing the usual prepronominal negative te[?]-, again, appropriate in the absence of outer prefixes.

(16) Huron (Chaumonot in Fraser 1920: 750, 752)

harask8ache  ‘he goes walking’
stan te-harask8ahet  ‘he will not go’  (**he is not going to go**)
stan te-harask8ahenn  ‘he would not go’
  (**he was not going to go**)

The negative also fails to appear with the aorist prefix. For the negation of past events, a perfect is used, a form that does not require any pre-pronominal prefix itself. Chaumonot notes that one would not say *tea, aketat ‘I did not carry’ but rather te8a, aketat (‘I have not carried’). The perfect is marked with a suffix and the usual negative te[?]- is prefixed.

(17) Huron (Chaumonot in Fraser 1920: 754)

\[
\begin{array}{ll}
\text{te8a, aketak} & \text{Not: *tea, aketat} \\
\text{te?-wak-aketa-k} & \text{te-a-k-aketat} \\
\text{NEG-1.PAT-CARRY-PERFECT} & \text{NEG-AORIST-1.AGT-carry} \\
\text{‘I have not carried’} & \text{‘I did not carry’}
\end{array}
\]

If a verb does contain an outer prefix, a slightly different form of the negative appears. Before the dualic te-, the coincident chi- ‘before’, or the contrastive the- ‘if’ (beginning with a phonetic alveolar stop plus h, but spelled 0he-), the negative prefix is written ta-. Comparative evidence suggests that this form was ta?-

(18) Huron (Chaumonot in Fraser 1920: 754)

\[
\begin{array}{ll}
te_a’senx8as & \text{‘I cry’ (te- DUALIC)} \\
stan \text{ta-tehasenx8ash} & \text{‘I do not cry’} \\
st \text{ta-chi8a, ien} & \text{‘I never had any’ (chi- COINIDENT)} \\
ta-\text{thet, aketas} & \text{‘if I should not wear it’ (thet- CONTRASTIVE)}
\end{array}
\]

Huron negation is thus expressed by means of an optional particle plus the verb-initial prefix te[?]- before the inner prefixes, or by the verb-initial prefix ta[?]- before the outer prefixes. Future, optative, and aorist verbs do not appear with the negative.
(19) Huron negation

NEGATIVE PARTICLE +
(dans)stan

\[
\text{te?} - \text{PRONOUN}
\]

\[
\text{te?} - \text{CISLOCATIVE} \quad \text{PRONOUN}
\]

\[
\text{t-a?} - \text{DUALIC} \quad \text{(CISLOCATIVE)} \quad \text{PRONOUN}
\]

\[
\text{t-a?} - \text{COINCIDENT} \quad \text{(DUALIC)} \quad \text{(CISLOCATIVE)} \quad \text{PRONOUN}
\]

(20) Wyandot (Barbeau 1960: 217, 218, 429, 247)

\[
\text{yéhe}‘ \quad \text{‘I want‘} \quad \text{(y- PRONOUN ‘I‘)}
\]

\[
\text{q\textquotesingle} \quad \text{te’-yé-he‘} ‘\text{I do not want‘}
\]

\[
\text{a’umége-ri}‘ \quad \text{‘she was willing‘} \quad \text{(ts- REPETITIVE)}
\]

\[
\text{te’-tsu’mé’gerehê’} ‘\text{not she was willing any more‘}
\]

No future negatives have been found in the texts, which are extensive.
With optatives, negative prefixes show several different shapes. When the optative is combined with the coincident or repetitive prefixes, the forms uesta- and usas- result. Before these combinations, the negative sometimes appears as te- sometimes t-.

(21) Wyandot (Barbeau 1960: 289)
\[ q^a\ te-suwa-tq \] ‘not again it could be’ (usa- OPTATIVE + REPETITIVE)
\[ q^a\ d\dot{e}e\’ka\ t-suwa\dot{a}tq \] ‘no that there possible’ (usa- OPTATIVE + REPETITIVE)

Before the optative alone, as well as before the aorist, the negative is written t-.

(22) Wyandot (Barbeau 1960: 282, 278, 301, 309)
\[ ti\-r\dot{u}r\’h\dot{a} \] ‘he found out’
\[ ha\’a\ ti\-ah\’e\’d\dot{u}-r\’h\dot{a} \] ‘they were not able to find out’ (a- OPTATIVE)
\[ ah\’om\dot{a}t\dot{a} \] ‘they them slew’
\[ an\’o\’d\dot{e}e\, ti\-ah\’o\’mac\’u \] ‘they did not kill him’ (a- AORIST)

Before the dualic, the negative is spelled ta?. The increment -a? appears in all of the Northern languages before the dualic when it is preceded by another pre-pronominal prefix.

(23) Wyandot (Barbeau 1960: 272, 273)
\[ teh\’yu\’n\’-r\’a\’k\’wa \] ‘they onebody scalp’ (te- DUALIC)
\[ a\ ti\-te\’hut\’a\’n\’-r\’a\’kw\’e \] ‘not he himself scalps’

(It appears that Barbeau did not distinguish t and th in his transcription, so it is impossible to determine for certain whether or not these forms contained h.\(^3\)) No combinations of negation with a translocative, contrastive or coincident appear in the texts.

Negation was thus expressed in Wyandot by means of a negative particle plus a verb-initial prefix. The prefix took the form te?- immediately before an inner prefix (a pronoun, the cislocative, the repetitive), or sometimes a combination of optative plus cislocative or repetitive; otherwise it appears as t- before the optative; before the dualic, it appears as t followed by the increment -a?-.  

4.5. t

The F Moha discus Cayug partic No pa same
In te(?)-locat Cay
4.5. The Five Nations Languages

The Five Nations languages include Seneca, Cayuga, Onondaga, Oneida, and Mohawk. There is insufficient documentation of Susquehannock for a detailed discussion of clausal negation in that language. In four of the languages, Cayuga, Onondaga, Oneida, and Mohawk, clauses are negated with a negative particle plus a verb-initial prefix. The Cayuga particle is \( \text{te} \text{?} \), the Onondaga particle \( \text{hiy}^\text{a} \), \( \text{hy}^\text{a} \), or \( \text{y}^\text{a} \), and the Oneida and Mohawk particles both \( \text{y}^\text{a} \). No particle is used in Seneca. The forms of the negative prefixes are the same in all of the languages except for some details in Seneca.

In all of the Five Nations languages, as in Huron and Wyandot, the form \( \text{te} \text{(?)} \)- is used immediately before the inner prefixes: the pronouns, the cislocative, or the repetitive. These forms can be seen in Cayuga, Onondaga, Oneida, and Mohawk in (25)–(28). (Because of a laryngeal spreading process in Cayuga, the glottalization is spread across the entire initial syllable.)

(25) Cayuga (Reginald Henry p.c.)

\[
\begin{align*}
\text{kak\textendash}k\textendashtsih} & \quad \text{‘it is old’} & \quad (\text{ka- PRONOUN ‘it’}) \\
\text{th\textendash}q^\text{a} \text{-kak\textendash}k\textendashtsih} & \quad \text{‘it is not old’} \\
\text{twak\textendash}q^\text{a} \text{-nik\textendash}k\textendashh\textendashyo} & \quad \text{‘I feel good about it’} & \quad (\text{-CISLOCATIVE}) \\
\text{th\textendash}q^\text{a} \text{-twak\textendash}q^\text{a} \text{-nik\textendash}k\textendashh\textendashyo} & \quad \text{‘I don’t feel good about it’} & \quad (\text{‘my mind is not good there’}) \\
\text{skahy\textendash}k\textendashwas} & \quad \text{‘I’m picking berries again’} & \quad (\text{S- REPETITIVE}) \\
\text{th\textendash}q^\text{a} \text{-skahy\textendash}k\textendashwas} & \quad \text{‘I’m not picking berries any more’}
\end{align*}
\]
(26) Onondaga (Wallace Chafe p.c. from Jessie Pierce)
ethéʔ?th?  ‘she’s pounding’ (e- PRONOUN ‘she’)
ya teʔ-ethéʔ?thaʔ  ‘she’s not pounding’
θóʔ:yq̣h  ‘he has come in’ (t- CISLOCATIVE)
ya teʔ-θóʔ:yq̣h  ‘he hasn’t come in’
shatįγ̣thwas  ‘they are planting again’ (s- REPETITIVE)
ya teʔ-shatįγ̣thwas  ‘they don’t plant any more’

(27) Oneida (Lounsbury 1953: 47)
iʔ-keλhee?  ‘I want to’ (k- PRONOUN ‘I’)
yah teʔ-keλhee?  ‘I don’t want to’
šawenų  ‘he has gone back’ (s- REPETITIVE)
yah thó teʔ-šawenų  ‘he has not gone back there’

(28) Mohawk (Kaia’títáhkhe’ Jacobs p.c.)
yeʔ:terų  ‘she’s home’ (ye- PRONOUN ‘she’)
yah teʔ-yεʔ:terų  ‘she’s not home’
tkataweỵaʔ:θaʔ  ‘I come in’ (t- CISLOCATIVE)
yah teʔ-tkataweỵaʔ:θaʔ  ‘I don’t come in’
skahaʔtyes  ‘I go back home’ (s- REPETITIVE)
yah teʔ-skahaʔtyes  ‘I don’t go back home’

In Cayuga, Onondaga, Oneida, and Mohawk, a different prefix is used before the outer prefixes: the contrastive th-. (In Cayuga and Onondaga, the usual perfective suffix -ʔ does not appear with this form.) In (29)–(32) the contrastive precedes the optative.

(29) Cayuga (Reginald Henry p.c.)
a:hṣekeʔ:niʔ  ‘you would be able’ (a:- OPTATIVE)
thɛʔ? th-a:hṣekeʔ:niʔ  ‘you won’t/wouldn’t be able’

(30) Onondaga (Wallace Chafe p.c. from Jessie Pierce)
ahaʔ:kɛʔ  ‘he should see it’ (a- OPTATIVE)
yá th-ahaʔ:kɛʔ  ‘he won’t/shouldn’t see it’

(31) Oneida (Lounsbury 1953: 47)
a:hatkáʔθoʔ  ‘he could see’ (a:- OPTATIVE)
yah kwíʔ th-a:hatkáʔθoʔ  ‘he just couldn’t see’

(32) Mohawk (Kaia’títáhkhe’ Jacobs p.c.)
ayá:waʔ?neʔ  ‘it would happen’ (a- OPTATIVE)
yah th-ayá:waʔ?neʔ  ‘it won’t/wouldn’t happen’

The contrastive -ʔ- a future event...

(33) (34) (35) (36) (37) (38) (39) (40) As in H...
The contrastive also appears before the dualic. (As noted above, an increment -a?- appears before the dualic when it is not word-initial.)

(33) Cayuga (Reginald Henry p.c.)

\[ \text{tewakatkwânhqhk} \quad \text{‘I went dancing’} \quad (\text{te- DUALIC}) \\
\text{thç? th-a?-tewakâtkwânhqhk} \quad \text{‘I didn’t go dancing’} \]

(34) Onondaga (Wallace Chaîe p.c. from Jessie Pierce)

\[ \text{teyâkôtkwêh} \quad \text{‘she’s dancing’} \quad (\text{te- DUALIC}) \\
\text{ya th-a?-teyâkôtkwêh} \quad \text{‘she’s not dancing’} \]

(35) Oneida (Louns bury p.c. from Damos Elm)

\[ \text{ta-hûtâtkà?} \quad \text{‘they could see each other’} \quad (\text{t- DUALIC}) \\
\text{yah th-a?-ta-hûtâtkà} \quad \text{‘they couldn’t see each other’} \]

(36) Mohawk (Karonhiahén:te Beauvais p.c.)

\[ \text{tewakatehûtsôni} \quad \text{‘I want it’} \quad (\text{te- DUALIC}) \\
\text{yah th-a?-tewakatehûtsôni} \quad \text{‘I don’t want it’} \]

The contrastive also appears before the translocative. In Cayuga and Onondaga, where the translocative is \( h \)-, the \( h \)-s of the two prefixes merge. In Oneida and Mohawk, where the translocative is \( y \)-, the contrastive retains its full form \( th \)-.

(37) Cayuga (Reginald Henry p.c.)

\[ \text{haqskâhýako?} \quad \text{‘I should pick berries there again’} \quad (\text{h- TRANSLOCATIVE}) \\
\text{thç? th-aqskâhýako?} \quad \text{‘I won’t pick berries there again’} \]

(38) Onondaga (Wallace Chaîe p.c. from Jessie Pierce)

\[ \text{hêhô:tii?} \quad \text{‘he’ll throw it away’} \quad (\text{h- TRANSLOCATIVE}) \\
\text{ya th-hô:tih} \quad \text{‘he won’t throw it away’} \]

(39) Oneida (Floyd Lounsbury 1953: 47)

\[ \text{thô yûsâ:lawe?} \quad \text{‘he arrived back there’} \quad (\text{y- TRANSLOCATIVE}) \\
\text{yah thô yûsâ:lawe?} \quad \text{‘he did not go back there’} \]

(40) Mohawk (Kaia’titákhe’ Jacobs p.c.)

\[ \text{yahayá:kà?ne?} \quad \text{‘he’ll go out there’} \quad (\text{y- TRANSLOCATIVE}) \\
\text{yah th-yahayá:kà?ne?} \quad \text{‘he won’t go out there’} \]

As in Huron, future and aorist verbs are not usually negated. Negation of a future event may be indicated by an optative verb negated with the usual
contrastive prefix *th-* as in (41), or by a verb containing a purposive suffix (‘going to’) and the regular prepronominial negative *te?-* as in (42).

(41) Cayuga (Reginald Henry p.c.)

\[
\begin{array}{ll}
\text{šk}í\text{takra?} & \text{‘I’ll fall’} \\
\text{th}ê? \text{th-}a:\text{kítá:kra?} & \text{‘I won’t fall’}
\end{array}
\]

- FUTURE

(42) Onondaga (Wallace Chafe p.c. from Jessie Pierce)

\[
\begin{array}{ll}
\text{gyéthë?tha?} & \text{‘she will pound’} \\
yá \text{te?-} \text{ethé?tähne?} & \text{‘she’s not going to pound’}
\end{array}
\]

- FUTURE

Negation of a past event is usually expressed with a perfect (stative) verb with the negative *te?-*, appropriate immediately before a pronoun.

(43) Cayuga (Reginald Henry p.c.)

\[
\begin{array}{ll}
\text{aostáq}í\text{t}i & \text{‘it rained’} \\
\text{thê?} \text{t?e-ostáq}k\text{y}q? & \text{‘it hasn’t rained’}
\end{array}
\]

- AORIST

(44) Onondaga (Wallace Chafe p.c. from Jessie Pierce)

\[
\begin{array}{ll}
\text{wa?hay}ú\text{thwa?} & \text{‘he planted’} \\
yá \text{te?-} \text{hothwas?i} & \text{‘he hasn’t planted’}
\end{array}
\]

- AORIST

The contrastive *th-* is never used with the partitive or coincident, which occur in the same verb-initial position in the sequence of pre-pronominal prefixes.

Four of the Five Nations languages, Cayuga, Onondaga, Oneida, and Mohawk, thus share the same set of negative constructions. All use a negative particle plus a verb-initial negative prefix *te?-* before the inner prefixes, and the contrastive *th-* before outer prefixes optative, dualic, and translocative.

(45) Negation in Cayuga, Onondaga, Oneida, and Mohawk

\[
\text{NEGATIVE PARTICLE + } \text{te?-} \text{PRONOUN}
\]

\[
\begin{array}{|c|c|}
\hline
\text{te?-} & \text{PRONOUN} \\
\text{thê?} & \text{REPETITIVE} \\
\text{wa?-} & \text{AORIST} \\
\text{yá} & \text{PERFECT} \\
\hline
\end{array}
\]

\[
\begin{array}{|c|c|c|}
\hline
\text{te?-} & \text{OPTATIVE} & \text{PRONOUN} \\
\text{th-} & \text{(REPETITIVE)} \\
\text{th-} & \text{(DUALIC) (OPTATIVE) (REPETITIVE)} \\
\text{th-} & \text{(DUALIC) (OPTATIVE) (REPETITIVE) (REPETITIVE)} \\
\hline
\end{array}
\]
Affixation and Morphological Longevity

Seneca shows the same verb-initial negative prefix te?- as the other Lake languages before the inner prefixes: pronouns, the cislocative, and the repetitive. No negative particle is present.

(46) Seneca (Esther Blueye p.c.)
katkwe:nyqs 'I win' (k- PRONOUN 'I')
te?-katkwényqs 'I don't win'
tkhnqke? 'I live there' (t- CISLOCATIVE)
te?-tkhnq:ke? 'I don't live there'
sha:yqh 'he comes back' (s- REPETITIVE)
te?-sha:yqh 'he doesn't come back'

The distribution of negative prefixes before the outer prepronominial prefixes differs in detail from that in the other Five Nations languages, however. In fact, there are even differences among Seneca speakers. Before the dualic, the negative prefix takes the form t-, as in Huron and Wyandot, followed by the regular increment -a?-, that appears before the dualic in medical position.

(47) Seneca (Esther Blueye p.c.)
tekejikwa?:es 'I play ball' (te- DUALIC)
t-a?-tekejiskwa?es 'I don't play ball'

As in the other languages, the future prefix does not cooccur with a negative marker. Future events are negated with the optative prefix plus the same negative marker that appears with the dualic, t-a?-.

(48) Seneca (Esther Blueye p.c.)
ɛkatkwe:ni? 'I will win' (ɛ- FUTURE)
ta?-a:katkwe:ni? 'I won't win' (a- OPTATIVE)

The form t-a?- is surprising, because the increment does not normally occur before the future or optative. There is in fact some variation in the shape of the negative prefix before the (future) optative: some speakers use the form te?: in careful speech while others consistently use ta?-.. The form ta?- may be an extension to this new context of a remodeling of the pre-dualic form: t-a?.

Before actual (semantically) optative verbs, the contrastive th- is used to mark negation, as in the other Five Nations languages. In these constructions the usual punctual aspect suffix -ʔ is absent, as in Cayuga and Onondaga.

(49) Seneca (Esther Blueye p.c.)
a:katkwe:ni? 'I would win' (a- OPTATIVE)
th-a:katkwe:nih 'I would not win'

On occasion, the aorist appears with the same negative prefix that appears with
the dualic and the optative standing in for the future: taʔ-. Mrs. Blueye
provided the translation in (50) for that combination.

(50) Seneca (Esther Blueye p.c.)
εtikhνq:ke:k ‘I will live there’ (q- FUTURE + CISLOC)
taʔ-qtakhnq:k ‘I won’t live there’ (q- AORIST)

Other speakers have translated the combination to mean ‘can’t’.

(51) Seneca (Alberta Austin p.c.)
waʔe:keʔ ‘she saw it’ (a- AORIST)
taʔ-aye:qeʔ ‘she can’t see it’ (a- AORIST)
taʔ-qtaye:qoʔ ‘she can’t come in’ (qta- AORIST + CISLOC)

Negative forms of the translocative are open to two possible analyses.
They may be analyzed as in the other Five Nations languages, as consisting
of the contrastive th- plus translocative (th-h-). The h of the contrastive fuses
with that of the translocative, as in Cayuga and Onondaga.

(52) Seneca (Esther Blueye p.c.)
h-oʔkeʔ ‘I’m going there’ (h- TRANSLOCATIVE)
θh-a:ke:h ‘I’m not going there’ (h-a:- TRANSLOC + OPT)

Under an alternative analysis, the negative marker before the translocative
could be identified as t-. When the translocative is immediately followed by
a pronoun, the combination theʔ- is used. This sequence would be identified
as the negative teʔ- plus translocative h(e)- with shift in position of the h.

(53) Seneca (Albert Austin p.c.)
h-eke:thaʔ ‘I go there’
θeʔ-ke:thaʔ ‘I don’t go there’

Negation in Seneca is thus highly complex and variable. Seneca resembles
the other Five Nations languages in the use of the negative teʔ- before
the inner prefixes (pronouns, cislocative, repetitive). Before the dualic, Seneca
shares the form t-aʔ- with Houron. To negate future events, speakers use an
optative prefix, but the negative marker that appears before it varies between
teʔ- and taʔ-. To negate true optative verbs, speakers use the contrastive
θh-, as in the other Five Nations languages. With the translocative, the negative
prefix could be analyzed as either the contrastive th- or an extension of the
negative prefixes t- and teʔ- with shift in position of the translocative. Partitive,
contrastive, and coincident verbs are not negated, just as in the other Five
Nations languages.
5. THE COMPARATIVE INSTABILITY OF NEGATION

The forms and positions of the negative markers in each language are summarized in (55).

(55) Positions of negative prefixes

**Cherokee:** \( y-/n-/ka- \)

<table>
<thead>
<tr>
<th>RELATIVE</th>
<th>TRANSLOCATIVE</th>
<th>PARTITIVE</th>
<th>PLURAL</th>
<th>CISLOC</th>
<th>REPEITIVE</th>
<th>DIST.IMPV</th>
<th>PRONOUN</th>
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<tr>
<td>CONDITIONAL</td>
<td>TRANSLOCATIVE</td>
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<td>CISLOC</td>
<td>REPEITIVE</td>
<td>DIST.IMPV</td>
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<tr>
<td>( y- )</td>
<td>( n- )</td>
<td>( ka- )</td>
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**Tuscarora:** no negative prefixes

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<th>PARTITIVE</th>
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<th>DUALIC</th>
<th>OPTATIVE</th>
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<tr>
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<td>TRANSLOCATIVE</td>
<td>AORIST</td>
<td>DUALIC</td>
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<td>FUTURE</td>
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Huron: *t-/teta?-

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<th>PARTITIVE</th>
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*teta?*  

Wyandiot: *t-/teta?-

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*t(a?)*  

Cayuga, Onondaga, Oneida, Mohawk: *th-/teta?-

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<th>PARTITIVE</th>
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*theta?*  

Seneca: *th-/lt-/ta/-teta?-

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<th>PARTITIVE</th>
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As can be seen from the summary of forms, all but the most closely related languages differ strikingly in the details of their negative constructions, in sharp contrast to the relative homogeneity of the other prefixes.

It appears that negative markers were prefixed quite early in the history of Iroquoian languages. The Cherokee negative prefix *ka-* appears immediately before the pronominal prefixes. Its innermost position suggests that it could predate all of the other modern pre-pronominal prefixes. Its restricted occurrence within the language, in certain idiomatic constructions with meanings ‘can’t’, ‘won’t’, and ‘not since’, and its appearance as part of the two lexical items ‘mistreat’ and ‘revile’, are consistent with its age. Furthermore, a probable relic of the prefix also remains in Northern Iroquoian in a relatively rare Cayuga negative particle *kaq:-*. 
(56) Cayuga (Reginald Henry p.c.)

İ:noh kiʔ kaqː neʔ kweːkó ʰęyotiyənʔa:k.

far just not that all there-will-one-them-catch

‘But I wouldn’t very often catch all of them.’

In the more distantly related Caddoan languages, negative prefixes have the same form. Wichita contains a negative prefix \(kəː-\) that occurs on verbs and indefinite pronouns (Rood 1976: 157). Pawnee contains a negative pre-pronominal verbal prefix \(ka-\) (Parks 1976: 235). Caddo contains a prohibitive pre-pronominal prefix \(kaʃ-\) ‘don’t’ (Chafe p.c.).

A comparison of the Northern Iroquoian negative markers in (55) suggests that the negative marker \(teʔ-\) was also prefixed relatively early. It is one of the innermost of the pre-pronominal prefixes and remains unchanged in all of the Lake languages. The early prefixation of negative markers is not surprising. It probably occupied a constant position immediately before verbs, appeared with considerable frequency, and formed a conceptual unit with them. Yet the process of affixation apparently did not render the negative markers as stable as the pronominal prefixes, the reflexive prefix, or even other later pre-pronominal prefixes. In fact, the very transition from free word to bound affix may have contributed to its instability.

5.1. Affixation and the Reduction of Individual Salience

One well-known effect of affixation is a reduction in the individual salience of the morpheme. The morpheme loses its status as a unit and becomes simply an ingredient of a larger unit. In many languages, including those of the Iroquoian family, affixes do not bear contrastive stress. Stress in Iroquoian was historically penultimate, so even basic word-stress rarely fell on a verb-initial prefix. Iroquoian affixes are never set off by pauses for emphasis. Affixation may further prompt an erosion of phonological substance, so that morphemes no longer constitute complete syllables.

For some morphemes, the transition from a salient, independent word to a mere ingredient of a larger unit seems to cause no problem. The pronominal prefixes are apparently such morphemes, as are almost all of the pre-pronominal prefixes. If speakers wish to focus on the distinction conveyed by a pronominal prefix, they add a contrastive free pronoun with a meaning like ‘as for me’. If they wish to focus on a distinction such as those conveyed by most of the pre-pronominal prefixes, they simply supply a particle with a meaning like ‘here’ (for the cislocative), ‘again’ (for the repetitive), or ‘there’ (for the translocative). Most of the time, such concepts do not need special reinforcement, so it is appropriate to express them with affixes alone. Negatives differ on this point. They carry highly significant information, usually the most important information of their clause. Negation is typically used to express ideas that contrast with expectation: I would not usually say ‘I’m not going
to the movies' unless there is some expectation that I might. A reduction in the formal salience of negative markers can accordingly be counterproductive, resulting in a clash between form and function.

There is an obvious response to this erosion of salience: an extra marker can be added to the clause to provide emphasis, as is done for the pronouns and other pre-pronominal prefixes. Just such a process is especially common in the development of negative constructions in languages in general. French provides a well known example with ne pas. Among the natural candidates for the extra marker is the particle that would most often appear in this context anyway: the word for 'no'. Many of the modern Iroquoian languages show a resemblance between the negative particles and the words for 'no': Cherokee hialtla, Huron stan, Wyandot hâ?q, Cayuga thê?, and Mohawk yâh all mean both 'no' and 'not' in those languages. The result is often a sequence of the same particle, first meaning 'no', then as part of the negative construction. The answer to the Cayuga question ‘Are you thirsty?’ is that in (57), for example.

(57) Cayuga (Reginald Henry p.c.)
\[
\text{thê?, thê?, têkhâ?tathêhss.} \\
\text{no not NEG-1-throat-dry}
\]
\text{‘No, I’m not thirsty.’}

A comparison of the negative markers across the Iroquoian languages suggests that such reinforcement occurred many times in the history of the family. The negative particles differ across all but the most closely related languages: Oklahoma Cherokee hialtla, North Carolina Cherokee s:isha, késtí, Tuscarora kwâhs, iksah, tâ?, thê?, Huron (dan)stan, Wyandot q, hâ?q, Cayuga thê?, and Oneida and Mohawk yâh.

It is not difficult to understand why the other verbal prefixes failed to undergo a similar development. Morphemes like the pronominal prefixes, the cislocative, repetitive, dualic, partitive, and others do not convey the most significant point of a clause sufficiently often to be reinforced by emphatic particles in the majority of their uses. Because of their relative rarity, those emphatic particles would have little likelihood of being reinterpreted as the unmarked expression of those distinctions and replacing the original prefixes.

5.2. Affixation and the Solidification of Morpheme Order

A second effect of affixation is the rigidification of order within the verb complex. As a free word, a negative marker like ka could always appear in a salient position, no matter what other markers were present. In the modern Iroquoian languages, negative particles are not always ordered immediately before the verb word. They often appear before other less significant particles, as in the Oneida sentence in (39) yâh thô th-ysâ:lawe? ‘not there not-there-again-did-he-go’ = ‘he did not go back there’. Once a negative
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marker has fused with the verb, however, its order with respect to other morphemes becomes rigid. It may still occupy the relatively salient word-initial position within the verb, but only for a time. As additional morphemes become prefixes, the negative marker will no longer consistently appear in verb-initial position. The solidification of morpheme order can thus ultimately further reduce the salience of a marker. A comparison of the Iroquoian languages indicates that speakers of all of them were aware on some level of such a conflict: the word-internal position of a negative prefix. Speakers of the different languages reacted to the conflict in different ways, but all solutions yielded the same effect. Negation is consistently marked with a word-initial prefix (and/or negative particle). 3

One strategy for rectifying the loss of initial position was to reinterpret newer verb-initial prefixes as negative markers. This strategy appears in both branches of the family, but with different forms, representing separate innovations. In the Southern branch, Cherokee shows a reinterpretation of the partitive n- as a negative. As noted earlier, this partitive negative is restricted in distribution, negating only states and dependent clauses, but it always appears verb-initially. (The Northern Iroquoian cognate n- still has only the partitive meaning.) The contrastive/conditional y-, which always appears first in the sequence of pre-pronominal prefixes, was also exploited as a new negative marker in Cherokee, and today serves as the most productive general marker of negation. Within the Northern branch, the Five Nations languages show a parallel strategy, with a similar but not cognate morpheme. The contrastive prefix th- was exploited as a negative marker with all verbs containing some of the outer pre-pronominal prefixes: the optative, dualic, and translocative. (In Huron, Wyandot, and Tuscarora, the contrastive still indicates only counterexpectation or conditional ‘if’. ) The other outer prefixes, the future, aorist, partitive, and coincident, do not generally appear in the negative. Periphrastic constructions are used instead.

A different strategy in Huron and Wyandot compensates for the loss of initial position. After newer pre-pronominal prefixes fused with the verb, the negative prefix te? was apparently reordered, shuffled outward to verb-initial position. Before the dualic, coincident, and contrastive, the form te? appears, perhaps modeled on the shapes of other outer prefixes before the dualic. Interestingly, the relative order of the outermost prefixes and this negative marker was still fluctuating in Chaumonot’s records of Huron from the seventeenth century. Both orders of the coincident chi and the negatives te- and ta- can be seen in (58).

(58) Huron (Chaumonot in Fraser 1920: 735)

\[
\begin{align*}
\text{stan-chi-te\_} & \quad \text{e\_oa} & \quad \text{‘I am not going far’} \\
\text{stanta chi-8a\_i\_en} & \quad \text{‘I never had any’}
\end{align*}
\]

Chaumonot notes that when chi means ‘far’, it does not adhere closely to the verb, but when it means ‘before’ it does. The other outer prefixes, the
future, optative, and aorist, simply do not cooccur with a negative prefix in Huron. Periphrastic constructions appear instead.

Neither strategy, exploitation of newer prefixes for negative function or brute reordering of the inner prefix, seems to have resulted in an entirely stable system. Wyandot records show alternation between the forms \textit{t}- and \textit{te}- before the optative. Seneca, one of the Five Nations languages, shares their distribution of the old \textit{te}- in its original position before inner prefixes, but forms before outer prefixes differ even within the language. It is likely that it originally shared the reinterpretation of contrastive with the other Five Nations languages, a form that remains before the optative and perhaps before the translocative Seneca differs from its closest relatives otherwise, with, for example the form \textit{t}- with increment -\textit{a}- before the dualic. This is the form used in Huron. The Seneca \textit{t}- before the translocative also matches the Huron form. When the survivors of the Huron massacre of 1649 scattered, many of them went to live among the Seneca in what is now western New York State. Today their descendants are not distinct from those of the original Seneca. It is likely that the use of the form \textit{ta}- before the dualic was borrowed into Seneca from Huron. This same form, including the increment, is now used to negate future verbs (with the optative prefix replacing the future prefix), presumably an extension of this allomorph to an additional context. As described above, variation will persist among Seneca speakers in some of the forms.

Although Onondaga generally resembles Cayuga, Oneida, and Mohawk in showing \textit{te}- before the inner prefixes and the contrastive \textit{tha}- before the outer prefixes, it shows some fluctuation between the expected \textit{tha}- of Seneca and Huron in one narrow context: before the dualic plus repetitive (\textit{tsi-s-}). The variation can be seen by comparing \textit{hyäh \textit{tha}-teskyä?tih} ‘I’m not alone anymore’ versus \textit{hyäh \textit{ta}-tetsisana?ká:haaː?} ‘you cannot wear antlers anymore’ (Hanni Woodbury p.c.). The probable source of the innovative form \textit{ta}- is clear. Around 1779, under attack from Washington’s forces at the end of the Revolutionary War, the Onondaga left their villages in central New York State to take refuge among the Seneca to the West. By 1805, most Onondaga had returned home, but their language now bore clear marks of Seneca influence. Nasalized vowels were fronted before \textit{r}, then the \textit{r} was lost entirely. The easy adoption of the new alternant \textit{ta}- of the negative marker further attests to the inherent instability of this prefix.

6. CONCLUSION

The striking stability of the large repertoire of verbal prefixes within the Iroquoian family suggests that the diachronic process of affixation, that is, the evolution of independent words into affixes, can indeed contribute to the longevity of individual morphemes. The presence of these prefixes in vast
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numbers of lexical items has insured their survival for perhaps thousands of years.

At the same time, the comparative instability of the negative markers in these languages demonstrates that this longevity is not uniform. Affixation can actually undermine longevity as well. Negative markers are likely candidates for affixation, since they occur frequently in a consistent position with respect to the verb. Yet when they become affixes, they lose their formal salience, their identity as individual words representing specific concepts, becoming simply an ingredient in a larger unit. Over time, their salience may be further reduced as additional markers are affixed and they lose their word-initial position. The reduced formal salience is incompatible with the function of negation, which usually constitutes particularly important contrastive information within a clause.

The individual Iroquoian languages exhibit a variety of strategies for responding to the mismatch. One has been to reinforce the negation with the addition of a negative particle, a change which has taken place independently in most of the daughter languages. Another has been to reinterpret newer, verb-initial prefixes as negative markers, a change that occurred independently in the Southern and Northern branches of the family. A third has been to reorder formerly inner negative prefixes, so that negation is always marked verb-initially. The multiplicity of changes apparently set in motion by the prefixation of negative markers confirms that the diachronic process of affixation can indeed undermine the longevity of morphemes when it creates a mismatch between form and function.

NOTES

1 I am grateful to the speakers of these languages who so generously and patiently shared their expertise: Alberta Austin of Cattaraugus, New York, on Seneca; Karonhâhén:te Beauvais of Kahnawâ:ké, Quebec, on Mohawk; Esther Blueyee of Tonawanda, New York on Seneca; Elon Greene of Lewiston, New York, on Tuscarora; Reginald Henry of Six Nations, Ontario, on Cayuga; Kaia'titâhkhe' Jacobs, originally of Akwesasne and now of Kahnawâ:ké, Quebec, on Mohawk; Winnie Jacobs, originally of Oneida, Ontario and now of Akwesasne, Quebec, on Oneida, and Myrtle Peterson of Allegany, New York, on Seneca. I am also grateful to Wallace Chafe and Hanni Woodbury for sharing pertinent forms from their work with Onondaga speakers Jesse Pierce and Harry Webster, of Nedrow, New York.

2 The Wyandot q may be related to the Huron prohibitive ennon. The other particles are probably loans. In the one published Wyandot text from the Detroit River, only the negative q appears. The particles Barbeau transcribed as iq?q (probably ih?e:q) and iho?q (ih?e) appear only in the texts recorded in Oklahoma. These particles match the Cayuga and Seneca forms so closely that it is likely they were borrowed from them. The form ih?e no longer appears in modern Seneca, but the early nineteenth century records of Asher Wright do show this shape.

3 It seems unlikely that r and ih had fallen together in Wyandot, since they were clearly distinguished in the Huron manuscripts and have remained distinct in all of the other Iroquoian languages. Barbeau, a French speaker, describes the sound he represents with the symbol r 'as r with a slight aspiration' (1960: 57). He uses the symbol r for Wyandot equivalents of Huron
t, cognate with plain t in related languages: compare the Wyandot negative prefix he transcribed tc-, with Huron te- and Mohawk, Oneida, Onondaga, Cayuga, Seneca te?. Barbeau uses the same symbol t for Wyandot equivalents of Huron ŭ cognate with th in the other languages: compare the Wyandot particle ‘there’ that he transcribed tu, with Huron ŭo, Mohawk, Oneida, Onondaga, and Cayuga tho, Seneca ho, and Tuscarora thu.

4 The Tuscarora negative particle tê? might appear superficially to be a possible diachronic source for the Lake languages’ negative prefix te?. In fact, Proto-Northern-Iroquoian *t regularly corresponds to Tuscarora ŭ word-initially before vowels, so a true Tuscarora cognate would have the form *nê?. It is not impossible that the Tuscarora particle tê? could even be a borrowing from the Five Nations contrastive/negative prefix th(a)7). The Tuscarora migrated from North Carolina to western New York early in the eighteenth century, settling not far from the Seneca. We know that considerable borrowing did take place from the Five Nations languages into Tuscarora at this time.)

5 Wolfgang Wurzel (p.c.) notes that the word-initial position of the negative corresponds to its semantic scope over the full verb.

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