Cooperating with Written Texts

The Pragmatics and Comprehension of Written Texts

edited by
Dieter Stein

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The impact of sudden literacy on the text comprehensibility: 
Mohawk*

Marianne Mithun

It has long been recognized that spoken and written language differ in important ways. Transcripts of spoken discourse are often more difficult to read than dialogue in a novel. Written texts can also be difficult to process when read aloud: few listeners absorb every point in a scholarly paper read to an audience. Do most of the differences between spoken and written language arise spontaneously with the shift to the written word, or are they primarily the product of a gradual adaptation of style to this medium? Do the changes actually improve the comprehensibility of written texts? One way to investigate such questions is to compare the structures of three varieties of texts in a single language: spontaneous spoken discourse, the first written texts, and the later texts of more experienced writers.

Mohawk, an Iroquoian language indigenous to northeastern North America, provides an opportunity for such a comparison. Mohawk speakers have long been renowned for their rich oratorical traditions. Skillful use of language has always been appreciated and cultivated in a variety of contexts, formal and informal. This skill was described by the first Europeans to encounter the Mohawk, and is still very much in evidence today. Until recently, however, the language was not generally written by its speakers. Missionaries translated the Bible and other religious texts, and a few speakers wrote letters to relatives who

* The orthography used here is that now used in the schools at Kahnawake. For the most part, symbols correspond to their IPA values. Obstruents are automatically voiced before sonorants. Mohawk contains two nasalized vowels, [n] written en, and [ŋ] written on before consonants or word-finally. The apostrophe ' represents a glottal stop. The vowel ' represents the glide [j] before vowels and the usual high front unrounded vowel elsewhere. The acute accent ' represents high tone in short syllables and rising tone in long syllables, indicated by :. The grave accent, which occurs only in long syllables, represents falling tone. I am especially grateful to Margaret Edwards, of Akwesasne, and Annette Jacobs, of Kahnawake, for sharing their expertise about their language, and to the other speakers and writers whose work is cited in this text.
were away from the community, but there was otherwise little need for written language.

More recently, people in various Mohawk communities have become alarmed to see that the younger generation is no longer learning the language. They realize that when a language is lost, a fundamental element of the culture it encodes is lost as well. Centuries-old ways of viewing the world disappear, as well as traditional styles of personal interaction. A number of people in these communities decided to develop language programs for their schools, to teach children as much as possible about their linguistic traditions. They began their work by devising a writing system. Their experiences with the early stages of literacy provide an opportunity to observe the immediate impact of a sudden shift to the written medium on the comprehensibility of texts. Their later work shows the kind of gradual refinement in style made possible by the new medium. In what follows, cues to text structure inherent in spoken Mohawk will be compared with those of the first written texts and then with those of later written texts.

1. Cues to textual structure in spoken Mohawk

As in any spoken language, the shape of texts is signalled by a variety of devices, both phonological and grammatical.

1.1. Intonational cues

Intonation is a powerful aid to text comprehension. Speech does not emerge in a continuous stream: it comes in bursts followed by rises or falls in pitch and separated by pauses. Each burst, or intonation unit in the sense of Chafe 1987, generally corresponds to a semantic unit: it usually presents a single significant new idea. The material in (1) comes from the opening of a legend told by Sonny Edwards of Akwesasne. Like the other spoken material cited here, it is arranged so that each line corresponds to an intonation unit. The first line introduces the old people, the second their storytelling, the third the protagonist. In the fourth we are given his name.

(1) **Teharenhsohkhwa**
Sonny Edwards

\[ Ne \ iá:kén' \ ne' \ ki: \ rotksten'okonkén:ha \]
\[ it is they say it is this they are old deceased \]
\[ ‘It seems the old people \]
\[ rotká:rotónhskwe' \ ne \ wahón:nise', \]
\[ they used to story tell the long ago \]
\[ used to tell stories in the old days, \]
\[ nè:'e \ ne \ iá:kén' \ rón:kwe \ ne:ne \ ohniare'kó:wa \]
\[ about the they say man that great snake \]
\[ rotón:'on, \]
\[ he had become \]
\[ about the person who, they say, became a serpent. \]
\[ ne: \ nen \ Teharenhsóhkwa' \ ronwá:iatskwe'. \]
\[ this then he picks up beads they used to call him \]
\[ This person was called Teharenhsóhkwa’ (‘he picks up beads’). \]

Commas in the transcription indicate a partial fall in intonation, and periods a full fall. The function of these comma and period pitch contours in communicating the structure of the text is as would be expected. Sets of lines are also characterized by intonational contours. Sets like the one in (1) above exhibit a kind of downdrift: successive lines are spoken on successively lower pitches. A new set of lines, comparable to a new paragraph in written language, usually begins on a new high pitch. It typically reflects a new direction of thought. The passage in (2) followed that in (1).

(2) **Ni:io tsi rotká:rotón**
so it is that they have told
‘The way they have told the story,

\[ iá:kén' \ nè:ne \ wahón:nise' \ ronhțińkε'skwe'. \]
\[ they say that long ago they used to go away \]
\[ it seems that would go away long ago. \]
\[ Ronmatëre:n:te' \ tsi \ nôn': \ nihonné:thahkwe' \]
\[ they knew to where there they used to go \]
\[ They knew where to go \]
\[ tsi \ rontó:ratskwe' \]
\[ so they used to hunt \]
\[ to hunt \]
Derivational suffixes may also appear, such as the augmentative in (5).

(5)  
\textit{ohniare'kó:wa}
\textit{o-hniar-'}-kowa
NEUTER.PATIENT-snake-NOMINAL.SUFFIX-AUGMENTATIVE
'serpent'

Verbs can be morphologically quite complex. There are no free roots: the root ‘go’ in the verb in (6) is -e-, but it would not be recognized by speakers in isolation.

(6)  
\textit{tëntke'}
\textit{t-en-t-k-e-'}
DUALIC-FUTURE-DISLOCATIVE-1.AGENT-go-PUNCTUAL
again-will-here-I-go-PUNCTUAL
'I will come back.'

In addition to the root, all Mohawk verbs contain a pronominal prefix referring to their agents and/or patients, like \textit{k-} ‘I’ in (6); or \textit{ronwa-} ‘they/him’ in (7).

(7)  
\textit{ronwá:iatkwe'}
\textit{ronw-iat-s-kwe'}
MASCULINE.PLURAL.AGENT/MASCULINE.PATIENT-call-HABITUAL-FORMER.PAST
'They used to call him.'

Verbs usually contain an aspectual suffix, like the punctual -' in (6) or the habitual -s in (7). They typically contain additional affixes as well. In (6), the dualic prefix \textit{t-} indicates ‘back’, the prefix \textit{en-} marks future tense, and the dislocative \textit{t-} indicates ‘here’. In (7), the suffix -\textit{kwe'} adds former past tense. Verbs may also contain incorporated noun roots, such as -\textit{kar-} ‘story’ in (8).

(8)  
\textit{ratiká:ratonhskwé'}
\textit{ra-ti-kar-aton-s-kwe'}
MASCULINE.AGENT-PLURAL-story-tell-HABITUAL-FORMER.PAST
'they used to tell stories'
1.2.2. Morphological class versus syntactic function

The morphological classes of Mohawk words are well-defined and distinct from each other, but they are not isomorphic with syntactic categories. Morphological verbs in particular serve a wide variety of functions. They can of course serve as predicates, like rotón:‘on ‘(he) had become’. They also frequently serve as syntactic nominals, like those in (9) from the Teharensákhhwa’ text.

(9)  
ronatén:ron  
ron-at-en:ron  
M.PL-RECIProCAL-friend-STATIVE  
‘They (m) are friends.’ > ‘his friend’  

rotiksten’okonkénha’  
ro-ti-ksten’-okon-kenha  
MASculINE.PATIENT-PLural-be.old-PLural-DECESSive  
‘The deceased old people.’

verbs can serve as modifiers, much like adjectives in some other languages.

(10)  
ni:ra  
ni:hr-a  
PARTITITIVE-M-be.a.size  
‘He was big.’

They can function as adverbials.

(11)  
teiotenonhianí:ton  
te-it-o-te-nonhianhi-t-on  
DUI-it-SRL-afraid-CAUS-STAT  
it was horrible  

tsí ni:ha:hetk:en  
sí ni:ha:hetk:en  
so he-ugly-STATIVE  
so he was so ugly  

‘He was so horribly ugly.’

All Mohawk verbs are finite: all contain aspect markers and pronouns referring to their core arguments. For this reason, any verb can stand alone as a grammatical clause in itself. Additional nominals are not necessary for grammaticality. In fact, typical discourse often consists primarily of verbs. The sentence in (12), for example, consists of three morphological verbs.

(12)  
V  
V  
V  
Teiotenonhianí:ton  tahiatón’neke’  tehotténion.  
it was spectacular they two were startled he had changed  
‘They were spectacularly startled at how he had changed.’

Particles are also frequent in spontaneous speech, but nouns are relatively rare. Many concepts that are expressed in European languages with nouns are expressed in Mohawk with verbs. For ‘at dawn’, for example, Mr. Edwards used a verb: wa’ôrhen’ne ‘it dawned’. Ideas expressed by separate nouns in European languages are often carried by noun roots incorporated in Mohawk verbs. Text counts of spontaneous English discourse typically show a verb:noun ratio of 1:2 and 1:2 (Chafe p.c.). Counts of spontaneous Mohawk discourse of similar genres often show a verb:noun ratio of as high as 5:1. Note the lexical categories in the continuation of the Teharensákhhwa’ tale in (13). (V indicates morphological verbs, P particles.)

(13)  
V  
P  
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V  
Wa’ôrhen’ne’  ki’  orhon’kêhstsi  tahontáhsawen  
it dawned just it just dawned they started  
‘They started early in the morning,  
P  
P  
P  
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V  
V  
i:á:ken’  åhsen  ni:ha:ti.  
they say three so they number  
so they say, the three men  

They started, it seems, to fish,

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Literacy  185

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the old people used to tell stories
there was a person who became a serpent
people would go away to hunt and fish
three men started out one morning
they went fishing
they didn't catch a single fish

Mohawk particles also play a role in regulating the flow of information.
At one point one of the fishermen saw a log. It would have been grammatical to present this event with just a verb and a nominal, the first and last words in (14) below. Instead, it was presented in three intonation units, as can be seen from the arrangement of the lines. The speaker introduced each significant new piece of information separately. The particle ki: ‘this’ functioned in the first line as a place holder, announcing that what was seen would be explained subsequently.

(14) Wahatkähtho' ki:
he saw this
'He saw
kérhite',
tree stands
a tree,
ioronkenen':en.
tree has fallen
a fallen log.'

Deictic particles like ki: ‘this’ and thi: ‘that’ can serve a further orienting function, establishing perspective. The proximate particle ki: ‘this’ in (14) set the log at center stage, appropriate since it would play a central role in the ensuing discussion.

Particles can also serve to link segments of text. A phrase like that in (15) ‘and just at that moment’ closely links the event that precedes to what follows.

(15) Ne ki' thé:ken
the just that
'And then, ...'

The Mohawk demonstratives differ from their English counterparts syntactically. English ‘this’ and ‘that’ typically serve as determiners, combining syntactically with nouns to form noun phrases. The Mohawk equivalents do not have the same structural function. They may appear alone or with nouns, but when they do occur with nouns, they function more as appositives than as determiners.
1.3.2. The backgrounding effect of morphologization

The elaborate morphological structure of Mohawk functions powerfully to add texture to texts. A major effect of morphologization is to background information. Bound morphemes are not processed as separate pieces of information, worthy of individual attention. Rather, they are integrated with the other elements of the word of which they form a part, processed as part of a conceptual unit.

Any information that can be expressed in Mohawk by means of an affix or incorporated noun root can also be expressed by a separate lexical item. The two kinds of expressions have subtly different functions. A separate word for 'again' was used several times in the Teharen’sák’kwha’ tale, for example.

(16) rohnekentá: ‘on khale’ iá:ken’ sahonia’táthen’ne’.
he has drunk again they say again his throat dry became
Having just drunk, he was thirsty again.

(17) Sok á:re’ atsià:kta nionsà:re’
so again shore along there back he walked
So he walked back again along the shore.

The main point of (16) and (17), was the fact that the protagonist was thirsty a second time. It is thus worthy of a separate word: khale ‘again’. Mohawk also contains a repetitive prefix s- with much the same meaning: ‘again, back, re-’. In (18), the protagonist explained that he would go back to the water again. The fact that he had been there before was indicated by the repetitive prefix. It was not the main point of the utterance, however, so a separate word was not used.

(18) Awèn:ke nì: nienhéske’.
water in there will I again go
‘I will return to the water.’

A similar difference can be seen in the use of noun incorporation. The first time the fish was mentioned in (19), it was the focal point of the utterance, so it was expressed as a separate noun. The second time, it was already established, old information, so it was incorporated. The main point of that sentence was the fear.

(19) “Kéntsiən se’” wahén:ron “se’ wáhe’.”
fish only he said only isn’t it
“It’s only fish, isn’t it”, he said.

O:nen ki: ronatén:ron wahatshá:nike’ ne
now this they are friends he feared the
But his friend was afraid
a:héntsiakwá:’
he would fish eat
to eat the fish.”

1.3.3. Pragmatic word order

Texture is provided in Mohawk discourse by another powerful device: word order. Because all Mohawk verbs contain pronominal prefixes referring to their core arguments, primary grammatical relations are specified within the verbs themselves. Word order is thus not used to express syntactic relations between predicates and arguments. Instead, it is used for purely pragmatic purposes. The most significant information appears early in clauses, followed by more predictable or peripheral information. Compare the orders of the noun for “fish” and the verb “be in” in the two sentences below, both from the same tale. In the first, the noun “fish” precedes the verb, but in the second, it follows.

(20) Khiahatkátho’ iá:ken’
there he looked they say
‘He looked, they say,

NP VP
kéntsiən ratià:ti ki:.
fish they are in this
and saw fish in there.’

(21) wahshe:α tatshén:ri’
he body found them
‘He found

VP NP
karón:tan κontià:ti kéntsiən.
it is log inside they are in fish
the fish inside a log.’

In (20), the fish are introduced for the first time. They represent the most newsworthy information of that clause. (21) followed a passage in which we were told that the protagonist was looking for the fish. Their location was thus the most newsworthy element of that clause, followed by the
fact that the fish were actually there. The identity of the fish themselves had already been established.

A similar difference in ordering can be seen by comparing (22) and (23). The function of (22) was to reintroduce the friends. The nominal referring to the friends thus appears early in the clause.

(22) 
NP 
ki: ronatén:ro's tehniá̂hsen thonatehará:ton 
this they are friends they are two they were waiting  
' Those two friends were waiting.'

The main point of (23) was that the friends, already at center stage, noticed something. The verb 'notice' appears early, and the nominal referring to the friend, late.

(23) 
VP NP 
o:nen wahiáttoke' kú: ronatén:ro kí:ts ... 
now they two noticed this they are friends gee  
'Now his two friends noticed (what was happening to him).'

Spoken Mohawk thus contains a variety of cues to the structure of texts, some, such as intonation, similar to those of more familiar languages, but others, such as the use of morphologization and pragmatic word order, quite different. What happens when the medium changes from speech to writing?

2. Early written Mohawk

A group of dedicated Mohawk speakers at Kahnawá:ke, Quebec, gathered nearly twenty years ago to develop a program for teaching the Mohawk language at school. A first step in the program was the establishment of a practical orthography, a task that was accomplished the first summer. Soon afterward, teachers began to write. Their early written texts differed surprisingly from their spoken discourse. The language was fully grammatical, but surprisingly un-Mohawk in many of the usual cues to textual organization. The shift in medium did indeed have an immediate effect. A sample of dialogue from one of these texts is in (24).

(24) Early written dialogue  
Há'ki wá:s sëniñ:ten sanò:n:warore' tanon sathi:tawí  
OK go you hang your hat and your coat  
'Wont you go and hang your hat and coat  
tanone serihsí sá:wén teionraitha:kwanétá's and you take off your it goes over shoes  
and take off your rubbers  
thó:ne ó:nen iahá:sko sá:wén ionrahsí' tohró:kstha': then now you get your it covers foot  
then get your slippers,'  
Tesarénia't kí:ken kahiátónhséra akohsá:ten rai:tawí'  
you pass this picture horse his picture  
Pass out this picture of a horse.'

A sample from a children's story is in (25).

(25) Children's story  
Thí:ken eksá:sà wahí:ron, 'Sarahtháhsi enhén:ton  
that girl she said you shoe remove first  
'The little girl said, "Take your shoes off first  
this before you will enter boy this she told him  
before you come in," she told the little boy.

Both passages differ in a number of ways from the usual spoken Mohawk of these writers.

2.1. Particles

Many of the particles that are so pervasive in spoken Mohawk are conspicuously absent from the early written Mohawk texts. Evidentials like í:í:ken 'it is said' seldom appear. Emphatic particles like kí 'just'; kwá'h 'just, so, very, really', etc. are also rare.

Demonstrative particles like kí:ken 'this' and thí:ken 'that' do appear frequently in the written texts, but not to regulate the flow of information. In spoken Mohawk, nouns do not require determiners, although certain particles may appear with them, such as demonstratives, or a particle ne that indicates that a nominal refers to given information.
The early written texts, however, contain constructions parallel to English noun phrases. Note the use of kiken ‘this’, thi:ken ‘that’, and ne before nouns in the written texts in (24) and (25). In spoken Mohawk, possession is normally shown by a pronominal prefix, as in sanon:warore ‘your hat’. A somewhat unusual construction sometimes appears in the written texts, apparently modeled after the use of English possessive pronouns as determiners. Note the use of Mohawk s:wen ‘you have’ for ‘your’ in (24).

Some conjoining particles appear more regularly in the written texts than in spoken language. Overt marking of conjunction is not obligatory in spoken Mohawk. Coordinate constituents, especially conjoined predicates or clauses, are often simply juxtaposed, linked intonationally. The overt marking of conjunction is much more frequent in written texts, such as the use of tanon ‘and’ in (24).

The early written texts thus contain particles, but they function differently from those in the spoken language. Rather than supplying emotive texture or structuring texts, they tend to appear in those contexts where their English counterparts would be required by English syntax.

2.2. Nominals

Recall that spoken Mohawk is characterized by a high proportion of verbs to nouns. The written texts exhibit more nouns than their spoken counterparts. Nominals are often more complex. Not only do they often contain demonstratives, as noted above, but they are often compound. Note the conjoined nominal from (24):

seniön:ten sanon:warore tanon' satià:tawi
you-hang your-hat and your-coat
‘Hang up your hat and coat.’

A speaker might be more likely to convey the same message in a single verb:

(26) satstahsion:ko
you-self-dress-un
‘Take off your things.’

2.3. Incorporation

Recall that in Mohawk, nouns representing given or incidental information can be backgrounded by incorporation into the verb. Incorporation for such stylistic purposes is rare in the early written texts. The incorporation that does appear consists primarily of established lexical items: the standard idiomatic words used for certain recurring concepts.

(27) satià:tawi ‘your-self-body-encircle’ > ‘your coat’
sarahtháhst ‘you-shoe-on-un’ > ‘take your shoes off’
ronakíshkwa’en ‘he-pet-has’ > ‘he has a pet’

2.4. Word order

Recall that word order in spoken Mohawk is used for pragmatic purposes; elements are ordered within clauses according to their significance to the discourse at hand rather than their syntactic role. The early written texts exhibit a surprising tendency toward SVO order. Note the order of constituents in both (24) and (25). Each line of (24) contains a sentence, SVO if the quotation is counted as a complement. These orders are not ungrammatical, but pragmatically unusual.

2.5. Factors behind the differences

The shift from the spoken to the written medium had an immediate effect on some of the cues to text comprehensibility normally found in spoken Mohawk. Most of the traditional cues disappeared. Not only was international structuring lost, but also the stylistic use of particles and the pragmatic use of noun incorporation and word order.

Several factors probably contributed to these changes. One is the influence of the English literary tradition. Although Mohawk is the mother tongue of all of these writers, all are literate in English. Apparently the act of taking pen to paper somehow called forth the English written style they already knew. Their English literacy explains in part the rarity of particles without English counterparts, the increased use of determined constructions, the higher proportion of free nouns, the reduction in noun incorporation, and the tendency toward SVO word order.
The nature of the medium itself also prompted some instantaneous changes. As pointed out by Chafe 1982; Ong 1982; and Tannen 1982 among others, speakers address a seen audience that shares their local and temporal context. Spoken language is typically characterized by greater personal involvement of the speaker, showing more personal reference, more emphatic particles, and reports of the speaker’s mental processes. The early Mohawk writing is characterized by a sharp reduction in the particles that convey those meanings.

Because these writers had had little exposure to written Mohawk, spelling was not automatic. The spelling system is a good one, but writers had not memorized the spelling of most words in the way that experienced writers of other languages do. The spelling of nearly every word had to be invented as it was written. The written texts were produced one word at a time. Writers had smaller chunks of language within their consciousness as they wrote than speakers have when they talk. It is not surprising that traditional cues to larger discourse structure were absent.

3. Later written Mohawk

Even under these conditions, writing proved valuable. The ability to write Mohawk made it possible for teachers to see structures in the language they had not been aware of before. They became more conscious of the richness of the language they speak so effortlessly. Writing also made it possible for them to plan systematic language classes.

As time passed, and writers became more proficient in the system, they developed a rich, specifically Mohawk literary style. Note the opening to the legend in (28) written by Josephine Horne. Mrs. Horne also wrote the translation.

(28) *Iakotineniitia’ks*

‘The legend of the little people’ (Josephine Horne)

*O:nen ki’ ni:’i nakkà:ra’*

now just mine my story

‘Once upon a time’

*Wahôn:nise’ skahwatsí:ra, onkwéhon:we rôn:ne’skwe,*

long ago one family real person they used to roam

there was a very happy

*tiôtkon ronatonháhere’.*

always they were happy

Indian family.

*Ki:ken ne ronwa’niha ratoratsheraweînhen*

this the their father he knows how to hunt

The father was a good hunter

*iâh nowén:ton tehontonhkâria’ks ne raohwá:tsire’.*

not the ever are they hungry the his family

*Ki:ken ne shakoti’nishëna ieweienni:io*

this the their mother she knows well

and the mother

*iakokhonniahtskon*

she likes to cook

worked very hard

*tanon tiôtkon ionhkwennion:ni raonawenhshon:’a.*

and always she clothes makes their various things making clothes

*Kanéhon tanon ôwhere’ iôntsha’*

skin and fur she uses

and blankets from the animal skins

*ne ô:ni’ iakonni:tha’ ne raonaishër’ion:’a.*

the also she makes with the their blankets

and using the mat for cooking nourishing meals.’

This later style shares some of the features common to most written languages, but it also contains some distinctively Mohawk qualities.

3.1. Particles

Most kinds of particles are still less abundant in this written style than in normal spoken Mohawk. They are seldom used to manipulate the rhythm of information flow. They seldom indicate intensity or emphasis. They do sometimes serve an orienting function. The proximate particle *ki:ken* ‘this’ in the third and fifth lines of (28) first places the father in center stage, then the mother.
As in the earlier written style, particles are still used to mark syntactic structure more frequently than in spoken language. Demonstratives appear more often in a determiner position before nouns. Conjunctions appear more often to link clauses. Note the overt traffic signals provided by the particles in (29) from the ḣakotińieniōia'ks story.

(29) Né: tsi sekša’ti:io tanon tāh tes atrō:ri tsi because you are a good child and not did you tell that ‘Because you have been so nice to us and

wahskwá:ken, nē: kátι enkonнии̱n áhsen you us saw the why will I you give three kept our secret,

niwaskanektsherá:ke so one wishes number
I will give you three wishes.’

3.2. Nominals

This later written Mohawk still exhibits a somewhat higher proportion of nouns than is usual in spoken Mohawk. The nominals themselves are also often more complex. Note the conjoined nominal kanéhon tanon ówhere’ ‘skin and fur’ in (28) for example.

3.3. Incorporation

The later written Mohawk texts often show more morphological elaboration than earlier written material. Part of this increased morphological complexity was a return to incorporation for pragmatic purposes. The passage in (30) occurs later in the same story by Mrs. Horne. In the first line, the soup is presented as a separate noun. In the last line, the soup, now an established part of the scene, is expressed by an incorporated noun root.

(30) karihstote’ é’ thi kana’tsáhere’ karihstà:ke onón:tar.a it metal stands there it pot stands it meat on soup ‘On the stove was a pot of soup.

3.4. Return to more pragmatically based word order

Finally, the later polished written style generally displayed the pragmatic use of word order typical of spoken Mohawk. The point of the second line of (28), for example, is to introduce the family; the noun for the ‘family’ appears early, before the verb ‘roam’. The point of the fourth line is to shift attention to the father; he is named at the beginning of the clause. In the fifth line, by contrast, the family is already an established part of the scene, but the newsworthiness of the line is their satisfaction; the predicate appears early and the noun for ‘family’ appears late.

3.5. Factors shaping later written style

Some of the forces affecting the earlier written style continue to be felt in this later style. The inherent distance between writer and reader still results in a rarity of evidential and emphatic particles. The influence of written English probably still contributes to the use of some syntactic particles, the abundance of nouns and complex nominal constructions, and some of the more complex syntactic structures.

Early in the project, when writers were struggling with the new orthography, attention was focused on one word at a time, so many of the traditional cues to Mohawk textual structure disappeared. As writers became more proficient in the new medium, however, they were able to take advantage of the extra time at their disposal. Since writers are not subject to the same constraints of attention and short term memory as speakers, information can be more tightly packed in written texts. More morphologically elaborate vocabulary can be selected, clauses can contain
more constituents, many of these complex themselves, and sentences can be more elaborate syntactically, containing more overt coordination and embedding. Of course since intonation is not available to guide the reader through this more elaborate structure, particles appear more often to mark these structures overtly.

In addition to allowing experienced Mohawk writers to pack information more densely into texts, the luxury of time permitted them to recover many of the devices for structuring text inherent in the spoken language, in particular, morphological backgrounding of established or incidental information, noun incorporation, and pragmatic word order.

4. Conclusion

Differences between spoken and written Mohawk are the result of several related factors. As with any language, the shift to the written medium produces certain effects immediately. The writer is further removed from the audience, so reference must be more explicit; pronouns and deictic particles must be replaced by full nominals. The less intense personal engagement results in fewer emphatic and evidential particles.

Much as Latin literary traditions affected vernacular European writing, English literary traditions influenced Mohawk written style. Stylistic devices that had evolved over centuries were transferred immediately to the new written language. The Mohawk writers were accustomed to reading and writing English, and many aspects of this style appeared spontaneously as soon as they began writing Mohawk. This influence probably also contributed to the increased use of particles where English would show determiners or conjunctions, the loss of Mohawk discourse particles with no English counterparts, the higher proportion of nouns, perhaps the reduced use of incorporation, and the tendency toward SVO word order.

Finally, early writers, struggling with the spelling of every word, could devote less attention to text structure than speakers. Probably for this reason as well, they made less use of discourse particles, of the backgrounding function of morphologization, and of pragmatic word order than they would in speech.

The combination of these factors, along with the loss of intonation, resulted in the disappearance of many of the traditional cues to textual organization from early written texts. As writers became more experienced, however, some of these cues reappeared, and certain advantages of the written medium were exploited to develop a uniquely Mohawk written style. With the luxury of time, writers could pack information densely, but also select just the right words, often words of considerable morphological complexity, and take advantage of the special pragmatic effects of incorporation and word order offered by Mohawk.

Processing written Mohawk texts will probably never be easy for most readers. Few people spend their days surrounded by the written Mohawk word. Breakfast tables may never sport cereal boxes covered with written Mohawk, and daily newspapers in Mohawk may never be delivered to the door. Many Mohawk words are long, difficult to take in at a glance. Because a single word can be so complex, many words recur somewhat less often than the shorter words of some other languages. Each of these factors plays a role in the relative ease of word recognition. Nonetheless, the written medium is in many cases providing the luxury of time to writers to develop a rich, distinctively Mohawk style, full of many of the special devices unique to that language.

* The orthography used here is that now used in the schools at Kahnawake. For the most part, symbols correspond to their IPA values. Obstruents are automatically voiced before sonorants. Mohawk contains two nasalized vowels, [ə] written en, and [ʊ] written on before consonants or word-finally. The apostrophe ' represents glottal stop. The vowel i represents the glide [ʊ] before vowels and the usual high front unrounded vowel elsewhere. The acute accent ' represents high tone in short syllables and rising tone in long syllables, indicated by .: The grave accent, which occurs only in long syllables, represents falling tone. I am especially grateful to Margaret Edwards, of Ahkwesasne, and Annette Jacobs, of Kahnawake, for sharing their expertise about their language, and to the other speakers and writers whose work is cited in this text.

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