BEYOND THE CORE: TYPOLOGICAL VARIATION IN THE IDENTIFICATION OF PARTICIPANTS

MARIANNE MITHUN
UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Languages vary not only in their argument categories but also in the relative burden borne by core arguments, on the one hand, and obliques or adjuncts, on the other, in conveying information. Here it is shown that the kinds of participants identified in many languages with oblique nominals or adjuncts, such as companions, recipients, beneficiaries, instruments, sources, and goals, are usually identified by alternative structures in Mohawk. The only referents introduced by nominal adjuncts are places and times, entities that can characterize whole situations. The roles of all participants are specified in or inferable from the verb: in pronominal prefixes, applicative suffixes, incorporated nouns, directional prefixes, and the semantics of the verb stem. It will be seen that such head-marking structure is more than a simple formal variable. It can have important implications for the lexicon and for issues in language documentation.

[KEYWORDS: argument structure, obliques, adjuncts, Mohawk, Iroquoian]

Basic sentence structure is generally assumed to consist of a predicate and one or more constituents identifying participants. The participants are often classified into two groups, though the labels for the groups and the criteria for classification vary across the literature. Common labels for the two are core/oblique, primary/secondary, nucleus/satellite, argument/adjunct, and complement/adjunct among others. In some traditions, the primary criterion for the distinction is formal marking: core arguments may be unmarked, for example, while obliques are distinguished by case suffixes, enclitics, determiners, or adpositions. In other traditions, the primary criterion is subcategorization: core arguments are those that are required by the verb, while adjuncts are optional. Our focus here is on neither terminology nor definitions but rather on systematic patterns of cross-linguistic variation. We know that languages differ in the formal robustness of their reflection of the distinction. Here we consider another kind of difference: the relative burden borne by the two kinds of constituents in conveying information.

Although we know that categories like subject and object are not purely semantic, there is a general assumption that semantic agents and patients tend to be represented as core arguments, while companions, beneficiaries, instruments, sources, goals, locations, and times tend to be represented as non-core. Of course, languages often provide devices for altering argument structure for syntactic and discourse purposes, such as passive, antipassive,
and applicative constructions. But if we compare spontaneous speech in various languages, we find substantial cross-linguistic differences in the distribution of information over core and non-core constituents. Certain kinds of participants that are usually categorized as core arguments in English, for example, are obligatorily categorized as obliques in Eskimo-Aleut languages, because unidentifiable (indefinite) semantic patients of transitive events are never permitted core status. In the Yup’ik sentence in (1), the motor is necessarily oblique, and the verb is grammatically intransitive.

(1) Central Alaskan Yup’ik: Elizabeth Ali, speaker (personal communication)

\[
\begin{align*}
\text{Kiputellinilria} & \quad \text{levaa-mek} \\
\text{kipute-lini-ria} & \quad \text{levaa-mek} \\
\text{buy-apparently-INTRANSITIVE.PARTICIPIAL.3.SG} & \quad \text{motor-ABLATIVE} \\
\text{he apparently bought} & \quad \text{motor}
\end{align*}
\]

‘He apparently bought a motor’.

By contrast, in a number of other languages, many of them in the Americas, spontaneous speech shows a much smaller proportion of obliques or adjuncts than might be expected on the basis of languages like English.

1. The Iroquoian languages. In the Iroquoian languages of eastern North America, core arguments are easy to distinguish on morphological grounds. They are identified by pronominal prefixes in every verb. The pronominal prefixes are present whether coreferential nominals are also present in the clause or not. In (2) below, the intransitive verb ‘go’ contains pronominal reference to its single argument ‘she’, while the transitive verb ‘mind, look after’ contains pronominal reference to its two arguments ‘I’ and ‘him’. Examples cited here are drawn from Mohawk, spoken primarily in present-day Quebec, Ontario, and New York State, but the patterns are typical of all of the languages in the family.¹

¹I am grateful to the Mohawk speakers from Kahnawà:ke, Kanhehsatà:ke, Akwesĩhsañ, Ohswé:ken, and Thaientanë:ken who have generously contributed their time and expertise. Three anonymous reviewers also provided useful discussion. All of the material cited here that is attributed to specific Mohawk speakers came from unscripted, connected speech, primarily conversation, unless otherwise noted. I have benefited especially from discussion with Kaia’titãkhe’ Jacobs, of Kahnawà:ke, Quebec. The Mohawk is presented in the orthography approved by a consortium of all of the communities and currently in use in schools. It is essentially phonemic. Obstruents are automatically voiced before voiced segments. Glottal stop is represented with an apostrophe (‘). The two nasalized vowels are represented with digraphs: en for a nasalized caret and on for a high, back nasalized [u]. The other vowels i, e, a, o have their approximate IPA values. A colon (:) marks vowel length. An acute accent (') represents stress with high tone (on short vowels) or rising tone (on long vowels). A grave accent (á) represents stress with falling tone. In the segmented lines, epenthetic vowels are in small caps: I, A, E.
Most examples appear in a multi-line format. The second line of these examples shows a morphological segmentation of the material; the third gives the gloss of each morpheme; the fourth provides a word-by-word translation; and the final line is a free translation.

Abbreviations for glosses are as follows: AGT (grammatical) AGENT; APPLC APPLICATIVE; AUG AUGMENTATIVE; BEN BENEFECTIVE; CIS CISLOCATIVE; DIM DIMINUTIVE; DIR DIRECTIONAL; DIST DISTRIBUTIVE; DU DUAL; DV DUPLICATIVE; EXCL EXCLUSIVE; FACT FACTUAL; FI FEMININE INDEFINITE GENDER; FUT FUTURE TENSE; HAB HABITUAL ASPECT; INCL INCLUSIVE; INSTR INSTRUMENTAL; IR STEM JOINER; M MASCULINE GENDER; MID MIDDLE; N NEUTER GENDER; NMRZ NOMINALIZER; NS NOUN SUFFIX; P PERFECTIVE ASPECT (traditionally termed the Punctual by Iroquoianists); PAT (grammatical) PATIENT; PL PLURAL; PRT PARTITIVE; PURP PURPOSES; REP REPETITIVE; SG SINGULAR; ST STATIVE; TRL TRANSLOCATIVE. Affixes are linked to stems with hyphens (-) and enclitics with equal signs (=).
There are no case markers on nouns or noun phrases here, and no real counterparts to the adpositions of languages like English. Word order does not distinguish syntactic relations or semantic roles. To identify the kinds of participants typically identified in oblique nominals or adjuncts in other languages, speakers have a variety of structural alternatives at their disposal.

2. Accompanying persons and objects. In many languages, companions and associated objects are typically identified in oblique constituents formed with adpositions meaning 'with', oblique determiners, or comitative or associative case markers. In Mohawk, accompanying persons or objects are often introduced instead in clauses of their own.

(3) Mohawk companion: Watshenní:ne’ Sawyer, speaker (p.c.)

\[ \text{Ó:nen} \]
\[ \text{at.the.time} \]

\[
\begin{align*}
akhsát\text{ó} & : \text{then’}, & \text{entierd’then’}, \\
ak-hsot & = \text{ha} & \text{en-tie-ra’then’} \\
& \text{FUT-CIS-FL.G-AGT-climb-P} & \text{she will climb up here} \\
\text{my grandmother} & & \\
\text{at.the.time} & & \\
\text{thó:ne} & \text{ó:nen, tsik} & \text{eniati:rente’}. \\
\text{tho=hne} & \text{onen} & \text{t} = \text{k} \\
\text{there=that} & \text{now} & \text{as=only} \\
\text{then} & \text{now} & \text{just} \\
\text{we two} & \text{will sleep together} \\
\text{‘Then my grandmother would come upstairs and sleep with me’}. \\
\end{align*}
\]

(4) Mohawk accompanying object: Josephine Kaieríthon Horne, speaker (p.c.)

\[
\begin{align*}
\text{Tó} & \text{kaní’ oskenón:ton’} & \text{enié:rihte’}, \\
\text{tòka=hní’ o-skenonton’} & \text{en-ie-ri-ht-E’} \\
\text{maybe=too NEUTER-deer} & \text{FUT-FL.G-AGT-be.cooked-CAUSATIVE-P} \\
\text{perhaps deer} & \text{she will fry} \\
\text{ne: tenia} & \text{kwatatíehsten’} \\
\text{ne: t-en-iakwa-atat-iehst-en-’} & \text{DUPLICATIVE-FUT-1.PL.EXCL-AGT-REFLEXIVE-mix-BEN.APPLIC-P} \\
\text{that} & \text{we will combine for ourselves} \\
\text{ne} & \text{kana’tarokhón:we} \\
\text{ne} & \text{ka-na’tar-o-k=onwe} \\
\text{the NEUTER-bread-be.in.water-CONTINUATIVE=genuine} \\
\text{the real bread} \\
\end{align*}
\]
VARIATION IN THE IDENTIFICATION OF PARTICIPANTS

We would serve the cornbread with venison and gravy.

Of course, languages like English allow speakers to introduce accompanying persons or objects in separate clauses as well: My grandmother would come upstairs, and then we would sleep together. This possibility can make the absence of oblique comitative and other associative constructions in languages like Mohawk that much easier to overlook.

Mohawk speakers can also introduce companions as components of dual or plural core arguments. The companion is identified in an independent noun, but the pronominal prefix refers to the whole group.

(5) Mohawk core companion: John Maracle, speaker

\[
\begin{align*}
t &\text{seni} &\text{hthar} &\text{onnion'} \\
t &\text{en} &\text{seni} &\text{hthar} &\text{onnion'} \\
\text{DV-FUT-2.DU-talk-DIST-P} &
\end{align*}
\]

\[
\begin{align*}
\text{kanien'} &\text{kehd:ka} \\
\text{ka-nien'} &\text{'ke=haka} \\
\text{N-flint=place=resident} &
\end{align*}
\]

\[
\begin{align*}
\text{tsio'k} &\text{nahd:ten'} \\
\text{tsi=o'k} &\text{nahd:ten'} \\
\\text{so=just} &\text{something} \\
\text{all sorts of} &\text{things} \\
\text{ensenihronnion'.} \\
\text{en-seni-hron-nion'} \\
\text{FUT-2.DU-say-DIST-P} \\
\text{you two will say}
\end{align*}
\]

‘When you talk with a Mohawk, you can say all sorts of things’.

3. Recipients and beneficiaries. Recipients and beneficiaries are identified in many languages in oblique phrases with dative case markers or adpositions meaning ‘to’ or ‘for’: ‘I gave it to the mailman’, ‘I bought it for my mother’. In Mohawk, such persons are typically cast as core arguments. No more than two arguments can be specified within the Mohawk pronominal prefix complex. In situations involving three sets of participants, semantic agents and recipients/beneficiaries, which are usually human or at least animate, take precedence over semantic patients. The system is thus akin to what has been termed a primary object language (Dryer 1986), though the Iroquoian pronominal prefix system shows a grammatical Agent/Patient pattern rather than a Subject/Object pattern (Mithun 1991).
Some verb roots, such as 'give', 'lend', and 'feed', have semantic recipients or beneficiaries as core arguments.

(6) Mohawk recipient as core: Rita Konwatsi’tsaién:ni Phillips, speaker (p.c.)
\[
\text{Kati’ nöö:wa’ aietshiiatera’swá:wi.}
\]
\[
kati’ n=onhwä’ aaietshii=ate-ra’swawi
\]
just the=maybe OPTATIVE-FLG/2.PL-MIDDLE-luck-give.STATIVE
just maybe she might have luck given you

'She might have given you good luck'.

(7) Mohawk recipient as core: Karihwéñhawe’ Lazore, speaker (p.c.)
\[
\text{Kon’serehtanihëne’.}
\]
\[
\text{kon’-sere-h-t-A-nih-en-hne’}
\]
1.SG/2.SG-drag-NMZR-JR-lend-STATIVE-PAST
I car lent you

'I lent you the car'.

(8) Mohawk recipient as core: Watshenní:ne Sawyer, speaker (p.c.)
\[
\text{Wa’kehre’ enkhehnekanontë:n:ra’}
\]
\[
\text{wa’-k-ehr’ en-khe-hnek-A-nonten-hra’}
\]
FACT-1.SG.AGT-intend-P FUT-1.SG/3.PL-liquid-JR-feed-PURP-P
I thought I will go liquid feed them

ki:ken.

ki:ken this

this

'I thought I would give them some water'.

Additional verb stems with semantic recipients or beneficiaries can be created with robust derivational morphology. Added to the verb stem -karia’k ‘pay (a certain price)’, for example, a benefactive applicative suffix forms a new stem -karia’k-s- ‘pay (someone)’. Added to -hnekar- ‘serve (a drink)’, it yields -hnekar-hahs- ‘serve (someone) a drink’. Added to -nhotonkw- ‘open the door’, it yields -nhotonkw-ahsi ‘open the door for (someone)’.

(9) Mohawk benefactive applicative: Josephine Kairethon Horne, speaker (p.c.)
\[
\text{Ronaterihwahe:ron:ni në:ne}
\]
\[
\text{ron-ate-rihw-A-hseronni në:ne}
\]
M.PL.AGT-MIDDLE-matter-JR-make.STATIVE the one
they have agreed the
Hudson Bay Company   tsi   rotiniakhon
Hudson Bay Company   tsi   roti-niak-h-on
Hudson Bay Company   that  3.PL.PAT-marry-DISTR-DISTATIVE
Hudson Bay Company   that  their wives

enkonwatikaria’kse’.
en-kowan-kari-a’k-s-E’
FUT-3.PL/3.PL-price-hit-BEN.APPLIC-P
they will pay to them

‘The Hudson Bay Company agreed to pay their wives’.

(10) Mohawk benefactive applicative: Kaia’titákhe’ Jacobs,
speaker (p.c.)
Enwa-ton’
en-wa-ton-
FUT-NEUTER.AGT-MIDDLE-be.possible-P  INTERROGATIVE
it will be possible

enkatathnehkahse’
en-katat-hnek-A-r-hahs-E’
FUT-1.SG.AGT-REFLEXIVE-liquid-JR-set-BEN.APPLIC-P
I will liquid.set.for myself

‘May I serve myself liquid = May I have a cup of coffee?’

(11) Mohawk benefactive applicative: Mae Niioronha’ a Montour,
speaker (p.c.)
Wahonwanhotónkwahse’.
wa-honwa-ndo-ton-kw-A-hs-E’
FACT-FL.SG/M.SG-door-cover-REVERSIVE-JR-BEN.APPLIC-P
she door uncovered.for him

‘She opened the door for him’.

4. Instruments. In many languages, semantic instruments are usually
introduced as obliques: ‘I patched it up with tape’. Their oblique status is
signaled by adpositions (‘with’), oblique determiners, or instrumental case
markers. In Mohawk, instruments are usually introduced as a core argument
of an additional clause.

(12) Mohawk separate clause: Josephine Kaierfthon Horne,
speaker (p.c.)
Ne  sha’kaněnhsta
ne  sha’-ka-nenšt-at
the  COINCIDENT-NEUTER-corn-be.one
the  same corn
The absence of instrumental oblique nominals in languages like Mohawk can easily go unnoticed, since the multi-clause structure above is also possible in English: *We use the same corn when making soup*. At a certain point, however, wondering whether the lack of instrumental nominals in my experience with Mohawk was simply an accident, I asked a skilled speaker how she would translate ‘He eats his peas with a spoon’. This speaker has an especially fine sense of what is said in the language and what is not. Her answer was revealing. She replied, “Well, you know we generally use the verb *satshó:ri* just for soup.” She saw my request as a question about verbal semantics. (The stem *-atshori* is indeed used for slurping liquids like soup.) I amended my request to ‘He eats his peas with a knife’. Her quick translation broke the model into two clauses.

(13) Mohawk elicited translation: Kaia’titákhe’ Jacobs, speaker (p.c.)

\[
\begin{align*}
\text{A:share} & \quad \text{wà:ratste'} \\
\text{a'shar-'} & \quad \text{wa-hra-at-hst-E'} \\
\text{knife-N.S} & \quad \text{FACT-M.SG.AGT-MIDDLE-use-P} \\
\text{knife} & \quad \text{he used} \\
\text{tsi} & \quad \text{wa'thatskà:hon’}. \\
\text{tsi} & \quad \text{wa’-t-ha-at-ska’hon’-'} \\
\text{as} & \quad \text{FACT-DUPLICATIVE-M.SG.AGT-MIDDLE-dine-P} \\
\text{as} & \quad \text{he ate}
\end{align*}
\]

‘He ate his peas with a knife’.

Semantic instruments can also be introduced in a second kind of construction in Mohawk: as a core argument of a derived applicative verb. Mohawk contains several applicative suffixes that add an instrument to the set of core arguments.
(14) Mohawk instrumental applicative: Cecelia Peters, speaker (p.c.)

\[\text{Thó nón:} \]
\[\text{tho n=0-onwe} \]
\[\text{there the=N-place} \]
\[\text{that place} \]
\[\text{nihontekà:thahkwe'...} \]
\[\text{ni-hon-ate-ka-'t-ha'-hkw'è} \]
\[\text{PARTITIVE-M.PL.AGT-MIDDLE-burn-CAUS-HAB-PAST} \]
\[\text{that they used to make a fire} \]
\[\text{Tanon' ne: ni'} \]
\[\text{tanon' ne: ohni'} \]
\[\text{and it is too} \]
\[\text{iakwatenonhsa'tariha' táhhwa'.} \]
\[\text{iakwa-ate-nonhs-a'tarih-A-'t-A-hkw'-ha'} \]
\[\text{1.EXCL.PL.AGT-MIDDLE-house-hot-JR-CAUSATIVE-JR-INSTR.AP} \]
\[\text{PLIC-HAB} \]
\[\text{we caused our house to be hot with it} \]

'There they used to build a fire. And we heated the house with it too'.

(15) Mohawk instrumental applicative: Josephine Kaierfthon Horne, speaker (p.c.)

\[\text{Ôniehte' khok rononhéhkwen.} \]
\[\text{o-nieht-' khok ron-onnhe-khw-en} \]
\[\text{NEUTER-snow-NS only M.PL.PAT-live-INSTR.APPLIC-STATIVE} \]
\[\text{snow only they were living on it} \]

'They were surviving on snow'.

(16) Mohawk instrumental applicative: John Maracle, speaker

\[\text{Éthò:ne akwé: ne onkwehonwehèha'} \]
\[\text{e-thohne akwé:kon ne onkwe=honwe=hneha'} \]
\[\text{there all the person=genuine=style} \]
\[\text{the Indian language} \]
\[\text{ratiwennotáhkwen.} \]
\[\text{rati-wenn-ot-A-hkw-en} \]
\[\text{M.PL-WORD-stand-JR-INSTR.APPLIC-STATATIVE} \]
\[\text{they word stood with it} \]

'They spoke in Indian'.

Neuter arguments are not represented overtly in Mohawk pronominal prefixes unless there is no other argument present. In an intransitive verb with just a neuter agent or patient, the single argument is identified by a pronominal prefix: ka-hôn:tsi ‘it is black’, iô-tken ‘it is rotten’. In a transitive verb, however, such as rati-wennotāhkwen ‘they word.stood.with it’ above (‘they spoke.in it’), the pronominal prefix rati- ‘they/it’ has the same form as that used in intransitives such as rati-tákhe ‘they are running’. There is no extra morpheme corresponding to ‘it’. Since semantic instruments are typically neuter, we might wonder whether they are in fact core arguments of the instrumental applicative verbs, since they are not mentioned in the pronominal prefix. Evidence of their core status comes from the coining of lexical nominals. Terms for objects are often formed in Iroquoian languages directly from morphological verbs, without nominalizing morphology. Such deverbal referring expressions can designate the activity predicated by the verb, or they can designate a core argument of the verb, as in (17).

(17) Mohawk lexical nominals with verbal morphology

ra’swáththa’ ‘he extinguishes’ = ‘fireman’
waterennótha’ ‘it stands up songs’ = ‘radio’
eiía:tare’ ‘one is bodily in it’ = ‘photograph’

Nominals are coined especially frequently from instrumental applicative verbs, because speakers often name introduced items in terms of their functions. The fact that these words are used to refer to instruments indicates that the instruments are indeed core arguments of the verb.

(18) Mohawk instrumental verbs as lexicalized nominals

iehiatónkhwa’ ‘one writes with it’ = ‘pen, pencil’
iehio’thiéónkhwa’ ‘one sharpens with it’ = ‘pencil sharpener’
ieksokewáththa’ ‘one dish-wipes with it’ = ‘dish towel’
iontko’tsonnià:tha’ ‘one hairstyle-makes with it’ = ‘hairbrush’

The term “noun” is reserved here for words with specific internal morphological structure, like öniehe’ ‘snow’ (o-nieht-E’ NEUTER-SNOW-NOUN.SUFFIX). The term “nominal” is used for words that are used as referring expressions, whatever their internal structure. Nominals may be morphological nouns like ‘snow’; they may be forms overtly derived from morphological verbs with nominalizing morphology like kai’a’takenheiönhtshera’ ‘paralysis’ (ka-ia’t-A-kenhei-onhtshEr-a’ NEUTER-body-JR-die-STATITIVE-NOMINALIZER-NOUN.SUFFIX, literally ‘that which has physically died’); or they may be morphological verbs without additional morphology, like ra’swáththa’ ‘fireman’ (ra-a’swa-hi-ta’ M.SG.AGENT-go.OUT-CAUSATIVE-HABITUAL, literally ‘he extinguishes’).
Semantic instruments can be identified in a third way in Mohawk: with an incorporated noun. As in other compounding, the semantic role of the incorporated noun stem is not specified: the noun simply indicates the involvement of a kind of entity. Incorporated nouns in Mohawk most often represent semantic patients, because they can narrow the semantic scope of the verb in useful ways, but they can also evoke kinds of instruments and locations. In some cases their semantic role may be inferred from context, but often there is little basis for seeing one role over another. The verb -rh-, for example, incorporates nouns referring to a substance with which something is coated, such as paint, butter, or even plastic (expressed with the noun root -hneht-, the term for ‘pitch’). One might thus interpret the incorporated noun as an instrument.

(19) Mohawk incorporation of instrument

(19a) wakérhon

\[
\text{wake-rh-on} \\
1.\text{SG.PAT-coat-STATIVE}
\]

‘I have coated it’.

(19b) wakkon’tsherárhon

\[
\text{wak-kon’tsher-\text{-}a-rh-on} \\
1.\text{SG.PAT-paint-coat-\text{-}STATIVE}
\]

I have paint-coated it

‘I have painted it’.

(19c) wakewistohserárhon ne kanà:taroro

\[
\text{wake-wistohsEr-a-rh-on} \\
1.\text{SG.PAT-butter-JR-coat-\text{-}STATIVE} \quad \text{ne} \quad \text{ka-na’tar-o} \\
\text{the NEUTER-bread-be.in.water} \quad \text{the} \quad \text{bread}
\]

‘I have buttered the bread’.

The verb root -rh- could, however, just as easily be translated ‘smear’, in which case the incorporated noun might be argued to represent a semantic patient. The Mohawk structure does not specify the semantic role. Further examples of incorporated nouns that could be interpreted as instruments are below, though there is no formal distinction among semantic patients, instruments, means, and locations.
(20) Mohawk incorporated instrument: Watshenni'ne Sawyer, speaker (p.c.)
kahserie' taneren'.
ka-hserie' t-anEren-
NEUTER-cord-tie.up-STATIVE
it is ___cord-tied
'It [a bundle] was tied up ___with a cord'.

(21) Mohawk incorporated instrument: Carolee Konwatien:se' Jacobs, speaker (p.c.)
tenkoniah'sirawen: 'eke'.
t-en-koni-ahsir-A-wen'ek-E'
DUPLOCATIVE-FUT-1.SG/2.SG-blanket-JR-wrap-P
I will ___blanket-wrap you
'I will ___wrap you up ___with/in a blanket'.

(22) Mohawk incorporated instrument: Kaia'titahkke' Jacobs, speaker (p.c.)
Tanoon' kaia'takerahs
tanon' ka-ia't-akr-ahs
and NEUTER.AGT-body-stink-HAB
and goat
rahsharin:e'
ra-hshar-in-e'
M.SG.AGT-leash-lead-STATIVE
he was ___leash-leading (it)
'And he was ___leading a goat ___with/on a leash'.

5. Place: location, source, goal. In many languages, locations, sources, and goals are identified in obliques marked with case suffixes, enclitics, determiners, or adpositions. In Mohawk, they can be identified in several ways. They are often introduced as a core argument in one clause, then carried over into subsequent discourse with deictic particles like eh or tho 'there' or verbal prefixes like the Translocative away, over there or the Cislocative here, there. To render the equivalent of 'He saw some fish in a log', the speaker in (23) used three clauses.

(23) Mohawk separate clauses: Sonny Edwards, speaker (p.c.)
Wahatkahtho'
wa-ha-at-kahtho'
FACT-M.SG.AGT-MIDDLE-see-P
he saw

ki:.. ki:ken
this this
Like the comitative and instrumental constructions described earlier, these multi-clause constructions have counterparts in English, which can make their systematic use easy to overlook. The two directional prefixes, the Translocative ‘away, over there’ and the Cislocative ‘hither, there’, are not arguments but rather adverbials. The two arguments of the verb ‘see’ in (23) above are ‘he’ and ‘the fish’. The single argument of the verb ‘climb’, seen earlier in (4) ‘My grandmother would come upstairs’, is the grandmother. The Mohawk verb -ra’ten ‘climb’ is always intransitive, unlike its English counterpart.

A place can also be introduced in Mohawk as an incorporated noun in one clause, then carried over into subsequent discourse by deictic particles and/or affixes.

(24) Mohawk place incorporated in separate clause: Minnie Hill, speaker

\[
\begin{align*}
\text{Ronnnonha} & \quad \text{thi:} \quad \text{Eatons} \\
\text{they} & \quad \text{that} \quad \text{Eatons} \\
\text{éh} & \quad \text{tahontenonhsón:ní’}. \\
\text{éh} & \quad \text{ta-hon-ate-nonhs-onni’}. \\
\text{there} & \quad \text{FACT.CISLOCATIVE-M.PL.AGT-MIDDLE-house-make-P} \\
\text{there} & \quad \text{they their building built} \\
\text{Énska} & \\
\text{énska} & \\
\text{one} & \\
\text{once} &
\end{align*}
\]
Places can also be introduced as the core argument of an applicative verb. Some old directional applicatives are very common in Mohawk, because they occur with extremely frequent motion verbs like ‘go’, though they are no longer productive. (In some of the other Iroquoian languages, phonological changes have obliterated most traces of the directional applicatives.) These applicatives add a source or goal to the set of core arguments of verbs describing directed motion.

(25) Mohawk directional applicative with source
(25a) *I:ien*'.
    *I:ien*'
    PROTHETIC-FI.SG.AGT-be.going-STATIVE
    ‘She is/was going’.

(25b) *Kordhne*
    *kora=hne*
    government=place
    Canada
    *ni-t-iakawé:non.*
    *ni-t-iakaw-e-n-on*
    PARTITITIVE-CISLOCATIVE-FI.SG.PAT-go-DIR.APPLIC-STATIVE
    there she has come from it
    ‘She came here from Canada’.

(26) Mohawk directional applicative with goal
(26a) *Wà:re*'.
    *Wà:re*'
    FACT-M.SG.AGT-be.going-STATIVE
    ‘He is/was going’.

(26b) *Tiohtià:ke* *wà:rehte*'.
    *Tiohtià:ke* *wà:rehte*'
    *Montreal* FACT-M.SG.AGT-go-DIR.APPLIC-P
    Montreal he went to it
    ‘He went to Montreal’.
Sentences containing verbs with directional applicatives must contain reference to a specific place, like the words for 'Canada' and 'Montreal' in (25) and (26).

Places can also be identified in Mohawk by incorporated nouns. Again, the incorporated noun is not a syntactic argument; it simply indicates the involvement of a kind of entity. Its semantic role remains unspecified, though it may be inferred from the meaning of the verb and the situation. The role of the noun meaning 'liquid' in (27), for example, can be interpreted as the source of motion from the meaning of the verb 'emerge'.

(27) Mohawk incorporated source: Sonny Edwards, speaker (p.c.)

\[ Tonsahahnekōtka'we'. \]
\[ t-onsa-ha-hnek-otka'w-e' \]
DUPLICATIVE-FACT.REP-M.SG.AGT-liquid-emerge-P

'He came back up out of the water'.

In many cases, however, the meaning of the verb does not lead to an interpretation of a specific semantic role. The incorporated 'palm' in (28) could be labeled a source or a goal, but no formal distinction is marked in the Mohawk.

(28) Mohawk incorporated source or path: Joe Tiorhakwēnte' Dove, speaker (p.c.)

\[ lāh tewatiše:sen \]
\[ iah te-w-at-ies-en \]
not NEGATIVE-NEUTER-MIDDLE-be.easy-STATIVI
not is it easy
\[ taionkwahsiōhsere'. \]
\[ t-aa-ionkwa-hsi-ohser-E' \]
DUPLICATIVE-OPTATIVE-1.PL.PAT-palm-slip-P would it hand-slip us

'It's not easy for it to slip from/through our hands = for us to lose our grip'.

(29) Mohawk incorporated goal: Josephine Kaieríthon Horne, speaker (p.c.)

\[ Wahshako 'nikonhráta' \]
\[ wa-hshako'nikonhr-a-t'a-' \]
FACT-M.SG/M.PL-mind-JR-insert-P the Tekanwēta
he mind inserted them the Deganawida
\[ tánon' Aïê:wate' \]
\[ tánon' Aïê:wate' \]
and Hiawatha
and Hiawatha
nahianitiohkón:ní
ne aa-hi-an-itiohk-onni-
the OPTATIVE-M.DU.AGT-MIDDLE-group-make-P
for them to group make

ne Kaianere'kó:wa.
ne ka-ianEr-e'=kowa
the NEUTER-law-NS=AUG
the great law

‘He inspired Deganawida and Hiawatha to organize the League’.

Places may also be evoked as semantic features of verb roots. Some verbs contain an indication of location or direction as an inherent part of their meaning. There is, for example, a verb root -o ‘be in liquid’, which forms the basis of several derived stems.

(30) Mohawk verb stems involving water
(30a) -o- ‘be in liquid’
    -o-hw- ‘put in liquid’ (with CAUSATIVE-hw), ‘immerse’
    -o-kw ‘take out of liquid’ (with REVERSIVE-kw), ‘fish out’

(30b) Wa’d:kohe’
    wa’-iak-o-hw-E’
    FACT-FLSG,AGT-be.in.liquid-CAUSATIVE-P
    she put it in liquid = she immersed (it)
    ‘She put it in water’.

Another verb root -nhont- means ‘having in the mouth’.

(31) Mohawk verb stems involving the mouth
(31a) -nhont- ‘have something in mouth’
    -nhonta’ ‘put something into mouth’

(31b) Wa’kénhonte’.
    wake-nhont-E’
    1.SG.PAT-have.in.mouth-STATIVE
    ‘I have it in my mouth’ (cigarette, pencil sticking out that one is chewing on).

(31c) Wa’khenhónta’.
    wa’-khe-nhont-a’
    FACT-1.SG/3-have.in.mouth-CAUSATIVE-P
    ‘I put it into her mouth’.

In modern Mohawk, the stem -nhont- ‘have in mouth’ is no longer segmentable. There is evidence, however, that it was originally formed from the verb
root -ont- 'stick out, be attached' with an incorporated noun root -nho-. This noun root is not used in the modern language with the meaning 'mouth', but it does resemble the noun root -nhoh- that serves as the basis of the noun ka-nhoh-a' 'door' (NEUREN-door-NOUN.SUFFIX). It also matches an element of the verb se-nhoh-ton 'close the door', which appears to have been formed by incorporation of a noun root -nho- into the verb -ton 'cover': 2.SG.AGT-opening-cover. The modern verb root -nhont- can now incorporate another noun.

(32) Mohawk 'mouth' verb with incorporated noun: Joe Awenhráthen

Deer

Iáh wi’ tehatikwenie's
iáh wahi’ te-hati-kweni-e's
not TAG NEGATIVE-M.PL.AGT-be.able-HAB
not you see were they able

akonwarístanhont’a’
a:-konwar-rist-nhont-’a-
OPTATIVE-3.PL/ZOIC.SG-metal-have.in.mouth-CAUSATIVE-P
they would metal-insert.into.mouth her

ki: akohsá:tenhs.
ki:ken ako-hsaten-hs
this FI.PAT-carry.on.back-HAB
this horse

'They weren’t able to get the bit into the horse’s mouth, you see'.

6. Nominal adjuncts. So far, we have seen that the participants typically identified in oblique or adjunct nominals in other languages—namely, companions, associates, recipients, beneficiaries, instruments, sources, goals, and locations—are expressed in alternative structures in Mohawk: as core arguments of simplex verbs, as core arguments of applicative verbs, as components of core arguments, as incorporated nouns, as directional affixes, or as semantic elements of verb roots. Independent nominals that are neither core arguments nor incorporated do occur, however, to identify places.

(33) Mohawk source nominal: Wilfred Jaimison, speaker

Michigan tahahtén:ti’.
Michigan ta-ha-ahtenti-’
place-name CISLOCATIVE-M.SG.AGT-depart-P
Michigan he departed this way

‘He came from Michigan’.
(34) Mohawk goal nominal: Joe Tiorahkwén:te' Dove, speaker

\begin{align*}
Tseià:ta & \quad ki:ken, \\
\text{ts-ie-ia't-at} & \quad ki:ken \\
\text{REP-FL.AGT-body-be.one.STATIVE} & \text{this} \\
\text{one woman} & \text{this} \\
\text{Sharhd:'on iahshakot'eron'.} & \\
\text{Sharhd:'on i-a-hshakot-i'teron-'} & \\
\text{place-name TRANSLOCATIVE-FACT-3.PL/F.SG-take-P} & \\
\text{Chateauguay} & \text{they took her away} \\
\end{align*}

‘They took this one woman to Chateauguay’.

(35) Mohawk location nominal: Joe Awenhráthen Deer, speaker

\begin{align*}
\text{Thós} & \quad \text{nonkwá:} \\
\text{tho} & \quad \text{se’s} \\
\text{there} & \text{formerly} \\
\text{there} & \text{formerly} \\
\text{tienákere’} & \text{Kanón:no.} \\
\text{1-ie-naker-e’} & \text{New York City} \\
\text{CISLOCATIVE-FL.SG.AGT-reside-STATIVE} & \\
\text{over there} & \text{she resides} \\
\end{align*}

‘She used to live over there in New York City’.

These place nominals are the closest structures in Mohawk to obliques. The sentences in (33), (34), and (35) would be acceptable without them: ‘He came’, ‘They took her away’, ‘She used to live there’. Many of these words show one of a small set of endings (Mithun 2001).

(36) Recurring endings on place nominals

\begin{align*}
=(\ddot{a;}ke & =hne =akta’ =akon =okon \\
=(a)ti & =then =kehson =konhson \text{ etc.} \\
\end{align*}

At first glance, these endings might be taken for locative case markers. Several facts, however, indicate that they do not represent inflectional case. Apart from the pair \(=(a)ke=hne\), the various endings listed in (36) are not phonologically or lexically conditioned alternants: different endings can be attached to the same nominal. The different endings do not distinguish the roles of the nominals in the predication, that is, the relation between the place and the event or state. Nominals carrying the ending \(=ke\), for example, can designate sources, goals, or locations. (When a stressed syllable ends in glottal stop, the tone is dragged down and the glottal disappears, leaving vowel length.)
(37) Inflectional case?

Karonhi:a:ke nithawé:non. ‘He came down from heaven’.
Awèn:ke ieniá:kohwe’. ‘She will put it into the creek’.
Ahskwà:ke nitskote’. ‘They’re sitting on the porch’.

The endings are derivational nominalizers that are added to nominals (whatever their internal morphological structure) to create terms for places. The various endings create terms for different points or areas in relation to the base. The most general is =-(a)’ke/=hne ‘place’. Others are =akta ‘place near’, =(a)kon ‘place inside’, =okon ‘place under’, =ti ‘place beyond’, =ihen ‘place in the middle of’, =kehson ‘place through or around’, and =konhson ‘place among’. These endings are an integral part of many place-names.

(38) Some place-names with place nominalizers

O’seronni’onwè:ke ‘France’ (‘original ax-maker place’)
Onhontsiakaia:ne ‘Europe’ (‘old country place’)
Ranatakariáhsne ‘Washington’ (‘town destroyer place’)

They are word-formation devices rather than obligatory inflectional case markers. Many place-names do not contain any of them.

(39) Some place-names without place nominalizers

Aterónto ‘Toronto’ (‘log in water’)
Kanà:tso ‘Ottawa’ (‘pail in water’)
Kaniatario:io ‘Lake Ontario’ (‘beautiful lake’)

The derivational nominalizers remain in words for places even when these nominals are functioning as core arguments. The fact that the markers do not specify syntactic function can be seen by comparing the sentences below. The derived place nominal awèn:ke, literally ‘body.of.water=place’, functions as a core argument in (40a). It could be the answer to a question like Nahò:ten’ enhsaten’nikonhratsheke’ ‘What will you guard?’ (with appropriate shift in word order for pragmatic purposes). The same word awèn:ke locates a state in (40b), specifies a source in (40c), and identifies a goal in (40d), with no change in form. (The term awèn:ke is used for bodies of water like lakes, rivers, and ponds, rather than for water coming out of a well or faucet, or water in a cup. The speaker was referring to the Saint Lawrence River.)

(40) Mohawk awèn:ke ‘place at a body of water’: Sonny Edwards, speaker (p.c.)

(40a) Core argument

I:’i nè:’e enkaten’nikonhratsheke’
i:’i nè:’e en-k-aten’-nikonhr-à-rat-hs-ek-E’
I it is FUT.1.SG.MIDDLE-mind-JR-put.on-HAB-CONT-P
I it is I will put my mind on it continually
nawèn:ke .
ne awen=’ke
the=water=place
the water place

‘I will continue to guard the water’.

(40b) Location
Nè: iá:ken’ ne tsi nèn:we’
it is one says the to ever
awèn:ke enhen’teròn:take’.
awen=’ke en-ha-i’terion’t-ak-E’
water=place FUT-M.SG.AGT-reside-CONTINUATIVE.P
water place he will live

‘And so, they say, he will live in the water forever’.

(40c) Source
Enskatkonhsotwhsi’
en-s-k-at-konhs-otahsi’
FUT-REP-1.SG.AGT-MIDDLE-face-appear-P the water=place
nawèn:ke; ne awen=’ke
I will show my face again the water=place

‘I will reveal my face again from the water’.

(40d) Goal
Awèn:ke ni:’
awen=’ke ne i:’i
water=place the=myself
water place I myself

nienhènske’.
n-i-enhen-s-k-e’
PARTITIVE-TRANSLOCATIVE-FUT-REP-1.SG.AGT-go-P
I will go back there

‘I will return to the water’.

Further examples of place nominals functioning as core arguments can be seen in the excerpts from conversation below.

3In part because of the absence of case marking, the precise syntactic and semantic relations of some of these forms could be interpreted differently. One could argue, for example, that if the criterion for core argument status is obligatory, the location in (40b) ‘He will live in the water forever’ is a core argument, since the verb ‘reside, dwell, live’ normally occurs with a specification of place. One could also argue that the semantic role of the water in (40c) ‘I will reveal my face again from the water’ is vague, indeterminate between location and source. It is listed here as source simply on the basis of the translation given by the speaker.
(41) Place nominals as core arguments: K. Nicholas and S. Phillips, speakers (p.c.)

Kanerahtená:wi Nicholas

Ne: ki' wá:kehre'
ne: ki' wa'-k-ehr-E'

it is in fact FACT-1.SG.AGT-want-P
it is in fact I wanted

akonri'wanón:tonhse',
a:-kon-ri'wanonton-hs-E'
OPTATIVE-1.SG/2.SG-ask-BEN.APPLIC-P

I would ask you

Kanehsatà:ke iehsienté:ri se' wahi'...
ka-nehsat=a'ke ie-hs-ienteri se' wahi'
N-X=place TRL-2.SG.AGT-know indeed TAG
(place-name) you know it there indeed right?

'As a matter of fact, what I wanted to ask you was whether you know Kanehsatà:ke'.

Sha'tenkenhátie' Phillips

Né: ki'k ni'
ne: ki'=k ne i:'i
it is in fact=just the 1
it is in fact just myself

kaná:tokon nitienté:ri...
ka-nat=a kon ni-k-ienteri
N-town=place.in PRT-1.SG.AGT-know
town I know it

'I myself just know the village'.

Kanerahtená:wi Nicholas

Khne káhehtà:ke?
ok=ne ka-heht=a'ke
and the N-field=place

'And what about the countryside [the surrounding area]?'

(42) Place as core argument: Mary McDonald, speaker (p.c.)

[...] tanon' tsi wahsekhró:ri' ka' nón:
tanon' tsi wa-hsek-hrori' ka' nón:we
and how FACT-2.SG/1.SG-tell-P what place
ohron: wakon
o-hronw=âkon
NEUTER-ditch=place.inside
ditch

ïtken?
t-t-ka-i
PROTHETIC-CISLOCATIVE-NEUTER.AGT-be.there

it was there

' [Remember how it was snowing] and how you told me where the ditch was? '

A further indication of the derivational status of the endings is the fact that the bases of many place nominals no longer exist in the language on their own. The analysis of awèn:ke 'water place' is clear, with its nominalizer = 'ke, but âwen' is not a word in Mohawk or in its close relatives, though its cognates still serve as the regular word for 'water' in the more distantly related Tuscarora and Cherokee.

As the products of derivation, place nominals do not always have meanings that are the exact sums of their components. Like all results of word-formation processes, they are derived for specific purposes, as labels for particular concepts. As lexical items, they can undergo further semantic development on their own.

(43) Some idiomatic terms for places
(43a) ohson'karâ:ke
o-hson'kar=a'ke
NEUTER-board=place
lit., 'board place' > 'floor'

(43b) aten'èn:rakon
aten 'enhr-Åkon
fence=place.inside
lit., 'place inside the fence' > 'yard'

(43c) wastonhronon':ke
waston-hronon'= 'ke
Boston=resident=place
lit., 'Bostonian place' > 'United States'

(43d) ohontsô:kon
o-onhontsi=okon
NEUTER-earth=place_under
lit., 'place under the earth' > 'cellar'
Furthermore, nominals derived with the locative nominalizers can serve as the input to further derivation.

(44) Place nominals as input to further derivation

\[
\begin{align*}
(44a) \quad \text{Place nominals as input to further derivation} \\
ka-\text{ronhi}=a'ke & \quad \text{ieronhia}=\text{kehró}=\text{non}' \\
\text{NEUTER-sky}=\text{place} & \quad \text{FI-sky}=\text{place}=\text{resident} \\
\text{'sky place, the heavens'} & \quad \text{'resident of the heavens'} > \text{‘angel'} \\
\end{align*}
\]

(44b) \[
\begin{align*}
\text{kanà:ton} & \quad \text{kanatakonhrón}=\text{non'} \\
\text{ka-nat}=\text{kon} & \quad \text{ka-nat}=\text{kon}=\text{hronon'} \\
\text{NEUTER-town}=\text{place}=\text{in} & \quad \text{NEUTER-town}=\text{place}=\text{in}=\text{resident} \\
\text{'town, village settlement'} & \quad \text{‘villagers'}
\end{align*}
\]

It appears that the locative nominalizers originated as verb roots that incorporated the noun stems they now appear with. In two of them, =\text{féhson} ‘here and there’ (as in \text{owisa}=\text{féhson} ‘[running] here and there over the ice’) and =\text{kónhson} ‘here and there among’ (as in \text{karha}=\text{kónhson} ‘[running] through the forest, among the trees’), one can identify a distributive suffix that usually appears on verbs. At present, however, most cannot be used on their own as predicates.

As in many languages, the constructions used to identify places are also used for times, whatever their syntactic role in the clause.

(45) Mohawk core time nominal: Josephine Kaieríthon Horne, speaker (p.c.)

\[
\begin{align*}
\text{Kanenna}=\text{ne} & \quad \text{ón}=\text{we'} \\
\text{ka-nenna}=\text{ne} & \quad \text{wa'}=\text{we'} \\
\text{NEUTER-autumn}=\text{place} & \quad \text{FACT-NEUTER.AGT-go-P} \\
\text{‘Autumn came [and it was time for the family to move on]’.}
\end{align*}
\]

(46) Mohawk adverbial time nominal: Josephine Kaieríthon Horne, speaker (p.c.)

\[
\begin{align*}
\text{Kenkwíte}=\text{ne} \\
\text{ka-ikwíte}=\text{hne} \\
\text{N-spring}=\text{place} \\
\text{tentitewakóha’.} \\
\text{t-en-t-ítewa-ko-ha’}.
\end{align*}
\]

DUPLICATIVE-FUT-CISLOCATIVE-1.INCL.PL.AGT-get-PURP-P

‘In the spring we will come back to get it’.
As noted, though independent nominals may designate places and times, there is no indication on the nominals themselves of their syntactic or semantic roles. Their semantic roles can usually be inferred from material in the verb. In some contexts, the directional prefixes found on verbs provide disambiguation. With directed motion verbs containing a Translocative ‘thither, away’, the place term is usually identified as the goal of motion by default, since the source is the deictic center, the present location.

(47) Mohawk Translocative motion verb: Watshenni:ne Sawyer, speaker (p.c.)

\[
\begin{align*}
\text{Sok } & n\text{on:w}a' \ tsi \ iehiatonhseratahkwå\text{å}tha' \\
\text{sok } & n\text{on:w}a' \ tsi \ ie-hiaton-hser-a-t'a-hkwåht-ha' \\
\text{so } & \text{now at } \text{FL.AGT-write-NMZR-JR-insert-INSTR.APPLIC-HAB} \\
\text{so } & \text{no at } \text{one puts letters in with it}
\end{align*}
\]

ionsaiakwakwåtho'.
\[i-\text{onsa-ia}k-wa-\text{kw}å-t-\text{ho}-'\]
TRANSLOCATIVE-REP.FACT-1.EXCL.PL.AGT-stop.by-P

we went back away

‘So then we went back to the post office’.

With motion verbs containing a Cislocative ‘hither’, place terms are conventionally identified as the source of the motion by default, since the goal is the present location.

(48) Mohawk Cislocative motion verb: Cecelia Peters, speaker (p.c.)

\[
\begin{align*}
\text{Ahkwesåhs} & \text{ne } tewakahtènkion. \\
\text{Ahkwesåhs} & \text{ne } \text{te-wak-ahtenti-on} \\
\text{place-name} & \text{CISLOCATIVE-1.SG.PAT-go-STATATIVE} \\
\text{place-name} & \text{I have come here}
\end{align*}
\]

‘I’ve come from Ahkwesåhsne’.

These examples also illustrate the contribution of verbal semantics to inferences about the semantic role of place and time nominals. Place words that occur with verbs like -en’n- ‘happen’ or -naker- ‘reside’ are likely to identify locations. Those that occur with verbs like -otka’w- ‘emerge’ or -niiontakw ‘remove’ are likely to designate sources. Those that occur with verbs like -ataweia’t- ‘enter’ or -ta’ ‘insert’ are likely to name goals. Those that occur with verbs like -atawenhrat- ‘put self over’ (as in wa’thatenhra-wen:rate’ ‘he fence put himself over’ = ‘he jumped over the fence’) are likely to name paths. The role of such inference can be seen in the passage below. There is no overt specification of the roles of the steeple or the beam, but they are easy to infer.
VARIATION IN THE IDENTIFICATION OF PARTICIPANTS

(49) Mohawk verbal semantics and inference: Josephine Horne, speaker (p.c.)

\[ \text{Wahatihwistantiontā:ko'} \]
\[ \text{wa-hati-hwist-A-niiont-A-kw-'} \]
\[ \text{FACT-M.PL.AGT-metal-JR-hang-JR-REVERSIVE-P} \]
they metal unhung (it)

\[ \text{ononhsatokenhtı:ke} \]
\[ \text{o-nonhs-A-tokenhtı='ke} \]
\[ \text{NEUTER-house-JR-be.holy=place} \]
Holy house place

\[ \text{kahnia'sà:ke;} \]
\[ \text{ka-hnia's=a'ke} \]
\[ \text{NEUTER.INALIENABLE.POSSESSOR-neck=place} \]
its neck place

\[ \text{karontā:ke} \]
\[ \text{wahatihwānerke'} \]
\[ \text{ka-ron=C-A-k=ke} \]
\[ \text{FACT-M.PL.AGT-tie-P} \]
log place they tied (it)

'The bell was taken (from) the church steeple and fastened (to) a beam'.

Places and times appear to be the only kinds of participants that are identified in nominal adjuncts in Mohawk. These are also the only participants that can characterize the situation as a whole, locating not just the action or state in space and time but all of the participants as well. It should be noted, however, that the difference in semantic scope does not correspond perfectly to differences in formal expression type: within the verb versus outside the verb as adjuncts.

7. Implications. As we have seen, most of the participants that would be identified in obliques or adjuncts in many languages are identified in other structures in Mohawk. Associated persons or objects, recipients, beneficiaries, instruments, and some places are identified in several different ways: as core arguments of simple verbs, as components of core arguments, as core arguments of derived applicative verbs, as incorporated nouns, with the aid of directional prefixes on verbs, or as part of the lexical semantics of the verb stem. Their roles are specified entirely within the verb. These are of course prototypical head-marking structures.
Structures like these are not uncommon cross-linguistically, particularly in the Americas. At first glance, they might be dismissed as simply an arbitrary formal alternative, as reflections of a single typological parameter without further interest. A closer look suggests that the formal locus of marking can have deeper implications.

Such marking can affect the ratio of predicates to nominals. When each participant is introduced as a core argument of its own clause, the predicate/argument ratio rises, along with the clause density. When participants are evoked by means of incorporated nouns or semantic elements of verb stems, there are fewer arguments and the predicate/argument ratio rises again.

The impact of such marking can affect the lexicon. In languages with robust oblique constructions, the inflectional case markers and/or adpositions that identify them tend to be fully productive or nearly so. There is an expectation that every noun will have forms in all cases or can be combined with every semantically appropriate adposition. If there is a noun meaning ‘styrofoam,’ for example, and the language has inflectional instrumental and locative cases, we would predict that there are forms meaning ‘with styrofoam’ and ‘in styrofoam.’ There is also an expectation that the combinations will, with perhaps only a few exceptions, be semantically transparent. If we know the meaning of a noun and the meaning of the instrumental case suffix, we can predict the meaning of the noun in the instrumental case. The properties of full productivity and semantic transparency that we expect of inflection do not characterize most of the alternatives to obliques that we find in languages like Mohawk: the applicatives, noun incorporation, and lexical semantics.

As we saw, Mohawk has three types of applicatives: benefactives, instrumentals, and directionals. The benefactive applicatives add an experiencer, recipient, or beneficiary to the set of core arguments. They occur with many different verb roots, but speakers have clear ideas of which benefactive applicative verbs exist and which could but do not. Based on the verb stem -'atenhno-ion ‘sell’ there is a benefactive applicative stem -'atenhno- ‘sell to’: Takhwatenhno- ‘Sell it to me!’. Based on the verb stem -'koha ‘go get’ there is a benefactive applicative stem -'koha- ‘go get for’: Takko-aha- ‘Go get it for me!’ Based on the verb -o'kwat ‘dig’, however, there is no verb ‘dig for’, though the combination would make sense. Digging for someone else’s benefit has simply not been a concept that speakers have thought name-worthy. The second set of applicatives, the instrumental applicatives, are highly productive but primarily within one domain: the creation of new terms for items described in terms of their functions. Still, speakers know the difference between those instrumental applicatives that are part of the language and those that could exist but are not in use. The third set, the direc-
tional applicatives, are ubiquitous, because they occur on highly frequent motion verbs like ‘go’, ‘run’, ‘fly’, ‘climb’, ‘chase’, ‘crawl’, and ‘carry’, but they are no longer productive at all. The differences in productivity between oblique case markers and applicatives reflect the fact that the recipients, beneficiaries, instruments, sources, and goals of some activities are highly relevant and frequently mentioned, while those of others are not.

Noun incorporation shows a similar range of productivity and transparency. Some verbs always incorporate, some usually do, some often do, some rarely do, and some never do. Some nouns occur only incorporated, some are usually incorporated, some are often are, and some never are. Speakers know which noun–verb structures exist and which could but do not. Stems containing incorporated nouns also show a continuum of semantic transparency, from fully transparent to highly idiomatic. The notion of giving someone good luck, for example, is expressed, not surprisingly, with the semantically transparent compound stem -ra’sw-awi- ‘luck-give’. Being bored or frustrated, on the other hand, is expressed with the less transparent stem -at-ri’en’t-a-kari- ‘MIDDLE-awareness-JOINER-bite’: tekaterien’ takariahs ‘I am bored’.

The lexicon shows even less predictability. We saw that Mohawk contains verb roots -o ‘be in liquid’ and -nhont- ‘have in mouth’. Though we may have some hunches, we cannot predict whether Mohawk will have other roots that include places as part of their meaning, nor, if they do, which places they will be.

Such differences have implications for language documentation. Though comitative, benefactive, and instrumental nominal adjuncts do not generally occur in unscripted Mohawk speech, they have, on occasion, appeared when speakers were trying very hard to render close, literal translations of English sentences. If documentation consists principally of elicited translations of isolated sentences from a contact language by strong bilinguals, differences like those discussed here can be obscured. Differences between the oblique structures in languages like English and the alternative structures of languages like Mohawk go beyond the locus of formal marking. They point to pervasive differences in the lexicon. The lexicon provides a repository of the concepts that have been expressed the most often over the course of development of a language. If we attempt to describe form without substance, that is, structure without the lexical material that carries it, we will be missing part of the essence of the language. Translations of isolated sentences from a contact language can certainly be helpful in getting one’s bearings at the outset, but they are usually lexically impoverished.

The rarity of comitative, associative, benefactive, and instrumental adjuncts in spontaneous Mohawk speech suggests not only that languages can
differ in the relative burden carried by core arguments and other constitu-
ents, but also that simple differences in form can lead to important differ-
ences in substance.

REFERENCES


_____ . 2001. Actualization patterns in grammaticalization: From clause to locative mor-