On the Analytic Expression of Predicates in Meskwaki

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1. Introduction

Verbs in Meskwaki (also known as Fox), an Algonquian language of Iowa, are frequently modified by one or more preverbal particles or *preverbs*, as illustrated in (1). Here and below, preverbs and the stems of the associated verbs are underlined.[1]

(1) a. *K-îh=anemi   owîwi.*

2-FUT=continue have.wife.IND

'You (sg.) will continue to have a wife.' (Michelson 1921:64.8)

b. *Mêmêchiki=mekoho k-îh=anemi   peshikwi âchimoh-etî-pwa.*

surely=EMPH   2-FUT=continue straight   tell-RECIP-22.IND

'You will surely continue to tell each other in an upright fashion.'

(Michelson 1921:56.32–3)

Many of the same forms are used as modifiers of nouns and other particles, that is, as *prenouns* and *preparticles*.

Both phonologically and syntactically, preverbs are independent words. A preverb-verb complex may accordingly be interrupted by one or more enclitic particles or by one or more "included" words or phrases, in the terminology of Bloomfield (1946:103). Some typical examples are given in (2). The preverb *anemi* 'along, continuing' in (2a) is separated from the verb with which it is construed by the enclitic particle *=chîhi* 'it was discovered'. In (2b), the preverb *pwâwi* 'not' is separated from a following preverb by three enclitic particles and the

pronoun *owiyêhani* 'someone (obv.)', the latter functioning as the subject of the verb with which both preverbs are construed.

(2) a. *Peteki*   *êh=inâpi-chi,*   *êh=anemi=chîhi*   *anehkîhi-nichi*

backward AOR=look.there-3.CONJ AOR=continue=it.was.discovered be.few-3'.CONJ

        wîtêm-âchini.

        accompany-3'/3.OBV.SG.PART

        'When he looked back, it turned out that his companions were few (lit., the one he

            accompanied was few) .' (Jones 1907:338.17)

    b. *Êh=pwâwi=kêh=meko='pi*   *owiyêh-ani*   *kashki*   *pyênot-aminichi.*

        AOR=not=and=EMPH=REPORT someone-OBV.SG be.able come.to-3'/3IN.CONJ

        'And it is said no one (obv.) could ever reach it.' (Michelson 1917:52)

Dahlstrom (1987, 2000) demonstrates that the variety of material that may be included between a preverb and the verb with which it is associated precludes any analysis of such material as syntactically incorporated. Thus preverb-verb complexes are clearly phrasal in character.

    Despite their syntactic status as phrases, preverb-verb complexes are treated in certain respects as units on a par with single words. For example, inflectional prefixes are added directly to a verb when no preverb is used, but are added to the first preverb in a preverb-verb complex. Thus the first-person prefix *ne-* is attached to *wâpam-* 'look at' in (3a), but is attached instead to the preverb *pyêchi* 'come' in (3b).

(3) a. ***Ne-<u>wâpam</u>-âwa.***

    1-look.at-1/3.IND

    'I look at him' (Jones 1911:818)

  b. ***Ne-<u>pyêchi</u> ke-tânes-a   <u>wâpam</u>-âpena.***

    1-come   2-daughter-PROX.SG look.at-11/3.IND

    'We (exc.) have come to see your (sg.) daughter.' (Michelson 1917:51)

Because preverb-verb complexes and simplex verbs receive parallel treatment in inflection, it has been a standard assumption in Algonquian linguistics since the pioneering work of Jones (1904, 1911) that preverb-verb sequences in Meskwaki are compounds of some kind. Michelson (1917:50–52) suggested that such sequences are formed by "loose composition," that is, through a process that derives compound stems whose members retain considerable syntactic independence. An analysis of preverb-verb complexes as compounds raises problems, however, for any theory of grammar that treats all syntactic words as independent lexical items and attributes the concatenation of words into phrases solely to principles of syntax. I will argue below that the evidence of inflection, in and of itself, provides only weak support for an analysis of preverb-verb complexes as lexical formations. Goddard (1988, 1990b, 2002) has called attention to several additional properties of Meskwaki preverbs, however, that pose a significant challenge for theories that postulate strict separation of syntax from lexicon.

Goddard's observations may be classified under three headings. First, the semantic interpretation of preverb-verb complexes does not always conform to their syntactic bracketing.

In particular, a preverb may be construed with the initial component of the stem of the verb that it modifies, rather than with the stem as a whole, suggesting that preverb-stem combinations may function as bases for derivation. Secondly, certain preverbs are valence-bearing particles. A preverb-verb complex that includes one of these preverbs takes a complement that cannot occur with the modified verb when it is used alone: adding a preverb of this class to a verb serves to modify the verb's syntactic argument structure. Finally, certain morphological generalizations can only be stated if verb stems and preverb-verb complexes are parallel formations. Goddard concludes that the preverb-verb complexes of Meskwaki have the status of lexical items. If the concatenation of preverbs with verbs is accomplished in the syntax, he suggests, then lexical processes of Meskwaki must have access to the output of syntactic processes.

I argue here that Goddard's observations concerning the interpretation of preverbs do not, in fact, pose a problem for standard theories of the lexicon, since they can be given a purely semantic account along the lines of the analysis that Beard (1991) has proposed for comparable "bracketing paradoxes" in English. In essence, Beard argues that apparent bracketing paradoxes of the relevant kind simply reflect the fact that a modifier may be construed with a semantic component of the modified expression. As he demonstrates, such effects may be observed in English even in cases in which the modified expression is not morphologically complex. Since "bracketing paradoxes" can arise in the absence of bracketing, the semantic effects in question appear to be independent of syntactic or morphological structure.

Craig and Hale (1988) have argued that valence-changing preverbs in several languages of the Americas are derived from postpositions via syntactic head-movement and adjunction, that is, by incorporation in the sense of Baker 1988. An analysis along these lines for Meskwaki derives

a measure of support from the fact that the preverbs of the language may typically occur as independent adverbial particles as well. When a valence-bearing particle that ordinarily functions as a preverb is employed in this manner as an independent adverbial, it governs a complement of its own, which is to say that it functions as a postposition.

An incorporation analysis of the valence-changing preverbs of Meskwaki nonetheless faces two serious problems. First, postpositional phrases are systematically optional constituents of clauses, and are thus presumably to be analyzed as adjuncts. If incorporation may take place only from complement positions, as Baker argues, then postpositions cannot be the syntactic source of valence-changing preverbs in Meskwaki, since postpositional phrases are not complements in this language. Moreover, the preverbs in question are not, in fact, incorporated: preverbs and verbs in Meskwaki are syntactically independent words. I conclude, then, that the valence-changing properties of Meskwaki preverbs do indeed pose a problem for any theory of the lexicon that permits only single words to constitute lexical entries.

The morphological relationships that obtain between preverb-verb complexes and simplex verb stems provide a basis for another type of argument that preverb-verb combinations are lexical formations. Preverbs, as Goddard has noted, are derived from *initials*, morphemes or complexes of morphemes that also function as initial components of verb stems. Productive morphological processes derive initials from noun or verb stems or *themes*, that is, partly inflected stems. Final components of verb stems, or *finals*, may likewise be morphologically simple or complex. In particular, finals may be derived from verb stems.

As it happens, however, the derivation of finals from verb stems is not productive. Thus some verb stems are matched by finals, while others are not. For the most part, the effect of

combining an initial with a stem is achieved by combining the initial with a final corresponding to the stem, provided that one exists. Thus the effect of combining an initial with a verb stem is usually achieved by deriving a simplex verb stem, if this is possible. On the other hand, if no final exists that can stand in for the stem in question, then the combination of an initial with a stem is instead made by deriving a preverb from the initial and employing it as a modifier of the stem. That is, the combination of an initial and stem takes the form of a preverb-verb complex, rather than a unitary verb stem, when this is the only option available for combining the two in a single predicate.

Clearly, then, preverb-verb complexes and unitary verb stems are in some sense parallel formations. Moreover, the fact that the use of a unitary stem is typically preferred, when one is available, can be described as a morphological blocking effect: the existence of a unitary verb stem ordinarily blocks the formation of a preverb-verb complex with the same meaning. Blocking relationships of this type routinely obtain among lexical formations (Aronoff 1976, Bochner 1993). Thus the participation of preverb-verb complexes in blocking is predicted if such formations are lexically derived.

Goddard (1988, 1990b, 2002) reasons that if both complex verb stems and preverb-verb complexes are lexically formed, then their parallel structure can be described in terms of a network of paradigmatic relationships among sets of such formations. An account that would take only verb stems to be lexically derived, leaving the concatenation of preverbs and verbs to be handled entirely in syntax, would provide no comparable way to state the systematic relationships that obtain among formations of the two kinds.

Goddard's reasoning in this matter seems to me to be compelling. I would like to suggest, however, that the properties of the preverb-verb complexes of Meskwaki that Goddard has identified do not require us to suppose, as he has argued, that the formation of lexical items in Meskwaki must stated in terms of syntactically derived structures. This conclusion follows only if lexical entries are restricted to stating the properties single syntactic words, that is, if only synthetic verb stems, and not their analytically expressed counterparts, may be represented in the lexicon. If analytically expressed predicates may be directly represented in lexical entries, as Ackerman and Webelhuth (1998) have suggested, then the preverb-verb complexes of Meskwaki may be analyzed as lexical formations on a par with simplex stems. Any generalization that covers predicates of both types may then be given a unitary statement as a lexical rule. I do not attempt to develop a formal theory of this kind here, however. The present paper aims only to establish an outline of the phenomena that such a theory will need to accommodate.[2]

2. Preverbs and inflection

Verbs in Meskwaki are inflected in twenty-six paradigms or *modes* (Dahlstrom 2000). These may be classified into three formal types or *orders*: the independent, conjunct, and imperative orders. The forms of the three types have complex and partly overlapping syntactic distributions. To a first approximation, we may think of independent forms as occurring in main clauses, while conjunct forms occur in subordinate clauses. Forms of the aorist mode of the conjunct order are regularly used in main clauses in hearsay narratives, however; and the negative mode used in ordinary main clauses is a conjunct formation. Imperative forms are used primarily in commands.

Two person-marking prefixes are employed in inflecetion in the independent order: first person *ne(t)-*, second-person *ke(t)-*. (The allomorphs with *t* occur before vowels, those without *t* before non-syllabics.) These prefixes index subjects in some forms, objects in others. As we have already noted, they are added directly to the verb if no preverb is used, but to the first preverb in a preverb-verb complex. Examples with the prefix *ke-* are given in (4). Note that the inflectional affixes, given in boldface, effectively bracket the preverb-verb complex, whether or not it is continuous.

(4) a. *Pêhki=wîna=meko wîshikesiwen-i **ke**-mîn-**ene**.*

      really=but=EMPH   strength-IN.SG 2-give-1/2.IND

      'But I give you (sg.) great strength.' (Michelson 1927:24.28)

b. *Nahi, châki=kohi   **ke**-pyêchi nân-**ene**-**pwa**.*

      hey   all=certainly 2-come   go.get-1/22-22.IND

      'Well, I have come to get you (pl.).' (Jones 1907:52.7–8)

c. ***Ke**-peshikwi=châh=meko mani   wîtamô-**ne**-**pwa**...*

      2-straight=so=EMPH   this.IN tell-1/22-22.IND

      'I have told you (pl.) this in an upright manner.' (Michelson 1925:136.8–9)

Other inflectional material is suffixal, including all of the affixes used in the conjunct and imperative inflectional systems. These suffixes are always added to the verb itself.

The prefixes used in independent inflection indicate only the person of the indexed participant (subject or object). Both person and number are marked by suffixes, but only for plural participants. In both (4b) and (4c), for example, the second-person prefix *ke-* and the second-person plural suffix *-pwa* function together to indicate that the object of the verb is second person and plural.

Two proclitic tense markers have distributions comparable to those of the personal prefixes, that is, they are added to the first preverb in a preverb-verb complex, but to the verb itself if no preverb is used.[3] These are the future proclitic *wîh=*, used both with independent and with conjunct forms, and the aorist proclitic *êh=*, used only in certain conjunct paradigms. The personal prefixes combine irregularly with the future proclitic, yielding the forms *nîh=*, *kîh=* for the first and second persons, respectively. The distribution of *wîh=* is illustrated in (5).

(5) a. *Âkwi=kêh=êyîki* **wîh**=*kemôtem-akwini,* *kochîhi* *k-**îh**=manetôwi-pena.*

      not=and=also   FUT=steal.from-12.NEG although 2-FUT=be.manitou-12.IND

      'Likewise we (inc.) shall not steal it from them, although we (inc.) are to be

           manitous.' (Michelson 1921:42.34–5)

  b. *K-**îh**=wîshiki=châh=meko* *nenehkênet-a.*

     2-FUT-strongly-so-EMPH   think.of-2/3IN.IND

     'You (sg.) must keep it firmly in mind.' (Dahlstrom 1987:72)

An ablaut process known as initial change modifies certain short vowels in word-initial syllables in several paradigms of the conjunct type: *a* and *e* are replaced by *ê*, as is word intial *i*; *o* is replaced by by *wê*. The distribution of the sites at which initial change is carried out again parallels that of the personal prefixes: the first syllable of the first preverb in a preverb-verb complex is subject to ablaut; if no preverb is used, then the first syllable of the verb stem itself is affected. Examples are given in (6)–(7). The boldfaced items appear in their Unchanged forms in the examples labeled (a) and in their changed forms in the corresponding examples labeled (b). Note that the first component of the verb stem is subject to change in (6b), where no preverb is used, while the first member of the preverb-verb complex bears change in the (7b).

(6) a. *takâwi=meko êh=*__*kashki*__ __*ish*__*-iwen-ânichi*

　　　a.little=EMPH AOR=be.able thus-lead-3'/3'.CONJ

　　　'he was able to take him a little ways in that direction' (Jones 1907:202.15–16)

　　b. *Îni='pi* __*êsh*__*-inâkê-chi* *mani nakamôn-i.*

　　　that=REPORT thus-sing-3.CONJ this.IN song-IN.SG

　　　'That, it is said, is how he sang this song.' (Michelson 1927:86.38)

(7) a. *Nahi,* __*natawi*__*=nîhka mani* __*mawi*__ __*wâpat*__*-âtâwe* *owâsîsani.*

　　　hey seek=EXCLAM this.IN go look.at-12/3IN.IMP nest

　　　'Hey, let's try to go look at this nest!' (Dahlstrom 1987:68)

b. ***nêtawi*** *mani* <u>*wêwênênet*</u>-*akiki*   *netahkimi*

     seek   this.IN control-33/3IN.PROX.PL.PART 1-earth-IN.SG

     'the ones who sought to control my earth' (Dahlstrom 1987:68)

Several preverbs in Meskwaki have a distinctly grammatical character. For example, the preverb *âmi* 'would, should' serves as "the regular substitution for the potential inflection in participles," or relative clause forms, since the suffixes that index a relativized constituent in such forms occupy the position in which a potential aspect marker would appear (Goddard 1988:114). Thus *âmi* is used in (8a) with essentially the force of potential aspect. Compare the corresponding non-participial form in (8b), with potential inflection.

(8) a. ***âmi***   <u>*seswam*</u>-*ech*-*i*

       would   spray.on.by.mouth-X/3-IN.SG.PART

       'that (in.) which he is to be sprayed with' (Goddard 1987:110)

     b. ...*ahkowi*=*'pi*   <u>*och*-*ishim*</u>-**enêha** *wîtekôwa.*

       in.the.rear=REPORT from-lay-X/3.POT owl

       '...the owl should be laid behind (them), it is said.' (Michelson 1921:18.26–7)

The negative preverb *pwâwi* 'fail to, not' is involved in a complex set of relationships involving both inflectional affixes and independent particles. The negative particles *âkwi*, *kâta*, and *awita*, which do not have the syntax of preverbs, are "used for main clause indicative verbs,

prohibitions, and potential verbs, respectively," while "[a]ll other types of verbs are negated by

the preverb" *pwâwi* (Dahlstrom 1987:70). As Bloomfield (1927:210) notes, however, "the

negative itself is negated by composition with" *pwâwi*, as shown in (9).

(9) *Âkwi=kêhi wîh=pwâwi kehkênet-amanini.*

　　 not=and　　 FUT=not　　 know-2/3IN.NEG

　　 'You (sg.) would not fail to know about it.' (Dahlstrom 1996b:109)

It would appear, then, that the preverb *pwâwi* is not, strictly speaking, in complementary

distribution with *âkwi* 'not'. Similarly, Goddard (1988:114) notes that *âmi* 'would, should' does

not function solely as a marker of potential aspect. Thus while some Meskwaki preverbs have

clearly taken on grammatical functions, they do not appear to have the formal status of

inflectional elements. Preverbs of this kind are the functional equivalents of inflectional

morphemes, but not their formal equivalents.

　　 Given that preverbs are not themselves inflectional elements, what can we conclude about

their status from the way they are treated in inflection? It is clear that a suite of inflectional

processes, including initial change as well as the addition of person-marking prefixes and tense-

marking proclitics, target the left margin of the preverb-verb complex, thus treating such

formations on a par with simplex verb forms. This observation is consistent with an analysis of

preverbs as prior members in verbal compounds. Indeed, the treatment of preverbs in inflection

has been widely cited as evidence that preverb-verb complexes in Meskwaki have a

morphological status comparable to that of verbs (Dahlstrom 1987, 2000; Goddard 1988, 2002; Ackerman and LeSourd 1994; Ackerman and Webelhut 1998; Crysmann 1999).

Given the mechanisms available for the analysis of inflection in contemporary syntactic theories, however, it is not clear that this conclusion must follow. Suppose that Meskwaki preverb-verb complexes are represented in syntax only as belonging to some phrasal category (say V-bar) in which preverbs are represented as verbal modifiers. Suppose, further, that we make the standard assumption that the minimal instantiation of the category in question consists of a verb alone, with no such modifiers. Now all that we will need to do to obtain the right distribution of inflectional material is to state this distribution in terms of phrasal constituents of the appropriate type. Under Minimalist assumptions, for example, we might propose that a superordinate functional head bears inflectional features that need to be checked by some element within the constituent that includes the verb and its modifiers, either by raising or by agreement. We can then invoke Relativized Minimality, or some comparable principle, to ensure that only the highest element within this constituent that has the potential to bear the features in question is permitted to raise (or agree), and thus that only the highest such element can in fact bear the features in question in any derivation that does not crash. Assuming that left-to-right order reflects syntactic superiority, the highest such element will be the left-most preverb if one is used, otherwise the verb itself.

Analogues of this sort of analysis in other frameworks can easily be imagined. It would seem, then, that the facts of inflection in Meskwaki tell us only that preverb-verb complexes and simplex verbs are parallel structures. The phenomena in question do not actually establish either

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that preverb-verb complexes have a status comparable to that of words or that such combinations are lexically formed.

3. Preverbs and semantic interpretation

Verb stems in Meskwaki, as in other Algonquian languages, may typically be analyzed into components, which may themselves be morphologically complex (Goddard 1990b). Each of these components belongs to one of three position classes: *initials* occur in stem-initial position, *medials* in stem-medial position, and *finals* in stem-final position. A stem ordinarily includes at least an initial and a final. Thus, for example, the stem *kîshk-eshw-* 'cut' that appears in the verb *kîshk-eshw-êwa* 'he cuts him (off, up)' consists of an initial *kîshk-* 'severed, cut off, cut through' plus a final *-(e)shw-* 'act on by cutting edge'. The stem of *kîshk-ikwê-shw-êwa* 'he cuts off his head' includes the same initial and final, here separated by the medial *-ikwê-* 'neck' (Goddard 1988:60–61). Initials and finals are semantically diverse, while medials typically have concrete, noun-like meanings, as in the present example.

Components of verb stems may themselves be derived from stems or from themes (partly inflected stems), yielding derived stems of considerable internal complexity. In the following sentence, for example, the stem of the verb *otôtêweniw-âchim-âpi* 'they are said to have a village' consists of an initial *otôtêweniw-* derived from the stem *otôtêweni-* 'have a village', which is in turn based on *otôtêwen-*, a partly inflected form of the stem of the noun *ôtêwen-i* 'village' made by adding the third-person possessor prefix *ot-*. The final component of the stem 'tell about someone having a village' is *-âchim-* 'tell about'.

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(10) *Nekotahi   îniyêka   otôtêweniw-âchim-âpi.*

somewhere those.PROX.ABS have.village-tell.about-X/33.IND

'It is said of them that they have a town somewhere.' (Goddard 1988:71)

As Goddard (1988) notes, the initial component of a complex stem of this type is interpreted
as representing a predicate that stands as the logical complement of the predicate represented by
the final: in this case, the logical complement of 'it is said of them' is 'they have a village'. On
the basis of this observation, he suggests that a sentence like (10) is derived from an underlying
biclausal structure though the incorporation of the verb of the complement clause into the verb of
the matrix clause.

In support of an analysis of (10) along these lines, Goddard points out that *nekotahi*
'somewhere', superficially an oblique complement of *otôtêweniw-âchim-* 'tell about someone's
having a village', is interpreted as a complement only of the initial *otôtêweniw-* 'have a village':
nekotahi 'somewhere' specifies the location of the village in question, not the location of the
relevant event of speaking. (We will see in the following section that locative expressions of the
kind at issue here are indeed verbal complements and not adjuncts.) Thus, he concludes, the
formation of complex stems that represent logically complex predicates presupposes the
application of syntactic rules.

Such an analysis is possible, however, only if syntactic theory admits the type of restructuring
operation that Goddard's proposal presupposes. This assumption has been widely challenged.
The alternative, of course, is to postulate hierarchically organized semantic structures for
individual lexical items. We can then formulate rules of word formation that will permit a

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derived word to inherit the semantic representation of its base as a component of its own lexical representation, together with an appropriately linked set of syntactic arguments. In the present case, the stem of *otôtêweniw-âchim-* 'tell about someone's having a village' will be associated, as a single lexical item, with a logical structure that includes a representation of the meaning of *otôtêweni-* 'have a village' as a component of its meaning and with a grammatical function structure that specifies that it takes a subject, an object, and a locative complement. That the locative complement is interpreted as situating the village in question, rather than an act of speaking, will then follow from the fact that the representation of this complement is tagged in the lexical entry for the complex stem as a logical argument of the component predicate. Thus both the complement-taking properties of a stem like 'tell about someone's having a village' and the semantic interpretation of the complements in question can readily be accommodated without postulating post-syntactic stem-formation. The internally complex semantic structure of a verb like 'tell about someone's having a village' must be available to rules of semantic interpretation, but need not be available to the syntax.

Other interpretative properties of preverbs likewise suggest that syntactic structure does not always parallel semantic structure. Goddard (1988, 2002) points out, for example, that a preverb may function semantically to modify just the initial component of a verb stem, rather than of the stem as a whole. Typical examples are given in (11)–(12).

(11) *Êh=kîshi=meko*   *nêsêw-itêhê-nichi*   *o-kwis-ani.*
   AOR=completed=EMPH get.well-think-3OBV.CONJ 3-son-OBV.SG

   '(The man's) son thought that (the man) was already well.' (Goddard 1988:70)

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(12) *...êh=pwâwi=mekoho nenoshê-hkâno-chi.*

      AOR=not=EMPH   hear-pretend-3.CONJ

      '...and he played as if he was deaf.' (Goddard 2002:2)

The preverb in each of these examples is construed only with the first component of the stem of the verb that it modifies: 'he thought the man was already well', rather than 'his son already thought...'; 'pretended not to hear', rather than 'did not pretend to hear'. Thus the preverb-verb complexes in these examples present us with a type of "bracketing paradox." The interpretation indicated for the preverb-verb combination in (11), for example, suggests that its components are semantically grouped as shown in (13a); but the morphological and syntactic structure would appear be that shown in (13b).

(13) a. [kîshi   nêsêwi]-têhê-

         completed get well think

         'think someone to have recovered'

     b. kîshi [nêsêwi-têhê]-

In each of these, the initial component of the stem of the modified verb is itself derived from a verb stem: *nêsêw-* in (11) is based on *nêsê-* 'get well, survive'; *nenoshê-* in (12) is 'hear'. Goddard (2002:3) notes, however, that comparable bracketing paradoxes arise in cases involving initials that are not derived from stems. In (14), for example, the preverb *pyêchi* 'come' takes

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scope only over the initial *nîs-* 'down, descend, lower'; but *nîs-* is an underived initial, not a stem.

(14) *Îni   êh=<u>pyêchi</u>   <u>nîs-ênet</u>-amâni   nîyawi.*

      then AOR=come descend-consider-1/3IN.CONJ myself

      'Then I imagined myself coming down.' (Goddard 2002:3)

Thus the problem posed by such bracketing paradoxes cannot in general be solved either by positing syntactic verb incorporation or by deriving preverb-verb complexes with complex verbs from preverb-stem combinations.

Examples of this type are problematic, of course, only if we maintain that a modifier of a word must take the interpretation of the word as whole as its scope. If, on the other hand, a modifier may be construed with a *component* of the meaning of the modified expression, then the fact that a preverb may take only the initial in a following verb stem as its scope is unsurprising. Beard (1991) has presented just such an account of comparable bracketing paradoxes in English.

The relevant English cases include examples like those in (15) and (16).

(15) a. [nuclear] [physicist] 'a physicist who is nuclear (to some project)'

      b. [nuclear physic]ist 'someone who studies nuclear physics'

(16) a. [criminal] [lawyer] 'a lawyer who is criminal'

      b. [criminal law]yer 'someone who practices criminal law'

As Beard (1991:196) observes, "these constructions seem to have, in addition to a wide scope reading [[Xx][Yy]], exemplified by (a), which parallels syntactic structure, a narrow scope reading [[Xx Y]y], exemplified in (b), which does not. Under the assumption... that semantic operations preserve syntactic structure, the narrow scope reading is not predicted."

Beard's analysis proceeds by rejecting this assumption. He proposes instead that modifiers are not interpreted with respect to the semantic representation of the modified expression, taken as a whole, but rather with respect to components or features of this semantic representation, a procedure that he calls "decompositional composition." In support of this approach, he notes that scopal ambiguities like those observed in (15) and (16) may arise even in cases in which the modified expression is not morphologically complex, as in (17) and (18):

(17) old friend

    a. 'friend who is old'

    b. 'member of an old friendship'

(18) good athlete

    a. 'athlete who is a good person (in any of several senses)'

    b. 'someone who is good as an athlete, plays a sport well'

Here the narrow scope reading (b) is available even though no morphological component of the modified noun corresponds to the semantically modified component of its meaning. Beard's proposal, he argues, "reduces the wide scope and narrow scope readings of attribute phrases to a

question of which feature is selected, in effect making all attribute composition the same and obviating the distinction between wide scope and narrow scope readings of attribute phrases" (p. 195). A consequence of his proposal, he concludes, is that "bracketing paradoxes of the *nuclear physicist* type cannot be used to test or compare the adequacy of competing syntactic or morphological theories" (p. 227).

An approach to semantic interpretation in Meskwaki along the lines of Beard's "decompositional composition" finds support in two other observations of Goddard's. First, Goddard (2002:3) notes that "[a]ll verbal modifiers have access to stem-internal morphology, not just arguments and preverbs." In (19), for example, the adverbial particle *masâchi* 'barely' clearly does not form part of the preverb-verb complex, since the verb word itself serves as host for the aorist proclitic in this example. The particle is nonetheless construed here only with the initial *konakwîw-* 'get through', not with the verb stem as a whole:

(19) *Nâhka=meko* **masâchi** *êh=***konakwîw***-ênet-aki*   *metemôka*   *owîyâwâwi.*

   again=EMPH   barely   AOR=get.through-consider-3/3IN.CONJ old.woman them

   "And again the old lady thought that they barely passed through with their lives."

      (Goddard 2002:3)

Goddard (2002:4) further observes that a preverb may be interpreted as modifying a word that is not part of the preverb-verb complex. Thus the preverb *kîshâkochi* 'as much as possible' in (20) functions as a modifier of the preparticle-particle complex *nâwi=meko nenoswahkiwe* 'in the middle of a buffalo herd', included here between preverb and verb.

(20) *Êh=**kîshâkochi**=chîhi=meko*   *nâhka **nâwi**=meko*

     AOR=as.much.as.possible=it.was.discovered=EMPH again middle=EMPH

     nenoswahkiwe *shekishi-ki.*

     in.buffalo.herd lie-3.CONJ

     'She found that she was again lying in the very center of a herd of buffalo.'

     (Goddard 2002:4)

It seems clear, then, that semantic interpretation in Meskwaki is not in general limited to composing the readings of syntactic or morphological constituents. But if this conclusion is correct, then Goddard's observations concerning the interpretation of preverb-verb complexes do not in fact provide evidence that bears on the syntactic or lexical derivation of such formations.

4. Preverb-verb complexes as bases for derivation?

Goddard (2002:2) maintains that a "compound stem" in Meskwaki, that is, a combination of a preverb and a stem, "enters into derivation like a simple stem, despite having one or more internal word boundaries." The arguments the he presents in support of this position, however, are based entirely on semantic "bracketing paradoxes" of the kind that we have just surveyed. As we have observed, such arguments from semantic interpretation are problematic.

Potentially more interesting from this point of view are derived nominals in Meskwaki that appear to be based on preverb-verb combinations. It is a standard assumption of lexicalist theories of syntax that only lexical rules may carry out derivational operations that result in a change of syntactic category. Thus a demonstration that preverb-verb combinations may serve as

bases for category-changing derivation would provide strong support for the view that such combinations are lexically formed. As it turns out, however, the available evidence on this point is equivocal, since the productivity of the patterns of derivation in question is doubtful.

A typical example of a derived nominal of the type in quesiton is the form *menwi-mehtosêneniwi-wen-i* 'good life'. This stem of this nominal appears to be derived from the preverb-verb combination *menwi mehtosêneniwi-* 'live well' by the addition of the derivational suffix *-wen-*, which forms abstract nouns (cf. *menwi mehtosêneniwiwa* 'he lives well'). The preverb *menwi* is not ordinarily used as a prenoun, so an analyis of 'good life' as a prenoun-noun complex is excluded (Bloomfield 1927:190). But if a category-changing derivational process may take preverb-verb combinations as its input, then the lexical status of preverb-verb complexes would appear to be assured. (Precisely this line of reasoning is pursued by Ackerman and LeSourd 1994; see also Crysmann 1999.)

The argument is not as strong as it might seem, however. It is not at all clear that nominalizations in which the base of derivation includes a preverb are productively formed. Thomason (2005:435–7), who reports several examples of this type, suggests that they are best regarded as idiomatic expressions. It seems likely, then, that the examples in question are simply lexically listed forms, not forms that reflect that application of a derivational process. If so, then the evidence of these examples does not, in the end, support the conclusion that preverb-verb complexes are lexically derived predicates. To determine whether expressions of this kind have the status of lexical items, we will need to look elsewhere.

5. Valence-changing preverbs

As we observed in section 3, a typical verb stem in Meskwaki consists of an initial plus a final, with or without an intervening medial. A monomorphemic initial is a *root*. A small but grammatically important class of such initials, which Bloomfield (1946:120) terms *relative roots*, function to introduce reference to a semantic domain, but do not themselves specify any point within the domain. The reference in question must therefore be specified by some other expression within the clause, which serves as the *antecedent* of the relative root. This expression may be a noun or pronoun, a particle, or a subordinate clause. As we will see below, the antecedent of a relative root functions as an oblique complement of a verb or preverb-verb complex. Unlike subjects and objects, which are freely omitted under appropriate discourse conditions, the antecedent of a relative root must ordinarily be overtly expressed, even if it is pronominal.[4]

Some examples may help to clarify the way in which relative roots are used. In (21) the root *in- ~ -en-*, introduces reference to the semantic domain of manners. While it is convenient to gloss this morpheme as 'thus', it does not in itself have deictic force. The manner in question must be specified by an antecedent, here the pronoun *kotaki* 'other'. The root *ot-* 'from' in (22) introduces reference to the domain of sources. The antecedent in this case is the locative noun phrase *ayôh… nemâtesêheki* '(from) this knife of mine'.

(21) ***kotaki*** *net-**en**-ênem-ekwa*

      other   1-thus-think-3/1SG.IND

      'he (a manitou) has blessed me in a different way' (Goddard 1987:111)

(22) *...wîh=**ot-en**-amêkwe*   *ashkotêw* **ayôh**=*mekoho*   **ne-mâtesêh-eki**.

        FUT=from-by.hand-22/3IN.CONJ fire   this.LOC=EMPH 1-knife-LOC

        '...then you (pl.) will get fire from my knife here.' (Michelson 1921:46.17–18)

Other relative roots in Meskwaki include *tan-* 'there, at that place', *ahkw-* 'that far, to such a

linear extent', *ahpîht-* 'that much, to such a degree', and *tasw-* 'so much, so many' (Goddard

1988:64). The forms ending in *n* and *t* are subject to a rule by which *n* is replaced by *sh* and *t* by

ch before *i*. Thus *tan-* appears as *tash-* in *tash-itêhê-wa* 'he thinks, expects there', while *in-*

occurs as *ish-* in *ish-itêhê-wa* 'he thinks thus'.

    Several other initials function like relative roots in introducing a verbal complement; but

instead of oblique complements, they introduce complements of a type known as *secondary

objects*, distinct from the *primary objects* of ordinary transitive verbs. Secondary objects function

syntactically as second objects of ditransitive verbs and as complements of certain formally

intransitive verbs. While primary objects are reflected in verbal inflection, secondary objects, like

oblique complements, are not. Unlike obliques, secondary objects are freely omitted in null

anaphora. Moreover, secondary objects typically follow the verb of a clause (in unmarked word

order), while obliques usually precede it (Dahlstrom 1996b). One of the roots that introduce

secondary objects is *kek-* '(together) with, having', illustrated in (23). The object introduced by

kek- in this sentence is *onowahônwâwani* 'their fan', which occurs here in postverbal position as

expected.

(23) *Meshê='nah=wîna=mekoho*   *êh=**kek**-ekâ-wâchi*   ***o-nowahôn-wâw-ani***.

      in.some.way=EMPH=but=EMPH AOR=having-dance-33.CONJ 3-fan-33-IN.SG

      'Indeed, they could only dance with their fans.' (Michelson 1925:210.40–41)

The expressions of source, manner, location, and the like that stand as antecedents to relative roots are not objects; but they are nonetheless lexically selected complements and not adjuncts. For example, expressions of this kind cannot in general be added to clauses in which no relative root appears (Goddard 1988:64–6, 1990a:45–6).

The distribution of locative complements is typical in this respect. As Goddard notes, "[s]ome verbs have this locative valence as an optional lexical feature; not surprisingly these verbs are ones that refer to actions that are inherently localized and durative..." (1990a:45). One such verb is *nepâ-* 'sleep'. As shown in (24a), forms of *nepâ-* may be used without a specification of location; but a locative expression may be added without any modification of the verb, as in (24b).

(24) a. *Êh=wîseni-chi,*   *êh=**nepâ**-chi.*

          AOR-eat-3.CONJ AOR-sleep-3.CONJ

          'He ate, and he slept.' (Goddard 1990a:45)

    b. ***Îyâhi***   *êh=**nepâ**-wâchi.*

          over.there AOR-sleep-33.CONJ

          'They slept over there.' (Goddard 1990a:45)

The use of such an expression is obligatory when the verb stem includes the relative root *tan-* 'there', except in a construction in which this root has a special aspectual force (Goddard 1990a:45). Other verbs generally do not occur with locative phrases. This contrast is illustrated in (25). The verb *âchimoh-* 'tell, instruct', shown in (25a), does not occur with locatives. But a final derived from this stem may be added to *tan-*, giving *tan-âchimoh-*. The resulting verb requires the use of an expression to serve as an antecedent for the relative root, provided that *tan-* is given its usual spatial interpretation.

(25) a. *Ôni='pi   o-shemîh-ani   êh=__âchimoh__-ekochi...*

 then=REPORT 3-niece-OBV.SG AOR=tell-3'/3.CONJ

 'Then, they say, he was informed by his niece...' (Goddard 1990c:166)

 b. *__Înah__=châh=nêh=wîna   __tan-âchimoh__-âpi...*

 there=so=also=she   location-tell-X/3.IND

 'She too was instructed there...' (Goddard 1990c:165)

This situation is unexpected if locatives are adjuncts, since adjuncts are typically optional. The observed distribution is expected, however, if locative phrases are complements, since the lexical properties of individual predicates (in particular, their meaning) determine the range of complements with which they may or must occur. The distribution of other types of oblique expressions is comparable to that of locatives. Thus obliques in general appear to be lexically selected complements in Meskwaki.[5]

The derivation of finals from stems is not fully productive. Thus not all stems may be directly suffixed to a relative root. Preverbs are productively derived from initials, however. In particular, preverbs are freely formed from relative roots. Thus the effect of combining a given relative root with a stem may be achieved, when no final corresponds to the stem, by employing a preverb derived from the root in question as a modifier of the stem. Only in this way can such a stem be employed with an oblique complement if the stem does not inherently bear a valence for a complement of the relevant type.

Consider, for example, the verb *peseshê-* 'listen', which does not, by itself, take locative complements. No final corresponds to this stem, so there is no way to form a unitary stem based on *tan-* and *peseshê-* which can take a locative complement. To achieve the effect of combining *tan-* with *peseshê-*, a preverb based on *tan-*, namely *tashi*, is instead employed to derive a preverb-verb complex. This complex as a whole, just like any stem based on *tan-*, now bears a valence for a locative complement. Thus it is the presence of the preverb *tashi* in the following example that licenses the appearance of the locative pronoun *înahi* 'there', phonologically reduced here to *înah*.

(26) *"Asâmi=wêna **înah**=nêh=wîna **tashi**   peseshê-wa," êh=i-chi=meko.*

      really=in.fact there=also=he   location listen-3.IND   AOR=say-3.CONJ=EMPH

      '"But really, he listened there too," she insisted.' (Goddard 1990c:165)

Verbs like 'sleep', on the other hand, which inherently bear a locative valence, neither form derivatives with *tan-* nor combine with *tashi* (Goddard 1990a:45).

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To put the same observations in another way, *tashi* is a valence-changing preverb: using *tashi* as a modifier of a verb, we derive an expression—a preverb-verb complex—with a valence for one more complement than the verb itself licenses, namely the locative complement that serves as the antecedent of the relative root *tan-* on which *tashi* is based. Preverbs based on the other relative roots of Meskwaki similarly function as valence-changing preverbs: each derives preverb-verb complexes which bear a valence for a complement that serves as the antecedent for the underlying relative root. Thus the preverb *ishi*, based on the relative root *in-* 'thus', derives preverb-verb complexes with a valence for a complement specifying manner, as shown in (27a). The preverb *ochi*, based on *ot-* 'from', derives preverb-verb complexes with a valence for a complement expressing a source, as shown in (27b).

(27) a. *Awita=kêh owîyêha* **kêkôhi** **ishi** *myân-ênet-asa*.

       not=and   someone something thus bad-consider- 3/3IN.POT

       'And no one would consider it bad in any way.' (Dahlstrom 1987:70)

   b. **Manahka** **ochi** *pyê-wa*   *wêt-âpa-niki*   *mahkwa*.

      yonder   from come-3.IND from-dawn-3OBV.IN.PART bear

      'A bear came from over there in the east.' (Dahlstrom 1987:58)

We noted above that stems based on the root *kek-* 'with, having' take secondary objects, rather than oblique complements. Not surprisingly, then, the preverb *keki* derives preverb-verb complexes that bear a valence for a secondary object, as illustrated in (28). The secondary object

corresponding to *keki* in this case is *nekoti mashishki* 'one herb' (used here in reference to tobacco); the verb *pakisen-* 'set down' by itself takes only a primary object. Note the characteristic post-verbal position of the secondary object in this example, as opposed to the pre-verbal position of the locative complement *îyâhi* 'over there', introduced by the preverb *tashi*.

(28) *Nekoti=châhi ne-**keki**   pakisen-âwaki   **nekoti mashishki***

    one=for   1-having set.down-1/33.IND one   herb

    *wînwâwa **îyâhi**   wîh=**tashi**   kîshikenamâtiso-wâchi...*

    they   over.there FUT=location raise.for.self-33.IN.SG.PART

'For I have given them (lit., set them down having) one herb for them to raise for themselves over there...' (Michelson 1929:50.8-10)

We see, then, that there are two types of valence-changing preverbs in Meskwaki: those based on relative roots and those based on roots that introduce secondary objects. Thus we find that the valence-changing preverbs of Meskwaki not only license the occurrence of complements, but determine the grammatical functions borne by those complements. Note, too, that a secondary object introduced by *keki* 'with, having' clearly has the status of an object of the associated verb, since the noun phrase in question is positioned with respect to the verb in (28), not with respect to the preverb. Thus the addition of the preverb truly does effect a change in the argument structure of a verb.

6. Against an incorporation analysis of valence-changing preverbs

Craig and Hale (1988) propose that valence-changing preverbs in several Native American languages are derived from postpositions through syntactic incorporation, that is, by head-movement and adjunction to a verb. An account along these lines deserves consideration for Meskwaki as well, since many of valence-changing preverbs of the language also function as postpositions.

In fact, most of the particles that function as preverbs in Meskwaki may also occur outside the preverb-verb complex as adverbials. This is true, in particular, of particles like *ishi* 'thus' and *ochi* 'from' that are derived from relative roots. When such a particle is used as an independent adverbial, it takes its own complement, which then functions as the antecedent of the relative root on which it is based. In other words, when a particle of this type occurs outside a preverb-verb complex, it functions as a postposition, as illustrated in (29).[6]

(29) a. *...kâta nâhkachi kakâchim-iyêkani* [*kêkôhi* **'shi**]$_{PP}$ *owîyêha.*

not   also   joke.with-2/3.PROHIB something thus   someone

'...and do not in any way joke with anyone.' (Michelson 1925:68.10–11)

b. *mâne êh=nowiwen-emechi* [*înahi* **ochi**]$_{PP}$ *mehtosêneniw-ahi*

many AOR-lead.out-X/3'.CONJ that.LOC from   person-OBV.PL

'many people were carried out from that place' (Dahlstrom 1987:58)

While examples like these lend initial plausibility to an incorporation analysis of valence-changing preverbs in Meskwaki, an account along the lines of Craig and Hale's proposal in fact encounters several problems.

Craig and Hale's analysis is formulated within the theory of incorporation developed in Baker 1988, which assumes a version of the Government-Binding framework. One of the principal claims of Baker's theory is that incorporation takes place only from governed positions, that is, from complements. As we have seen, the antecedents of relative roots in Meskwaki are complements, as an incorporation analysis would lead us to expect. But Craig and Hale's proposal requires more than this: the postpositional phrases from which incorporation takes place must also be complements. Yet postpositional phrases are systematically optional constituents of Meskwaki clauses. Thus there is little reason to believe that overt postpositional phrases in this language are ever complements.

Of course, we might postulate abstract postpositional phrases in governed positions to provide a source for the valence-changing preverbs of Meskwaki. Craig and Hale in fact propose just such an analysis of valence-changing preverbs in the Siouan language Winnebago. To adopt such a proposal for Meskwaki, however, is to abandon any attempt to relate the valence-changing preverbs of the language to the postpositions whose occurrence provided the initial motivation for pursuing an account based on incorporation. Moreover, Craig and Hale argue that the process of incorporation in Winnebago has the automatic consequence that a postpositional object becomes an object of the verb into which the postposition is incorporated. In Meskwaki, however, preverbs based on relative roots introduce oblique complements, not objects. Finally, there is no obvious sense in which the valence-changing preverbs of Meskwaki are incorporated.

Like the other preverbs of the language, they are syntactically independent words. Overall, then, there appears to be little motivation for an incorporation account of the valence-changing preverbs of Meskwaki.

There is a more fundamental reason, however, why an incorporation analysis of valence-changing preverbs is inappropriate for Meskwaki. The relationship between initial components of verb stems and preverbs on the one hand and independent particles on the other that we have observed in the case of relative roots is not limited to valence-bearing initials. Such relationships are in fact quite typical for the whole class of initials, regardless of their semantic properties. Any account valence-bearing roots that fails to relate their distribution to that of initials in general is surely defective.

Consider, for example, the root *kashk-* 'be able'. Like a relative root, *kashk-* may appear as the initial component of a verb stem, as the base of a preverb, or as the base of an independent particle. The first possibility is illustrated in (30a): here *kashk-* is the initial component of the stem *kashk-iht-* 'manage to do, get, buy'. The particle *kashki* functions as a preverb in (30b), as shown by the fact that it hosts the aorist proclitic. In (30c), however, *kashki* can only be an independent particle, since here it follows the verb with which it is construed.

(30) a. *...îni   êhkwi **kashk**-iht-ôchi   êh=kanawi-chi.*

   that.IN so.far be.able-do-3.IN.SG.PART AOR=speak-3.CONJ

   '...and that was as much as she could manage to say.' (Jones 1907:180.11)

b. *Êh=__kashki__=mekoho* *ânehkôchike-niki*   *ot-ôhkan-em-wâw-ani*

AOR=be.able=EMPH   lengthen.out-3'IN.CONJ 3-bone-POSS-33-IN.PL

êh=takwike-niki.

AOR=grow.together-3'IN.CONJ

'Their bones were able to lengthen out and grow together.'

(Michelson 1921:30.18-19)

c. *Pwâwi=kêhi='pî='na*   *âhkwamat-aka*   __kashki__ *apenôhêha...*

not=and=REPORT=that.AN be.sick-3/3IN.PROX.SG.PART be.able child

'But the child was one that had managed not to become sick...'

(Goddard 1990c:168–9)

Most other initials have similar distributions. To be sure, the particle derived from a given initial may occur more frequently in one function than it does in another. Thus *kashki* 'be able' is considerably more common as a preverb than it is as an independent particle. A typical initial, however, may occur either as a component of a verb stem or as the base of a particle. A typical particle based on an initial may function either as a preverb or independently.

The distribution of relative roots is like that of initials of any other kind. Thus it is not surprising that these roots occur both as initial components of verb stems and as bases for particles. Nor does the fact that particles based on such roots occur both as preverbs and as independent adverbials (postpositions) require any special explanation. The argument-inducing

properties of relative roots follow from their meanings, which require them to take antecedents. When a particle based on a relative root occurs as the initial component of a verb stem, the verb itself bears a valence for an oblique complement to serve as such an antecedent. When a particle based on one of these roots occurs as part of a preverb-verb complex, the particle contributes the valence of the root to the argument structure of the complex as a whole. When the particle occurs as an independent adverbial, it takes its own complement and thus functions as a postposition. Roots like *kek-* 'with, having' that introduce secondary objects have properties somewhat different from those of relative roots (see note 6), but the valence-inducing character of the corresponding preverbs again follows from the meanings of the underlying initials. An incorporation analysis of valence-changing preverbs in Meskwaki is thus essentially beside the point. An analysis of valence-inducing initials along these lines will not contribute to an account of the distribution of initials of other types. An adequate general account of the distribution of initials, on the other hand, will leave no work for an incorporation analysis to do.

7. The morphology of the preverb-verb complex

As we have seen, verb stems in Meskwaki are built up from components: initials, medials, and finals. Components of any of these types may be morphologically complex. In particular, components may themselves be derived from stems. Some examples are given in (31).

(31) a. *peshikw-âhkw-at-wi*

        straight-wood-INTR-3IN.IND

        'it (log, stick, etc.) is straight' (Jones 1911:795)

b. *mîhkem-ehkwêw-ê-wa*

   court-woman-INTR-3.IND

   'he is courting' (Goddard 1990b:456)

c. *atamêw-api-wa*

   smoke-sit-3.IND

   'he smokes sitting' (Goddard 1990b:457)

The stem of the verb in (31a) is based on a root and two other monomorphemic components. The initial in (31b) is derived from a transitive verb stem, the medial from a noun stem; compare *mîhkem-êwa* 'he courts her', *ihkwêw-a* 'woman'. The stem in (31c) includes only an initial and a final. Both are derivatives of intransitive verb stems; compare *atamê-wa* 'he smokes', *api-wa* 'he sits, is located'.

As we have already noted, initial components of verb stems typically also occur as bases of preverbs. Thus the root *peshikw-* 'physically straight, morally upright' occurs as an initial in (31a), but as the base of the preverb *peshikwi* in (32).

(32) *Ke-peshikwi=châh=meko mani   wîtamô-nepwa...*

      2-straight-so=EMPH   this.IN tell-1/22.IND

      'I have told you (pl.) this in an upright manner.' (Michelson 1925:136.8–9)

Whether an initial occurs as the first component of a verb stem or as the base of a preverbal modifier depends on the material with which the initial is combined. While finals derived from stems are not uncommon, not every Meskwaki verb stem is paired with a final. When there is such a suffix, it is sometimes identical with the independent stem, as in the case of *api-* 'sit'. Often, however, the derivational suffix is partly or wholly distinct. The stem *wîseni-* 'eat', for example, is matched by the derivational suffix *-îseni-*. Thus we find *wîseni-wa* 'he eats', but *kîsh-îseni-wa* 'he has finished eating' (Goddard 1988:62). The stem *nakamo-* 'sing' is matched by the final *-inâkê-*; thus *nakamo-wa* 'he sings', but *wêp-inâkê-wa* 'he starts to sing' (Goddard 1988:62).

When no derivational suffix corresponds to a stem, the morphology of Meskwaki provides no way in which the stem can be directly combined with an initial such as *kîsh-* 'completed' or *wêp-* 'begin'. The combination of the initial and the stem is then formed instead by using a preverb based on the initial in question. So, for example, no derivational suffix corresponds to the stem *meno-* 'drink' (*meno-wa* 'he drinks'). This stem is instead modified by preverbs: *kîshi meno-wa* 'he has finished drinking' (Goddard 1988:63).

For many combinations of a given initial with a given stem, we find only a derived stem or only the corresponding preverb-verb sequence. But in other cases both a derived stem and a preverb-verb combination are possible, although the alternative forms may differ in frequency. Thus both *kîshi wîseni-wa* 'he has finished eating' and *wêpi nakamo-wa* 'he starts to sing' are attested, but these forms are less common than *kîsh-îseni-wa* and *wêp-inâkê-wa* (Goddard 1988). Occasionally, however, formations of the two kinds appear to be essentially interchangeable.

Overall, we find that simplex verb stems are approximately (but only approximately) in complementary distribution with preverb-verb complexes: for any given meaning, we typically find either one form of expression or the other. This relationship between simplex stems and preverb-verb combinations is reminiscent of the well-known phenomenon of *morphological blocking*, which Aronoff (1976:43) has described as "the non-occurrence of one form due to the simple existence of another." In this case, the existence of a simplex verb stem with a particular meaning frequently precludes the formation of a preverb-verb complex with the same meaning, even though the use of preverbal modifiers is otherwise fully productive.

It is typical of blocking relationships that they are sometimes partial, so that a given form may be subject to blocking only in some of its possible senses, and that they are subject to a variety of extralinguistic influences, such as word frequency (Bochner 1993:5–7). The competition between simplex verbs and preverb-verb complexes that we find in Meskwaki appears to be of essentially this character, although the strength of the blocking effect seems to vary considerably from one predicate to another.

There would appear to be reasonable grounds, then, for attributing the choice between simplex verb forms and preverb-verb complexes in Meskwaki to morphological blocking, rather than to any formal principle of the grammar.[7] Note that this conclusion, if it can be sustained, provides support for the claim that preverb-verb complexes are lexical formations, despite their phrasal character. While it has sometimes been argued that syntactically formed expression may

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be subject to blocking (Andrews 1990), most clearly established cases of this phenomenon involve lexical interactions.

Blocking probably also plays at least some role in a constraint that Goddard (1988:69, 1990a:41, 1990b:479) has noted that governs the relative order of the initials *pem-* 'along' and *wêp-* 'begin' in preverb-verb complexes. For the most part, initials occur in preverb-verb complexes in an order that directly reflects their relative scope, as we see in the following examples (all from Jones 1911). In (33b), for example, we have *wêp-* 'begin', *pyêt-* 'hither', then *tetep-* 'in a circle'; and the resulting interpretation is 'begin to approach along a circle'.

(33) a. *wêp-osê-wa* 'he begins to walk'

b. *pyêt-osê-wa* 'he comes walking'

c. *tetep-osê-wa* 'he walks round in a circle'

d. *wêpi pyêt-osê-wa* 'he begins to approach on the walk'

e. *wêpi pyêchi tetep-osê-wa* 'he begins to approach walking in a circle'

Thus when we combine *wêp-* 'begin' with stems consisting of *pem-* 'along, by' and the finals *-osê-* 'walk' and *-ipaho-* 'run', we expect to obtain the forms in (34). But we do not. Instead, we find the forms in (35).

(34) a. **wêpi pem-osê-wa*

b. **wêpi pem-ipaho-wa*

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(35) a. *pemi wêp-osê-wa* 'he begins to walk along' (Goddard 1988:69)

    b. *pemi wêp-ipaho-wa* 'he begins to run along' (Goddard 1988:69)

There is nothing ill-formed about the verbs themselves in (34): both *pem-osê-wa* 'he walks (along)' and *pem-ipaho-wa* 'he runs (along)' are common forms, attested for example by Jones (1911:769). Nonetheless the forms in (50) are apparently either entirely impossible or strongly disfavored. Goddard (1988:69) states explicitly that (34a) does not occur; he is less explicit about (34b). Whatever the precise status of these examples, however, we may be confident that the contrast between (34) and (35) is linguistically significant, as the relevant formations are generally regular.

In Goddard's view, the facts summarized here show that "the syntactic concatenation of more than one word logically preced[es] the formation of stems..." (1990b:479). He further suggests that "this concatenation induces a morphologically governed adjustment in the order of elements involving stem decomposition and derivation..." (1988:69), a process that he calls "preverb bumping."

Once again, however, these conclusions follow only if we accept the hypothesis that the concatenation of preverbs with verbs is solely a matter of syntax. If preverb-verb combinations are lexically formed, then the items in (34) and (35) present no special problem. If the order in which *wêp-* and *pem-* occur must be lexically stipulated, this information can be stated in a lexical rule governing the form of the preverb-verb complexes in question (Ackerman and LeSourd 1994, Crysmann 1999).

In fact, however, it is not clear that such a rule is necessary. As Goddard (2000) has pointed out, the root *pem-* is actually semantically empty in one interpretation of the stem *pem-ôse-* 'walk'. In this case, and others like it, the meaning of the stem is really just that of the final alone. Note, however, that *wêp-* 'begin' is not semantically empty in *wêp-ôse-* 'begin to walk'. Moreover, speakers may be assumed to know this stem and thus to have established a lexical entry for it. Thus the existence of *wêp-osê-* 'begin to walk' should block the formation of **wêpi pem-ôse-* in the same meaning, a correct result.

What about combinations involving both *wêp-* and *pem-* when the latter is *not* semantically empty, but instead has the meaning 'along, by'? In what order should we expect these two initials to appear when both are meaningful? At least in some cases that appear comparable, Meskwaki stations a component of the preverb-verb complex that serves to specify the spatial extent of an activity to the left of a component that specifies the inception of that activity. In (36), for example, the preverb *kîwi* 'around, about, in places' precedes the preverb *âpi* 'go and perform an act and then return', even though the logical order of these elements would appear to be the reverse: from the context of this sentence, it is clear that the referent of the subject goes out to beg in various places; there are not various places from which he goes out to beg.

(52) *Êh=kîwi   âpi   natotâso-nichi wîh=wîseni-chi.*
AOR=in.places go.do.X.and.return beg-3'.CONJ   FUT=eat-3.CONJ

'He (obv.) went out and begged for food in various places so that she could eat.'

(Jones 1907:220.8)

It seems possible, then, that the order of components that obtains in *pemi wêposêwa* 'he begins to walk along' simply reflects a general principle that determines the semantic interpretation of preverb-verb complexes, rather than an idiosyncratic constraint that governs the relative order of the roots *wêp-* and *pem-*.[8] If this conclusion proves to be correct, then we will not be able to appeal to the phenomenon of "preverb bumping" for evidence that bears on the status of preverb-verb complexes as lexically or syntactically derived forms.

8. Conclusions

In the preceding discussion, we have surveyed a series of arguments that have been advanced in support of the contention that the preverb-verb complexes of Meskwaki have a grammatical status comparable to that of simplex verb forms and should accordingly be regarded as analytically expressed predicates, that is, as lexically formed expressions consisting of more than one word.

Several of these lines of reasoning, as we have seen, are not persuasive. The inflectional properties of preverb-verb complexes do indeed parallel those of verbs in various respects, but it does not seem necessary to assign preverb-verb complexes a status comparable to that of words in order to accommodate these observations. It would appear to be sufficient to assign preverb-verb complexes and simplex verbs to the same phrasal category. The evidence that has been advanced to show that preverb-verb combinations may serves as bases for derivation likewise appears not to be compelling. Semantically based "bracketing paradoxes" would appear to be better analyzed in purely semantic terms. If so, then these cases do not, after all, require us to suppose that compound verb stems may be inputs to lexical operations. While nominalizations

based on preverb-verb complexes do occur, the available evidence does not establish that these forms are the output of any productive category-changing rule. Thus these forms can simply be analyzed as lexically listed expressions.

The properties of valence-bearing roots provide less equivocal evidence, however, that suggests that preverb-verb complexes are indeed lexically formed. As we have seen, there are two classes of such roots. Some introduce oblique complements, while others introduce secondary objects. The valence-inducing properties of these roots, like the properties of other morphemes that serve as initial components of stems, are constant across the variety of formations in which they may occur. In particular, the argument-taking properties of preverb-verb complexes that include one of these morphemes parallel those of simplex verb stems that include the morpheme in question as an initial component. If only lexical processes can derive expressions that are associated with a unified argument structure, as generally assumed in lexicalist analyses, then preverb-verb complexes that include valence-bearing initials must be lexical formations in Meskwaki. This conclusion derives further support from the fact that the existence of a simplex verb stem with a particular meaning typically blocks the formation of a preverb-verb complex with the same meaning, or at least leads speakers to prefer the synthetic form to its analytically expressed counterpart. The existence of such blocking effects is predicted under an account in which preverb-verb complexes in general are lexical formations. I conclude, then, that there is indeed evidence that supports the analysis of preverb-verb combinations in Meskwaki as lexically formed but analytically expressed predicates.

Notes

1. Meskwaki forms are given in a practical orthography based on the writing system currently used in Oklahoma for the closely related Sauk language (Whittaker 1996). Long vowels are marked with a circumflex; "sh" represents /š/ and "ch" is /č/. Proclitics and enclitics are set off from their hosts by a double hyphen (=). The following abbreviations are used in glosses: 1 first person (prefix), first person singular (suffix); 2 second person (prefix), second person singular (suffix); 3 third person (prefix), third person singular (suffix; unmarked: animate, proximate), 11 first person plural exclusive; 12 first person plural inclusive; 22 second person plural; 33 third person plural (unmarked: animate, proximate); 3' obviative (secondary) third person singular; 1/2, etc. first person singular subject with second person singular object, etc.; ABS absentative; AN animate (grammatical gender); AOR aorist; CONJ conjunct indicative; EMPH emphatic particle; exc. exclusive; EXCLAM exclamatory particle; FUT future; IMP imperative mode; IN inanimate (grammatical gender); inc. inclusive; IND Independent indicative mode; INTR intransitive; LOC, loc. locative; OBV, obv. obviative; NEG negative mode; PART participle; PL, pl. plural; POSS possessed; POT potential mode; PROHIB prohibitive mode; PROX proximate; RECIP reciprocal; REPORT reportative particle; SG, sg. singular; X unspecified subject. Singular grammatically animate referents are indicated in translations of Meskwaki examples with forms of the pronoun "he," except in cases where such a translation would be inappropriate for the sense of the example of for its textual context. These referents are not necessarily either human or masculine.

2. A promising account of Meskwaki preverb-verb complexes in the HPSG framework is presented in Crysmann 1999.

3. I follow Goddard 1991 in analyzing these tense markers as proclitics. Dahlstrom (1996a) argues that they are better analyzed as affixes.

4. An oblique complement will be null, however, when it is subject to deletion as the relativized constituent in a relative clause. It should be noted as well that Rhodes (1998) suggests that null anaphora is routine in Ojibwa for antecedents of relative roots whose reference can be determined from context.

5. In Ojibwa, as in Meskwaki, oblique expressions such as locatives only appear with verbs which bear a valence for them, as noted by Rhodes (1998). Rhodes argues, however, that the antecedents of relative roots are grammatically distinct from other oblique complements. Only the antecedents of relative roots, for example, may be interpreted with definite pronominal reference in null anaphora.

6.   The syntax of particles based on roots bearing a valence for a secondary object is different from that of particles based on relative roots. For example, a preparticle derived from the root *kek-* 'with, having' is employed as a modifier of a second particle, which serves to discharge the valence introduced by the root: *keki chîmân-e* 'including the canoe'; cf. *chîmân-i* 'canoe'. (See Dahlstrom 1996b for an analysis of such expressions as prepositional phrases.) This property of the particle *keki* can nonetheless be seen as inherited from the underlying root, since *kek-* functions on its own in parallel formations: *kek-apenôh-e* 'including the children'; cf. *apenôh-a* 'child'.

7. Following Dahlstrom (2000), Goddard (2002) suggests that a preverb and its initial should be regarded as alternative realizations of the same lexical item. Under the present proposal, however, the fact that a preverb typically makes the same contribution to a preverb-verb complex

as the corresponding initial makes to a stem simply follows from the fact that the preverb is a derivative of the initial. Morphological blocking then accounts for the fact that speakers usually prefer to use a simplex stem, rather that a preverb-verb complex that would have the same meaning. Thus no special mechanism is needed to account for the related distributions of preverbs and initials.

8. The putative constraint requiring *pem-* to precede *wêp-* within the preverb-verb complex apparently cannot be completely general in any case. These components at least sometimes occur in the order that such a constraint would exclude: *êh=**wêpi** menwi **pem**-en-amowâchi* 'they began to take good care of it' (Michelson 1921:66.4).

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