

## Chapter 6

### Verb stems and incorporation

The previous chapters dealt with various aspects of inflection in Meskwaki: chapter 3 on the inflectional categories and their realization on nouns and pronouns; chapter 4 on the internal organization of one of the verbal inflectional paradigms; and chapter 5 on the syntactic, semantic, and pragmatic functions associated with the twenty-six paradigms of verb inflection. Now that we understand how inflection functions in Meskwaki, we can turn our attention to the verb stems to which the inflectional morphology attaches, to the argument structure of the stems, and to processes which increase or decrease the valence of the verb. The valence changing processes will be the topic of chapter 7; the present chapter focuses on stem-internal structure (a necessary preliminary to the discussion in chapter 7) and on incorporation.

6.1. introduces the Algonquianist terminology of initial, medial, and final for the components of the verb stem, and explains the difference between primary finals and secondary finals (suffixes which derive stems from other stems). Examples of typical morphological patterns are provided here, though no attempt is made to provide a comprehensive survey of the full range of stem formation processes in Meskwaki (a book-length topic in itself). 6.2. discusses preverbs (phonologically independent words compounded with the verb stem) and shows that there is a close relationship in the lexicon between preverbs and stem-initial morphemes. 6.2. closes with a reconsideration of the incorporation of nouns into prepositions described in 3.5.2.

More productive types of incorporation are taken up in 6.3: noun incorporation (into verbs) in 6.3.1. and the incorporation of secondary predicates in 6.3.2. Claims regarding the degree to which incorporated items may play a role in the syntax are also reviewed in 6.3.1, where it is shown that there is evidence in Meskwaki for the syntactic nature of noun incorporation. Moreover, an even stronger case may be made that the incorporated secondary predicates of 6.3.2. function as separate syntactic entities.

#### 6.1. Stem-internal structure

A PRIMARY verb stem (i.e. a stem not derived from another stem via a secondary final) may contain up to three components, known as INITIAL, MEDIAL, and FINAL in the Algonquianist tradition. Examples of stems containing all three components are given below:

- (1) *paseše·naw-* 'graze O's ear by a shot' TA  
/pas + eše· + enaw/  
graze + ear + by.shooting<sub>TA</sub>
- (2) *mi·hkemehkwe·we·-* 'court women' AI  
/mi·hkem + ehkwe·w + e·/  
court + woman + do<sub>AI</sub>

In (1) the initial is *pas-* 'graze', the medial is *-eše-* 'ear', and the final is *-enaw-* 'by shooting'; in (2) the initial is *mi·hkem-* 'court', the medial is *-ehkwe·w-* 'woman', and the final is *-e-* 'do, have,

be'. The medial position of verb stems is used for incorporated nouns and classificatory elements, which will be discussed in detail in 6.3.1. The final morpheme of the stem determines the stem class (4.1): Animate Intransitive (AI), Inanimate Intransitive (II), Transitive Animate (TA), or Transitive Inanimate (TI). This is indicated in (1) and (2) by the subscripted label on the gloss of the final morphemes.

Primary verb stems may also be composed of an initial plus a final, with no medial morpheme:

- (3) se·kesi- 'be frightened' AI  
 /se·k + esi/  
 fright + stative<sub>AI</sub>
- (4) se·kim- 'frighten O with one's words' TA  
 /se·k + im/  
 fright + by.speech<sub>TA</sub>
- (5) mya·neka·- 'dance poorly' AI  
 /mya·n + eka·/  
 bad + dance<sub>AI</sub>
- (6) mya·šite·he·- 'feel bad' AI  
 /mya·n + ite·he·/  
 bad + think, feel<sub>AI</sub>

Some stems cannot be broken down into separate components and are consequently analyzed as containing only an initial morpheme: e.g. *api-* 'sit' AI, *nep-* 'die' AI, *amw-* 'eat' TA. Such stems must be lexically specified for their stem class, since they do not contain a final.

Additional examples of stems containing an initial and a final will be given here to provide a sense of typical stem formation patterns. Many verbs of motion have a final expressing the type of motion and an initial expressing direction or manner. Consider the examples below containing the Animate Intransitive finals *-ose-* 'walk', *-(i)paho-* 'run', and *-aho-* 'paddle (a canoe)'. (Morpheme-by-morpheme glosses have not been provided since the compounds are transparent.)

- (7) a. tetepose·- 'walk in a circle'  
 b. pemose·- 'walk by'  
 c. ki·yose·- 'walk about'<sup>1</sup>  
 d. tahkamose·- 'walk across'  
 e. ki·sa·tose·- 'walk with difficulty'
- (8) a. tetepipaho- 'run in a circle'  
 b. pemipaho- 'run by'  
 c. ki·wipaho- 'run about'  
 d. anemipaho- 'run away'

<sup>1</sup> The initial in (7c) is *ki·w-* 'about, around', with dissimilation of *w* to *y*.

- e. pi·ke·paho- ‘run to weariness’
- (9) a. kekenaho- ‘paddle fast’  
 b. pemaho- ‘paddle by’  
 c. ki·waho- ‘paddle about’  
 d. pye·taho- ‘paddle hither’

The above examples are only a small sample of the stems containing *-ose-*, *-(i)paho-*, and *-aho-*.

Transitive verbs in which the subject causes the object to undergo a change of location or state typically have an initial describing the action or resulting state and a final expressing the instrument of the action. (1) and (4) above are examples of this type; additional examples are provided below.

- (10) a. ki·škat- ‘bite off’ TI  
 /ki·šk + at/  
 sever + by.mouth<sub>TI</sub>
- b. ki·škeš- ‘cut off’ TI  
 /ki·šk + eš/  
 sever + by.cutting<sub>TI</sub>
- (11) a. panen- ‘drop’ TI  
 /pan + en/  
 miss + by.hand<sub>TI</sub>
- b. panešk- ‘miss hitting with one’s foot’ TI  
 /pan + ešk/  
 miss + by.foot<sub>TI</sub>
- c. panat- ‘spill while eating’ TI  
 /pan + at/  
 miss + by.mouth<sub>TI</sub>
- d. panah- ‘miss hitting by tool’ TI  
 /pan + ah/  
 miss + by.tool<sub>TI</sub>
- (12) a. mi·wen- ‘remove’ TI  
 /mi·w + en/  
 away + by.hand<sub>TI</sub>
- b. mi·wešk- ‘kick out’ TI  
 /mi·w + ešk/  
 away + by.foot<sub>TI</sub>

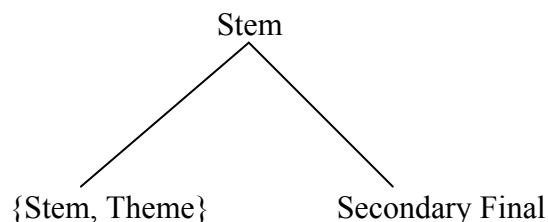
- c. mi·wa·set-                    ‘blow away’ TI  
 /mi·w + a·set/  
 away + by.blowing<sub>TI</sub>

Again, the examples in (10)–(12) are only a tiny sample of the transitive stems containing instrumental finals.

It is worth pointing out here that none of the three components of the stem is labelled as the ‘root’ position.<sup>2</sup> The term ‘root’ refers to the component of the stem which makes the primary contribution to the meaning of the stem, and which is obligatory. In Algonquian verb stems, however, it is difficult to single out any one of the three stem components as consistently functioning as the root. The initial position might be considered a candidate, since every stem is analyzed as containing an initial morpheme, but need not have a medial or a final. Moreover, in some stems the initial makes the primary semantic contribution (e.g. *panen-* ‘drop’ in (11a)). In other stems, however, it is the final which makes the primary semantic contribution (e.g. the verbs of motion in (7)–(9)), with the initial providing information about manner or direction of the action. Still other stems are compounds of two ‘roots’; that is, the initial and final seem to make equal contributions to the semantics of the stem (e.g. *ma·čišin-* ‘lie moving’ AI, with initial *ma·t-* ‘move’ and final *-išin-* ‘lie’; *wi·wapit-* ‘wrap and tie’ TI2, with initial *wi·w-* ‘wrap’ and final *-apit-* ‘tie’). As will be seen in 6.2, whether the semantically more important portion of a given stem is realized in initial or final position depends a great deal upon the lexical resources of the morpheme in question.

The primary stems seen in (1)–(12) may be contrasted with SECONDARY STEMS, which are derived from other stems via suffixation of a SECONDARY FINAL. In many cases the secondary final attaches directly to the input verb stem; in other cases the secondary final attaches to a THEME, which is a stem plus additional morphological material. The structure of secondary stems is shown schematically below:

(13)



Nearly all the secondary finals alter the valence of the stem they attach to, as discussed in chapter 7.<sup>3</sup> Two examples of secondary finals will be given here to provide a contrast with the primary

<sup>2</sup> Bloomfield (1946 and elsewhere) used ‘root’ for the initial position but with no implication that the initial’s semantic contribution was greater than the other components.

<sup>3</sup> One secondary final does not affect argument structure: the diminutive suffix, discussed in 3.6. (see appendix for inflection of diminutive verbs). Suffixes which derive verbs from noun stems, and those which derive nouns from verb stems, are also considered secondary finals (Goddard 1990c:471–2). See chapter 3, (11)–(12), for examples of nominalizations; denominal verbal suffixes are discussed below in 6.3.1.

finals discussed earlier. The reciprocal suffix *-(e)ti-* is an example of a valence-decreasing secondary final: it attaches to a Transitive Animate stem to form an Animate Intransitive stem:

- (14) a. *pemen-* 'take care of' TA  
 b. *pemeneti-* 'take care of each other' AI
- (15) a. *te·pih-* 'please' TA  
 b. *te·piheti-* 'please each other' AI

See 7.1.1. for discussion of the reciprocal.

An example of a valence-increasing secondary final is the applicative *-aw-*, which adds a new first object to the verb's subcategorizational frame (7.2.1). The thematic role of the new first object is often beneficiary, as in the examples below.

- (16) a. *pene·hke-* 'hunt turkeys' AI  
 b. *pene·hkaw-* 'hunt turkeys for O' TA
- (17) a. *pehkwapit-* 'tie O into a bundle' TI2  
 b. *pehkwapitaw-* 'tie O2 into a bundle for O' TA
- (18) a. *pahken-* 'pluck O off' TI  
 b. *pahkenamaw-* 'pluck O2 off for O' TA

In (16) the applicative *-aw-* is added to an AI stem (triggering deletion of the stem-final vowel), producing a TA stem. In (17) and (18) the applicative is combined with a TI stem to form a ditransitive TA stem. If the input stem is TI class 2, as in (17), the applicative attaches directly to the stem. If, however, the input stem is TI class 1, as in (18), the applicative attaches to a theme, composed of the stem plus the TI class 1 theme sign *-am-*.

With the distinction between primary and secondary stems in mind, we will now consider some examples of complex primary stems. In our discussion of the internal structure of primary stems, we have been speaking up to now as if the initial, medial, and final positions could only be filled by monomorphemic elements. However, it is possible to have more complex elements functioning as components of a primary stem (Goddard 1990c). In particular, an entire verb stem may be turned into a DERIVED INITIAL or a DERIVED FINAL.<sup>4</sup> Let us first consider examples of derived finals:

- (19) *pematone·hw-* 'pass by looking for' TA  
 /*pem + atone·hw*/  
 by + look.for<sub>TA</sub>

(cf. *natone·hw-* 'look for' TA)

<sup>4</sup> There are no examples of a verb stem being turned into a derived medial, since the medial position is used for incorporated nouns and classifiers. Examples of other types of morphologically complex medials, however, may be found in Goddard 1990c:467–468.

- (20) *pana·pam-* ‘lose sight of’ TA  
 /pan + a·pam/  
 miss + look.at<sub>TA</sub>
- (cf. *wa·pam-* ‘look at’ TA)
- (21) *mya·na·hpawa-* ‘have a bad dream’ AI  
 /mya·n + a·hpawa·/  
 bad + dream<sub>AI</sub>
- (cf. *a·hpawa-* ‘dream’ AI)
- (22) *se·ka·čimo-* ‘tell a frightening story’ AI  
 /se·k + a·čimo/  
 fright + tell.story<sub>AI</sub>
- (cf. *a·čimo-* ‘tell a story’ AI)

In (19), for example, the initial is *pem-* ‘by’, a simple initial that we saw above in verbs of motion ((7b), (8b), and (9b)). The final of (19) is *-atone·hw-* ‘look for’ TA, which has been derived from a full TA verb stem, *natone·hw-* ‘look for’, by deletion of the stem-initial consonant. (20) is a similar case: the simple initial *pan-* ‘miss’ is familiar from the stems in (11); it is here paired with the final *-a·pam-* ‘look at’ TA, derived from the TA stem *wa·pam-* by deletion of the *w*. The initials in (21) and (22) are also familiar from earlier examples (*mya·n-* ‘bad’ in (5) and (6); *se·k-* ‘fright’ in (3) and (4)); they are here paired with finals derived from entire stems. The stems which provide the source for the derived finals in (21) and (22) are vowel-initial stems and each may be used without alteration as a derived final.

The pattern seen in (19) and (20) in which a derived final is formed from a consonant-initial stem by deleting the initial consonant is fairly common in Meskwaki. Other examples include *mahkate·wi-* ‘fast’ AI → *-ahkate·wi-*; *no·še-* ‘give birth’ AI → *-o·še-*; *wa·pan-* ‘be dawn’ II → *-a·pan-*; *mehpo-* ‘snow’ II → *-ehpo-*. However, many other stems—both consonant-initial and vowel-initial—have suppletive final forms. Examples include *a·mi-* ‘move camp’ AI → *-ote-*; *nakamo-* ‘sing’ AI → *-ina·ke-*; *as-* ‘place’ TA → *-išim-*. Information about derived or suppletive finals must therefore be considered part of a stem’s lexical entry; this topic will be discussed in more detail in 6.2.

Now consider the following stem which contains a derived initial. (More examples of derived initials may be found in the discussion of secondary predicate incorporation in 6.3.2.)

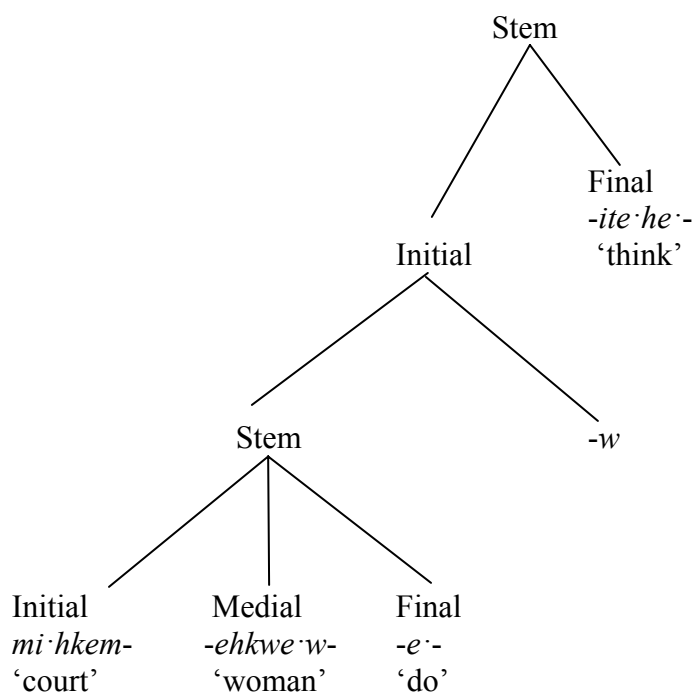
- (23) *mi·hkemehkwe·we·wite·he-* ‘think about courting women’ AI  
 /mi·hkemehkwe·we·w + ite·he·/  
 court.women + think<sub>AI</sub>

The final in (23) is *-ite·he·-* ‘think, feel’ AI; the initial is *mi·hkemehkwe·we·w-* ‘court women’. The initial portion of (23) is derived from the verb stem in (2), repeated below:

- (24) *mi·hkemehkwe·we·-* ‘court women’ AI<sup>5</sup>  
 /mi·hkem + ehkwe·w + e·/  
 court + woman + do<sub>AI</sub>

To create a derived initial *-w-* or *-o·w-* is often suffixed to the stem or theme (Goddard 1990c:457ff), as in (23). The hierarchical structure of (23) is given below:

(25)



Recall that in the discussion above the term secondary final was applied to suffixes which combine with a stem (or theme) to create a new stem. In (23), however, the final *-ite·he·-* ‘think, feel’ AI is analyzed as a primary final, not a secondary final (following Goddard 1990c), even though in this example it is paired with a morphological constituent derived from a stem. The reason for labelling *-ite·he·-* a primary stem is that it may also appear with simple (i.e. non-derived) initials such as *mya·n-* ‘bad’ in *mya·šite·he·-* ‘feel bad’ ((6), above). Secondary finals, on the other hand, are always suffixed to a full stem or theme, never to a simple initial.

## 6.2. Preverbs and initials

The primary and secondary verb stems described in the previous section may be combined with one or more PREVERBS to form a compound verb stem. The preverb is a separate word phonologically, as will be shown below; however, the compound of preverb(s) plus verb stem is inflected as if it

<sup>5</sup> The initial in (24) is itself a derived initial, from *mi·hkem-* ‘court’ TA.

were a single grammatical unit. It will be seen below that there is a close association between preverbs and the initial morphemes of primary verb stems. Whether a given morpheme is realized in the initial position or as a preverb depends primarily upon the lexical resources of the item the morpheme is combining with.

The set of preverbs in Meskwaki is extremely large; the chart below gives a sense of the range of functions which may be associated with preverbs. Special attention will be paid in chapter 7 to the preverbs which increase the valence of the verb stem, by adding a requirement for an oblique argument (7.3), or for a second object (7.4).

(26) Preverbs which add an oblique argument

iši-	‘thus; thither’
oči-	‘from’
taši-	‘there’ [stationary location]
ahpi·hči-	‘to such an extent’
ahkwi-	‘so long’
išiwe·pi-	‘meaning thus’
inekihkwi-	‘so big, so many’

Preverbs which add a second object

takwi-	‘together with’
keki-	‘with; having’

Aspectual or quasi-aspectual

ki·ši-	perfective
taši-	progressive
we·pi-	‘begin’
anemi-	‘become’
po·ni-	‘cease’
nawači-	‘stop in order to; take time to’
me·hi-	‘before; [not] yet’
aye·ši-	‘still’
a·či-	‘again’

Modal or quasi-modal

a·mi-	‘would, could, should, might’ <sup>6</sup>
kaški-	‘be able to’
a·nwi-	‘fail to’
nahi-	‘know how to; be in the habit of’
natawi-	‘want to, seek to’
koči-	‘try to’

<sup>6</sup> Only used with participles; see 5.3.



otami– ‘spend or waste time doing’

### Negative

pwa·wi– ‘not’<sup>7</sup>

### Directionals

pye·či– ‘toward [speaker]; up until now; come in order to’

anemi– ‘away from [speaker]; in the future’

mawi– ‘go in order to’

a·pi– ‘go in order to, and return’

ki·wi– ‘around’

pemi– ‘by; in succession [with units of time]’

### Numerals, quantifiers, degree words

nekoti– ‘one’

ni·šwi– ‘two’

neswi– ‘three’

nye·wi– ‘four’

ča·ki– ‘all’

meso·te·wi– ‘all together’

asa·mi– ‘too much’

te·pi– ‘enough’

ki·ša·koči– ‘as much as possible’

po·si– ‘very; much’

ma·wači– ‘most’ [superlative]

kehči– ‘greatly’

katawi– ‘almost, about to’

### Other adverbials

menwi– ‘well’

mya·ši– ‘badly; sort of’

nešwi– ‘terribly’

aški– ‘for the first time’

wa·paši– ‘mockingly’

wi·ke·či– ‘carefully’

mahkwa·či– ‘quietly, seriously’

kekeni– ‘quickly’

neši– ‘alone’

če·wi– ‘equally’

mehči– ‘openly, plainly’

mi·na·wi– ‘attentively, in detail’

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<sup>7</sup> Only used with certain inflectional paradigms; see chapter 5.

The list of preverbs in the chart is not exhaustive. As can be seen from the list, some preverbs increase the valence of the verb stem by adding an oblique or a second object to the verb's subcategorizational frame; others, such as the perfective preverb *ki·ši-*, add aspectual information;<sup>8</sup> others have a modal function or add a predicate such as *koči-* 'try to'; and one preverb, *pwa·wi-*, is used to negate verbs in certain inflectional paradigms.

Still other preverbs are used to express direction, including motion toward the speaker (*pye·či-*) and motion away from the speaker (*anemi-*).<sup>9</sup> This pair of preverbs also has a temporal use: *pye·či-* is used for 'up till now' and *anemi-* is used for events in or continuing to the future. (Note also the listing of *anemi-* under the quasi-aspectual preverbs; it also has an inchoative sense of 'become'.)

Quantifiers and the lower numbers may also appear as preverbs; they are interpreted as modifying the second object, if the verb is ditransitive, the first object of a transitive verb, or the subject of an intransitive verb. There are also a number of preverbs expressing scalar degrees such as *asa·mi-* 'too much'. Finally, a large number of preverbs express various manners of action, such as *wi·keči-* 'carefully' and *mehči-* 'openly'.

As mentioned above, a compound of one or more preverbs plus a simple verb stem is inflected as a single unit. For example, the prefixes found in the independent indicative and the other independent order paradigms attach to the left of the first preverb, while the inflectional suffixes attach to the right of the verb stem. Likewise, in the aorist conjunct, the aorist prefix *e·h-* attaches to the left of the first preverb; in paradigms requiring initial change, it is the initial syllable of the first preverb which undergoes initial change. The inflectional morphology is underlined in the following examples:

- (27) nepo·si-wa·pata  
 much-look.at 1-0/ind.ind  
 'I looked at it hard.' N15R
- (28) e·hki·ša·koči-kesi·ya·ki  
 as.much.as.possible-be.cold 0/aor  
 'It was extremely cold.' N2B
- (29) ke·tawi-wa·paniki  
 almost-be.dawn 0'/ch.conj  
 'When it was almost dawn, ...' N21P

The compound stem in (29) is *katawi-wa·pan-* 'be almost dawn'.

Another argument for considering the preverb-verb compound stems to be lexical items is that the secondary finals discussed in 7.1. and 7.2. may be attached to a compound stem. For

<sup>8</sup> See Appelbaum 1996 for an overview of how aspect is expressed in Meskwaki.

<sup>9</sup> See Reynolds 1996 for a discussion of deixis in Meskwaki narratives.

instance, in the following example a causative suffix (in boldface) has scope over both the verb stem and the preverb *po·ni-* ‘cease’:

- (30) e·hpo·ni–mehtose·neniwi**hto**·ye·kwe ki·ya·wa·wi  
 cease–be.alive.caus 2p–0/aor yourselves  
 ‘when you make yourselves stop living’ W1016

(30) is taken from a discussion of suicide. If the causative did not have scope over the preverb, the gloss would be ‘when you stop making yourselves be alive.’

Despite the above evidence that a preverb-verb compound functions as a single grammatical unit, however, the preverb itself is a separate phonological word. It is stressed as a separate word (cf. the stress patterns in chapter 5, footnote 16), and the speaker may pause between preverb and verb, with concomitant devoicing of the final vowel in the preverb. (See Goddard 1991 for vowel devoicing.)

A further piece of evidence for its status as a separate phonological word is that the preverb may be a host for enclitics. In the following examples, the enclitic particles have been underlined:

- (31) neki·ši–=meko                    –anehkawa·wa  
 perf=emph                    –get.to.know 1–3/ind.ind  
 ‘I have gotten used to him.’ N12E
- (32) e·ye·ši–=meko                    –pwa·wi–nenehke·nema·či                    wi·hne·wa·či  
 still=emph                    –not–think.about 3–3’/ch.conj                    fut.see 3–3’/aor  
 ‘Before he (prox) was expecting to see him (obv)’ N9E
- (33) ki·hpo·ni–=ča·h=meko                    –neškimene  
 fut.cease=so=emph                    –scold 1–2/ind.ind  
 ‘I will stop scolding you.’ N8O

In (31), the emphatic enclitic =*meko* is attached to the right of the perfective preverb *ki·ši-*, the first phonological word of the clause; in (32), =*meko* attaches to *aye·ši-* ‘still’, which has undergone initial change. (Note that there may be more than one preverb in the compound verb stem, as in (32).) In (33), a string of two clitics attaches to the preverb *po·ni-* ‘cease’.

Another consequence of the the phonological word boundary intervening between the preverb and the verb stem is that the morphological process of reduplication may operate upon the simple verb stem (see Dahlstrom 1997 for the two formal types of reduplication in Meskwaki). In the following examples the underlining indicates the reduplicative material on the verb:

- (34) wi·hanemi–ma·mi·čiči                    owi·ya·si  
 fut.away–redup.eat 3–0/part/0                    meat  
 ‘meat for him to eat on his journey’ N22I

- (35) ki·ši-a·ya·čimoči  
 perf-redup.tell.story 3/ch.conj  
 ‘After he had finished telling his stories’ N26I
- (36) ki·ši-ča·ki-ka·ki·watenikini,  
 perf-all-redup.freeze.around 0'/iter  
 ‘Whenever it had completely frozen all around’ N1K

(The gloss of ‘on his journey’ in (34) comes from the preverb *anemi-* ‘motion away from speaker’ and the continuative sense added by the reduplication to ‘eat’.)

The most dramatic evidence of the phonological independence of the preverb from the verb stem may be seen in constructions in which the preverb detaches from the remainder of the verb and appears at or near the left edge of the clause:

- (37) nepye·či-      keta·nesa      -wa·pama·pena  
 come-            your.daughter -look.at 1p-3/ind.ind  
 ‘We have come to see your daughter’ (Michelson 1917:51)

See 9.1. for discussion of this construction and many more examples.

In addition, it should be noted that there is no limit to the number of preverbs which may be combined with a verb stem. Examples of verbs with two preverbs have already been seen in (32) and (36); an example with three preverbs is given below:

- (38) i·ni=meko      wi·hiši-pwa·wi-kaški-nesenakwe  
 that=emph      fut.thus-not-able-kill 3(p)-21/aor  
 ‘They won’t be able to kill us in that way.’ N25M

The majority of preverbs in Meskwaki have a corresponding form which appears in the initial position of simple verb stems (Goddard 1988a).<sup>10</sup> Consider the following two sets of examples: first, compound stems containing a preverb, and then simple verb stems.

- (39) a.      asa·mi-neškim-                      ‘scold O too much’ TA  
           too.much-scold
- b.      menwi-pemen-                      ‘take good care of’ TA  
           well-take.care.of
- c.      nahi-mi·hkečihiwe-                ‘know how to doctor people’ AI  
           know.how-doctor.people
- d.      ni·šwi-pemen-                      ‘take care of two of O’ TA  
           two-take.care.of

<sup>10</sup> See also Hotta 1996 for a discussion of the morphosyntactic problems raised by the relationship between preverbs and initials in Meskwaki.

e.	po·ni–anenwi·- cease–swim	‘stop swimming’ AI
f.	pye·či–kehta·pam- hither–look.fixedly.at	‘stare hither at O’ TA
(40) a.	asa·mekwa·m- /asa·m + ekwa·m/ too.much + sleep <sub>AI</sub>	‘oversleep’ AI
b.	menwisenyē·- /menw + isenyē·/ well + eat <sub>AI</sub>	‘eat well’ AI
c.	nahikwa·so- /nah + ikwa·so/ know.how + sew <sub>AI</sub>	‘know how to sew’ AI
d.	ni·šwih- /ni·šw + ih/ two + have <sub>TA</sub>	‘have, get two of O’ TA
e.	po·neka·- /po·n + eka·/ cease + dance <sub>AI</sub>	‘stop dancing’ AI
f.	pye·ta·mo- /pye·t + a·mo/ hither + flee <sub>AI</sub>	‘flee hither’ AI

It is easy to see that the preverbs in (39) are composed of the initial morphemes in (40) plus *-i*, the ending for preverbs. However, the stems in (39) have a phonological word boundary between the preverb and the simple verb stem while in (40) there is no phonological word boundary between the initial and the final. For example, an enclitic cannot follow the initial morpheme in (40), nor can reduplication apply to the portion of the stem following the initial. Moreover, the verb stems following the preverbs in (39) may be used on their own: e.g. *neškim-* ‘scold’ TA in (39a) may be inflected for a subject and object to form an ordinary verb. However, if the initial portion of the stems in (40) is removed, the remainder cannot function as a verb stem. For example, *-ekwa·m-* ‘sleep’ AI in (40a) cannot be inflected for a subject; it is not a full stem on its own.

Since it is clear that the same morphemes may appear as preverbs in (39) and as initials in (40), what determines whether a given morpheme is realized as a preverb or as an initial? The determining factor is the morphological constituent that the preverb/initial is combining with. For example, consider the verb ‘sleep’. If ‘sleep’ is used on its own, the form of the stem is *nepa·-* (AI), as in *kenepa·pwa* ‘you (pl) sleep’ (independent indicative). However, ‘sleep’ also has a

suppletive final form, *-ekwa·m-*, which combines with initials such as *asa·m-* ‘too much’ in (40a): *asa·mekwa·m-* ‘oversleep’ AI. Other verb stems containing the final *-ekwa·m-* are listed below:

- (41) a. *menokwa·m-* ‘sleep well’ AI  
 /*menw + ekwa·m/*  
 well + sleep<sub>AI</sub>
- b. *ki·ša·kotekwa·m-* ‘sleep dead to the world’ AI  
 /*ki·ša·kot + ekwa·m/*  
 as.much.as.possible + sleep<sub>AI</sub>
- c. *šekikwa·m-* ‘wet the bed’ AI  
 /*šeki + (e)kwa·m/*  
 urinate + sleep<sub>AI</sub>
- d. *wi·šasokwa·m-* ‘sweat in one’s sleep’ AI  
 /*wi·šaso + (e)kwa·m/*  
 sweat + sleep<sub>AI</sub>
- e. *inekwa·m-* ‘sleep [thus]’ AI  
 /*in + ekwa·m/*  
 thus + sleep<sub>AI</sub>
- f. *tanekwa·m-* ‘sleep [there]’ AI  
 /*tan + ekwa·m/*  
 there + sleep<sub>AI</sub>

The forms in (41e–f) contain initials which require an oblique argument of manner or stationary location, respectively.

The final *-ekwa·m-* ‘sleep’ may also combine with an initial plus a medial, as will be explained in 6.3.1:

- (42) *mešketone·kwa·m-* ‘sleep with one’s mouth open’ AI  
 /*mešk + etone· + ekwa·m/*  
 open + mouth + sleep<sub>AI</sub>

The verb stem *neškim-* ‘scold’ TA, on the other hand, and the other stems combined with preverbs in (39), do not have an associated derived or suppletive final. Compare the following (partial) entries for ‘sleep’, ‘scold’, and ‘too much’:

- |      |                            |                          |                          |
|------|----------------------------|--------------------------|--------------------------|
| (43) | ‘sleep’                    | ‘scold’                  | ‘too much’               |
|      | <i>nepa·-</i> (AI stem)    | <i>neškim-</i> (TA stem) | <i>asa·m-</i> (initial)  |
|      | <i>-ekwa·m-</i> (AI final) |                          | <i>asa·mi-</i> (preverb) |

Because there is a final form in the lexical entry for ‘sleep’ it is preferred in stem formation processes.<sup>11</sup> Since *-ekwa·m-* is morphologically a final, it must combine with an initial to form a complete stem. The initial form of ‘too much’, *asa·m-*, is therefore chosen: *asa·mekwa·m-* ‘oversleep’. The verb ‘scold’, however, has only a full stem listed in its lexical entry, with no final form. If one wants to combine ‘scold’ with ‘too much’, *asa·mi-* must be realized as a preverb, not as an initial, as in (39a), *asa·mi-neškim-* ‘scold O too much’. The initial form of ‘too much’ cannot be used because the initial position of the stem is already filled.

Another compound stem listed in (39f) is worth examining here: *pye·či-kehta·pam-* ‘stare hither at O’. Partial lexical entries for the stem’s components are listed below:

(44)	‘look at’	‘greatly’	‘hither’
	<i>wa·pam-</i> (TA stem)	<i>keht-</i> (initial)	<i>pye·t-</i> (initial)
	<i>-a·pam-</i> (TA final)	<i>kehči-</i> (preverb)	<i>pye·či-</i> (preverb)

The first step in the formation of (39f) is to combine ‘look at’ with ‘greatly’. Since ‘look at’ has a final listed in its lexical entry, the final *-a·pam-* is chosen; consequently, the initial form of ‘greatly’, *keht-*, is used to complete the stem. The resulting stem, *kehta·pam-*, is glossed ‘stare at, look fixedly at’.

The next step is to combine ‘stare at’ with the directional ‘hither’. ‘stare at’ has the stem form produced by the steps just described; it does not, however, have an associated final form. The directional ‘hither’ must therefore be realized as a preverb, *pye·či-*, rather than as an initial.<sup>12</sup>

Now that we have seen how initials and preverbs are compounded with verb finals and verb stems, respectively, we are in a position to reconsider the incorporation of nouns into prepositions described in 3.5.2. Recall that some prepositions, such as *či·ki* ‘next to’, *ahkwiči* ‘on top of’, *keki* ‘with’, and *na·mi* ‘under, inside’, may be found in what appears to be two different constructions. These prepositions may be followed by a noun inflected for prepositional case, or the object may be incorporated into the preposition, with the result that the entire prepositional phrase is expressed by a single phonological word. Some of the examples given in 3.5.2. are repeated below:

(45)	a.	<i>či·ki kehčikami·we</i>	‘on the shore of the ocean’
	b.	<i>ahkwiči asenye</i>	‘on top of a stone’
	c.	<i>keki či·ma·ne</i>	‘with the canoe’

<sup>11</sup> The existence of the final form *-ekwa·m-* for ‘sleep’ does not entirely block the stem *nepa-* from forming compounds with preverbs. For example, the following compounds are attested in texts: *kehči-nepa-* ‘sleep soundly’, *mehči-nepa-* ‘sleep outdoors’, *anemi-nepa-* ‘sleep along the way (on a journey)’, *katawi-nepa-* ‘be almost asleep’. The compound with *katawi-* ‘almost’ can be explained by the absence of a corresponding initial for ‘almost’, but *kehči-* ‘greatly’, *mehči-* ‘openly, plainly’, and *anemi-* ‘motion away from speaker’ each have initial counterparts. The conclusion must be that there is a strong preference for using the final form of ‘sleep’ in compounds, but this is not an absolute rule.

<sup>12</sup> Here should be mentioned an odd complication of the stem formation processes which Goddard (1988a, 1990c) labels ‘preverb bumping’. When the stem *pemose-* ‘walk (by)’ is combined with ‘begin’ (preverb *we·pi-*, initial *we·p-*) the resulting compound puts *we·p-* ‘begin’ in the initial position and *pemi-* ‘by’ in the preverb position: *pemi-we·pose-* ‘begin to walk (by)’. Another example of this is *taneška-* ‘be retching’ W25J (composed of the progressive (preverb *taši-*, initial *tan-*) plus the AI final *-eška-* ‘one’s body moves’) plus ‘thus’ (preverb *iši-*, initial *in-*), which results in *taši-ineška-* ‘be retching thus’ W25K.

d.	na·mi nepye	‘under the water’
(46) a.	č̣i·ka·hkwe	‘next to the tree’
b.	ahkwita·naki	‘at the top of the hole’
c.	ahkwitapahkwe	‘on top of the roof’
d.	kekikane	‘with the bones; bones and all’
e.	na·mahkamiki	‘under the earth’
f.	na·metone	‘inside the mouth’

There are a number of parallels between the phenomenon of initials and preverbs described in this section and the prepositional phrases listed in (45) and (46). In the incorporation construction illustrated in (46) the prepositions have the form *č̣i·k-* ‘next to’, *ahkwit-* ‘on top of’, *kek-* ‘with’, and *na·m-*, while in the forms in (45) all the prepositions end in *i*. Initials of verb stems and preverbs display the same formal relationship. Second, the morphemes expressing the object in (46) are bound forms, which cannot be used on their own as an independent noun stem. (These bound forms are also found as incorporated objects and as classifiers in verbs; see 6.3.1.) The nouns expressing the object in (45), however, are not bound forms; moreover, the majority of nouns in (45) do not have any associated bound forms (e.g., there is no verb-medial morpheme which means ‘ocean’ or ‘canoe’).<sup>13</sup>

I suggest that in both (45) and (46) we find incorporation of the object into the preposition; the difference between the realization of (45) as two phonological words and the realization of (46) as a single phonological word has to do with the lexical resources associated with nouns like ‘ocean’ and ‘tree’. The lexical entry for ‘tree’ includes not only the independent noun stem *mehtekw-* ‘tree’ (inan), but also the bound form *-a·hkw-*. ‘Ocean’, on the other hand, contains only the independent noun stem *kehč̣ikami·w-* ‘ocean’ (inan). The preposition ‘next to’ has two forms listed in its lexical entry: *č̣i·k-* and *č̣i·ki-*, comparable to the initial/preverb pairs discussed above. When the preposition ‘next to’ incorporates the object ‘tree’, the bound form of ‘tree’ is selected and combines with the initial *č̣i·k-*, giving *č̣i·ka·hkwe* ‘next to the tree’. But when ‘next to’ incorporates ‘ocean’, the lack of a bound form for the object means that the regular noun stem *kehč̣ikami·w-* must be used. This in turn means that the initial form *č̣i·k-* cannot appear, but instead the phonologically independent word *č̣i·ki-* is used. Though there is a phonological difference between the set of forms in (45) and that in (46), the two constructions may be assumed to have parallel syntax—both involving incorporation—in the same way that the verbs in (39) and (40) have parallel syntax.

### 6.3. Incorporation

A phenomenon found in many North American languages is NOUN INCORPORATION, in which a noun-like morpheme appears within a verb stem, often corresponding to what would be the object or subject of the verb in an English gloss. There has recently been a controversy over the syntactic status of such morphemes: Sadock (1980, 1986) argues that in some languages (e.g. Greenlandic, Southern Tiwa) the incorporated nominal functions as a true syntactic argument of the verb, while Mithun (1984a, 1986) claims that syntactic processes never have access to word internal structure

<sup>13</sup> There is, however, a classificatory medial *-(e)pye-* ‘water’, discussed in 6.3.1; cf. the noun *nepy-* ‘water’ in (45d).



and that noun incorporation is a purely morphological phenomenon.<sup>14</sup> 6.3.1. describes noun incorporation in Meskwaki and shows that there is evidence in Meskwaki supporting Sadock’s position on incorporation.

6.3.2. describes another type of incorporation in Meskwaki, the incorporation of secondary predicates into the initial position of the verb stem. Here the evidence for the syntactic independence of the incorporated element is even stronger than in the case of noun incorporation; hence at the level of functional structure the initial and final morphemes of the stem will each be represented as separate argument-taking predicates.

### 6.3.1. Noun incorporation

This section describes, first, compound verb stems which include a noun or classificatory element, and second, derivational affixes which may be added to a noun stem to form a denominal verb. (Denominal verbs are included here since some of Sadock’s arguments involve Greenlandic denominal verbs.) We will then review the claims made by Sadock and Mithun and consider the syntactic behavior of incorporated nouns in Meskwaki.

Our description begins with the canonical type of noun incorporation, in which a noun stem is compounded with a verb stem (Mithun 1984a; cf. Sapir 1911). As mentioned in 6.1, incorporated nouns and classificatory elements appear in the medial position of primary stems. For example, the noun ‘woman’ may be incorporated into a verb:<sup>15</sup>

(47) *mi·hkemehkwe·we·-* ‘court women’ AI  
 /mi·hkem + ehkwe·w + e·/  
 court + woman + do<sub>AI</sub>

(48) *natonehkwe·we·-* ‘seek a woman’ AI  
 /naton + ehkwe·w + e·/  
 look.for + woman + do<sub>AI</sub>

The above cases of incorporation have the effect of reducing the valence of the verb. That is, if the verbs *mi·hkem-* ‘court’ TA or *natone·hw-* ‘look for’ TA were used without an incorporated noun

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<sup>14</sup> I will not be discussing Baker’s (1988) work on incorporation within the Government and Binding framework. Baker assumes that elements which bear a thematic relation to the verb (e.g. theme, patient, etc.) must be generated in a position external to the verb in order to receive a  $\theta$ -role at D-structure. In languages with noun incorporation the noun may then move into the verb by the general rule of ‘move  $\alpha$ ’, constrained by general principles such as the Empty Category Principle. (See Melnar 1996 for an evaluation of Baker’s approach applied to Meskwaki.) Baker assumes this account of incorporation both for languages like Mohawk, in which there is no evidence that (other) syntactic processes have access to the internal structure of a compound verb stem (Mithun 1984a), and for the languages cited by Sadock 1986, in which incorporated elements do seem to function as separate syntactic entities. Since the goals of this section are to describe incorporation in Meskwaki and investigate to what degree incorporated elements function as separate syntactic entities, I will not treat Baker’s work further here.

<sup>15</sup> ‘Woman’ is somewhat unusual in that the incorporated form, *-ehkwe·w-*, is identical to the independent noun stem *ihkwe·w-*. (/e/ becomes *i* word-initially.) It is more common for there to be only a partial resemblance between the medial form and the noun stem (e.g. medial *-eton(e)·-*, noun stem *-to·n-* ‘mouth’) or no resemblance at all (e.g. medial *-eš(e)·-*, noun stem *-htawakay-* ‘ear’).

they would be regular transitive verbs, with an object expressed by an external NP argument or by the pronominal inflection on the verb. The stems in (47)–(48), however, are intransitive stems, inflected for only a subject.

Additional examples of the detransitivizing type of incorporation may be seen in the following stems, which contain the medial *-ik-* ‘house’:

- (49) ašike·- ‘build a house’ AI  
 /an + ik + e·/  
 make + house + do<sub>AI</sub>
- (50) a·čike·- ‘rebuild one’s house’ AI  
 /a·t + ik + e·/  
 over.again + house + do<sub>AI</sub>
- (51) ki·šike·- ‘finish building a house’ AI  
 /ki·š + ik + e·/  
 perfective + house + do<sub>AI</sub>

The detransitivizing type of noun incorporation seen in (47)–(51) is relatively rare in Meskwaki, however. Much more common is incorporation of a possessed noun, especially a body part term, into the verb. In this type of incorporation, the valence of the verb is not reduced; however, the identity of the object or subject of the verb changes. Instead of a transitive verb taking the possessed noun as object, we find a transitive verb inflected for the possessor of the incorporated body part noun. Likewise, when an intransitive verb contains an incorporated body part noun the subject is interpreted as the possessor of the body part. This is the most frequently encountered type of noun incorporation in Meskwaki; we begin by looking at transitive stems with instrumental finals:

- (52) paseše·naw- ‘graze O’s ear by a shot’ TA  
 /pas + eše· + enaw/  
 graze + ear + by.shooting<sub>TA</sub>
- (53) ki·škeše·šw- ‘cut off O’s ear’ TA  
 /ki·šk + eše· + ešw/  
 sever + ear + by.cutting<sub>TA</sub>
- (54) ki·šikome·hpw- ‘bite O’s nose off’ TA  
 /ki·šk + ikome· + ihpw/  
 sever + nose + by.mouth<sub>TA</sub>
- (55) kepetone·n- ‘cover O’s mouth with one’s hand’ TA  
 /kep + etone· + en/  
 closed + mouth + by.hand<sub>TA</sub>

- (56) mešketone·n- 'open O's mouth' TA  
 /mešk + etone· + en/  
 open + mouth + by.hand<sub>TA</sub>
- (57) po·hkeče·šw- 'cut a hole in O's belly' TA  
 /po·hk + eče· + ešw/  
 hole + belly + by.cutting<sub>TA</sub>

(52)–(57) all have TA finals expressing the means by which the action was accomplished. The initial of each stem expresses the type of action or the resulting state; the medial names the body part affected by the action.

In intransitive stems the most common final found with incorporated nouns is *-e·* ~  $\emptyset$  'have, do' AI:

- (58) we·we·peše·- 'flap one's ears' AI  
 /we·we·p + eš + e·/  
 swing + ear + do<sub>AI</sub>
- (59) pi·činehke·- 'put one's hand in' AI  
 /pi·t + inehk + e·/  
 inside + hand + do<sub>AI</sub>
- (60) mehtanasite·- 'be barefoot' AI  
 /meht + anasit + e·/  
 bare + bottom.of.foot + have<sub>AI</sub>
- (61) mi·seton- 'have a moustache' AI  
 /mi·s + eton +  $\emptyset$  /  
 hairy + mouth + have<sub>AI</sub>

Notice that the medials preceding the instrumental finals in (52)–(57) all end in *e·*, while the medials in (58)–(60) (and (47)–(51)) end in consonants, followed by an *-e·* final. The status of the final in examples like (58)–(60) has been controversial among Algonquianists: Voorhis 1983:81–83, for example, analyzes comparable Kickapoo forms as having medials which end in *e·* (matching those seen in transitive stems) and a zero final. Granted, (61) shows that in at least some cases we must posit a zero morpheme as the final; at the same time, however, comparison of *-eton-* 'mouth' in (61) with *-etone·-* 'mouth' in (55) and (56) shows that medials do in fact show variation between a consonant-final form and a form ending in *e·*. Goddard 1990c:466–467 argues, from comparative evidence, that the *e·* in forms like (58)–(60) cannot be analyzed as part of the medial and therefore must be taken to be a final.<sup>16</sup> Bloomfield 1962:305 analyzes the cognate final in

<sup>16</sup> The argument is that comparative evidence forces us to reconstruct Proto-Algonquian as having two AI finals used with incorporated nouns: *\*-e·* and *\*-a·*. The choice of final was sensitive to the particular initial used in the stem. Additionally, certain medials (such as 'mouth') require a zero final in AI stems. However, no variation is seen in the 'postmedial extension' (the final vowel of the medials in stems like (52)–(57)): here the evidence leads us to reconstruct only *\*e·*.







- (78) *wa·se·ya·po·kat-* ‘be bright and clear liquid’ II  
 /*wa·se· + a·po·k + at/*  
 shine + liquid + be<sub>II</sub>
- (79) *mese·pye·ya-* ‘be a flood, be water all over’ II  
 /*mes + epye· + ya·/*  
 big + water + be<sub>II</sub>
- (80) *aniwa·pehkeso-* ‘have a metallic sheen’ AI  
 /*aniw + a·pehk + esw + o/*  
 extreme + metal + by.heat<sub>TA</sub> + middle<sub>AI</sub>
- (81) *šo·ška·pye-* ‘be straight’ II  
 /*šo·šk + a·py + e·/*  
 straight + string + be<sub>II</sub>  
 [S = string, road, river, etc.]
- (82) *saka·pye·n-* ‘lead O by a rope’ TA  
 /*sak + a·pye· + en/*  
 hold + string + by.hand<sub>TA</sub>
- (83) *mi·še·kat-* ‘be fuzzy’ II  
 /*mi·s + e·k + at/*  
 hairy + cloth + be<sub>II</sub>  
 [S = cloth]

Notice that in some stems the classifier restricts the class of subjects or objects (e.g. in (81) the subject must be string or string-like; in (83) the subject must be cloth), while in others the classifier provides information about the instrument used, not about the subject or object (e.g. earth in (77); rope in (82)).

The classifier for ‘wood, solid’, *-a·hkw-*, has been extended to an adverbial function of ‘all over’ (Goddard 1990c:453.n13).

- (84) *meškwa·hkono-* ‘paint oneself red’ AI  
 /*meškw + a·hkw + en + o/*  
 red + all.over + by.hand<sub>TA</sub> + middle<sub>AI</sub>
- (85) *nepiwa·hkosi-* ‘be wet all over’ AI  
 /*nepiw + a·hkw + esi/*  
 wet + all.over + be<sub>AI</sub>  
 [i.e., dripping with sweat]

Another medial, *-we·we·(k)-*, indicates that the action of the verb involves sound or noise:

- (86) *anemwe·we·paho-* ‘run away noisily’ AI  
 /*anem + we·we· + paho /*  
 away + noise + run<sub>AI</sub>





Meskwaki. First, a noun stem may be suffixed with the secondary final *-i*, producing a verb stem glossed ‘be a [noun]’:

- (92) a. mahwe·w- ‘wolf’  
 b. mahwe·wi- ‘be a wolf’ AI
- (93) a. si·po·w- ‘river’ (inan)  
 b. si·po·wi- ‘be a river’ II

The gender of the noun determines the stem class of the denominal verb; (92b) is AI, because *mahwe·w-* ‘wolf’ is animate, and (93b) is II, reflecting the inanimate gender of *si·po·w-* ‘river’.

Another denominal suffix is *-iwi*, which may form either verbs glossed ‘be a [noun]’ or verbs expressing an adjectival quality:

- (94) a. oškinawe·h- ‘young man’  
 b. oškinawe·hiwi- ‘be a young man’ AI
- (95) a. nepis- ‘lake’ (inan)  
 b. nepisiwi- ‘be a lake’ II
- (96) a. mi·kon- ‘feather’ (anim)  
 b. mi·koniwi- ‘be feathered’ AI or II

The final *-iwi* forms either AI or II verbs. If the gloss of the derived verb is ‘be a [noun]’, as in (94b) and (95b), the gender of the noun stem determines the stem class of the verb. For adjectival verbs, as in (96b), *-iwi* forms both an AI and an II stem.

Another denominal suffix is *-ehke·* ‘make, obtain’ AI, illustrated in the following forms:

- (97) a. ahte·himin- ‘strawberry’ (inan)  
 b. ahte·himinehke·- ‘gather strawberries’ AI
- (98) a. nenosw- ‘buffalo; cow’  
 b. nenosohke·- ‘hunt buffalo’ AI
- (99) a. pene·w- ‘turkey’  
 b. pene·hke·- ‘hunt turkeys’ AI
- (100) a. aškote·w- ‘fire’ (inan)  
 b. aškote·hke·- ‘make fire’ AI

Coalescence of *Cw + e* to *Co* has occurred in (98), while in (99) and (100) there is contraction of *Vw + e* to a long *V·*.

A final type of denominal verb formation (mentioned already in 1.2.2) creates verbs of possession from the third person form of possessed nouns.<sup>20</sup> To see how this works, consider the following noun stem, possessed noun forms, and the verb of possession derived from the noun:

- (101) a.     -ta·nes-                   ‘daughter’  
           b.     neta·nesa               ‘my daughter’  
           c.     ota·nesani             ‘his daughter’ (obv)  
           d.     ota·nesi-               ‘have a daughter’ AI<sup>21</sup>

The verb stem in (101d) consists of the third person possessive prefix *o-*, the noun stem *-ta·nes-*, and the secondary final *-i*. The *o*, however, has lost its function as an inflectional prefix, as can be seen in the following verbs inflected in the independent indicative paradigm:

- (102) a.     netota·nesi               ‘I have a daughter.’  
           b.     ketota·nesi           ‘You have a daughter.’  
           c.     ota·nesiwa           ‘He has a daughter.’

The underlined inflectional prefixes in (102a) and (102b) express first person singular subject and second person singular subject, respectively; the verb stem in each case is *ota·nesi-*. The stem-initial *o* is simply part of the derived verb stem, rather than an inflectional prefix referring to a third person.

More examples of derived verbs of possession are given below:

- (103) a.     -ni·ča·nes-               ‘child’  
           b.     oni·ča·nesi-           ‘have a child’ AI
- (104) a.     -ko·te·h-                 ‘skirt’ (inan)  
           b.     oko·te·hi-             ‘have a skirt’ AI
- (105) a.     -i·hka·n-                 ‘friend’  
           b.     owi·hka·ni-           ‘have a friend’
- (106) a.     -tay-                     ‘pet’  
           b.     otayi-                 ‘have a pet’

With this background on noun incorporation and denominal verbs in Meskwaki, we may now consider the controversy over the syntactic status of incorporated nouns. Mithun 1984a is a

<sup>20</sup> 3.4. described three classes of noun stems with regard to the syntax of possession: dependent noun stems, such as *-i·w-* ‘wife’, which require possessive inflection; independent noun stems, such as *matete·h-* ‘legging’ (inan), which optionally take possessive inflection; and independent noun stems which cannot be inflected directly for possession, requiring instead the possessed theme suffix *-em* to be added (e.g. *okima·w-* ‘chief’, *oto·kima·mani* ‘his chief’). Noun stems of all three types form verbs of possession: *owi·wi-* ‘have a wife’ AI, *omatete·hi-* ‘have leggings’ AI, *oto·kima·wi-* ‘have a chief’ AI.

<sup>21</sup> The verbs of possession have two subcategorization frames. They may be used as one place verbs (e.g. ‘have a daughter’) or as two place verbs (‘have O2 as a daughter’). Some possessed nouns also form TA verbs of possession: e.g. *ota·nesem-* ‘have O as a daughter’.

long crosslinguistic study of the canonical, compounding, type of noun incorporation. She begins by stating that languages with noun incorporation also have a syntactic paraphrase with no incorporation; one goal of her paper is to discover the functional difference between the two constructions. In many languages she finds that the function of incorporation is to name an activity (e.g. *berry-picking*); consequently, the incorporated noun does not refer to a specific referent and cannot be modified by external modifiers. She therefore argues for a strict separation between syntax and morphology: if a noun is contained within a verb stem, it cannot be treated as a separate entity by syntactic processes. On this issue, Mithun's position is consistent with the Lexical Integrity Hypothesis of Chomsky 1970, that syntactic processes do not have access to the internal structure of words. Sadock 1986 responds to Mithun 1984a with several objections. While conceding that noun incorporation in most languages may be a purely morphological phenomenon in the way that Mithun claims, he draws attention to Greenlandic incorporation (Sadock 1980) as a counterexample to Mithun's proposed universal. There are several syntactic processes in Greenlandic which treat an incorporated noun as a distinct element in the syntax, separate from the incorporating verb. For example, there may be an external modifier of an incorporated noun; a verb may be gapped, leaving a stranded incorporated noun; question words may be incorporated; and an incorporated noun may be the antecedent for a predicate nominal or for subsequent pronominal reference. In other words, the strict separation of syntax and morphology which Mithun defends cannot be maintained for Greenlandic. Moreover, Sadock cites examples from Southern Tiwa, described by Allen, Gardiner, and Frantz 1984, in which incorporation is obligatory in many contexts and which also allows external modification of an incorporated noun. For a language in which incorporation is obligatory Mithun's functional argument will not work: an incorporated noun must be able to refer to a specific referent in such languages, since there is no other way to express the utterance.<sup>22</sup>

Let us begin by looking at one of Sadock's arguments for the syntactic nature of noun incorporation in Greenlandic. An incorporated noun may be modified by an external possessor:

- (107) tuttup            neqitorpunga  
        reindeer-rel    meat-eat-indic-1sg.  
        'I ate reindeer meat.' (Greenlandic; from Sadock 1980:309, ex. (33))

The verb in (107) contains 'meat' as an incorporated noun; the NP 'reindeer' is inflected for the relative, or ergative, case, which marks subjects of transitive verbs and possessors. In this example the relative case cannot be expressing subject of a transitive verb (the verb is intransitive, inflected for a first person singular subject), so the NP must be interpreted as a possessor. However, it is not possible to use an NP marked for possession with just any verb: it is only possible if the verb contains an incorporated noun which is understood to be modified by the possessor.

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<sup>22</sup> Mithun 1986 points out that the Greenlandic examples are not canonical incorporation but rather denominal verbs; they thus are not within the scope of her 1984a article, which specifically dealt with the compounding type of incorporation. However, Southern Tiwa does have incorporation of the compounding type and appears to be a serious problem for Mithun's generalization. In addition, Sadock 1986 observes that in terms of the larger issue of the separation of syntax from morphology, evidence from denominal verbs is as damaging to Mithun's claims as that from the compounding type of incorporation.

An example from Southern Tiwa in which an incorporated noun is modified by an external element is given below:

- (108) *wisi ibi-musa-tuwi-ban*  
 two B:B-cat-buy-past  
 ‘They bought two cats.’ (S. Tiwa; Allen, Gardiner, and Frantz 1984:297, ex. (36))

In (108) the object *-musa-* ‘cat’ appears inside the verb, preceded by the inflectional prefix for subject/object agreement. (Southern Tiwa has a rather complex system of inflection sensitive to number and three gender classes of nouns (Allen, Gardiner, and Frantz 1984:293.n5). The inflectional prefix in (108) glossed ‘B:B’ here indicates an animate plural subject acting on an animate plural object.) The object is modified by *wisi* ‘two’, which appears outside the verb.

Let us now consider whether incorporated nouns in Meskwaki may be modified by external modifiers. First of all, in my survey of Meskwaki texts I have found no examples of constructions similar to the Greenlandic and Southern Tiwa sentences cited above. In elicitation, however, the following sentences were accepted as possible.

- (109) *kotakani e·hwe·pehkwe·we·či*  
 other.obv take.woman 3/aor  
 ‘He took another girl with him.’
- (110) *mi·hkemehkwe·we·wa we·wenesiničini*  
 court.woman 3/ind.ind be.pretty 3’/part/3’  
 ‘He’s courting a pretty girl.’
- (111) *e·hnepina·teki te·hkepye·ya·niki*  
 go.after.water 3/aor be.cool.[water] 0’/part/0  
 ‘He went and got cold water.’
- (112) *če·wi·šwi nepo·hkwinehke·šine*  
 both fall.&.break.arm 1/ind.ind  
 ‘I fell and broke both my arms.’
- (113) *neswi nepo·hkwihipike·šine*  
 three fall.&.break.rib 1/ind.ind  
 ‘I fell and broke three ribs.’

The verbs in (109) and (110) are examples of the detransitivizing type of incorporation, each containing the medial *-ehkwe·w-* ‘woman’. (111) contains the compound stem *nepina·t-* ‘go after water’, which may also be an instance of the detransitivizing type of incorporation, as discussed above.<sup>23</sup> (112) and (113) contain incorporated body parts, *-inehk(e·)* ‘hand, arm’ and *-ihpik(e·)* ‘rib’, respectively. In (109) *kotakani* ‘other’ is interpreted as modifying the incorporated noun

<sup>23</sup> As explained above, it is impossible to tell from the inflection of the verb whether the compound *nepina·t-* is transitive or intransitive. If it is transitive (with ‘water’ functioning as a classifier) then (111) is not an example of an external element modifying an incorporated noun.

‘woman’; likewise, in (110) the participle *we·wenesiničini* ‘(one) who is pretty’ is understood to refer to the woman who is being courted. (111) also contains a participle, here understood to modify the incorporated noun ‘water’. (The stem of the participle is *tahkepye·ya·-* ‘be cool [water]’, which contains the classificatory medial for water *-epye·-*.) In (112) and (113) a quantifier modifies the incorporated body part.

A denominal verb may marginally be used with an element which modifies the noun stem inside the verb:

- (114) ? ma·ne=meko            e·hahte·himinehke·či  
           many=emph            gather.strawberries 3/aor  
           ‘She gathered very many strawberries.’

An objection that may be raised here, however, is that in each of (109)–(114) the external modifier could function on its own as a full NP. That is, what makes Sadock’s argument from Greenlandic so compelling is that the possessor in examples like (107) is not possible as an NP argument of verbs in general; such a possessor must either be in construction with a head N, or occur with a verb containing an incorporated noun.

Mithun 1984a specifically discusses a sentence which is parallel to the Meskwaki examples in (109)–(114):

- (115) Kanekwarúnyu            wa’-k-akya’tawi’tsher-ú:ni.  
           it.dotted.dist            past-I-dress-make  
           ‘I dress-made a polka-dotted one.’ (‘I made a polka-dotted dress.’)  
           (Mohawk; from Mithun 1984a:870, ex. (106))

In (115) the verb contains ‘dress’ as an incorporated noun, which is modified by an external element. As in the Meskwaki examples above, the modifier in (115) can function on its own as a full NP. Mithun claims that the modifier is indeed a full NP; moreover, the external modifier represents the true syntactic argument of the verb, with the incorporated element within the verb functioning merely as a classifier.

Could we give a comparable analysis for the Meskwaki examples above? It is perhaps possible for (111), since it is not clear whether the compound stem *nepina·t-* ‘go after water’ should be analyzed as transitive or intransitive. However, the stems in (109), (110), and (112)–(114) are intransitive stems. Analyzing the modifiers in these examples as object NPs would be problematic, since the verb is not subcategorized for an object.

Let us now turn to another controversial point regarding noun incorporation. Mithun 1984a:866 says that incorporated nouns, being nonreferential, are not used to introduce a new discourse referent in texts. Sadock 1986 disagrees, providing numerous counterexamples from Greenlandic, and goes on to argue that this is further evidence of the syntactic nature of incorporated nouns. One of Sadock’s examples is reproduced below.

- (116) *Ernertaarput, atserlugulu Malamik.*  
 erneq-taar-put,                      atser-lugu-lu                      Mala-mik  
 son-get.a.new-indic.3pl              name-contemp.3sg-and              M.-inst  
 ‘They had a son and called him Mala.’ (Greenlandic; from Sadock 1986:23, ex. (1))

In (116) the first verb contains the morpheme *erneq-* ‘son’ inside the verb. The second verb is inflected for a third singular object, which is coreferential to ‘son’. In other words, the new character is introduced by an incorporated noun, and this noun may function as an antecedent for later pronominal reference.

The phenomenon of denominal verbs introducing a referent is found in Meskwaki texts as well.<sup>24</sup> In fact, the following Meskwaki example is very similar to Sadock’s Greenlandic example above:

- (117) *ki·ši–oni·ča·nesiwa·čini*  
 perf–have.child 3p/iter
- i·ni      ki·ši–      kotwa·šika      –taswipewo·nwe·ničini*  
 then      perf–      six                      –be.so.many.years.old 3’/iter
- ‘After they (prox) have children,  
 then after they (obv) are six years old, ...’ R556.29

In (117) the first verb is a denominal verb of possession, built on the noun stem *-ni·ča·nes-* ‘child’ (cf. (103b)). In the next line the verb is inflected for an obviative subject, which is understood to refer to ‘children’. Again, as in Sadock’s example, a referent is mentioned for the first time with a denominal verb, which permits subsequent pronominal reference to the introduced character. (See 9.1. for the position of the perfective preverb *ki·ši-*.) Another textual example of this anaphoric phenomenon involves a denominal verb containing the suffix *-ehke-* ‘make, obtain’:

- (118) *o·ni                      e·hpene·hke·niči=wi·na=meko,                      e·hnesa·niči*  
 and.then                      hunt.turkeys 3’/aor=contr=emph                      kill 3’–3’’/aor  
 ‘And then they (obv) hunted turkeys indeed, and killed them (further obv).’ R162.10.

The stem of the first verb in (118) is *pene·hke-* ‘hunt turkeys’ (cf. (99b)); in the second clause the object inflection on the verb refers to the turkeys. (The contrastive enclitic following the first verb reflects the fact that, in this context, it is unusual to be hunting turkeys rather than deer.)

The above examples from Greenlandic and Meskwaki make it clear that the claim in Mithun 1984a is wrong; that is, it is not necessary to use an external NP to introduce a new discourse referent. However, a separate question remains: does this phenomenon provide evidence for the syntactic status of incorporated nouns? In her response to Sadock, Mithun 1986 counters that this phenomenon is just due to pragmatics. For example, if a complex verb such as *berry-picking* is

<sup>24</sup> No textual examples have been found with incorporated body parts serving as antecedents for later pronominal reference. A body part is often mentioned for the first time in the discourse with an incorporated form, but subsequent mentions are again with incorporated nouns inside verbs, not with pronominal inflection.

used in the discourse, further discussion of berries is not surprising, she says. Sadock himself acknowledges (1986:25–26) that definite pronouns may have pragmatic, extralinguistic, antecedents but points to Postal 1969, who shows that morphologically complex words in English generally do not allow a part of a word to function as an antecedent for a pronoun. Sadock concludes that the syntax of word-formation in English is different from that seen in polysynthetic languages; pragmatics alone cannot be the explanation.

For Meskwaki, the examples of anaphora in (117)–(118) together with the examples of external modifiers in (109)–(114) suggest that Meskwaki should be classed with Greenlandic and Southern Tiwa as languages in which noun incorporation is syntactic. The case for Meskwaki would be strengthened, however, if textual examples confirming the elicited examples of (109)–(114) can be found.<sup>25</sup>

### 6.3.2. Secondary predicate incorporation

We now turn to a different type of incorporation, the incorporation of secondary predicates, for which there is even stronger evidence that syntactic processes may have access to the internal structure of words.<sup>26</sup> Secondary predicates are expressed as an initial in the verb stem, followed by a final expressing the main predicate. The final *-e·nem* ‘think of, consider’ TA, or its TI counterpart *-e·net*, is the most productive final found in this construction. Some examples of verb stems containing these finals are listed below:

- |       |    |                      |                                    |
|-------|----|----------------------|------------------------------------|
| (119) | a. | pešeke·net-          | ‘consider O cute’ TI               |
|       | b. | wi·ne·net-           | ‘consider O dirty’ TI              |
|       | c. | ašenowe·net-         | ‘think O is gone’ TI               |
|       | d. | nepwa·hka·we·nem-    | ‘consider O smart’ TA              |
|       | e. | pašitowe·we·nem-     | ‘consider O a liar’ TA             |
|       | f. | a·hkwamatamo·we·nem- | ‘think O is sick’ TA               |
|       | g. | asa·mehkonowe·nem-   | ‘think O overate’ TA               |
|       | h. | ayi·hkwe·nem-        | ‘think O is tired’ TA              |
|       | i. | nepo·we·nem-         | ‘think O is dead’ TA               |
|       | j. | ne·se·we·nem-        | ‘think O is alive’ TA              |
|       | k. | kehke·netamo·we·nem- | ‘think O is conscious’ TA          |
|       | l. | anehka·we·we·nem-    | ‘think O is acquainted with O2’ TA |

Morphologically, the incorporated secondary predicate may be a simple initial, such as *wi·n-* ‘dirty’ in (119b), or a derived initial, as in (119c), where the initial *ašenow-* is derived from the verb stem *ašeno-* ‘be missing’ II. The stems in (119) are thus all primary stems, as argued in 6.1.

<sup>25</sup> Sadock’s other arguments regarding Greenlandic are not applicable to Meskwaki noun incorporation: there is never gapping of part of a word, nor can there be an external predicate nominal which is controlled by an incorporated noun. (Secondary predicates are themselves incorporated, as will be seen in the next section.) Question words may sometimes appear in the initial position of verb stems (cf. 6.3.2), but never in the medial position, where incorporated nouns are found.

<sup>26</sup> For other treatments of this construction in Meskwaki see Michelson 1917:52, who speaks of ‘a sentence within a verbal compound’, and Goddard 1988a, who labels this phenomenon ‘post-transformational stem derivation’.

Other finals which may be paired with an initial expressing a secondary predicate include the final *-ite·he·* ‘think, feel’,<sup>27</sup> the finals *-a·čim* TA, *-a·tot* TI ‘report, tell about O’, *-ina·kosi* AI, *-ina·kwat* II ‘appear’, *-hka·no* ‘pretend’ AI, and *-a·pam* TA, *-a·pat* TI, ‘see’. Examples of stems containing these finals are given below.

- (120) a. *mi·hkemehkwe·we·wite·he·-* ‘think about courting women’ AI  
 b. *ni·miwite·he·-* ‘feel like dancing’ AI  
 c. *koškoškwa·tot-* ‘report O to be dangerous’ TI  
 d. *sanakina·kwat-* ‘appear difficult’ II  
 e. *a·hkwamatamo·hka·no-* ‘pretend to be sick’ AI  
 f. *ašenowa·pam-* ‘see O disappear’ TA  
 g. *mehtose·neniwa·pam-* ‘see O as a human being’ TA

The context for the stem in (120g), *mehtose·neniwa·pam-* ‘see O as a human being’, is that a young man sees a spirit in a vision; the spirit has assumed the form of a human being.

Although the incorporation of secondary predicates is extremely productive in Meskwaki, not every stem containing the finals listed above should be analyzed as having a secondary predicate as an initial. For example, the finals *-e·nem* and *-e·net* ‘think of’ appear in the basic verbs for ‘know’ and ‘think’: *kehke·nem-* ‘know’ TA; *kehke·net-* ‘know’ TI; *nenehke·nem-* ‘think of’ TA; *nenehke·net-* ‘think of’ TI. They are also found with aspectual or adverbial initials; that is, initials which modify the predicate ‘think’, rather than expressing a secondary predicate. Examples include *po·ne·nem-* ‘stop thinking of’ TA, *mi·na·we·nem-* ‘think seriously of’ TA. They are also found in the verb stems for ‘remember’, *mehkwe·nem-* TA, *mehkwe·net-* TI; the initial *mehkw-* means ‘find’, so here the finals function like instrumental finals (6.1): ‘find by thinking’.

However, for the productive pattern in which the initial does receive an interpretation as a secondary predicate, a syntactic question arises: is the morphologically complex verb stem a single argument-taking predicate in the syntax, or does the incorporated secondary predicate constitute a separate argument-taking predicate? The functional structure for each alternative is sketched below, using an inflected form of (119d), *nepwa·hka·we·nem-* ‘consider O smart’ TA, as an example.

- (121) nepwa·hka·we·nema·wa  
 consider.O.smart 1–3/ind.ind  
 ‘I consider him smart.’

<sup>27</sup> This final is the AI counterpart to the transitive finals *e·nem/e·net* ‘think?; it is derived from the body part medial *-ite·h(e)-* ‘heart’. A semantically parallel extension of a body part term may be seen with *-eše-*, which means ‘ear’ when used in medial position, but which also functions as the AI final ‘hear’.



(122) Only one argument-taking predicate.

PRED	‘ <i>nepwa·hka·we·nem-</i> consider-smart <SUBJ OBJ>’
SUBJ	‘I’
OBJ	‘him’

(123) Two argument-taking predicates.

PRED	‘ <i>-e·nem-</i> consider <SUBJ XCOMP> OBJ’				
SUBJ	‘I’				
OBJ	‘him’				
XCOMP	<table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;">SUBJ</td> <td style="padding: 5px;">‘him’</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;">PRED</td> <td style="padding: 5px;">‘<i>nepwa·hka·w-</i>smart &lt;SUBJ&gt;’</td> </tr> </table>	SUBJ	‘him’	PRED	‘ <i>nepwa·hka·w-</i> smart <SUBJ>’
SUBJ	‘him’				
PRED	‘ <i>nepwa·hka·w-</i> smart <SUBJ>’				

In (122) the morphologically complex verb stem is analyzed as a single argument taking predicate, glossed ‘consider smart’ and subcategorized for a subject and an object. The verb inflection for first person singular subject acting on a third person proximate animate singular object satisfies the requirements for a subject and object.<sup>28</sup> The alternative hypothesis that we want to consider is sketched in (123). Here there is a matrix predicate — the final *-e·nem-* ‘think of, consider’—which is subcategorized for three arguments: a subject, an object, and an XCOMP.<sup>29</sup> As explained in 1.2.5, the term XCOMP is used in LFG for a subcategorized grammatical function which contains an argument taking predicate, but in which there is no specification of the subject. The subject of the XCOMP must instead be coreferential to an argument of the matrix predicate. In (123) the predicate of the XCOMP is *nepwa·hka·w-* ‘smart’, subcategorized for a subject. The subject of the XCOMP is understood to be coreferential to the object of the matrix predicate, indicated in (123) by the curved line connecting the values of the two grammatical functions.

The representation in (123) is obviously more complex than that of (122) and should not be adopted unless there is independent motivation for analyzing the secondary predicate as a separate entity in the syntax. The remainder of this section will present a variety of arguments to support the analysis in (123).

<sup>28</sup> The values of SUBJ and OBJ in (122) and (123) are given as simply ‘I’ and ‘him’, respectively; in a more detailed representation there would be a subsidiary f-structure as the value for each grammatical function, listing the values of the attributes PRED, PERS, NUM, GEND, and OBV. See 1.3. for examples.

<sup>29</sup> OBJ is written outside the angled brackets because it need not be associated with a thematic role. For example, the incorporated secondary predicate may be an impersonal II verb which takes an expletive subject: *nekemiya·nwe·neta* ‘I think it is raining’ with stem *kemiya·nwe·net-*. Here the matrix OBJ must be nonthematic, to control the subject of ‘rain’.

The first argument that secondary predicates are visible to the syntax is that a secondary predicate may be questioned:

- (124) *kewe·ne·he·nema·wa=ča·hi*                      *ne·se·hiyana=ki·na?*  
 consider.O.what? 2–3/ind.ind=so      kill.dim 2–3/part/3=you  
 ‘What do you think about the one you killed?’ WYB43H

The stem of the verb in (124) is *we·ne·he·nem-*, in which the final is *-e·nem* ‘think, consider’ TA and the initial is *we·ne·h-*, the stem for the interrogative pronoun ‘who?’ (3.9). If the secondary predicate can be questioned it must be considered a separate syntactic argument; this is compatible with the f-structure in (123), but not that of (122), in which the secondary predicate is not represented in the syntax.<sup>30</sup>

The argument structure of secondary predicates also argues in favor of a representation like (123), in which there are two argument-taking predicates in the functional structure. For example, a secondary predicate may require an oblique argument. The initial *tan-*, when used as a secondary predicate, is glossed ‘be [there]’ and subcategorized for a subject and an oblique of stationary location. The following sentences all contain verb stems with the initial *tan-*:

- (125) *i·nahi ni·či·neniwaki*                      *tana·čime·waki*                      *aka·sani*  
 there my.fellow–men                      report.O.be.[there] 3p–3’/ind.ind      Kaw.obv  
 ‘My fellow men said a Kaw Indian was there.’ R382.17<sup>31</sup>

- (126) *penoči=meko meše=‘nahi*                      *e·hka·ki·wi–tana·čimoniči*  
 far.off=emph someplace                      redup.around–report.being.[there] 3’/aor

*o·šisemahi*  
 her.grandchildren.obv

‘Her grandchildren always tell about travelling around some far-off place’ W97G

- (127) *ayo·h=mani*                      *tane·neta·kosiwaki*                      *ni·šwi*  
 right.here                      be.thought.to.be.[there] 3p/ind.ind      two

*wi·hketema·kihenakwiki*  
 fut.make.O.miserable 3(p)–21/part/3p

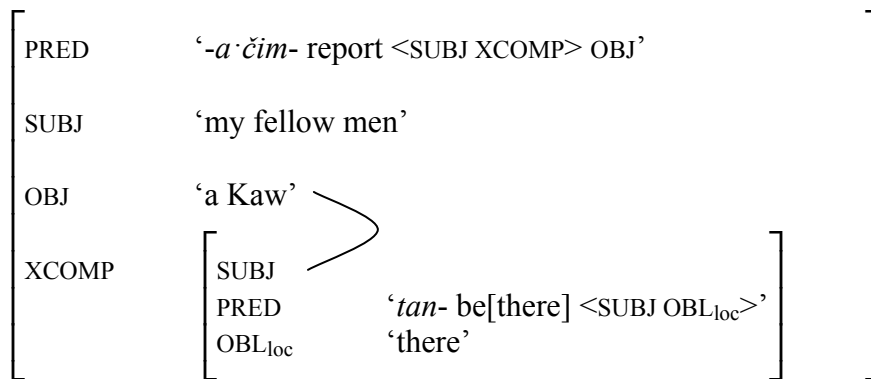
‘Two [people] who will make us miserable are thought to be right here’ W153H

<sup>30</sup> The question word *ke·swi* ‘how many?’ may also appear in stem-initial position, but this questions an oblique argument, not a secondary predicate. For example, in *keke·swipepo·nwe?* ‘How old are you?’, the verb stem is *ke·swipepo·nwe-* ‘be how old?’ AI, inflected for a second person singular subject. See 7.3. for why the argument expressing number in such examples bears the grammatical function of oblique.

<sup>31</sup> The published version of this sentence is incomplete; it has been corrected from the original manuscript. This sentence is also discussed in Goddard 1988a:72, ex. (64).

In the verb stem of (125), *tan-* is combined with *-a čim* ‘report’ TA, in (126), with *-a čimo* ‘report’ AI, and in (127), with *e neta kosi* ‘be thought of’ AI (see 7.1.5. for discussion of derivational passives). In each sentence the oblique argument is construed with the secondary predicate, not the matrix predicate. For example, in (125) the oblique expresses the location of the Kaw Indian, not the location at which the story about him was told. The f-structure in (123), which represents these complex verbs as having two argument taking predicates, can be explicit about which predicate takes an oblique argument; the representation of (122), with a single argument taking predicate, cannot:

(128)



Similar arguments can be made for (126) and (127). (The scope of the preverb and reduplication in (126) will be discussed below.)

Additional evidence that secondary predicates warrant a separate representation in the syntax is that the scope of modifiers may extend over just one of the two predicates in the verb. For example, in the following sentence the preverb *katawi-* ‘almost’ modifies the initial *nepo w-* ‘dead’, but not the final *-e nem* ‘think’:

(129) *e hkatawi-nepo we nemakwe*  
 almost-think.O.dead 21-3(p)/aor  
 ‘We consider them almost dead.’ O113A

Likewise, a negative preverb may have scope over only the secondary predicate:

(130) *ke htena=či hi e hpwa wi-ma či šini či*  
 surely=exclam not-lie.moving 3'/aor  
 ‘Surely he (obv) was lying without moving.’ W987

In (130) the negative *pwa wi-* negates the initial *ma t-* ‘move’ but not the final *-išin* ‘lie’.

A modifier external to the verb may also have scope over the incorporated secondary predicate, as in the following elicited example:

- (131) a·kwi pe·hki a·hkwamatamo·we·nemakini  
 not really think.O.sick 1–3/neg  
 ‘I don’t think he was really sick.’

In (131) *pe·hki* ‘really’ modifies the secondary predicate ‘sick’.

The same phenomenon may be observed with the various morphological indications of aspect. An aspectual preverb may have scope over the secondary predicate only:

- (132) ki·ši–ki·ke·nowe·nemaki  
 perf–think.O.celebrate.clan.feast 1–3(p)/ch.conj  
 ‘When I thought they were finished celebrating the clan feast,’ R134.45

This example is discussed in Goddard 1988a:71, as well as in Michelson 1917:53. Notice that the perfective preverb *ki·ši–* modifies the initial *ki·ke·now–* ‘celebrate clan feast’, but not *-e·nem–* ‘think’.

However, it is not always the case that a preverb is construed only with the secondary predicate. In the next example, the perfective aspect of the preverb is associated with the matrix predicate:

- (133) e·hki·ši—meko            –maneto·we·nema·wa·či            a·neta i·nini  
 perf—emph            –consider.O.a.spirit 3p–3’/aor            some that.obv  
 ‘Some of them finally believed that person to be a spirit.’ W178F

The perfective preverb *ki·ši–* does not apply to the initial *maneto·w–* ‘spirit’, but only to the final *-e·nem* ‘think’.

In the following elicited example, the preverb *po·ni–* ‘cease’ can only be construed with the matrix predicate, not the secondary predicate:

- (134) nepo·ni–a·hkwamatamo·we·nema·wa  
 cease–think.O.sick 1–3/ind.ind  
 ‘I stopped believing he was sick.’  
 (not ‘I believe he stopped being sick.’)

Aspect in Meskwaki may also be expressed by reduplication of the verb stem or of a preverb. Bisyllabic reduplication generally indicates iterative aspect (Dahlstrom 1997); the following elicited example allows two different readings:

- (135) neta·hkwaha·hkwamatamo·we·nema·wa  
 redup.think.O.sick 1–3/ind.ind  
 ‘Every day, I thought that she was sick.’  
 (or, ‘I think she gets sick over and over.’)

The unreduplicated form of the verb stem is *a·hkwamatamo·we·nem-* ‘think O is sick’ TA. The preferred, volunteered, reading of the reduplicated form in (135) associates the iterative aspect with the matrix predicate ‘think’: for example, if I see a certain woman every day, each time I think, ‘She’s sick’. The second reading, in which the iterative aspect applies to the secondary predicate ‘sick’ and not to ‘think’, was then suggested, and accepted as a possible meaning as well.

While bisyllabic reduplication usually indicates iterative aspect, monosyllabic reduplication typically marks continuative aspect. A textual example of this was seen above in (126), repeated below:

- (136) *penoči=meko meše·=‘nahi e·hka·ki·wi–tana·čimoniči*  
 far.off=emph someplace redup.around–report.being.[there] 3’/aor  
  
*o·šisemahi*  
 her.grandchildren.obv

‘Her grandchildren always tell about travelling around some far-off place’ W97G

In (136) the directional preverb *ki·wi-* ‘[go] around’ must be construed with the secondary predicate: the subjects were travelling around at the place which they are now telling about. However, the aspect marked by the reduplication on the preverb has scope over the matrix predicate, *-a·čimo* ‘tell about’.

The interaction of ‘tough movement’ (10.2) and secondary predicates also warrants a syntactic representation like (123), in which a morphologically complex verb corresponds to two argument-taking predicates in the syntax. 10.2. shows that verbs like ‘be difficult’ are associated with two different subcategorizational frames. They may either take an impersonal subject and a Comp clause expressing what is difficult, or (in an analog to ‘tough movement’ in English) an argument from the Comp clause may be promoted to the matrix clause, becoming the subject of ‘be difficult’. As will be seen in 10.2, the secondary predicate *sanak-* ‘difficult’ has the same syntax as the matrix verb ‘be difficult’, allowing optional tough movement. As a result, in a stem like *sanake·nem-* ‘consider O difficult’ TA tough movement feeds the control relation holding between the object of ‘consider’ and the subject of the secondary predicate ‘difficult’:

- (137) *i·na neniwa nesanake·nema·wa wi·hkano·neči*  
 that man think.O.difficult 1–3/ind.ind fut.talk.to X–3/aor  
 ‘I think that man is hard to talk to.’

The final point regarding the syntax of secondary predicates involves the absence of reflexive pronouns where they might otherwise be expected to appear. Consider the following example:

- (138) *ketanehka·we·we·nemekowa·toke owiye·ha*  
 think.O.acquainted.with.O2 3–2p/dub someone  
 ‘Someone<sub>i</sub> must think you are acquainted with him<sub>i</sub>.’ W104

The stem of the verb in (138) is *anehka·we·we·nem-*, with the final *-e·nem* ‘think’ TA and an initial derived from the transitive stem *anehka·w-* ‘be acquainted with, be used to, feel close to’ TA. The context for the sentence in (138) is that Wisahkeha and his younger brother are annoyed that someone has hidden their pet deer from them; their grandmother tries to placate them, explaining that it must be someone who thinks that they are close enough friends of his that he can play a joke on them.

If *anehka·w-* ‘be acquainted with’ TA were used as a separate stem, the person one is acquainted with would be expressed as the first object of the verb. However, since in (138) this predicate is incorporated as an initial, paired with a transitive final, the person one is acquainted with is expressed as the second object of the verb. What is of interest in this example, however, is that we have coreference between the subject of *-e·nem* ‘think’ TA and the second object (indicated by subscripts in the gloss of (138)). However, there is no reflexive pronoun expressing the second object. This is contrary to the pattern seen in other contexts where a second object is coreferential to the subject:

(139) *i·noki=ca·hi·=‘ni*      *e·hmi·nenako·we*      *ni·yawī*  
 today=so=then      give 1–2p/aor      myself  
 ‘So today I give you myself.’ O87D

(140) *e·hwa·pato·na·tehe*      *owi·yawī*      *kehčine·we*  
 show 3–3’/past.aor      himself      in.person  
 ‘He had shown them himself in person.’ W822

In (139) the second object of ‘give’ is coreferential to the subject and is therefore expressed by the reflexive pronoun *ni·yawī* ‘myself’ (3.7.2). The stem in (140) is an example of a secondary stem: a causative secondary final (7.2.3) has been combined with the transitive stem *wa·pat-* ‘look at’, creating a derived ditransitive stem ‘show’. In regard to the binding of a reflexive pronoun, however, the derived ditransitive stem in (140) is identical to the simple ditransitive stem in (139): in both, a reflexive pronoun is used if the second object is coreferential with the subject.

In (138), however, the second object of the verb is simply expressed as a zero anaphor, not as a reflexive pronoun, even though it is coreferential with the subject. Expressing a second object as a zero anaphor is the strategy used when a pronominal second object is not bound by any other argument within its clause; the use of this strategy here further supports the hypothesis that the secondary predicate is a separate syntactic entity.

To sum up the results of this section, an incorporated secondary predicate may be questioned, have its own argument structure, be modified by adverbs and aspectual elements, undergo a relation-changing process like tough movement, and appears to be ‘biclausal’ with respect to the binding of reflexive pronouns. Along with the incorporated nouns described in 6.3.1, incorporated secondary predicates present a solid counterexample to the Lexical Integrity Hypothesis that syntactic processes never have access to the internal structure of words.