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The historical semantics of past tense and irrealis marking in Meskwaki

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Meskwaki (Algonquian) exhibits a complex system of verb inflection with more than two dozen distinct paradigms (known as MODES) sensitive to syntactic, semantic, and pragmatic factors (Goddard 1994:187–207, 1995, 2004).¹ Five of the modes bear a final suffix *-ehe*, the focus of the present paper.² Some of the verbal forms marked by *-ehe* indicate past tense; others indicate various types of irrealis functions, such as speaker uncertainty, counterfactual conditions or wishes, and surprise. The *-ehe* suffix also appears in a construction with the future prefix *wi·h-* producing various readings, including unfulfilled intentions.

This paper first presents a synchronic description of the constructions containing the *-ehe* suffix and their semantic and pragmatic functions. In the final section of the paper I argue that the original meaning of the *-ehe* suffix was past tense and that the irrealis uses are semantic extensions of that basic function, placing the semantic extension seen in Meskwaki within a typological context of connections between past tense and irrealis.³

1. BACKGROUND ON VERB INFLECTION

1.1. *-ehe* suffix not needed for ordinary past tense readings

Before turning to the functions of the modes bearing the suffix *-ehe*, it is important to point out that the majority of modes in Meskwaki receive an interpretation of nonfuture tense. That is, a verb may be understood as referring to either past time or present time, depending upon the context (e.g. being used with an adverbial such as *ana·kowe* ‘yesterday’). (1) shows that a verb in the INDEPENDENT INDICATIVE mode may be translated with either present or past tense in English:⁴

- (1) *wača·howa*
wača·ho-w-a
cook-3-SG
‘she is cooking; she cooked’ [independent indicative mode]

If one wishes to express future tense, the prefix *(w)i·h-* is attached to the verb:⁵

- (2) *wi·hwača·howa*
wi·h-wača·ho-w-a
FUT-cook-3-SG
‘she will cook’ [independent indicative mode]

The fact that verbs such as (1) which are unmarked for tense can refer to actions or states in the past means that the past tense functions associated with the suffix *-ehe* are marked

in some way, either as a relative past tense or as a remote past tense, as will be shown below.

1.2. *Conjunct order verb inflection*

To understand the morphological role played by the suffix *-ehe*, some background is necessary on the inflectional system as a whole. The paradigms of verb inflection in Meskwaki are subdivided into groups called ORDERS, based upon partial formal similarity. For example, most of the modes of the conjunct order express third person with a suffix *-t* (after vowels) or *-k* (after consonants), as opposed to the third person suffix *-w* used in the independent indicative forms of (1–2) above. The suffix of interest in this paper, *-ehe*, appears on a subset of the modes belonging to the conjunct order. The template for the conjunct order modes is shown in (3a):

- (3) a. Template for conjunct order modes without *-ehe*:
(prefix) - STEM - person/number suffix(es) - mode suffix
- b. Template for conjunct order modes with *-ehe*:
(prefix) - STEM - person/number suffix(es) - *ehe*

The cover term ‘prefix’ in (3) includes both a clear case of a prefix (the aorist prefix *e-h-*) as well as the nonconcatenative morphological operation of INITIAL CHANGE, an ablaut rule affecting the vowel of the first syllable of the verb.⁶ The individual modes of the conjunct order are identified by a combination of what, if anything, fills the prefix position plus the choice of mode suffix. (See Dahlstrom (2000:76–78) for more discussion.)

(3b) shows the template for conjunct modes containing the *-ehe* suffix: *-ehe* attaches to the verb to the right of the person/number suffixes and precludes any further suffixation (Goddard 1995:133).⁷ Table 1 presents the modes belonging to the core conjunct sub-order (Goddard 2004:121): each entry contains the label used in Goddard 2004 for the mode, a schema for the mode’s formation, an example of a verb inflected in that mode, plus the translation of the example.⁸

[Insert Table 1 about here]

Table 1. Core conjunct sub-order modes

Stem *wača·ho-* ‘cook’, IC = initial change; P/N (person/number) suffix is *-t*, 3rd sg.

- | | |
|---|--|
| <p>(i) NEGATIVE [with <i>a·kwi</i> ‘not’]
 ‘not’]
 Stem - P/N - <i>ini</i>
 <i>a·kwi wača·ho-č-ini</i>
 ‘she doesn’t/didn’t cook’</p> | <p>(ii) NEGATIVE PRETERITE [with <i>a·kwi</i>
 ‘not’]
 Stem - P/N - <i>ehe</i>
 <i>a·kwi wača·ho-t-ehe</i>
 ‘she didn’t cook’ [remote past]</p> |
| <p>(iii) AORIST CONJUNCT
 <i>e·h</i> - Stem - P/N - <i>i</i>
 <i>e·h-wača·ho-č-i</i>
 ‘that she cooks/cooked’</p> | <p>(iv) AORIST PRETERITE
 <i>e·h</i> - Stem - P/N - <i>ehe</i>
 <i>e·h-wača·ho-t-ehe</i>
 ‘that she had cooked’</p> |
| <p>(v) CONJUNCT PARTICIPLE
 IC - Stem - P/N - HEAD.OF.RC
 <i>we·ča·ho-t-a</i>
 ‘the one who cooks/cooked’</p> | <p>(vi) PRETERITE PARTICIPLE
 IC - Stem - P/N - <i>ehe</i>
 <i>we·ča·ho-t-ehe</i>
 ‘the one who had cooked’</p> |
| <p>(vii) SUBJUNCTIVE
 Stem - P/N - <i>e</i>
 <i>wača·ho-t-e</i>
 ‘if/when she cooks’</p> | <p>(viii) SUBJUNCTIVE PRETERITE
 Stem - P/N - <i>ehe</i>
 <i>wača·ho-t-ehe</i>
 ‘if she had cooked’</p> |
| <p>(ix) CHANGED CONJUNCT

 IC - Stem - P/N - <i>i</i>
 <i>we·ča·ho-č-i</i>
 ‘when she cooked’</p> | <p>(x) CHANGED PRETERITE
 [with <i>keye·hapa</i> ‘it turns out’]
 IC - Stem - P/N - <i>ehe</i>
 <i>keye·hapa we·ča·ho-t-ehe</i>
 ‘it turns out she cooked!’</p> |
| <p>(xi) ITERATIVE
 IC - Stem - P/N - <i>ini</i>
 <i>we·ča·ho-č-ini</i>
 ‘whenever she cooks’</p> | |
| <p>(xii) PLAIN CONJUNCT [rare; with <i>a·mihtahi</i> ‘would’]
 Stem - P/N - <i>i</i>
 <i>a·mihtahi wača·ho-č-i</i>
 ‘she would cook’</p> | |

As can be seen in the right-hand column of Table 1, five of the core conjunct modes exhibit the suffix *-ehe* as a final suffix in their inflection. Each of these modes will be discussed in detail in the following section: for now, note that there is a paradigmatic relationship between the pairs of modes in Table 1. Each mode in the right-hand column is formed identically to its counterpart in the left-hand column except that the appearance of the mode suffix of the form in the left-hand column has been precluded by the suffix *-ehe*. Furthermore, four of the five pairs of formally related modes are also related in terms of their functions. For example, the SUBJUNCTIVE mode in (vii) is used for hypothetical conditional clauses while the SUBJUNCTIVE PRETERITE mode in (viii) is used for counterfactual conditionals. The only formally related pair of modes which does not also exhibit similarity in function is the CHANGED CONJUNCT in (ix) and the CHANGED PRETERITE in (x). The changed conjunct is used for temporal adverbial clauses referring to past time while the changed preterite is a mirative form, used to express surprise.⁹

Since the individual modes of the conjunct order are identified by means of a combination of prefixal and suffixal morphology, it might be thought that the suffixation of *-ehe* creates ambiguity in the system. In fact, however, the association of verbal modes with specific particles (i.e. independent words) reduces the contexts in which ambiguity might arise. For example, if a verb suffixed with *-ehe* occurs with the negative particle *a·kwi*, the verb is unambiguously part of the NEGATIVE PRETERITE mode and not part of the subjunctive preterite mode. Likewise, a verb with initial change suffixed with *-ehe* and occurring with *keye·hapa* ‘it turns out’ must be analyzed as belonging to the CHANGED PRETERITE, not the PRETERITE PARTICIPLE. The only place in the system where the suffixation of *-ehe* leads to ambiguity is within the paradigm for the preterite participle mode. Its counterpart without *-ehe*, the CONJUNCT PARTICIPLE mode, is the normal form used in relative clauses; the mode suffix slot in the conjunct participle is filled with a suffix agreeing with the head of the relative clause (Goddard 1987). In the preterite participle, however, the use of *-ehe* blocks the appearance of the suffix identifying the head of the relative clause.

2. DESCRIPTIONS OF EACH MODE CONTAINING *-EHE*

In this section the functions of each of the five modes with *-ehe* shown in Table 1 will be described in detail. The construction combining the future prefix *wi·h-* with *-ehe* is discussed separately in section 3.

2.1. *Negative preterite: remote past, speaker uncertainty*

Both the NEGATIVE mode, (i) in Table I, and the NEGATIVE PRETERITE mode, (ii) in Table 1, occur with the negative particle *a·kwi* ‘not’ to negate verbs in main clauses. The negative mode and the negative preterite mode are formed identically except that the mode suffix *-ini* of the negative mode is blocked from appearing in the negative preterite mode.¹⁰

The negative preterite mode can be used to indicate a remote past tense, as in (4):¹¹

- (4) *a·kwiča·hye·toke nana·ši mešotehe i·niya nemešo·ha*
 a·kwi=ča·hi=ye·toke nana·ši mešw·etehe
 not=so=it.seems ever hit.with.shot-X>3/NEG.PRET
- i·niya ne-mešo·h-a*
 that.ABSENT 1-grandfather-SG
 ‘My late grandfather was never hit in battle, it seems.’
 (Michelson 1927:70.3)

The time of the action described in (4) is significantly earlier than the time of speaking: the speaker is describing what happened to his late grandfather when his grandfather was a young man. Note that the absentative form of the demonstrative modifying ‘grandfather’ indicates that the grandfather has passed away.

There is no fixed boundary separating the time at which ordinary past tense is appropriate and the time at which the remote past tense is appropriate: the decision to treat a given situation as remote past tense is a subjective one of the speaker’s. For utterances involving only third persons the remote past forms carry an evidential flavor: the speaker cannot vouch directly for the truth of the statement, because it happened long ago. In example (4) the use of the enclitic =*ye·toke* ‘it seems’ further indicates that the speaker is not making an assertion based upon direct evidence.

(4) is an example taken from a text. I asked Meskwaki speaker Adeline Wanatee to compare (4) to the same sentence with ordinary negative inflection:

- (5) *a·kwiča·hye·toke nana·ši mešočini i·niya nemešo·ha*
 a·kwi=ča·hi=ye·toke nana·ši mešw·ečini
 not=so=it.seems ever hit.with.shot-X>3/NEG
- i·niya ne-mešo·h-a*
 that.ABSENT 1-grandfather-SG
 ‘My late grandfather was never hit in battle, it seems.’

She reported that (4) and (5) mean the same thing, but that with ordinary negative inflection it was more of a direct statement, while in (4) the speaker didn’t know for sure; it wasn’t a direct statement.

The negative preterite is also used in an idiomatic way with second person subjects, as a mild rebuke:

- (6) *a·kwike·hye·toke ka·hkami wi·tamawiyanehe?*
 a·kwi=ke·hi=ye·toke ka·hkami wi·tamaw-iyanehe?
 not=moreover=it.seems in.first.place tell.to-2>1/NEG.PRET
 ‘Why didn’t you tell me in the first place?’ W591¹²

The pragmatic reading in (6) seems to be something like “you didn’t tell me in the first place way back then [but you *should* have]”.

The following example also has the effect of a mild rebuke, even though the verb does not have a second person subject:

- (7) “*a kwimeko owiye·ha keteminamawitehe*” *netešite·he*.
 “a·kwi=meko owiye·h-a keteminamaw-itehe” ne-ešite·he·-ø.
 not=EMPH anyone-SG bless.O2.for-3>1/NEG.PRET 1-think.thus-1/IND
 ‘I thought, “Why, no one has blessed them for me.”’ W942

In (7), the culture hero Wisahkeha addresses the other spirits, saying that none of the other spirits has blessed the people of the future in place of Wisahkeha doing it himself. Again, the implication is that the addressees *should* have performed the action but did not. The sentence in (7) is part of an extended recounting by Wisahkeha of events that happened in the past, which may be the motivation for the use of the negative preterite inflection on the verb.

2.2. Aorist preterite: relative past tense or speaker uncertainty

The aorist conjunct, (iii) in Table 1, is widely used, appearing not only in complement clauses but also in main clauses, especially in traditional narratives. The aorist preterite, (iv) in Table 1, likewise may be used in either complement clauses or in narrative main clauses.

2.2.1. Relative past tense in complement clauses

The use of the aorist preterite mode in complement clauses signals a relative past tense. That is, the action of the verb of the complement clause is in the past relative to some reference time which has previously been established. Consider the textual example in (8):

- (8) *ayo·hmeko ki·hpya·ya·ni e·hkehke·netama·ni*
e·hkemo·temiwa·tehe aša·haki neči·ma·ni.
 ayo·hi=meko IC-ki·h-pya·-ya·ni e·h-kehke·net-ama·ni
 here=EMPH IC-PERF-come-1/CH.C AOR-know-1>0/AOR

 e·h-kemo·tem-iwa·tehe aša·h-aki ne-či·ma·n-i
 AOR-steal.O2.from-3P-1>/AOR.PRET Sioux-PL 1-canoe-SG

‘After I came here I realized
 that the Sioux had stolen my canoe’ (Dahlstrom 2015:162)

(8) contains several grammatical devices which indicate tense or sequence of actions. The changed conjunct form of ‘come’ establishes a reference time R which is prior to the speaker’s time of speaking S. The perfective preverb which appears on the changed conjunct verb indicates that the action of the main clause (‘know; realize’) is later than the reference time R. Finally, the aorist preterite inflection on ‘steal’ indicates that the action of the complement clause is prior to the reference time R: the time of the

Sioux stealing the canoe was prior to the speaker’s coming home. The unmarked choice of mode for a complement clause in Meskwaki is the aorist conjunct, so the use of the aorist preterite in (8) indicates the marked situation of relative past tense.

Another example of the aorist preterite indicating relative past tense is in (9):

- (9) *e·hki·ši–na·kwa·nitehe e·hišihkawe·niči okwisani*
 e·h·ki·ši–na·kwa·-nitehe e·h-išihkawe·-niči o-kwis-ani
 AOR-PERF–leave-3'/AOR.PRET AOR-S's.tracks.be.thus-3'/AOR 3-son-OBV
 ‘His son’s footprints showed that he had already left.’
 (Dahlstrom 1996:137.84)

The context here is that a father checks on his fasting son every morning; the son’s footprints in the snow show that the son had left before the father arrived. The time of the son’s leaving is in the past relative to the father observing the footprints. This example is clearly not an instance of a remote past, since the father visits his son every day (and the narrator said previously that it had snowed a little overnight).¹³

2.2.2. *Speaker uncertainty in main clauses*

The aorist conjunct is used in main clauses in narratives, especially traditional narratives where it functions as a type of evidential (Dahlstrom 2020). Its counterpart with the suffix *-ehe*, the aorist preterite, may also appear in narrative main clauses, with the effect of expressing speaker uncertainty. In this use the *-ehe* marking often co-occurs with the enclitic *=ye·toke* ‘it seems’:

- (10) *aškači·meki·h kapo·tweye·toke e·haškačipwi·hiteh nekya*
 aškači·meki·hi kapo·twe=ye·toke
 later.DIM at.some.point=it.seems

 e·h-aškačipwi·h-itehe ne-ky-a
 AOR-tire.of.waiting.for-3>1/AOR.PRET 1-mother-SG
 ‘After quite a while at some point
 my mother apparently got tired of waiting for me’
 (Goddard 2006:39F)

(10) is from a Meskwaki woman’s autobiography: here she recounts that when she first had her period she was so frightened that she hid in the bushes until her mother came to find her. The use of the aorist preterite inflection in (10) is motivated by the fact that the narrator cannot herself know what her mother was feeling; she can only surmise that her mother must have gotten tired of waiting for her. (10) is clearly not an example of a remote past tense or a relative past tense but rather a case where the narrator reports what seems to be the case.

(10) is from a personal narrative, but the use of aorist preterite in main clauses is also found in traditional narratives, as in (11):

- (11) *kapo·tweye·toke·ni e·hwe·pi–a·hkwamataminitehe i·nini okwiswa·wani*

kapo·twe=ye·toke=i·ni e·h-we·pi-a·hkwamat-aminitehe
 at.some.point=it.seems=then AOR-begin-be.sick-3'>0/AOR.PRET
 i·nini o-kwis-wa·w-ani
 that.OBV 3-son-3P-OBV
 ‘Soon, it seems, that son of theirs began to be sick.’
 (Michelson 1927:74.5)

As in (10), the use of the aorist preterite in (11) does not convey a remote past tense or a relative past tense: instead it indicates speaker uncertainty about the occurrence of the event ‘begin to be sick’.

It might be thought that such marked inflection could well occur on all clauses of a traditional narrative, which, after all, recounts events that the narrator did not witness personally. However, this is not the case: the use of the aorist preterite is quite infrequent in traditional narratives. When the aorist preterite does appear, it seems to occur with the enclitic =*ye·toke* ‘it seems’, which I have previously argued appears with introductory sentences at the beginning of ‘acts’ in narratives (Dahlstrom 1996:116).

2.3. Preterite participle: remote or relative past tense

The use of the suffix *-ehe* on relative clauses formed with the preterite participle mode ((vi) in Table 1) may indicate either a remote past tense or a relative past tense. For example, (12), taken from the same autobiography as (10), occurs after the narrator’s mother has died. The preterite participle inflection indicates that the set of things which the mother had told the narrator stretches back far into the past:

(12) *ča·kimeko nemehkwe·neta e·nahina·čimohitehe*
 ča·ki=meko ne-mehkwe·net-a IC-inahina·čimoh-itehe
 all=EMPH 1-remember-1>0/IND IC-REDUP.inform.so-3>1/PRET.PART/OBL
 ‘I remembered everything she had ever told me.’
 (Goddard 2006:117D)

Preterite participle inflection may also indicate that the action of the lower clause is in the past relative to some reference point earlier than the time of speaking, as in (13), where the action of ‘starting out from’ is earlier than the time of ‘bringing back’:

(13) *i·ya·he·hpye·neči we·či·wa·tehe.*
 i·ya·hi=e·h-pye·n-eči IC-oči·-wa·tehe.
 yonder=AOR-bring-X>3(P)/AOR IC-come.thence-3P/PRET.PART/OBL
 ‘They were brought back to the place where they had started out from.’ W21

Neither (12) nor (13) is an example of speaker uncertainty: in (12) the verb marked with the *-ehe* suffix refers to what the speaker had been told at an earlier point and indeed (12) asserts that the speaker remembers all of it. Likewise, in (13) the place where the subject had started out from is a specific location, not a location which is in question.

2.4. Subjunctive preterite mode: counterfactual conditions and wishes

The subjunctive preterite mode, (viii) in Table 1, is used for counterfactual conditions, as mentioned earlier, and for counterfactual wishes. In these two environments the subjunctive preterite mode contrasts with the subjunctive mode, (vii) in the table.

- | | |
|---|---|
| <p>(14) <i>pya·te</i>
 <i>pya·-te</i>
 come-3/SUBJUNCT
 ‘If he comes .../When he comes ...’</p> | <p>(15) <i>pya·tehe</i>
 <i>pya·-tehe</i>
 come-3/SUBJUNCT.PRET
 ‘If he had come ...’</p> |
|---|---|

(14) and (15) are examples of conditional clauses; in (14) notice that the subjunctive inflection may be used either for hypothetical situations (translated with ‘if’) or for situations which the speaker assumes will occur in the future (translated with ‘when’).

The contrast between subjunctive and subjunctive preterite in wishes is exemplified in (16) and (17):

- (16) *ta·ni·nahi pya·te!*
ta·ni=i·nahi pya·-te
 how=EMPH come-3/SUBJUNCT
 ‘I wish he would come!’
- (17) *ta·ni·nahi pya·tehe!*
ta·ni=i·nahi pya·-tehe
 how=EMPH come-3/SUBJUNCT.PRET
 ‘I wish he would have come!’

Wishes in Meskwaki are expressed by an idiomatic combination of particles, *ta·ni* ‘how’ plus an emphatic enclitic particle *=i·nahi*, followed by a verb in the subjunctive, if the speaker believes it is possible for the wish to come true, or by a verb in the subjunctive preterite mode, if the speaker views the wish as impossible.

The above examples show that both the subjunctive and the subjunctive preterite modes are used for hypothetical situations. The contrast between them is one of EPISTEMIC STANCE (see, for example, Fillmore 1990): the subjunctive preterite mode is used for a negative epistemic stance (where the speaker believes that the situation did not or will not occur) and the subjunctive is used either for a neutral or a positive epistemic stance regarding future events.

It seems clear that the function of the suffix *-ehe* in the subjunctive preterite mode is an irrealis function, related to the other irrealis function already described, speaker uncertainty. However, all the previously discussed instances of *-ehe* involved past tense in some way, so the question arises whether the *-ehe* suffix in the subjunctive preterite mode is also associated with past tense. Certainly the clearest examples of counterfactual conditions are set in the past. That is, if the time of the conditional clause is past tense, then the speaker knows for sure that the condition was not fulfilled. The same reasoning may be applied to wishes: if the time of the wished-for event was in the past, the speaker knows that the event did not occur and therefore their wish that it had occurred is an impossible one.

The following examples, however, show that the subjunctive preterite mode is not restricted to past tense. A verb inflected in the subjunctive preterite may refer to present tense or to future tense, as long as the condition is contrary to fact. (18) is a textual example of a counterfactual condition referring to the present time:

- (18) *pwa·wimata-ona·pe·miya·nehe wi·tamo·naka·wa·ha*
 pwa·wi=mata -ona·pe·mi·ya·nehe
 not=rather -have.husband-1/SUBJCT.PRET
 wi·tamaw-enaka·wa·ha
 tell-1>2P/POTENTIAL
 ‘If I weren’t married I would tell you [plural].’ W187

(19) is an elicited sentence in which the contrary-to-fact condition is set in future time:

- (19) *wa·panike ni·miwa·tehe mawi-wa·pamiye·ka·kehe*
 wa·pan-nike ni·mi-wa·tehe
 be.dawn-0'/SUBJNCT dance-3P/SUBJNCT.PRET
 mawi-wa·pam-iye·ka·kehe
 go-look.at-1P>3(P)/POTENTIAL
 ‘If they would dance tomorrow we would go see them.’

In other words, even if the suffix *-ehe* in the subjunctive preterite mode originally indicated only a past tense, it has now been extended to mark contrary to fact situations regardless of tense.

2.5. Changed preterite: mirativity

The final mode from Table 1 to be discussed is the changed preterite ((x) in Table 1), which is typically used with the particle *keye·hapa* ‘it turns out’ to express mirativity, i.e. something surprising:¹⁴

- (20) *keye·hapake·hipi i·nini mahkwani a·wahki·kwe·sah·ekotehe!*
 keye·hapa=ke·hi=ipi i·nini mahkw-ani
 it.turned.out=moreover=HRSY that.OBV bear-OBV

 a·wahki·kwe·sah·ekotehe!
 scratch.up.O’s.face-3’>3/CH.PRET
 ‘It turned out, they say, that that bear had scratched up her face!’ W122

The context for (20) is that Wisahkeha and his brother as young boys play a trick on their grandmother’s lover, the bear, who then runs out of the house so fast that his claws scratch the grandmother’s face. The surprise in (20) is from the point of view of the young boys.

(21) is a similar example, taken from the same autobiography of a Meskwaki woman as (10) and (12). The context here is that when the narrator was nine years old she

started learning to cook. Her family told her that what she cooked tasted good, but later on she realized that their praise was not sincere:

- (21) *keye·hapake·hwi·na išemeko e·šimikehe ...*
 keye·hapa=ke·hi=wi·na iše=meko IC-išim-ikehe ...
 it.turned.out=moreover=but just=EMPH IC-speak.so.to-X>1/CH.PRET
 ‘Actually, though, I was just being told that...’ (Goddard 2006:18.13D)

The use of the changed preterite for mirativity is not connected to either of the marked past uses we have seen for the *-ehe* suffix: it expresses neither remote past tense nor relative past tense. Instead, the mirativity use seems more akin to the irrealis uses we have seen for the *-ehe* suffix. Admittedly, it may seem strange to classify a construction expressing surprise with irrealis functions, since what the construction reports is what the state of events really is. However, irrealis morphology has been reported for constructions expressing surprise in other languages: cf. James (1982) on the Latin past indicative (which has other irrealis uses) and Chafe (1995) on the Caddo irrealis used with the admirative prefix. What seems to warrant irrealis in such cases is that the situation is counter to the speaker’s expectations, rather than being contrary to fact.

3. FUTURE PREFIX PLUS PAST SUFFIX

The prefix *wi·h-* was exemplified earlier in (2) expressing its basic meaning of future tense. It also has other uses: it may be used to express a modal sense of obligation, especially with a second person subject. The two textual examples below are both said by parents addressing their children:

- (22) *ki·howi·wi*
 ke·i·h-owi·wi-ø
 2-FUT-have.wife-2/IND
 ‘You should get married’ (Dahlstrom 2015:183.25L)

- (23) *a·kwiča·hi·na wi·hona·pe·miyanini*
 a·kwi=ča·hi=i·na **wi·h**-ona·pe·mi-yanini
 not=so=that.ANIM FUT-have.O2.as.husband-2/NEG
 ‘So, in short, you mustn’t marry him.’ (Goddard 2006:72:76E)

The prefix *wi·h-* also combines with the *-ehe* suffix under investigation here to create constructions expressing either unfulfilled intentions or past modal readings. Note that the construction combining *wi·h-* and *-ehe* is only available in the conjunct order set of inflectional paradigms, though the distribution of *wi·h-* on its own is wider, as seen in (2) and (22), where *wi·h-* appears with independent order inflection.

3.1. Unfulfilled intentions

The most widespread use of the *wi·h-* plus *-ehe* construction is to express unfulfilled intentions, as in (24):

- (24) *me·no·hkami·niki wi·hahčike·tehe*
 IC·meno·hkami·-niki **wi·h**·ahčike·-tehe
 IC·be.spring-0'/CH.C **FUT**·plant-3/**AOR.PRET**
 'In the spring he was going to plant.'

In (24) the verb bears the future prefix *wi·h-* and is inflected in the aorist preterite with the *-ehe* suffix following the third person suffix *-t*. (When *wi·h-* appears in the aorist conjunct or aorist preterite it takes the place of the usual aorist prefix *e·h-*.) The clause-initial verb 'when it was spring' indicates that the time of the subject's intention was in the past, because 'be spring' is inflected in the changed conjunct mode, which is only used for temporal adverbial clauses referring to past time.

I suggest that the use of *-ehe* as a past tense suffix in constructions like (24) is motivated as follows: *-ehe* indexes a point in the past at which the subject had intended to do something. In other words, at some time in the past, the subject thought, "I will plant," but he failed to do so. The fact that the subject failed to carry out the intention can be considered an implicature of this construction. If the subject *had* fulfilled the intention, we would report that "he planted." Instead, the most we can say is that he intended to do it.

Additional textual examples of this construction with the aorist preterite may be seen in (25) and (26):

- (25) *wi·hwi·če·nomaketeheča·hi*
wi·h·wi·če·nom·aketehe=ča·hi
FUT·play.with-1P>3/**AOR.PRET**=so
 'We (exclusive) were just going to play with him.' W78

- (26) *me·mečine·hkohi wi·hni·miya·nehe*
 me·mečine·hi=kohi **wi·h**·ni·mi·ya·nehe
 for.the.last.time=obviously **FUT**·dance-1/**AOR.PRET**
 'I was going to dance one last time, you know.' W158

(25) and (26) are both reports of what the speaker intended to do but did not succeed in doing. Note that (24–26) are all instances of the aorist preterite mode used in main clauses.

The combination of *wi·h-* plus *-ehe* may also express unfulfilled intentions in preterite participles, as in (27):

- (27) *wi·hkekye·hkima·tehe*
 IC·**wi·h**·kekye·hkima·a·tehe
 IC·**FUT**·teach-3>3'/**PRET.PART**/0
 'that which he was going to teach them' W133

Similarly to the examples in (24–26), the speaker's intention referred to in the relative clause of (27) was not carried out.

3.2. Occurring with an idiom in the changed conjunct mode

The *wi-h-* plus *-ehe* construction may even be used with changed conjunct verbs, also with a reading of unfulfilled intentions. This is striking because the changed conjunct otherwise does not allow the prefixation of *wi-h-* as a future marker on its own, since the function of the changed conjunct mode is to express temporal adverbial clauses referring to past time. The example below in (29) involves an idiom in which the demonstrative *mani* ‘this; now’ is paired with the relative root *iši-* ‘thus’ to give the reading ‘just as...’.¹⁵ This idiom occurs with verbs inflected in the subjunctive mode, if the action referred to is in the future, or with verbs inflected in the changed conjunct mode, if the action takes place in the past. As background, an example of this idiom without the *wi-h-* plus *-ehe* construction is given in (28):

- (28) *manimeko e·ši-kohkika·pa-niči, ... e·hpakamemeči omešo·mesani.*
 mani=meko IC-iši-kohkika·pa·niči, ...
 now=EMPH IC-thus-turn.around.from.standing.position-3'/CH.C
- e·h-pakam-emeči o-mešo·mes-ani
 AOR-hit-X>3'/AOR 3-grandfather-OBV

‘Just as he turned from where he was standing, ...
 his grandfather was struck [by lightning]’ (Dahlstrom 2015:179:24A, C)

The *mani* ‘now’ plus *iši-* ‘thus’ idiom in (28) indicates that the action of the main clause (grandfather being struck by lightning) happened just as the grandfather turned to leave.

The *mani* plus *iši-* idiom can combine with the *wi-h-* plus *-ehe* construction to produce a reading of ‘Just as [subject] was about to ...’:

- (29) *mani wi·hiši-we·pika·wose·nitehe, e·hwe·pa·ška·niči.*
 mani IC-wi·h-iši-we·pika·wose·nitehe, e·h-we·pa·ška·niči.
 now IC-FUT-thus-begin.taking.steps-3'/CH.PRET AOR-fall-3'/AOR
 ‘Just as he was about to take a step, he fell down.’ W76

The context for (29) is that Wisahkeha’s baby brother is trying to walk but isn’t yet old enough to. The *wi-h-* plus *-ehe* construction indicates that the subject intended to walk, but did not succeed. The *mani* plus *iši-* idiom aligns the time of the main clause (the younger brother falling down) with the time of the brother’s attempt to walk.

Note that the verb bearing the mode suffix *-ehe* in (29) is glossed as CHANGED PRETERITE. This label is motivated by the use of the *wi-h-* plus *-ehe* construction on a verb which would otherwise be inflected in the changed conjunct to indicate that it is a temporal adverbial clause referring to past time. The function of the changed preterite in (29) is distinct from the more frequent use of the changed preterite mode, which was shown in 2.5 to indicate mirativity.

3.3. Past modal readings

As stated above, the majority of examples of the *wi·h-* plus *-ehe* construction in texts indicate unfulfilled intentions on the part of the subject. The construction, however, may also be used to express a past modal reading such as ‘should have’:

- (30) *“i·nike·hi wi·hišiyanehe,” e·hina·či osi·me·hani wi·sahke·ha.*
“i·ni=ke·hi IC-wi·h-in-iyanehe,”
 that=moreover IC-FUT-say.thus.to-2>1/PRET.PART/OBL

e·h-in-a·či o-si·me·h·ani wi·sahke·h·a.
 AOR-say.thus.to-3>3'/AOR 3-younger.sibling-OBV Wisahkeh-SG
 “‘That’s what you should have said to me,”
 Wisahkeha said to his younger brother.’ W591

In (30) Wisahkeha informs his brother of what the brother should have said to Wisahkeha in the past. ((30) occurs two clauses after the mild rebuke expressed with the negative preterite seen in (6).) Note that the verb inflected with the future and past affixes in (30) cannot be interpreted as an instance of unfulfilled intentions: the younger brother did not intend to say a certain thing but fail to do so. Instead, the construction here seems to build upon the modal reading available to the future prefix (seen in (22–23)) and use the *-ehe* suffix to place the force of that modal in past time.

The *wi·h-* plus *-ehe* construction can also be used to express ‘would have’ as in

(31):

- (31) *na·hka ke·htenameko i·ni wi·hni·šwiha·tehe no·šisema oni·ča·nese·hahi*
na·hka ke·htena=meko i·ni wi·h-ni·šwih-a·tehe
 and surely=EMPH now FUT-have.2.of.O-3>3'/AOR.PRET

ne·o·šisem-a o-ni·ča·nese·h·ahi
 1-grandchild-SG 3-child.DIM-OBV.PL
 ‘And surely my grandson would have had two children now.’ W928–929

The context for (31) is that Wisahkeha blames his grandmother for his wife giving birth not to children but rather to a squash and to a rabbit. (31) is thus the consequence clause of an unspoken contrary-to-fact ‘if’ clause: if the grandmother had acted differently, then her grandson would have two children by now. The *wi·h-* plus *-ehe* construction here combines the modal force of *wi·h-* with the irrealis association of the *-ehe* suffix.

4. DIACHRONIC PATHWAY OF SEMANTIC EXTENSION

The examples presented in sections 2 and 3 illustrate the range of functions associated with the suffix *-ehe*. In some contexts *-ehe* indicates a marked past tense (remote past, relative past, past modal); in other contexts *-ehe* is associated with a variety of irrealis functions (speaker uncertainty, counterfactual conditions and wishes, mirativity, unfulfilled intentions). Many of the above examples exhibit a combination of past tense

and an irrealis function: for example, the past modal reading in (30) both refers to past time and presupposes that the action of the verb did not take place.

Given this range of functions, we may ask how the connection in Meskwaki between past tense and irrealis developed. One possibility is that the original function of the *-ehe* suffix was to mark past tense, and that the irrealis functions are a later semantic extension. The alternative hypothesis is that the irrealis uses of *-ehe* are the basic function, which undergo a later extension to marking past tense. I believe the first hypothesis, taking the past tense functions as basic, is the correct one. In particular, the use of *-ehe* to indicate a remote past tense in main clauses involving only third persons (e.g. (4)) may be the key phenomenon which explains the connection between past tense and irrealis. A remote past clause with third person arguments naturally implies that the speaker did not witness the event directly. The *-ehe* suffix thus indicates not only a marked past tense but also speaker uncertainty. The context for the initial extension of the function of *-ehe* from a marked past tense to an irrealis marker may then have been main clauses like (10), where the *-ehe* suffix reflects only speaker uncertainty and not a remote past tense.

The conjectured pathway sketched above provides a plausible explanation for the connection seen in Meskwaki between past tense and irrealis. It is more difficult to imagine a scenario for the alternative hypothesis: i.e., taking the irrealis functions as the starting point and explaining why the *-ehe* suffix may also be used for marked past tense functions such as remote past or relative past. Moreover, the hypothesis that the original function of *-ehe* was past tense is strengthened by comparative Algonquian phenomena and typological data crosslinguistically. Within Algonquian the past tense affixes in Cree-Innu-Naskapi have developed irrealis functions as well (e.g. James 1991, James, Clarke, and MacKenzie 2001, Drapeau 2014:179ff). Costa (2003:354) reports that the preterite inflection in Miami-Illinois may be used to express unfulfilled intentions. Further afield, connections between past tense and irrealis have been pointed out by Steele (1975), James (1982), Fleischman (1989), and Hogeweg (2009), among others. The extension of past tense to irrealis functions is thus a well-known, established phenomenon crosslinguistically.

5. CONCLUSION

This paper has illustrated the paradigmatic contrasts holding within the conjunct order of Meskwaki verb inflection involving the suffix *-ehe*, showing that five conjunct modes exhibiting *-ehe* form pairs with their counterparts lacking the *-ehe* suffix. The semantic and pragmatic uses of each of the five modes with *-ehe* have been described in detail, supported by elicited and textual examples, as well as a separate construction in which the *-ehe* suffix occurs with the future prefix *wi·h-*. The functions of *-ehe* include marked past tenses such as remote past and relative past, as well as a variety of irrealis functions such as speaker uncertainty, counterfactual conditions and wishes, mirativity, and unfulfilled intentions. This range of functions is conjectured to be an extension of an original past tense marker to later irrealis uses.

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² The suffix *-ehe* has an allomorph *-eha* which appears after *-(y)akw* first person inclusive plural and *-(y)e·kw* second person plural, giving *-(y)akoha* and *-(y)e·koha*. Neither allomorph may be used after the Transitive Animate suffix *-enako·we* for first person singular subject acting on second person plural object; the *-enako·we* suffix cannot be followed by any other material.

³ It should be pointed out that the conjunct order modes bearing the suffix *-ehe* are not the only paradigms associated with irrealis semantics: the modes of the interrogative sub-order have irrealis functions as well. See Dahlstrom (2020).

⁴ Abbreviations: 1P = first person exclusive plural, 3' = obviative, 0 = inanimate, 0' = obviative inanimate, ABSENT = absentative demonstrative, ANIM = animate, AOR = aorist prefix; aorist conjunct inflection, AOR.PRET = aorist preterite, CH.C = changed conjunct, CH.PRET = changed preterite, DIM = diminutive, EMPH = emphatic, FUT = future, HRSY = hearsay evidential, IC = initial change (ablaut rule), IND = independent indicative, NEG = negative inflection, NEG.PRET = negative preterite, O = (first) object, O2 = second object, OBL = oblique head of relative clause, OBV = obviative, PERF = perfective, PL = plural, PRET.PART = preterite participle, REDUP = reduplication, S = subject, SG = singular, SUBJUNCT = subjunctive, SUBJUNCT.PRET = subjunctive preterite, X = unspecified subject.

Subject and object features in verb inflection are separated by > and are followed by identification of the verbal paradigm. The head of a relative clause is identified following the label PART (participle). Vowel length is marked by a raised dot. Examples cited as W are from Kiyana (1913). Examples with no text citation are elicited.

⁵ The future prefix *wi·h-* has an allomorph *i·h-* which appears after the person prefixes of the independent order: *ne-* first person and *ke-* second person.

⁶ The initial change rule changes short *a*, *e*, and *i* in the first syllable of the verb to long *e·*, and a short *o* to *we·*. In Meskwaki, long vowels are unaffected by initial change, though in other languages of the family the initial change rule has a visible effect on both short and long vowels (Costa 1996).

⁷ Goddard (1995:133) lists two exceptions to the generalization that no further morphological material may follow the *-ehe* suffix: both are absentative participles built upon verbs displaying the *wi·h-* plus *-ehe* construction discussed in section 3 of this paper.

⁸ The mode names in Goddard 2004 correspond to earlier usage (e.g. Goddard 1994, Dahlstrom 2000) as follows: NEGATIVE PRETERITE was formerly labeled PAST NEGATIVE, AORIST PRETERITE was formerly PAST AORIST CONJUNCT, PRETERITE PARTICIPLE was formerly PAST CONJUNCT PARTICIPLE, SUBJUNCTIVE PRETERITE was formerly UNREAL, and CHANGED PRETERITE was formerly CHANGED UNREAL.

⁹ See, however, the discussion of changed preterite inflection in example (29) below.

¹⁰ Note that *-ini*, like all mode suffixes beginning with *i*, palatalizes the preceding third person suffix *-t* to *-č*.

¹¹ In the remainder of the paper the inflectional suffixes on verbs will not be glossed individually; rather, the entire complex of affixes will receive a gloss for the subject and object features that it encodes, plus an identification of the specific inflectional mode.

¹² The “why didn’t you...” translation is based upon Horace Poweshiek’s rendering of this and similar constructions with negative preterite inflection on verbs with second person subjects.

¹³ The complement clause in (9) appears to the left of the main verb because it functions as an oblique argument licensed by the relative root of the main clause (cf. Dahlstrom 2014).

¹⁴ The changed preterite may also appear with the particle *šepawi·hta* ‘fortunately, luckily’ (Lucy Thomason, personal communication).

¹⁵ In (28) and (29) the relative root glossed as ‘thus’ is realized as a preverb, *iš-*. Relative roots may also be realized as the initial morpheme of a bipartite or tripartite verb stem: *in-* (as in (12)) or its allomorph *iš-* (as in (9), (21)).