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.shootingTA

(2) mi‘hkemehkwe·we’-  ‘court women’ AI
   /mi‘hkem + ehkwe‘w + e’/  
   court + woman + doAI

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  
/sek + esi/  
fright + stativeAI

(4) se·kim-  ‘frighten O with one’s words’ TA  
/se/k + im/  
fright + by.speechTA

(5) mya·neka-  ‘dance poorly’ AI  
/mya’n + eka/  
bad + danceAI

(6) mya·šite·he-  ‘feel bad’ AI  
/mya’n + ite·he/  
bad + think, feelAI

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’  
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’

1 The initial in (7c) is ki·w- ‘about, around’, with dissimilation of w to y.
(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.mouthTI

b. ki‘škeš- ‘cut off’ TI
    /ki‘šk + eš/ sever + by.cuttingTI

(11) a. panen- ‘drop’ TI
    /pan + en/ miss + by.handTI

b. panešk- ‘miss hitting with one’s foot’ TI
    /pan + ešk/ miss + by.footTI

c. panat- ‘spill while eating’ TI
    /pan + at/ miss + by.mouthTI

d. panah- ‘miss hitting by tool’ TI
    /pan + ah/ miss + by.toolTI

(12) a. mi‘wen- ‘remove’ TI
    /mi‘w + en/ away + by.handTI

b. mi‘wešk- ‘kick out’ TI
    /mi‘w + ešk/ away + by.footTI
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.\(^2\) 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. *mačišin-* ‘lie moving’ Al, with initial *ma*t-* ‘move’ and final -*išin-* ‘lie’; *wiwapit-* ‘wrap and tie’ TI2, with initial *wį* - *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:

\[
\begin{align*}
\text{Stem} &
\{\text{Stem, Theme}\} & \text{Secondary Final}
\end{align*}
\]

Nearly all the secondary finals alter the valence of the stem they attach to, as discussed in chapter 7.\(^3\) Two examples of secondary finals will be given here to provide a contrast with the primary

\(^2\) 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.

\(^3\) 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.4 Let us first consider examples of derived finals:

(19) pematone‘hw- ‘pass by looking for’ TA  
    /pem + atone‘hw/  
    by + look.forTA

(ce. natone‘hw- ‘look for’ TA)

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4 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.
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* ‘look for’ TA, which has been derived from a full TA verb stem, *natone* ‘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 *-apam* ‘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 (*myan* ‘bad’ in (5) and (6); *sek* ‘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* ‘fast’ AI → *-ahkate*; *noše* ‘give birth’ AI → *-oše*; *wa pam* ‘be dawn’ II → *-apan*; *mehpo* ‘snow’ II → *-ehpo*. However, many other stems—both consonant-initial and vowel-initial—have suppletive final forms. Examples include *ami* ‘move camp’ AI → *-ote*; *nakamo* ‘sing’ AI → *-inake*; *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) *mihkemehkwe witehe* ‘think about courting women’ AI

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

\[(24)\] mi·hkemhkwe·we- ‘court women’ AI ⁵
\[/mi·hkem + ehkwe·w + e/\]
court + woman + doAI

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:

\[(25)\]

\[\text{Stem} \quad \text{Final} \quad \text{Initial} \quad \text{Medial} \quad \text{Stem} \quad \text{Initial} \quad \text{Medial} \quad \text{Final}\]

\[-ite·he- \quad \text{‘think’} \quad \text{mi·hkem-} \quad \text{‘court’} \quad \text{ehkwe·w-} \quad \text{‘woman’} \quad \text{-e-} \quad \text{‘do’}\]

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·site·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

⁵ 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’
inekikhwi–     ‘so big, so many’

Preverbs which add a second object

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

Aspectual or quasi-aspectual

kiši–     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’
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’

6 Only used with participles; see 5.3.
otami–  ‘spend or waste time doing’

Negative

pwa’wi–  ‘not’

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’
nišwi–  ‘two’
neswi–  ‘three’
nye’wi–  ‘four’
ča’ki–  ‘all’
meso’te’wi–  ‘all together’
asa’mi–  ‘too much’
te’pi–  ‘enough’
kiša’koči–  ‘as much as possible’
po’si–  ‘very; much’
ma’wači–  ‘most’ [superlative]
kehči–  ‘greatly’
katawi–  ‘almost, about to’

Other adverbials

menwi–  ‘well’
myaši–  ‘badly; sort of’
nešiwi–  ‘terribly’
aški–  ‘for the first time’
wapaši–  ‘mockingly’
wi’keči–  ‘carefully’
mahkwači–  ‘quietly, seriously’
kekeni–  ‘quickly’
neši–  ‘alone’
če’wi–  ‘equally’
mehči–  ‘openly, plainly’
im’na’wi–  ‘attentively, in detail’

7 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;¹ 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–).⁹ 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

¹ See Appelbaum 1996 for an overview of how aspect is expressed in Meskwaki.
⁹ 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 *poʾni*– ‘cease’:

(30)  eʾhpoʾni–mehtose neniwihṭoʾyeʾkwe kiʾyaʾwaʾwi  
      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)  nekiʾši–=_meko  –anehkawaʾwa  
      perf–=emph  –get.to.know 1–3/ind.ind  
      ‘I have gotten used to him.’ N12E

(32)  eʾyeʾši–=_meko  –pwaʾwi–nenehkeʾnemaʾči  wiʾhneʾwaʾči  
      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)  kiʾhpoʾni–=čaʾh=_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 kiʾši–, the first phonological word of the clause; in (32), =_meko attaches to ayeʾši– ‘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 *poʾni*– ‘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)  wiʾhanemi–maʾmiʾčči  owiʾyaʾsi  
      fut.away–redup.eat 3–0/part/0  meat  
      ‘meat for him to eat on his journey’ N22I
(35)  kiši-a ya čimoči
    perf-redup.tell.story 3/ch.conj
    ‘After he had finished telling his stories’ N26I

(36)  kiši-ča'ki-ka'ki wateničini,
    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)  nepyeči– 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).10 Consider the following two sets of
eamples: first, compound stems containing a preverb, and then simple verb stems.

(39)  a.  asa mi–neškim–
      too.much–scold
    ‘scold O too much’ TA

    b.  menwi–pemen–
      well–take.care.of
    ‘take good care of’ TA

    c.  nahi–mi’hkečhiwe–
      know.how–doctor.people
    ‘know how to doctor people’ AI

    d.  ni šwi–pemen–
      two–take.care.of
    ‘take care of two of O’ TA

10 See also Hotta 1996 for a discussion of the morphosyntactic problems raised by the relationship between preverbs
and initials in Meskwaki.
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\textsuperscript{m}-, which combines with initials such as asa\textsuperscript{m}- ‘too much’ in (40a): asa’mekwa\textsuperscript{m}- ‘oversleep’ AI. Other verb stems containing the final -ekwa\textsuperscript{m}- are listed below:

(41) a. menokwa\textsuperscript{m}-
\hspace{1cm} /menw + ekwa\textsuperscript{m}/
\hspace{1cm} well + sleep\textsubscript{AI}
\hspace{1cm} ‘sleep well’ AI

b. ki:\textsuperscript{ša}kotekwa\textsuperscript{m}-
\hspace{1cm} /ki:\textsuperscript{ša}kot + ekwa\textsuperscript{m}/
\hspace{1cm} as.much.as.possible + sleep\textsubscript{AI}
\hspace{1cm} ‘sleep dead to the world’ AI

c. šekikwa\textsuperscript{m}-
\hspace{1cm} /šeki + (e)kwa\textsuperscript{m}/
\hspace{1cm} urinate + sleep\textsubscript{AI}
\hspace{1cm} ‘wet the bed’ AI

d. wi:\textsuperscript{šasokwa}\textsuperscript{m}-
\hspace{1cm} /wi:\textsuperscript{šaso} + (e)kwa\textsuperscript{m}/
\hspace{1cm} sweat + sleep\textsubscript{AI}
\hspace{1cm} ‘sweat in one’s sleep’ AI

e. ine\textsuperscript{kwa}\textsuperscript{m}-
\hspace{1cm} /in + ekwa\textsuperscript{m}/
\hspace{1cm} thus + sleep\textsubscript{AI}
\hspace{1cm} ‘sleep [thus]’ AI

f. tanekwa\textsuperscript{m}-
\hspace{1cm} /tan + ekwa\textsuperscript{m}/
\hspace{1cm} there + sleep\textsubscript{AI}
\hspace{1cm} ‘sleep [there]’ AI

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

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

(42) mešketone\textsuperscript{kwa}\textsuperscript{m}-
\hspace{1cm} /mešk + etone\textsuperscript{+ ekwa\textsuperscript{m}/
\hspace{1cm} open + mouth + sleep\textsubscript{AI}
\hspace{1cm} ‘sleep with one’s mouth open’ AI

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’
\hspace{1cm} nepa\textsuperscript{-} (AI stem)
\hspace{1cm} neškim- (TA stem)
\hspace{1cm} asa\textsuperscript{m}- (initial)
\hspace{1cm} asa\textsuperscript{mi}– (preverb)
\hspace{1cm} ‘scold’
\hspace{1cm} ‘too much’
Because there is a final form in the lexical entry for ‘sleep’ it is preferred in stem formation processes. 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’
    wa pam–   (TA stem)   keht– (initial)   pye t– (initial)
    -a pam–   (TA final)   kehci– (preverb)   pye či– (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’, kehr–, 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.

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’, ahkwi či ‘on top of’, keki či ‘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. či ki kehčikami–we  ‘on the shore of the ocean’
    b. ahkwíči asenye          ‘on top of a stone’
    c. keki či ma ne           ‘with the canoe’

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11 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.

12 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 pemoe– ‘by’ in the preverb position: pemoe– we p– ‘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.
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 či·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’).

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 -ahkwit- ‘ocean’, on the other hand, contains only the independent noun stem kehčikami·w- ‘ocean’ (inan). The preposition ‘next to’ has two forms listed in its lexical entry: či·k- and či·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 či·k-, giving či·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 kehčikami·w- must be used. This in turn means that the initial form či·k- cannot appear, but instead the phonologically independent word či·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.

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13 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. 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:

(47) mi`hkemehkwe`we`- ‘court women’ AI
    /mi`hkem + ehkwe`w + e`/ court + woman + doAI

(48) natonehkwe`we`- ‘seek a woman’ AI
    /naton + ehkwe`w + e`/ look.for + woman + doAI

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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14 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 θ-role at D-structure. In languages with noun incorporation the noun may then move into the verb by the general rule of ‘move α’, 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.

15 ‘Woman’ is somewhat unusual in that the incorporated form, -ehkwe`w-, is identical to the independent noun stem ihkwe`w- (i/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-  \[\text{‘build a house’ AI}\]
    /an + ik + e/  
    make + house + do_{AI}

(50) ačike-  \[\text{‘rebuild one’s house’ AI}\]
    /a\check{t} + ik + e/  
    over.again + house + do_{AI}

(51) kišike-  \[\text{‘finish building a house’ AI}\]
    /kiš + ik + e/  
    perfective + house + do_{AI}

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) pasešėnaw-  \[\text{‘graze O’s ear by a shot’ TA}\]
    /pas + ešė + enaw/
    graze + ear + by.shooting_{TA}

(53) kiškšēšw-  \[\text{‘cut off O’s ear’ TA}\]
    /kišk + ešė + ešw/
    sever + ear + by.cutting_{TA}

(54) kiškšikomehpw-  \[\text{‘bite O’s nose off’ TA}\]
    /kišk + ikome + ihpw/
    sever + nose + by.mouth_{TA}

(55) kepetone-  \[\text{‘cover O’s mouth with one’s hand’ TA}\]
    /kep + etone + en/
    closed + mouth + by.hand_{TA}
(56) mešketoneˈn-  ‘open O’s mouth’ TA
    /mešk + etoneˈ + en/
    open + mouth + by.handTA

(57) poˈhkečeˈšw-  ‘cut a hole in O’s belly’ TA
    /poˈhk + ečeˈ + ešw/
    hole + belly + by.cuttingTA

(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 -eˈ ~ Ø
‘have, do’ AI:

(58) weˈweˈpešeˈ-  ‘flap one’s ears’ AI
    /weˈweˈp + eš + eˈ/
    swing + ear + doAI

(59) piˈčinehkeˈ-  ‘put one’s hand in’ AI
    /piˈt + inehk + eˈ/
    inside + hand + doAI

(60) mehtanasiteˈ-  ‘be barefoot’ AI
    /meht + anasit + eˈ/
    bare + bottom.of.foot + haveAI

(61) miˈseton-  ‘have a moustache’ AI
    /miˈs + eton + ∅ /
    hairy + mouth + haveAI

Notice that the medials preceding the instrumental finals in (52)–(57) all end in eˈ, while the
medials in (58)–(60) (and (47)–(51)) end in consonants, followed by an -eˈ 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 eˈ
(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 -etoneˈ- ‘mouth’ in (61) with -etoneˈ- ‘mouth’ in (55) and (56) shows that medials do in fact show variation
between a consonant-final form and a form ending in eˈ. Goddard 1990c:466–467 argues, from
comparative evidence, that the eˈ in forms like (58)–(60) cannot be analyzed as part of the medial
and therefore must be taken to be a final.16 Bloomfield 1962:305 analyzes the cognate final in

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16 The argument is that comparative evidence forces us to reconstruct Proto-Algonquian as having two AI finals used
with incorporated nouns: *-eˈ and *-aˈ. 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 * eˈ.
Menomini in the same way; I will follow this practice here as well. This has the welcome consequence of reducing the number of zero morphemes that must be posited for verb stem morphology.

Additional examples of intransitive verbs containing incorporated body part nouns are given below:

(62) mešketone·kwa·m-
/mešk + etone·ekwa·m/
open + mouth + sleep_{AI}

(63) mehčinameške·pi-
/meht + inameške·api/
bare + skin + sit_{AI}

(64) me·neš·kwe·ka·pa·-
/me·neš + i·kwe + ika·pa/
as ashamed + face + stand_{AI}

(65) sa·kitepe·šin-
/sa·k + itepe·išin/
partly visible + head + lie_{AI}

(66) po·hkwihpike·šin-
/po·hkw + ihpike·išin/
broken + rib + fall_{AI}

In (62)–(66) the final predicates a state or change of state of the subject of the verb (e.g. ‘sleep’, ‘fall’) while the initial plus medial functions as a secondary predicate (6.3.2): ‘with one’s mouth open’, in (62), ‘with one’s skin bare’, in (63), and so on. In each case the subject is understood as the possessor of the incorporated body part.

The examples given so far of verbs containing incorporated body part nouns have all been AI or TA stems, reflecting the animacy of the understood possessor of the body part. A few body part terms have been metaphorically extended to refer to parts of inanimate objects (e.g., nose → point; tooth → blade of axe). II and TI stems containing these medials show the same syntactic pattern as the AI and TA stems do: the incorporated noun is possessed by the subject of the II stems and by the object of the TI stems.

(67) ahkanikome·s-
/ahkan + ikome·es/
hard + nose + by.heat_{TI}

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17 The AI final -išin indicates either a state (‘lie’, as in (65)) or a change of state (‘fall’, as in (66)).
It is worth pointing out that in primary verb stems subcategorized for a subject and second object, but no first object, an incorporated noun is understood as possessed by the subject. In other words, this is another syntactic difference between first objects and second objects (see 1.2.2. for other differences). As we saw above, in transitive stems containing an incorporated noun the first object is always the possessor of the incorporated noun.

(70) kekinečeka pa- ‘stand with O2 in one’s hand’ Al

/kek + ineč + ika pa/ with.O2 + hand + standAl

(71) ahpansiteka pa- ‘stand with feet on O2’ AI

/ahp + anasite + ika pa/ on.O2 + bottom.of.foot + standAl

(72) ote’hwawani ki’hanemiketěšamawawaki kícįşkwehaki

their. he rts fut. future– cut. out. O’s. O2 2–3p/ind.ind your.enemies

‘You will cut out your enemies’ hearts.’ N10P

(72) is part of instructions a young man is receiving from a spirit; by placing the NP ote’hwawani ‘their hearts’ in Focus position before the verb (8.4), as in the following example:

(72) is part of instructions a young man is receiving from a spirit; by placing the NP ote’hwawani ‘their hearts’ in Focus position, it is contrasted with other possible targets of cutting. (The verb in (72) has undergone possessor raising (7.2.2), making the possessor kícįşkwehaki ‘your enemies’ the first object and the body part NP the second object.) It is much more common, however, for ‘heart’ to be expressed as an incorporated noun, as in the following example from later in the same text:

18 Incorporated nouns in Meskwaki usually express the theme or patient of the verb; (70) is an example where the incorporated noun expresses location.
The stems in (72) and (73) have the same initial: ket- ‘out’; the (primary) final in (72) is –eš ‘by cutting’ TI and the final in (73) is -en ‘by hand’ TA. In (73) ‘heart’ is expressed by the medial -ite'h(e)-, while in (72) it is expressed by a noun.

Meskwaki also has medial elements which function as classifiers. That is, they either limit the class of elements to which the subject or object of the verb may belong, or indicate that the action of the verb involves an instrument or material of a particular sort. The classificatory element, however, does not block the appearance of an external subject or object referring to the same item. This is illustrated by the following textual example, in which the verb stem contains the medial -a'hkw- ‘wood, solid’.

(74) mehteko'ni='pi e'hmama'ka hkwateniki
trees=quot redup.be.big.[wood] 0'/aor
‘The trees were large, it’s said.’ W1B

The verb stem in (74) is a reduplicated form of the stem maka'hkwat- ‘be big [wood]’ II. (The reduplication here functions distributively, reflecting the fact that the verb is predicated of a plural subject.) The internal structure of this stem is given below.

(75) maka'hkwat-
    /mak + a'hkw + at/
    big + wood + beII

As can be seen from (75) the classifier -a'hkw- occupies the same medial position as the incorporated nouns seen in (47)–(71) above. However, the medial in (75) does not function as subject of the verb; an external NP subject, such as mehteko'ni ‘trees’ may appear with the verb, without being redundant. The function of the classificatory medial in (75) is simply to restrict the domain of entities of which the verb may be predicated.

Other classificatory medials in Meskwaki include -a'mehk(w)- ‘earth’, -a'po'k- ‘liquid’, -epy'e- ‘water’, -a'pehk- ‘metal’, -a'pye (k)- ‘string or string-like’, and -e'k- ‘cloth’;

(76) aškipaka'mehkwiset-
    /aškipak + a'mehkw + iset/
green + earth + placeTI2

(77) matakwa'mehkahw-
    /matakw + a'mehk + ahw/
cover + earth + by.toolTA

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19 See Denny 1981 for a discussion of classificatory medials in Algonquian, and Mithun 1984a for classifiers within a general typology of noun incorporation.
(78) waːse'ya po'kat-
/waːse' + a'po'k + at/
shine + liquid + beII
‘be bright and clear liquid’ II

(79) mesepye'ya·-
/mes + epye· + ya'v/
big + water + beII
‘be a flood, be water all over’ II

(80) aniwa'pehkeso-
/aniw + a'pehk + esw + o/
extreme + metal + by.heat_TA + middleAI
‘have a metallic sheen’ AI

(81) šoˈška·pye·-
/šoˈšk + a py + e'v/
[strait + string + beII
‘be straight’ II
[S = string, road, river, etc.]

(82) saka·pye·n-
/sak + a·pye· + en/
hold + string + by.hand_TA
‘lead O by a rope’ TA

(83) mi·še·kat-
/mi·s + e'k + at/
hairy + cloth + beII
‘be fuzzy’ II
[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·hwk-, has been extended to an adverbial function of ‘all over’ (Goddard 1990c:453.n13).

(84) meškwa·hkono-
/meškw + a·hwk + en + o/
red + all.over + by.hand_TA + middleAI
‘paint oneself red’ AI

(85) nepiwa·hkosi-
/nepiw + a·hwk + esi/
[i.e., dripping with sweat]
wet + all.over + beAI
‘be wet all over’ AI

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

(86) anemwe·we·paho-
/anem + we·we· + paho /
away + noise + runAI
‘run away noisily’ AI
The final case of incorporation to be described is unusual in that the incorporated noun is not in medial position. The stem is nepina't- ‘go after water’, a transparent compound of the inanimate noun nepi ‘water’ and the verb stem na't- ‘go after’ TI3. This is the only example of this type of compounding and is undoubtedly due to nepi ‘water’ being the most frequently used object of ‘go after’. If nepi often occurred in the preverbal Focus position (8.4) followed by a verb form with no inflectional prefixes, the two words could easily be reanalyzed as a single compound verb stem. For example, in the following sentence the inflectional suffixes indicating third person singular subject acting on an inanimate object are underlined:

(89) nepi na’twa
    water go.after 3–0/ind.ind
    ‘He went after water.’

The following examples of inflectional forms requiring a prefix show that nepina't- can now be used as a compound stem:

(90) nenepina'te
    go.after.water 1/ind.ind
    ‘I went after water.’

(91) e'hnepina'teki
    go.after.water 3/aor
    ‘He went after water.’

The compound form is not obligatory, however: one can also say nepi ne na'te ‘I went after water’ and nepi e'hnana'teki ‘He went after water.’

In (90) and (91) I have glossed the inflected forms of nepina't- ‘go after water’ as if it were an intransitive verb, based on the meaning of the compound. However, the inflection of the verb is ambiguous: na't- ‘go after’ is one of the few class 3 Transitive Inanimate stems, characterized by a ∅ theme sign (4.4). The inflection of TI3 stems is thus identical to that of Animate Intransitive stems. In other words, we cannot tell from the inflection on the verb whether nepina't- ‘go after water’ is an example of the detransitivizing type of incorporation. Another possibility is that the compound stem is transitive, with nepi- ‘water’ functioning like the classifiers seen in (75)–(83).

We now turn to a description of denominal verb stems; that is, derivational suffixes added to noun stems to form a verb stem. There are four patterns of denominal verb formation in
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. oškinawе·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. ahте·himin-  ‘strawberry’ (inan)
    b. ahте·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. 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’

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

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20 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 matetė·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·manti ‘his chief’). Noun stems of all three types form verbs of possession: owi·wi- ‘have a wife’ AI, omatetė·hi- ‘have leggings’ AI, oto·kima·wi- ‘have a chief’ AI.

21 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’.

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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.22

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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22 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·hnepinateki 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·hkwinehe·šine
both fall.&.break.arm 1/ind.ind
‘I fell and broke both my arms.’

(113) neswi nepo·hkwihepike·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.23 (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.

23 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 *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 -*epyε*.) 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 wá·k-akyá’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.
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.24 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 –taswipepo·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·hnese·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

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24 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.25

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.26 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. aşenowe·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·hkwmamatamo·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 aşenow- is derived from the verb stem aşeno- ‘be missing’ II. The stems in (119) are thus all primary stems, as argued in 6.1.

25 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.

26 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’,27 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‘hkawamatamo‘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’: kekke‘nem- ‘know’ TA; kekke‘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.’

27 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’.
Only one argument-taking predicate.

```
PRED  'nepwa’hka’we’nem- consider-smart <SUBJ OBJ>'
SUBJ  ‘I’
OBJ   ‘him’
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Two argument-taking predicates.

```
PRED  '-e’nem- consider <SUBJ XCOMP> OBJ'
SUBJ  ‘I’
OBJ   ‘him’
XCOMP [SUBJ          PRED ‘nepwa’hka’w-smart <SUBJ>]
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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. 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. 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).

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28 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.

29 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: nekemiy’a’nwe’neta ‘I think it is raining’ with stem kemiya’nwe’neta-. 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?
‘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.\(^{30}\)

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 tanačime-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\(^{31}\)

(126) penoči=meko meše=‘nahi e’hka’ki=wi–tanačimoniči
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-ṇeta’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

\(^{30}\) 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.

\(^{31}\) 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 eˈnetakozi ‘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)

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(128) ┌────────────────────────────────────┐
    │ PRED 'a čim- report <SUBJ XCOMP> OBJ' │
    │ SUBJ 'my fellow men'                    │
    │ OBJ 'a Kaw'                            │
    │ XCOMP                                       │
    │  ├── Subject                               │
    │  │  ├── Pred 'tan- be[there] <SUBJ OBLloc>' │
    │  │  │  └ OBLloc 'there'                     │
    └────────────────────────────────────┘
```

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 -eˈnem ‘think’:

(129) eˈhkatawi–nepo weˈnemakwe
     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) keˈhtena=či hi  eˈhpwaˈwi–maˈčišiniči
     surely=exclam not–lie.moving 3'/aor
     ‘Surely he (obv) was lying without moving.’ W987

In (130) the negative pwaˈwi– negates the initial maˈt- ‘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:
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·hkamatamo·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  oyiye·ha
    think.O.acquainted.with.O2  3–2p/dub  someone
‘Someone, must think you are acquainted with him,’ W104
The stem of the verb in (138) is *anehka-we, with the final *-e-nem ‘think’ TA and an initial derived from the transitive stem *anehka- ‘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- ‘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·yawi
today=so=then  give 1–2p/aor  myself
‘So today I give you myself.’ O87D

(140) e·hw·pato·na·tehe  owi·yawi  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·yawi ‘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.