Bruening, Benjamin. 2024. The Algonquian person prefix is an agreement affix, not a pronominal clitic. *Glossa: a journal of general linguistics* 9(1). pp. 1–42. DOI: https://doi.org/10.16995/glossa.17212

Open Library of Humanities

The Algonquian person prefix is an agreement affix, not a pronominal clitic

Benjamin Bruening, University of Delaware, US, bruening@udel.edu

Halle & Marantz (1993) propose that the person prefix that appears on Independent Order verbs in Potawatomi is a pronominal clitic and not an agreement affix, and this analysis has been followed for a variety of Algonquian languages by a large number of researchers. With data primarily from Passamaquoddy-Maliseet (Eastern Algonquian), I show that the prefix is not a pronominal clitic, it is an agreement affix, according to all diagnostics for distinguishing them. This conclusion is problematic because the prefix can be separated from the verb stem and the rest of the inflection, which is suffixal. I propose an analysis according to which all the inflectional suffixes are heads low in the clause, through which the main verb moves. The prefix, in contrast, is an Agr(eement) head adjoined to a head higher in the clause. This head attracts the highest verbal element, which will be the highest preverb if there is one, or the main verb if not. Preverbs are syntactic heads above the main verb which never form a complex head with it. This is amply justified by their separability, their prosody (they are often separate prosodic words), and coordination facts. Word order facts also indicate that the verb does not move very high in Algonquian languages, contrary to many analyses since Halle & Marantz (1993).

1 Introduction

In Algonquian languages, verbs have three main conjugations, which are referred to in the Algonquianist literature as "orders." The three orders are the Independent Order, the Conjunct Order, and the Imperative Order. These are illustrated below for Passamaquoddy-Maliseet:[1]

(1)

Independent	Conjunct	Imperative
kt-uwikh-i-pa	wikh-i-yeq	wikh-i-q!
2-depict-2Subj/1Obj-2Pl	depict-2Subj/1Obj-2Pl.Conj	depict-2Subj/1Obj-2Pl.Imp
all: 'you (Pl) draw/take a picture of me'		

This paper is concerned with the person prefix that appears only in the Independent Order, in boldface in the table in (1). Notice that the Conjunct and the Imperative are exclusively suffixal, and lack this prefix. The rest of the inflectional morphology in the Independent Order is also suffixal, so this prefix stands out.

Halle & Marantz (1993) propose that the prefix on Independent Order verbs in Potawatomi is a pronominal clitic, not an affix. They locate this clitic high in the clause, at the left edge of CP, from which position it would cliticize onto whatever was adjacent to it (but they were not very clear about this). Their clitic analysis has been followed for different Algonquian languages by a substantial number of researchers (e.g., McGinnis 1995; Campana 1996; Déchaine 1999; Brittain 2001; Richards 2004; Cook 2008; Piggott & Newell 2007; Branigan 2012; Newell & Piggott 2014; Oxford 2014).

[1] Passamaquoddy-Maliseet examples without a citation come from Francis & Leavitt (2008) and the online portal https://pmportal.org; verb forms are based on the verbal paradigms included in Francis & Leavitt (2008). Passamaquoddy-Maliseet is an Eastern Algonquian language spoken in Maine (United States) and New Brunswick (Canada). For general information about the language, see Sherwood (1986); LeSourd (1993); Leavitt (1996); Francis & Leavitt (2008). The transcription of Passamaquoddy-Maliseet uses the orthography in use in the Passamaquoddy community. Letters have their usual values except that o = schwa, q = [kʷ], c = alveopalatal affricate, ' = initial *h* (phonetic effect is aspiration of the following stop or devoicing of *s*). Obstruents are voiced in many environments. Abbreviations: 1 = first person; 2 = second person; 12 = first person plural inclusive; 3 = third person animate proximate or unmarked; Abs = absentative; AI = intransitive verb with an animate subject; AI+O = verb that inflects like an AI but takes a syntactic object; An = animate; Conj = conjunct inflection; Contr = contrastive; Dir = direct; Ditrans = Ditransitive; Dub = dubitative; Emph = emphatic particle; Fut = future; IC= initial change, ablaut process; II = intransitive verb with an inanimate subject; Imp = imperative; Inan = inanimate; IndefSubj = indefinite subject (passive); Inv = inverse; N = morpheme glossed "N," used with transitive inanimate verbs, ditransitives, subordinatives, and in some other contexts; Neg = negative; Obv = obviative; Pl = plural; Perf = perfect aspect; Pret = preterit (tense); Quot = quotative; TA = transitive verb with an animate object; TI = transitive verb with an inanimate object. "1Subj/2Obj" means a first person subject with a second person object, and so on. If the agreement is not labeled "Conj" (Conjunct) or "Imp" (Imperative), then it is Independent. Similarly, inanimate and obviative plurals are labeled as such ("InanPl," "ObvPl"), but unmarked/proximate animate plural is only marked "Pl."

In this paper, I dispute the claim that the prefix is a pronominal clitic. I show that it is an agreement affix, according to the various diagnostics that have been proposed for distinguishing pronominal clitics from agreement affixes (Zwicky & Pullum 1983; Kramer 2014; Preminger 2014; Baker & Kramer 2018). It then raises an issue for analysis, because it can sometimes be separated from the verb stem, as in the following example from Passamaquoddy-Maliseet (verb stem in boldface, prefix + host underlined):

(2) kt-oqeci = hc **nehpu-h-uku-k**.
2-try = Fut kill-TA-Inv-Pl
'…they will try to kill you.' (Mitchell 1921/1976d: 12)

Second-position clitics like the future marker *hc* regularly follow the first prosodic word in the clause in Passamaquoddy-Maliseet (Bruening 2001: 54–55; LeSourd 2023), so this example indicates that the prefix has attached to something that is a distinct prosodic word from the verb stem that bears the rest of the inflectional morphology.[2]

Descriptively, the prefix always appears either on the verb stem itself, if there is no preverb, as in (1), or on the leftmost preverb if there are any. Preverbs are a class of elements that includes auxiliary-verb-type things like 'try' in (2), as well as different kinds of modifiers (for instance some manner modifiers). In the analysis I propose, the prefix is an agreement head ("Agr") that merges with a functional head above the lexical verb and higher than the highest preverb, but still lower than negation and mood. This functional head attracts something that is [+V]. Preverbs and verbs share the feature [+V]. Given locality, the highest [+V] element will move into the functional head and thereby host the prefix. The rest of the inflection, in contrast, is merged low, below the lowest preverb but above the lexical verb. The lexical verb moves and combines with it. This explains the different distributions of the prefix versus the suffixes, without needing to call the prefix a pronominal clitic.

Section 2 provides relevant background on the inflectional morphology of Algonquian languages. Section 3 goes through diagnostics that have been proposed to distinguish agreement affixes from pronominal clitics, in particular those of Zwicky & Pullum (1983); Kramer (2014); Preminger (2014); Baker & Kramer (2018). While some of the diagnostics from Zwicky & Pullum (1983) are questionable (see, e.g., Thoms et al. 2023), the other diagnostics appear to be clear and they all indicate that the person prefix is an agreement affix, not a clitic. Section 4 presents the analysis that I propose. In section 5, I describe an ablaut process, Initial Change, that has the same distribution as the prefix but is in complementary distribution with it. I propose that it is

[2] Second-position clitics may occasionally be found following an entire first constituent, as well as a first prosodic word (Bruening 2001: 55; LeSourd 2023). Since an entire constituent is even larger than a prosodic word, this possible placement does not compromise the conclusion that if a second-position clitic can follow something (e.g., a preverb), that something is (at least) a prosodic word.

the phonological reflex of a syntactic head that is to be analyzed in the exact same way as the prefix. Section 6 concludes.

Throughout this paper, the language of illustration will be Passamaquoddy-Maliseet, but the general patterns hold to the best of my knowledge for all Algonquian languages. I expect the arguments and conclusions to carry over to all the languages in the family.

2 Background

As noted in the introduction, there are three "orders" of verb conjugations in Algonquian languages. The Independent Order is used for most main clauses, and some embedded ones. The example below illustrates a main clause:

(3) Msi = te el-ehl-ut **'-kis-uwehka-n**.
all = Emph IC.thus-do.to-IndefSubj.3Conj 3-Able-use.TI-N
'All that has been done to him he can now use.'
(Mitchell 1921/1976d: 15)

The Conjunct Order is used in different kinds of embedded clauses and most wh-questions, as well as some main clauses.[3] An example with the same verb 'use' appears below, but the embedded clause in (3) (the verb 'do to') also uses the Conjunct (because it is a relative clause).

(4) On ['']-kisi kpukow-a-n [piksi piyehs **ewehke-t**].
then 3-Perf sew.TA-Dir-N pig hair IC.use.TI-3Conj
'[Then] He sews him up using a pig's hair.' (Anonymous 1974: 9)

The Imperative Order is used in imperatives, as one would expect:

(5) **Wehke-q**!
use.TI-2Pl.Imp
'Use it!' (2nd person plural)

For detailed discussion of the distribution of the three orders in Passamaquoddy-Maliseet, see LeSourd (1993).

As noted above, it is only in the Independent Order that the person prefix appears. In Passamaquoddy-Maliseet the prefixes are *n-* (first person), *k-* (second person), and *w-/'* (third person; the apostrophe is an initial [h]). These have the allomorphs *nt-*, *kt-*, *'t-* before vowels.

[3] Passamaquoddy-Maliseet has only two sub-paradigms of the Conjunct, the Unchanged Conjunct and the Changed Conjunct. They do not differ in their inflectional suffixes, only in the presence of initial change (see section 5). According to LeSourd (1993: 24), the Changed Conjunct can be divided into three modes distinguished by pitch accents and vowel mutations. Changed Conjunct forms used in relative clauses and wh-questions (called the "Participle") can also take an additional suffix to mark the head of the relative clause or the wh-phrase (see Bruening 2004a; 2006a).

These agreement prefixes are present in all Algonquian languages and are reconstructed to Proto-Algonquian as *ne-, ke-, we-* (Goddard 2007). I give some examples of the first person prefix from a variety of Algonquian languages below.

(6) **nət**-əlohsa = ci molian ssanəta-k-a.
1-go.there = Fut Montreal be.Sunday-3In-Subj
'I will go to Montreal on Sunday' (Western Abenaki; LeSourd 2015: 302, (1a))

(7) **ni**-gi:we:-i?-a:
1-go.home-Caus-3
'I make him go home' (Ojibwe; Newell & Piggott 2014: (1b))

(8) Nitáánistawa omááhkotoyaaksstsiiyssi.
nit-waanist-a-wa om-aahk-oto-yaakihtsiiyi-hsi
1-say.TA-Dir-Prox 3-Nonfact-go-go.to.bed-Conj
'I told him to go to bed.' (Blackfoot; Ritter & Wiltschko 2014: 1363, (48b))

(9) Jo **n**-gi-gishpnedo-si-n iw mzenegin.
Neg 1-Past-buy.TI-Neg-Inan the.Inan book
'I didn't buy the book.' (Potawatomi; Johnson 2016: 167, (17c))

The same three prefixes also appear on nouns, indexing the possessor (these examples are from Passamaquoddy-Maliseet again):

(10) a. **n**-mulcess-ok
1-mitten-Pl
'my mittens'

b. **k**-sisoq
2-face
'your face'

c. **w**-ikuwoss-ol
3-mother-Obv
'his/her mother'

I will not discuss nouns here, although the facts are similar and I believe an agreement affix analysis is also justified for the possessive prefix. I will leave showing that and providing an analysis to future research, however.

Returning to verbs, the prefix typically indexes the subject of the verb. However, it can index the object instead in a construction known as the inverse. This happens when the object is first or second person and the subject is third (as in example (2)), or when there are two third persons, but the object is proximate while the subject is obviative or inanimate. This is easiest to illustrate with first and second persons:

(11) a. **kt**-uwikh-**a**-wa-k
2-depict.TA-Dir-Pl-Pl
'you (Pl) draw/take a picture of them'

b. **kt**-uwikh-**uku**-wa-k
2-depict.TA-Inv-Pl-Pl
'they draw/take a picture of you (Pl)'

In (11a), the second person is the subject, and there is a suffix marking the verb as direct ("Dir"). In (11b), the second person is instead the object, and there is a different suffix marking the verb as inverse ("Inv"). Bruening (2001; 2005; 2009) argues that the inverse involves a step of A-movement, of the object over the subject. Oxford (2023) argues that this happens only with two third person arguments, and not when the object is first or second person. The proper analysis of the inverse will not be important in this paper. What is of relevance here is that the prefix generally indexes the subject, but it may index the object instead in the inverse. In addition to the inverse, it also indexes the object if the object is second person and the subject is first person:

(12) **K**-moc-k-**ul**-pon = c Espons, ipocol nilun msiw psulimin-ok.
2-bad-affect-1Subj/2Obj-1Pl = Fut Espons because 1Pl all chokeberry-Pl
'We would affect you badly, Espons, because we are all choke-berries.' (Mitchell 1921/1976a: line 104)

As already noted, the distribution of the prefix differs from that of the rest of the verbal morphology. In all of the examples above, the prefix precedes the verb stem and then the verb stem is followed by a sequence of suffixes. All verbal inflection in Algonquian languages besides the person prefix (and initial change, section 5) is suffixal. The suffixes also attach directly to the verb stem. The prefix, in contrast, does not always appear on the verb stem. If there is a type of verbal modifier known as a *preverb*, the prefix goes on that instead. Preverbs can also be separated from the rest of the verb stem in many Algonquian languages (e.g., Bloomfield 1962; Leavitt 1985; Goddard 1988; Costa 2002; Shields 2005), and this is true in Passamaquoddy-Maliseet. I repeat the example from (2):

(13) kt-oqeci = hc **nehpu-h-uku-k**.
2-try = Fut kill-TA-Inv-Pl
'…they will try to kill you.' (Mitchell 1921/1976d: 12)

The preverb here is underlined, along with the prefix; it is separated from the verb stem (boldfaced) by a second-position clitic marking the future. Second-position clitics in Passamaquoddy-Maliseet regularly follow the first prosodic word in the clause, so we can assume that the preverb here constitutes its own prosodic word separate from the verb stem.[4]

[4] In the variety of Ojibwe described by Newell & Piggott (2014), preverbs cannot be separated from the verb stem, but even so, Newell and Piggott show that they constitute separate prosodic words from the rest of the verb stem.

If there is more than one preverb, the prefix goes on the *first* one. The following example has two verbs. The first one has one preverb, the second has three (all preverbs underlined). The prefix attaches to the first preverb in each case.

(14) on Koluskap 't-oqet-okehki-m-a-n skicinu tan aqamok
then Koluskap 3-try-teach-TA-Dir-N Indian.ObvP how more
't-oli-kisi-woli-pomawsu-lti-li-n.
3-thus-Able-good-live-Pl-Obv-N
'Koluskap tries to teach the Indians to live better lives.' (Mitchell 1921/1976c: 6)

(Note that Passamaquoddy-Maliseet authors are not consistent in how they write preverbs; sometimes they are written with a space between them and the verb, sometimes not. If there was no space in the cited text, I have added a dash; if there was a space, I have left it. I believe this inconsistency follows from the optionality of phrasing a preverb with the main verb as a single prosodic word; see below.)

In the following example, not only the preverb hosting the prefix, but also the following preverb, has been separated from the verb stem, this time by a freestanding subject pronoun (so it is not just second-position clitics that can separate them):

(15) Kenoq olu (')-nomi-ht-un nit (')-nokomasi kisi **nekom** kinalo-ke-ht-un.
however Contr (3)-see-TI-N that.Inan (3)-easily Able 3 big-make-TI-N
'However, he sees that he can easily enlarge the hole.' (Mitchell 1921/1976a: 15)

Leavitt (1985) gives an example of a preverb being separated from the main verb by two distinct items:

(16) N-koti **na** **nil** naci epeskom.
1-want also 1 go.do play.ball.AI
'I, too, want to go play ball.' (Leavitt 1985: 76, (8))

In this example, the preverb with the prefix is separated from the next preverb (*naci*) and the main verb by a freestanding subject pronoun and the particle *na*, 'also, too'. It is possible that *na* is adjoined to *nil* and so they form a constituent in this example, but that just highlights the fact that a full syntactic phrase can intervene between a preverb and the main verb (or another preverb).

It is precisely this unusual distribution that motivates the pronominal clitic analysis. However, as I will show in the next section, the prefix is *not* a pronominal clitic, it is an affix.

3 The prefix is an agreement affix, not a clitic

As mentioned in the introduction, Halle & Marantz (1993) propose that the person prefix is a pronominal clitic rather than an agreement affix. I first describe their proposal and how

problematic it is, and then turn to diagnostics that have been proposed in the literature for distinguishing clitics from affixes.

3.1 The clitic view

Halle & Marantz (1993) propose that the person prefix on Independent Order verbs in Potawatomi is a pronominal clitic. They give exactly one argument to this effect, which is that the prefix can appear separated from the verb stem (Halle & Marantz 1993: 141). We have already seen this in Passamaquoddy-Maliseet, in examples (2/13) and (15). Halle and Marantz say that the prefixes appear "at the front of CP," and "their location depends on what else occurs within the CP." They do not spell out their analysis, but they seem to be proposing that the prefix is a pronominal clitic high in the clause, at the left edge of CP, from which position it attaches to a host.

Halle and Marantz's description is not accurate. The prefix is actually quite selective. It can only go on the main verb itself, or on a preverb. All of Halle and Marantz's Potawatomi examples involve preverbs. I repeat all three of their examples below:

(17) Potawatomi (Halle & Marantz 1993: 141, (17a–c))

a. n-ku wapm-a
1st-OK see
'OK I'll see him'

b. n-kuko? ns'-a
1st-quickly kill
'I kill him quickly'

c. n-wep ns'-a
1st-incep kill
'I start to kill him'

Hockett (1948: 140) lists all three of these elements as preverbs. *Ku* is listed as a preverb indicating "assent to a request, and perhaps other things."[5] 'Quickly' and the inceptive are typical preverbs in other Algonquian languages. The Passamaquoddy-Maliseet correspondents are the preverbs *nokosa* ('quickly') and *mace* ('start'). From Hockett's description of the verbal morphology it is clear that the prefix only goes on the verbal complex in Potawatomi, which is to say either the verb stem itself, or the first preverb. Potawatomi is just like all other Algonquian languages in this respect.

[5] Passamaquoddy-Maliseet has a particle *cu* that means something like 'yes, certainly, surely', but it is a freestanding particle, not a preverb. As such, the prefix can never attach to it.

If the prefix were a pronominal clitic that cliticized to whatever was first in CP, we would expect there to be many things it could attach to. For instance, a negative particle and the modal particle *op* obligatorily precede the verb and any preverbs in Passamaquoddy-Maliseet, in that order:

(18) **Kat op** keq kt-ol-essi-w.
Neg would what 2-thus-happen.to-Neg
'Nothing shall happen to you.' (Mitchell 1921/1976b: 11)

Wh-words used as indefinites also typically precede the verb (*keq* here). But the prefix never attaches to any of these preverbal elements, instead it goes on the first preverb (underlined). On standard analyses of clause structure, a Neg projection and a Mod projection would be lower than C. Examples like that in (18) then show very clearly that the prefix is not at the left edge of CP and does not attach to whatever is first in CP (that would be *kat* in (18)).

The negative and modal particles which obligatorily precede the verb also do not need to be initial in the clause, meaning that they also are not always the first thing in CP:

(19) Nil **kat op** apc nit n-toli-komoqi-w-on,
1 Neg would again there 1-there-dive-Neg-N
'I'm not going down there again,' (Newell 1979: line 15)

The prefix also does not go on whatever is to the left of negation (here a freestanding subject pronoun), it goes on the first preverb, far to the right. Note that in this example it also fails to attach to an adverb meaning 'again' and a demonstrative pronoun (which, like wh-indefinites, tend to immediately precede the verb).

Other particles obligatorily appear at the left edge of CP but cannot host the prefix. For instance, the particle *on*, 'then', obligatorily appears at the left edge of CP, and in the following example it is followed by the second-position future clitic (whose form is *oc* after consonants, *hc* after vowels). As stated above, this clitic follows the first prosodic word in the CP. Yet the prefix never attaches to *on*, or the future clitic, or the adverb 'again' which follows it, or the subject NP. It attaches to the first preverb:

(20) **on** oc apc skicinuw-ok '-sankewi-mawiya-ni-ya.
then Fut again Indian-Pl 3-peaceful-gather-N-Pl
'and then the Indians will assemble peacefully.' (Mitchell 1921/1976c: 7)

Just to belabor this point fully, Passamaquoddy-Maliseet is a wh-movement language. Wh-phrases obligatorily move to Spec-CP in interrogatives (Bruening 2001; 2004a; 2007). We can therefore use the position of an interrogative wh-phrase to decisively locate the left edge of

CP. If the prefix were a clitic that attached to whatever was at the front of CP, we would expect it to attach to a wh-phrase. It does not, however:[6]

(21) a. **Tama** nil nt-i?
where 1 1-be.located
'Where am I?' (Newell 1974b: 2)

b. **Tan** op kil kt-ol-luhka-n tokec ckuwi mota-ha-t ya malsom?
how would 2 2-thus-do-N if hither be.heard-go.AI-3Conj Emph wolf
'What would you do if a wolf were heard coming this way?' (Newell 1974a: line 2)

We could also interpret Halle & Marantz (1993) such that the prefix attaches not to what is leftmost in CP, but to whatever is leftmost starting from the head C. The two examples above show that this could not be right, either. Both of these examples have a freestanding subject pronoun between the wh-phrase in Spec-CP and the verb. In (21b), the modal particle *op* also comes between them (and it must, suggesting an intervening ModP projection). The prefix does not attach to any of these preverbal elements, however, it goes on the verb or preverb. (Note that left-dislocated elements precede wh-phrases and the types of particles listed above that occur at the left edge of CP, so the pronouns and NPs in none of the above examples could be viewed as left-dislocated. See Bruening 2001: 34–35.)

The prefix is very selective, then, and does not attach to whatever is at the left edge of CP. In examples like (18–21b), the prefix actually seems to be quite far from the edge of CP.

Halle & Marantz (1993) also propose that the verb raises to C in Potawatomi. The word order facts presented here show that this could not be correct for Passamaquoddy-Maliseet. In fact the verb must remain quite low in Passamaquoddy-Maliseet. It must be lower than the preverbal negative particle and modal particle in the examples above. It has to be lower even than a low ability modal. Such root modals are generally thought to be very low in the clause (e.g., Cinque 1999). In the following example, however, the preverb that encodes the root modal (Able) is separated from the main verb. This means that the main verb has not raised even as high as the low root modal.

(22) Kisi yaq ona **skitapew-ehl-os-ultu-wok** tan te
Able Quot also man-change.form-Refl-Pl-Pl how Emph
etuci-woli-tahatomu-htit.
IC.X.time-good-think.TI-3PlConj
'They could, it is said, change themselves into men whenever it pleased them.'
(Mitchell 1921/1976b: 16)

[6] Argument wh-questions use the Conjunct Order rather than the Independent, as do some adjunct questions. 'Where' and 'how' questions use the Independent Order, so we can see with them where the prefix is with respect to Spec-CP. (I have glossed *tan* as 'how', but it is more accurately a question over relative roots. Relative roots are elements, typically preverbs, which add arguments to the verb. These arguments are things like manner, time, frequency, etc. In (21b), *tan* is questioning the manner introduced by the preverb 'thus'.)

Similar arguments against verb raising to a high position have been given for some other Algonquian languages. Johnson (2016) argues that the verb in Potawatomi stays low, giving similar word order arguments to those produced here for Passamaquoddy-Maliseet. The facts of Potawatomi seem to be very similar to those in Passamaquoddy-Maliseet, which I take to justify applying arguments from Passamaquoddy-Maliseet to the clitic analysis of Potawatomi. Lochbihler & Mathieu (2009) give some similar word order arguments for Ojibwe and point out that positing V movement to C incorrectly predicts that the verb should precede all preverbs in Algonquian languages. (The position of the verb and the preverbs will be important in building an analysis in section 4.)

Since the one argument that has been given in the literature does not actually indicate that the prefix is a pronominal clitic, it is necessary to scrutinize the behavior of the prefix using diagnostics that have been proposed in the literature for distinguishing affixes from clitics.

3.2 Diagnostics from Zwicky and Pullum (1983)

To begin, Zwicky & Pullum (1983) propose six diagnostics that are meant to tell clitics from affixes. I will go through them, although most of them are not very reliable. In particular, the first four are only tendencies, if they are even that. For recent critical discussion of these diagnostics, see Thoms et al. (2023). Diagnostics that I consider much more telling will be presented in section 3.3.

Zwicky and Pullum's first diagnostic is that clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems. We have already seen that the Algonquian prefix is very selective. It can only attach to either the verb stem itself, or a preverb. This contrasts with clitics like the English possessive *'s* and cliticized (contracted) auxiliaries, which attach to whatever is adjacent to them, regardless of category. Second-position clitics in Passamaquoddy-Maliseet like *oc* above are also not selective, and will come after whatever is first in the clause. However, some clitics, like Romance object clitics, *are* selective, and only attach to verbal elements. This diagnostic is therefore not particularly reliable.

Zwicky and Pullum's second diagnostic says that arbitrary gaps are more characteristic of affixes than clitics. For instance, they point out that affixal negation in English has an arbitrary gap, as for most dialects there is no **amn't*. There are no arbitrary gaps that I know of in Algonquian, but since this diagnostic seems to only work in one direction, this is also not telling. (Thoms et al. 2023 point to the "person case constraint" as a gap in clitic clusters, but I note that this gap is generally thought not to be arbitrary; see Anagnostopoulou 2017.)

Zwicky and Pullum's third diagnostic says that morphophonological idiosyncrasies are more characteristic of affixed words than of clitic groups. In all Algonquian languages, the prefixes have one allomorph for consonant-initial stems, and one for vowel-initial stems. In Passamaquoddy-Maliseet, the allomorphs are *n-, k-, w/'-* before stems that begin with a consonant, and *nt-, kt-,*

’t- before stems that begin with a vowel (the apostrophe is an /h/, which is typically only audible in its effect on the following consonant). This is entirely regular. However, there are also a few vowel-initial stems that idiosyncratically take the *n-, k-, w/’-* allomorphs rather than the *nt-, kt, ’t-* ones. Morphophonological idiosyncrasies mark the prefix as an affix, then, not a clitic. Again, however, this is only a tendency, as clitics, like the object clitics in Romance, can have idiosyncrasies (see Thoms et al. 2023 for one from European Portuguese).

Zwicky and Pullum’s fourth diagnostic says that semantic idiosyncrasies are more characteristic of affixed words than of clitic groups. There are no semantic idiosyncrasies that I know of in Algonquian. The prefixes simply mark the person of one of the arguments. They are quite regular in this use. This diagnostic also only works in one direction, however, and so this is also not particularly telling (and Thoms et al. 2023 dismiss this criterion altogether, arguing that semantic idiosyncrasies are almost non-existent even with affixes).

Zwicky and Pullum’s fifth diagnostic involves syntactic rules. According to them, affixes can undergo syntactic rules along with their hosts, but clitics are claimed not to. It is difficult to find such rules in Alqonquian. However, we could think of the separation of the preverb and prefix together from the main verb stem as in (13) above as a movement rule affecting the preverb and prefix together (as proposed by, e.g., Dahlstrom 1995; Branigan 2012). It would be quite reasonable to propose that in (13), the preverb and prefix have moved together across the future particle. Note that it is not just second-position clitics that can separate preverbs from the main verb, other things like argument pronouns can, too (example (23b) repeats example (15) from above):

(23) a. (K)-kisi **nil** motewolonuwihponol-ol.
(2)-Perf 1 curse.TA-1Subj/2Obj
‘I’ve been putting a curse on you.’ (Newell 1979: 16)

b. Kenoq olu (’)-nomi-ht-un nit (’)-nokomasi kisi **nekom**
however Contr (3)-see-TI-N that.Inan (3)-easily Able 3
kinalo-ke-ht-un.
big-make-TI-N
‘However, he sees that he can easily enlarge the hole.’ (Mitchell 1921/1976a: 15)

In these two examples a subject pronoun separates the preverb (or even two preverbs) from the main verb. Here it really appears that we need a movement rule to dislocate the preverb plus prefix away from the main verb. (Note that in these two examples, the prefix is not audible for phonological reasons.) It might be possible to use non-syntactic mechanisms to get a second-position clitic in between a preverb and the main verb (the *prosodic inversion* of Halpern 1992, for instance), but that could not work for non-clitic pronouns and other non-clitic material. We need a movement rule that moves the preverb plus prefix away from the main verb. Given this,

the prefix is acting like an affix, and not like a clitic. (But note that the analysis I will propose in section 4 will not have the prefix + preverb moving away from the verb; rather, the highest preverb/verb will move to the location of the prefix.)

Zwicky and Pullum's final diagnostic is the ability to attach to material already containing clitics. According to Zwicky and Pullum, clitics may attach to other clitics, but affixes may not. Affixes always have to attach inside of clitics. In Passamaquoddy-Maliseet, clitics like the future *oc* (*hc* after vowels) can come between a preverb and the verb stem, but never between the prefix and the preverb or verb:

(24) a. … **kt**-oqeci = hc nehpu-h-uku-k.
2-try = Fut kill-TA-Inv-Pl
'…they will try to kill you.' (Mitchell 1921/1976d: 12)

b. *__kt__ = oc oqeci…

It is impossible for the prefix to attach to a clitic. In this respect it behaves like an affix and not a clitic.

To summarize so far, the diagnostics of Zwicky & Pullum (1983) are not particularly useful, as most of them merely describe tendencies. Some are dismissed by Thoms et al. (2023). Suppose we were to take them all equally seriously as diagnostics, and we were to err on the side of the prefix being a clitic whenever it did not clearly pattern as an affix. Then the score would be the following:

(25)

Summary of Zwicky and Pullum's Diagnostics						
	Selective	Arbitrary Gaps	Idiosyncratic Morphology	Idiosyncratic Semantics	Syntactic Rules	Attach to Clitics
Affix or Clitic?	affix	clitic	affix	clitic	affix	affix

Four of Zwicky and Pullum's diagnostics indicate that the prefix is an affix, while only two indicate that it is a clitic. This scorekeeping is really only an exercise, however; I would not take the first four diagnostics seriously. Only the last two seem like they are more than tendencies. On these two diagnostics, the Algonquian prefix patterns as an affix.

3.3 More telling: Diagnostics from Kramer (2014) and Preminger (2014)

Kramer (2014) and Preminger (2014) have proposed other diagnostics for telling clitics from affixes. These diagnostics are aimed specifically at telling agreement affixes from pronominal clitics. They are therefore more directly useful to the particular case under investigation, and I would argue that their diagnostics are also much more telling than those of Zwicky & Pullum (1983). Looking at Algonquian, *all* of their diagnostics that are applicable indicate that the prefix is an affix.

First, agreement affixes are obligatory, whereas pronominal clitics can be optional. The prefix in Algonquian is obligatory, even when it indexes a freestanding pronoun:[7]

(26) a. Tama **nil** **nt**-i?
where 1 1-be.located
'Where am I?' (Newell 1974b: 2)

b. *Tama **nil** i?

Compare Romance object clitics, which are generally not obligatory in the presence of an overt argument (although dative ones can be).

A second diagnostic is the ability to index more than one argument. In Romance languages, it is possible to have more than one object clitic. In contrast, in Algonquian, the prefix can index only one argument. It can index both first and second persons, as both subjects and objects (27a–b), but if both arguments are first or second person, it cannot index them both simultaneously, it can only index one (always the second person; 27c–d):

(27) a. **n**-tok-om-a-k
1-hit-TA-Dir-Pl
'I hit them'

b. **n**-tok-om-oku-k
1-hit-TA-Inv-Pl
'they hit me'

c. **k**-tok-om-i-pa
2-hit-TA-2Subj/1Obj-Pl
'you (Pl) hit me'

d. *__k-n__-tok-, *__n-k__-tok-

This again makes the prefix an affix, not a clitic.[8]

Romance object clitics also behave independently in ditransitives. It is possible to have two, one for each object, or one for the lower object in the absence of one for the higher object. In contrast, agreement may be limited by locality to only indexing the higher of the two objects.

[7] Note that the pronoun comes between the wh-phrase and the verb; it could therefore not be dislocated, since dislocated phrases precede wh-phrases (Bruening 2001: 34–35). For arguments that Algonquian languages are not "pronominal argument languages" in the sense of Jelinek (1984) and Baker (1996), see Bruening (2001); LeSourd (2006).

[8] A reviewer points out that verbs that are derived from body part nouns can have what appears to be a possessive prefix on the noun inside the verb. This prefix is either indexing nothing (default third person) or it indexes the same argument as the prefix on the derived verb. This is therefore not an instance of person prefixes indexing more than one argument of the verb.

The latter is true of the prefix in Algonquian. In the inverse, it can index an internal argument (as in 27b), but with a ditransitive, it can index only the higher object:

(28) **’t**-oliht-a-ku-ni-ya
3-make.TI-Ditrans-Inv-N-Pl
‘he/she/it (obviative) makes it (An/Inan) for **them (proximate)**’

It is not immediately obvious which argument the prefix is indexing in an example like this, but the prefix can only ever index a proximate argument. In this case, this is the applied argument (the benefactive). The direct object of the verb (what is made) has to either be inanimate (and inanimates are never indexed by the prefix) or obviative with respect to any other third person arguments. This means it can never be indexed by the prefix (see Bruening 2001: 134–136 on the lower or “secondary” object). Additionally, the first object (the applied object) can be first or second person and then be indexed by the prefix in the inverse or in first-second person interactions:

(29) kt-oliht-u-l-on-en
2-make.TI-Ditrans-1Subj/2Obj-N-1Pl
‘we (Excl) make it (An/Inan) for you (Sg/Pl)’

In contrast, the lower object is limited to third person. I take all of these facts to indicate that the lower object is never indexed by the prefix. This then identifies the prefix as an affix, not a clitic.

Clitics may also index only certain types of arguments, for instance just specific indefinites or definites. They may also have semantic effects, for instance in inducing a specific or emphatic reading. In contrast, affixes index all arguments, regardless of their semantics and without inducing any particular interpretation. The Algonquian prefix behaves like an affix in this regard: it indexes all arguments of the relevant grammatical role, and it has no semantic effects. For instance, it obligatorily indexes both definite pronouns (26a) and weak indefinites, like wh-words used as indefinites that take narrowest scope:

(30) Ma = te **wen** ’-kisi-tomh-a-wiy-il Piyel-ol.
Neg = Emph who 3-Perf-beat.TA-Dir-Neg-Obv P.-Obv
‘No one beat Piyel.’ / *‘There is someone who didn’t beat Piyel.’ (Bruening 2007)

This diagnostic also identifies the prefix as an affix, and not a clitic.

Another diagnostic concerns binding relationships. According to Kramer (2014) and Preminger (2014), clitics can change binding relationships, but agreement affixes cannot. In particular, clitics can circumvent weak crossover. In Algonquian languages, we have to look across orders to see whether the prefix has any effect on binding, since the prefix is obligatory in the Independent Order. However, it does not appear in the Conjunct Order. If the prefix were a pronominal clitic, we might expect it to make binding relationships different in the Independent

Order compared to the Conjunct Order. It does not. As Bruening (2001; 2005; 2008; 2009) shows, the inverse enables the logical object to take scope over and bind into the logical subject. However, this is true regardless of whether the verb is in the Independent and has the prefix, or is in the Conjunct and does not. I illustrate with variable binding below. The example in (31a) is in the Independent Order and has the prefix, while the example in (31b) is a wh-question in the Conjunct and does not. In both cases, the object quantifier is able to bind a pronoun inside the subject as a variable:

(31) a. Yatte wen pilsqehsis **'-kis-cem-ku-l** w-ikuwoss-ol.
each who girl 3-Perf-kiss.TA-Inv-Obv 3-mother-Obv
'Her$_1$ mother kissed each girl$_1$.' (Bruening 2001: 115, (261b))

b. Wen pihce w-itapihi-l **nekol-iht** kcihku-k?
who long.ago 3-friend-Obv IC.leave.TA-3ConjInv forest-Loc
'Who$_1$ did his$_1$ friend abandon in the forest a long time ago?' (Bruening 2001: 30, (21a))

In contrast, when the verb is not in the inverse, the object cannot bind a pronoun as a variable in the subject, regardless of the presence of the prefix:[9]

(32) a. *Skitap musqitaham-a-c-il **'-koti-tqon-a-l** psi = te wen-il.
man hate-Dir-3Conj-PartObv 3-Fut-arrest-Dir-Obv all = Emph someone-Obv
'A man that he$_1$ hates will arrest everyone$_1$.' (Bruening 2001: 31, (24b))

b. *Keqsey [not kisi-ht-aq] **napisqahma-t** *t*?
what that.An Perf-make.TI-3Conj trip.over.AI + O-3Conj
'What$_1$ did the one who made it$_1$ trip over?' (Bruening 2001: 134, (310b))

It is clear that the presence or absence of the prefix makes no difference to binding relationships in the language. In this respect the prefix behaves like an agreement affix, and not a clitic.

Additionally, according to Kramer (2014) and Preminger (2014), affixes may agree in just a subset of the features relevant in the language, whereas clitics tend to index all features. In Algonquian, the prefix agrees like an affix in just a subset of features: it indexes person and not number. This is visible in examples (27c) and (28) above, where the number of the agreeing argument is indexed by the suffix *-pa* or *-ya*. It should also be pointed out that the prefix behaves unlike freestanding pronouns in this respect, which index all features. For instance, second person pronouns in Passamaquoddy-Maliseet have the forms singular *kil*, inclusive first person

[9] NPs do not have to maintain the same obviation value within a relative clause as without. In (32a), 'man' is proximate in the matrix clause, but obviative in the relative clause. 'Everyone' is obviative in the matrix clause, but under the intended binding, the pronoun it binds would be proximate in the relative clause. This is independently possible without variable binding.

kilun, and second person plural (excluding first person) *kiluwaw*. The prefix is therefore behaving very differently from pronouns in the language.

According to Kramer (2014) and Preminger (2014), clitics also tend to appear in all clause types, including in non-finite clauses and imperative clauses. In contrast, affixes may disappear, depending on the clause type (cf. Nevins 2011). The Algonquian prefix behaves like an affix in this respect, as we have already seen: It is present only in the independent order (33a) and is absent from the Conjunct Order inflection (33b) and in imperatives (33c):

(33) a. Msi = te el-ehl-ut **'-kis-uwehka-n**.
all = Emph IC.thus-do.to-IndefSubj.3 3-able-use.TI-Inan
'All that has been done to him he can now use.' (Mitchell 1921/1976d: 15)

b. On ['']-kisi kpukow-a-n piksi piyehs **ewehke-t**.
then 3-Perf sew-Dir-N pig hair IC.use.TI-3Conj
'[Then] He sews him up using a pig's hair.' (Anonymous 1974: 9)

c. **Wehke-q**!
use.TI-2Pl.Imp
'Use it!' (2nd person plural)

Compare Romance object clitics again: They appear in finite clauses, non-finite clauses, imperatives, all tenses, etc. (though their position famously varies by clause type).

Kramer (2014) and Preminger (2014) propose two other diagnostics, but these are not applicable to Algonquian. First, according to Preminger (2009; 2014), if an agreement relation is broken, agreement will be realized as a default. In contrast, clitics will just disappear in a similar situation. What breaks agreement, according to Preminger, is the presence of a "defective intervenor": another NP that is closer to the agreeing head that is not capable of agreeing with that head. I have not been able to find any kind of situation like this in Algonquian languages. The prefix indexes the grammatical subject, which is always the highest NP in the clause, or it indexes the object in the inverse, but in this case the subject is inert and causes no intervention. In ditransitives, as described above, the second object can never be indexed by the prefix, while the first can (in the inverse), so there is never a situation where the second object could have been indexed but was blocked by the higher object. Algonquian languages do have long-distance agreement (e.g., Frantz 1978; Branigan & MacKenzie 2002). However, this is often truly long-distance, being able to skip over any intervening NP (e.g., in Passamaquoddy-Maliseet, Bruening 2009; LeSourd 2019), or it can only index the highest NP in the lower clause (e.g., in Plains Cree, Dahlstrom 1991). In neither case is there ever a situation where something that is incapable of agreeing blocks the agreement relation.

The second and final diagnostic is the ability to appear on a passive or reflexive verb. According to Kramer (2014), clitics can appear in passive/reflexive forms, but (object) agreement typically

will not. It is not clear whether Algonquian languages have passives; I will therefore leave them aside. Reflexive verbs are detransitivized with a suffix, as in the following example:

(34) (')-Maca-ha-n kcihku-k (')-naci-nehpu-h-**usi**-n.
3-away-go.AI-N forest-Loc 3-go.do-kill-TA-Refl-N
'He goes away into the woods to kill himself.' (Mitchell 1921/1976c: line 117)

The prefix can appear, as in this example (though it is inaudible for phonological reasons). However, the appearance of the prefix follows the pattern of intransitives generally. The verb 'kill' in this example is inflected in the Subordinative (one of the contexts for the N morpheme). All intransitives in the Subordinative have the prefix (if they have an animate subject):

(35) 't-opi-ni-ya
3-sit.AI-N-Pl
'they sit' (Subordinative)'

This is just the pattern of intransitives generally. Reflexive verbs, being intransitives, are agreeing exactly as one would expect of them. I therefore do not take this diagnostic to show anything about the Algonquian prefix.

Baker & Kramer (2018) add another diagnostic for clitics versus affixes. According to them, affixes can index singular universal quantifiers and NPs that contain a bound variable, but (doubled) clitics cannot. According to this diagnostic, the Algonquian prefix is an affix, since it can index a singular universal quantifier and an NP containing a bound variable:

(36) a. On yatte wen **'t**-oloqi-ya-n 't-utene-k.
then each who 3-that.direction-go.AI-N 3-village-Loc
'Then each one goes toward his own village.' (Mitchell 1921/1976c: 18)

b. Ma = te keq$_1$ **u**-tomeya-ku-w-on tepelto-k *pro*$_1$.
Neg = Emph what 3-bother.TA-Inv-Neg-N IC.own-3Conj *pro*$_1$
'Nothing$_1$ bothers the one that owns it$_1$.' (Bruening 2001: 131, (303))

We also saw a prefix indexing a negative quantifier or negated existential in example (30). If Baker & Kramer (2018) are correct that this diagnostic distinguishes affixes from clitics, then the Algonquian prefix must be an affix.[10]

[10] Baker & Kramer (2018) also say that affixes but not clitics can index wh-phrases and reflexives, but these are not possible to show in Passamaquoddy-Maliseet. Argument questions necessarily use the Conjunct, which does not have the prefix; and NP reflexives do not exist in the language.

The following table summarizes the diagnostics from Kramer (2014), Preminger (2014), and Baker & Kramer (2018):

(37)

Diagnostic	Affix or Clitic?
Obligatory w/ overt argument?	Affix
Index >1 argument?	Affix
Ditransitives	Affix
Only certain arguments?	Affix
Binding?	Affix
Subset of features?	Affix
All clause types?	Affix
Broken agreement?	N/A
Passive or reflexive?	N/A
Quantifiers/Bound variables?	Affix

As can be seen, all of these diagnostics that are applicable indicate that the prefix is an affix. On not a single one does it come out as a pronominal clitic.

3.4 Summary

The single piece of evidence given by Halle & Marantz (1993) for the clitic view was not correct. Their proposal that the prefix is a pronominal clitic high in the clause was also shown to be untenable. In addition, all of the reliable diagnostics that have been proposed for telling agreement affixes from pronominal clitics show that the Algonquian person prefix is an agreement affix, and not a clitic. I conclude that the Algonquian person prefix is a canonical affix, which is exactly how most work on Algonquian languages since Bloomfield (1946: 95) has treated it, other than the literature cited above that followed Halle & Marantz (1993).

The issue now is how to analyze the prefix, given its unusual distribution. This is the subject of section 4.

4 Analysis

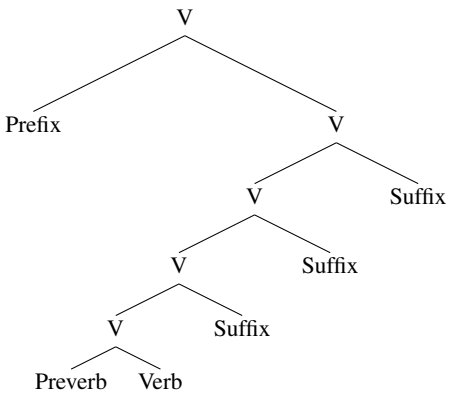
To remind the reader, the distribution of the person prefix is the following: (1) It appears only in the Independent Order; (2) it appears on the verb stem if there is no preverb, but on the first preverb if there are any. All of the other inflection is suffixal, and suffixes to the verb stem. The

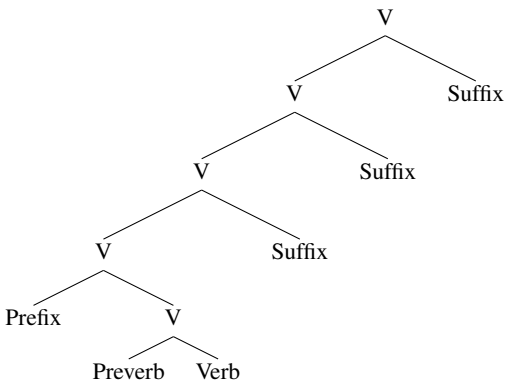
preverb that hosts the prefix can also be separated from the rest of the verb stem, as was shown in (2/13) and (23a–b) above.

The advantage that the pronominal clitic analysis had was that it put the prefix where it appears using a very different mechanism from what puts the suffixes on the verb. That analysis therefore succeeds in capturing their different distributions. Unfortunately, it is not correct that the person prefix is a pronominal clitic. So we need a different way of capturing the different distributions of the inflectional affixes.

Bloomfield (1962: 65) analyzed the preverbs as forming a compound with the verb stem. The entire compound is then a verb, and the prefixes always attach to the left edge of this verb, while the suffixes attach to the right edge. This analysis does not need different mechanisms for locating the prefix as opposed to the suffixes; they can be placed in the same manner, but on either side of the compound verb. The problem with this analysis is that preverbs can be separated from the verb stem, as in examples (23a–b). This should be impossible if they form a compound (meaning, presumably, a single complex head in the syntax). One could propose an excorporation analysis (Roberts 1991) of examples like (23a–b), as Branigan (2012) does. The problem with this is that, if the prefix is attaching to the entire compound verb, then it could not excorporate along with the preverb, since the two of them do not form a head constituent to the exclusion of the rest of the verb. The whole point of the compound analysis is that the prefix is attaching not to the preverb, but to the entire compound. The suffixes are doing the same. The structure would have to be one of the following (or one where the prefix is hierarchically in between two of the suffixes):

(38)





Neither structure would permit excorporation of the preverb and prefix to the exclusion of everything else. If the preverb were to excorporate, it would move without the prefix. If the prefix were to excorporate, it would move without the preverb.

Moreover, a preverb seems to be able to be excluded from verb coordination. In the following example the two underlined preverbs take scope over the conjunction of the two main verbs:

(39) 't-oli tpitahasi-n tan oc <u>'t-oli</u> <u>kisi</u> **'siki-y-a-n** naka
3-thus think.AI-N how Fut 3-thus Able suffer-make.TA-Dir-N and
wani-y-a-n,
tame-make.TA-Dir-N
'he thinks about how he can torment them and be kind to them.' (Francis & Leavitt 1995: 156)

In the excorporation analysis, the two preverbs would have to be excorporating in an across-the-board fashion. They would have to do so separately, since they do not form a constituent. This seems like a needlessly complex analysis. In contrast, if preverbs and main verbs never form a complex head together, then the coordination here is straightforward (the coordination is *below* the second preverb).

In what follows, I propose an alternative analysis that captures the distribution of the prefix and the very different distribution of the suffixes. I will start with the suffixes.

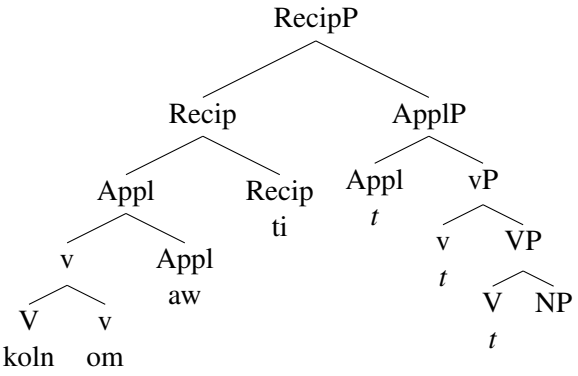
4.1 The suffixes

The verb can have several valence-changing suffixes on it. I will assume that these are syntactic heads that combine with the V through head movement, as in the vast literature following Baker (1988). Consider the following example, which has a base transitive verb that is turned into a ditransitive with a Ditrans(itive) morpheme and then a reciprocal with a Recip(rocal) morpheme. The reciprocal lowers the verb's valence by one (so, from a ditransitive back to a transitive). The morpheme closest to the root (*-om-*) indicates the valence of the base verb (transitive with an inanimate object):

(40) Pil naka Mali '-koln-**om-aw-ti**-ni-ya-l (')-motqapiyi-wa-l.
Bill and Mary 3-hold-**TI-Ditrans-Recip**-N-Pl-InanP 3-bag-Pl-InanP
'Bill and Mary are holding their bags for each other.'
(Bruening 2004b: 8, (14))

We can analyze the Transitive Inanimate (TI) suffix as v (Brittain 2003) and the ditransitive morpheme as an Appl(icative) head (Marantz 1993) above that. Recip(rocal) can be analyzed as a version of the Voice head (Bruening 2004b; 2006b); this head combines next. V moves through v and Appl to Recip:

(41)



This gives us a simple analysis of the valence-changing morphology. Turning to the inflectional morphology, a lot of it is agreement. I will analyze agreement morphemes as Agr heads that merge with other heads in the syntax, following roughly Halle & Marantz (1993), except that the Agr heads adjoin in the syntax, not at any post-syntactic level (there is no need for any post-syntactic level of grammar). For instance, the head Voice, including the Recip version of it, will have an Agr head merged with it as its sister.

In a transitive verb with an animate object, there are three Agr suffixes: (1) the Theme Sign (marking Direct/Inverse or 1/2 interactions); (2) the Central ending, which indexes the same argument as the prefix (but in number in addition to person); (3) the Peripheral ending, which indexes the other argument (the terms "central" and "peripheral" come from Goddard 1974; 1979; Nichols 1980):

(42)

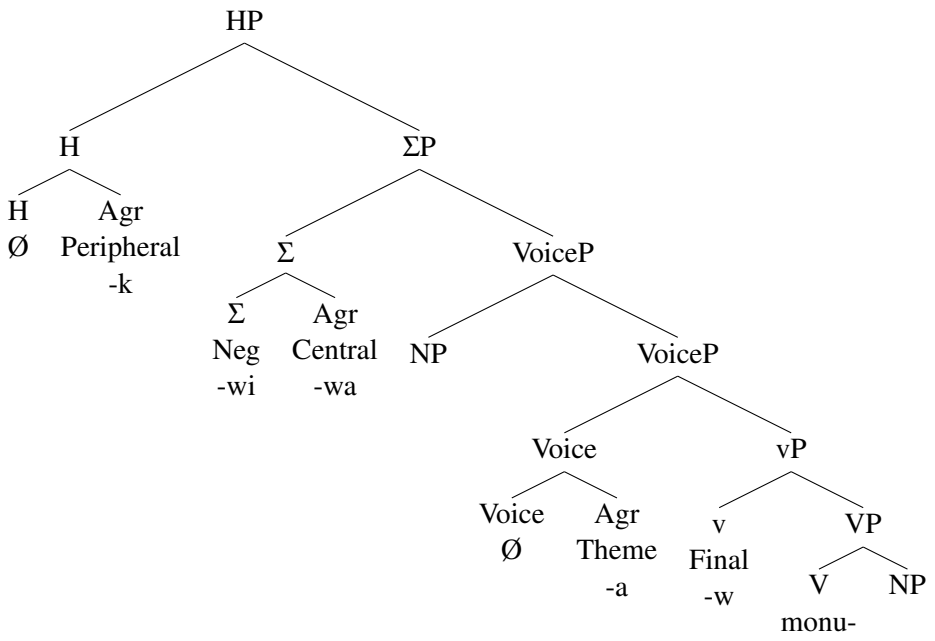
	prefix	verb	final	**Theme**	Neg	**Central**	**Peripheral**
ma = te	k-	monu	-w	-a	-wi	-wa	-k
Neg = Emph	2-	buy	Tr.An	-Dir	-Neg	-Pl	-Pl
	'you (Pl) don't buy them (An)'						

In negative clauses, there is also a Neg morpheme between the Theme and Central Agr heads. This Neg morpheme is not sufficient by itself to make a clause negative, there also has to be a preverbal negative particle (*ma* in (42)).

In Bruening (2004b; 2006b), the head Recip is a variety of Voice. I propose that all clauses with a verb have a VoiceP. I further suggest that Voice, including the Recip variety of it, merges with an Agr head that is the Theme Sign. See Oxford (2019) for an analysis of the theme sign that locates it in Voice and treats it as object agreement. Immediately above Voice there is a head Σ that merges with another Agr. Σ is the negative morpheme on the verb if the clause is negative. I follow Zanuttini (1997); Poletto (2008); De Clercq (2013) in hypothesizing the existence of (at least) two positions for negation in the clause. One is this low Σ that is between Voice and any tense, aspect, or mood heads. The other is a higher Pol(arity)P that hosts the preverbal

negative particle (*ma* in 42). I assume that there is an agreement relation between Pol and Σ, with the result that there is only a single semantic negation. Σ is present but null in a positive clause. Whether it is null or not, it merges with an Agr that is the Central Ending. Finally, there is another, unidentified head that I will call "H" that merges with the Agr that is the peripheral ending. The tree below shows the proposed structure. (The external argument is merged in Spec-VoiceP, as in Kratzer 1996.)

(43)



The V moves first to v, then to Voice, then to Σ, and finally to H. This results in the form *monu-w-a-wi-wa-k*. Note that H has to be below the lowest preverb, so the verb does not move very high in the clause. The heads that host the Agr morphemes (or the Agr morphemes themselves) engage in agreement relations with the arguments of the verb. I will not spell these relations out here; for some worked out analyses, see, among others, Bruening (2001) and Oxford (2019) (but note that I do not endorse Oxford's view that the prefix and the central ending are a discontinuous agreement morpheme; see section 4.4).

While this is by no means a complete analysis of the Algonquian suffixal verbal morphology, it will suffice for our purposes here.[11] The suffixes are correctly located on the verb stem through head movement of the lexical V to the head H.

[11] One morpheme that I do not include in the analysis is the one glossed "N" in various examples, including (40). This morpheme appears in a grab-bag of environments, and it is not clear to me exactly what it is. In position it comes between Neg and the central ending. It could be an additional head adjoined to Σ, or it could be another head in the clausal spine; if the latter, the central ending would have to merge with that rather than with Σ.

4.2 Preverbs

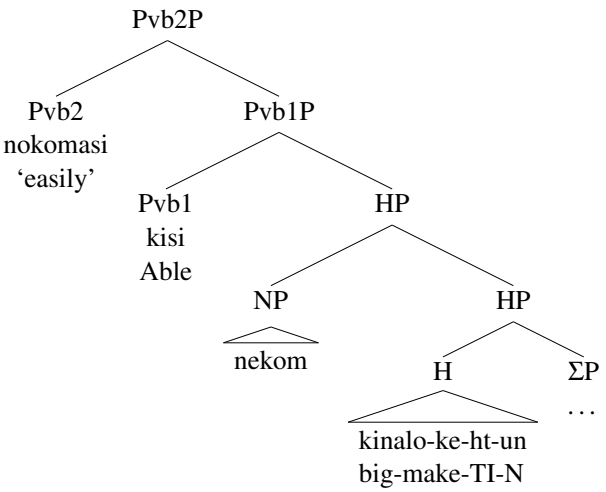
It is not entirely clear what grammatical category preverbs are. They could be auxiliary verbs; there is a large literature showing that the Algonquian preverbs are like auxiliary verbs in other languages in the functional categories they express and in their order. See, for example, Leavitt (1985); Costa (2002); Cook (2003; 2014); Shields (2005); Branigan (2012); Oxford (2016). However, they can also express various modificational functions, things that are not typically expressed by auxiliary verbs, like 'good' in (14). I will remain uncommitted on their grammatical category. I will propose, however, that they share a feature with verbs, and no other grammatical category has this feature. For lack of a better term, I will use the feature [+V]. Verbs and preverbs are both [+V]. Preverbal particles, second-position clitics, NPs, adverbs, adjectives, and any remaining grammatical categories that I have overlooked are not [+V].

I propose that preverbs are heads that merge into the clause immediately above the head H in (43). I will illustrate with example (23b), repeated below:

(44) Kenoq olu (')-nomi-ht-un nit (')-nokomasi kisi **nekom** kinalo-ke-ht-un.
however Contr (3)-see-TI-N that.Inan (3)-easily Able 3 big-make-TI-N
'However, he sees that he can easily enlarge the hole.' (Mitchell 1921/1976a: 15)

There are two clear preverbs in the second clause of this example, *nokomasi* ('easily') and *kisi* (ability modal). It is not entirely clear how to treat *kinalo*. It forms a tighter bond with the verb stem, which cannot be separated from it. Algonquianists call such morphemes *initials*, although many of them can also be used as preverbs. Since morphemes like this are not the focus of this paper, I will simply treat *kinalo-ke* as a single lexical verb, although one could also treat *kinalo* as a third preverb. I will focus on the two preverbs *nokomasi* and *kisi*. I propose that the ability modal merges immediately above H, and the modificational preverb 'easily' merges above that. I will label them "Pvb1" and "Pvb2" in the diagrams. The subject pronoun has moved and adjoined to HP in this example (its starting position was Spec-VoiceP, as above):

(45)



I assume that HP and any of the PvbPs are possible adjunction sites for moved argument NPs (and other things). Recall that the lexical verb moves to H, so it immediately follows the subject pronoun in this example. (If we instead choose to analyze *kinalo* as a preverb, then the pronoun would be adjoined to the lowest PvbP instead of to HP.)

The preverbs can either form prosodic words on their own (and they must, if something separates them from the verb stem), or they can optionally form a single prosodic word with the verb in H, if they are adjacent to it. This seems to become obligatory with certain verb stems that are prosodically deficient on their own, for instance *-ke-* in (44) and *-ya-* in the following:

(46) Etuci-ya-htit yaq.
very-go.AI-3Pl.Conj Quot
'They went very fast.' (Newell 1974b: 58)

The second-position clitic *yaq* follows the preverb-verb combination here, indicating that they form a single prosodic word. However, the very same preverb can be separated from a different verb by a second-position clitic, as in the following example:

(47) Etuci yaq palitaha-su-lti-htit.
very Quot be.proud-Refl-Pl-3Pl.Conj
'They were very proud of themselves.' (Newell 1974b: 98)

I will not attempt to spell out when preverbs form their own prosodic words and when they form a prosodic word with an adjacent verb, but will leave it as optional in principle. For detailed discussion of some of the factors involved in Passamaquoddy-Maliseet, see Leavitt (1985).[12] On similar issues in other Algonquian languages, see Goddard (1988); Branigan (2012).

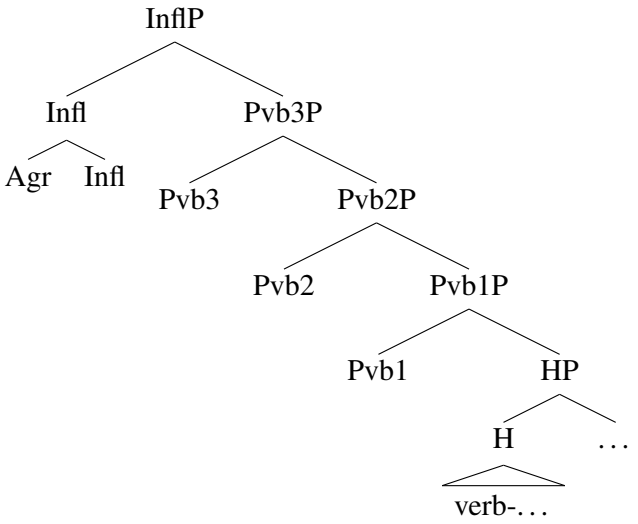
4.3 The prefix

Section 3 showed that the prefix is an agreement affix. In the current analysis, that makes it an Agr head that merges with some other head in the syntax. I propose that, immediately above the highest preverb, there is a head which I will identify as "Infl" (only because it is vaguely reminiscent of Infl in analyses of English and other languages).

I will assume that Infl includes a specification of the clause type, as Independent or Conjunct or Imperative. When Infl is Independent, an Agr head merges with it (but not otherwise):

[12] Leavitt (1985) notes that a preverb can be separated from a prosodically deficient verb stem by adding the most general preverb, *oli*, 'thus', to it: *ehqi nit l-ewest!* (stop that.Inan thus-talk.Imp), 'stop talking that way!'

(48)

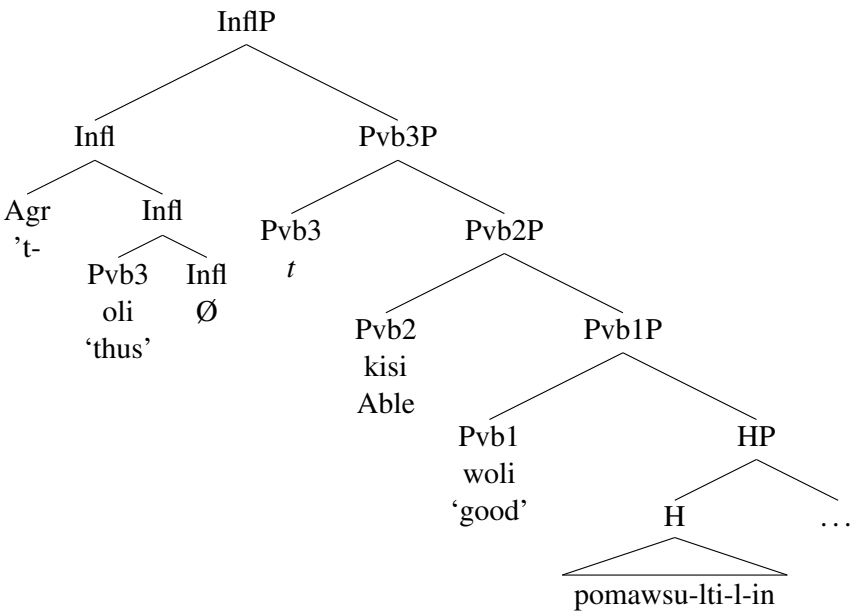


I also assume that Infl attracts a [+V] head to it. Given locality, this will be the *highest* [+V] head. In the structure in (48), this will be Pvb3. This corresponds to the second clause of the example in (14). That clause is repeated below:

(49) … tan aqamok ’t-oli-kisi-woli-pomawsu-lti-li-n.
how more 3-thus-Able-good-live-Pl-Obv-N
‘…(how) to live better lives.’ (Mitchell 1921/1976c: 6)

The highest preverb moves to Infl:

(50)

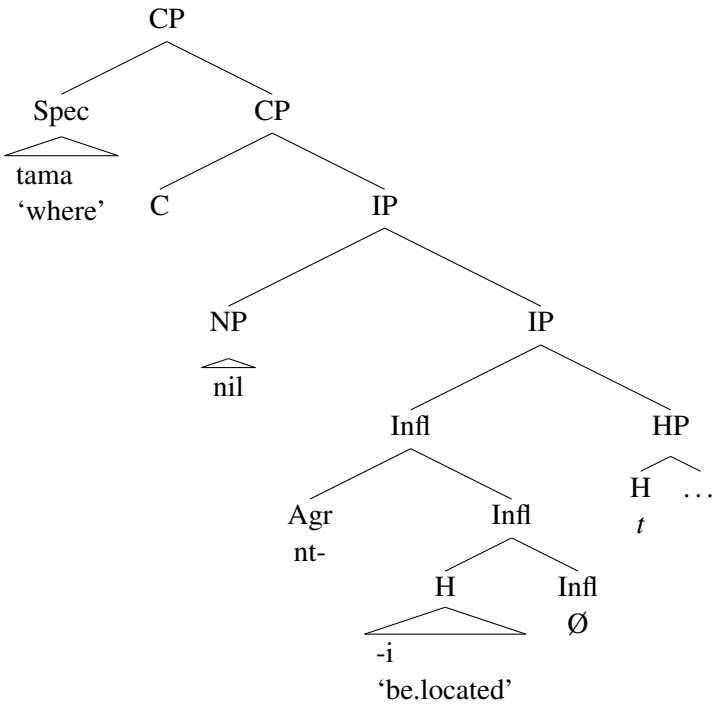


If there is no preverb, the highest [+V] head will be the verb itself in H. Consider the following example:

(51) **Tama** nil nt-i?
where 1 1-be.located
'Where am I?' (Newell 1974b: 2)

'Where' questions (and 'how' questions in 49) use the Independent Order rather than the Conjunct, so Infl in this example is specified as Independent and therefore has Agr adjoined to it. There is no preverb, so after the verb has moved to H, it will move on to Infl:

(52)



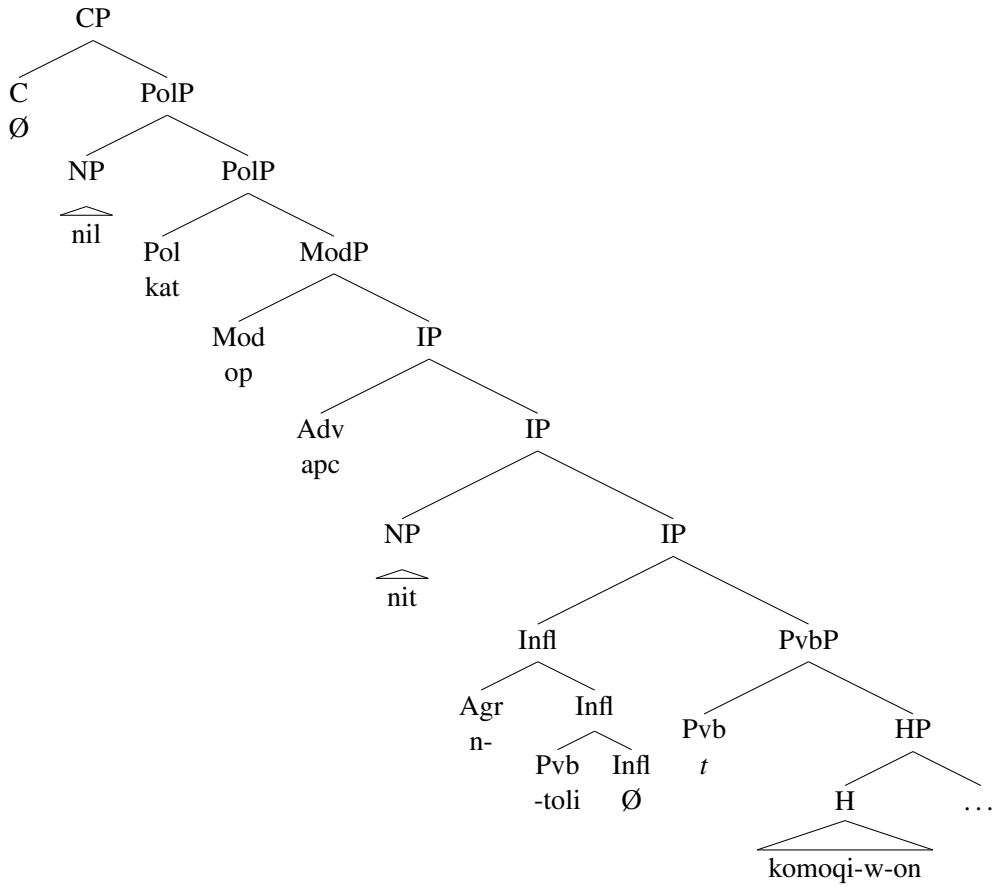
It should be clear that the proposed analysis correctly locates the prefix on the highest [+V] head. The highest [+V] head moves to Infl, which has an Agr adjoined to it in the Independent Order.

In the tree in (52), I have shown C taking IP as complement directly, but this is a simplification. Recall that many things can and do come before the preverb with the prefix on it. The negative particle and the modal particle *op* obligatorily precede the prefix. I repeat the example in (19) below:

(53) Nil **kat op** apc nit n-toli-komoqi-w-on,
1 Neg would again there 1-there-dive-Neg-N
'I'm not going down there again,' (Newell 1979: line 15)

This example has at least a PolP and a ModP above IP, all of which I assume are below C. Moved NP arguments and adjuncts can adjoin to these projections:

(54)



Thus, many things can, and some things must, come in between the left edge of the clause and the highest preverb which combines with the prefix.

This analysis successfully accounts for the different distributions of the prefix as opposed to the suffixes. It also accounts for the word order facts that have been presented throughout this paper.

4.4 Discontinuous person-number realization?

The analysis proposed here does not connect the person prefix to the central suffix, which indexes the number of the same argument that the prefix indexes. (I assume that the correct theory of the agreement relations will relate them, but only indirectly, since they both agree with the same argument.) The Algonquian pattern is an instance of a very common cross-linguistic one, where agreement is realized discontinuously with a person prefix and a number suffix (see Trommer 2002; Harbour 2008; 2023 and references there). One might wonder whether the

current analysis is missing something by not attempting to capture this pattern. There are several reasons why this is not the case, and the two affixes should not be connected formally. These are also reasons why the analysis of the pattern proposed by Harbour (2008; 2023) will not work for Algonquian, so I will present that first. (Harbour's analysis is adopted for Algonquian languages by Oxford 2019.)

In a nutshell, Harbour (2008; 2023) proposes that the morphology attempts to insert two morphemes into the position of the prefix. The agreement head is structured, with person over number. So the morpheme realizing person takes precedence, and the morpheme realizing number has to get shunted off to the end to avoid disrupting adjacency between the person prefix and the stem (see Harbour 2008; 2023 for the details).

This will not work for Algonquian languages. As we have seen, it is actually the suffix that is stable across paradigms while the prefix appears or disappears depending on the conjugation. The following table presents the facts in a slightly different format:

(55)

Independent	**k-**	tokom	-a	-wi	**-wa**	-k
Conjunct		tokom	-a	-w	**-ehq**	
Imperative		tokom	-a	-h	**-keq**	
	(2)	hit.TA	Dir	Neg	2Pl	(Pl)
	'you (pl) hit them' (number of object unspecified in Conjunct and Imperative)					

From this format it can be seen that the central suffix (boldface) appears in all paradigms, in the same position, while the person prefix only appears in the Independent Order. It would make more sense to say that the morpheme is first inserted into the suffix slot, and only when it cannot be fully realized there does it split off to become a prefix. Of course, one could say that the morphology first tries to insert the agreement into the prefix slot, finds that it cannot in the Conjunct and Imperative, and then shunts the morpheme off to the end. But this presupposes a prior analysis of when and where the prefix appears, which is exactly the coverage of the current analysis. So the current analysis is logically prior to any analysis of the distribution of the features across the agreement morphemes.

Second, the prefix and the suffix do not even occur on the same complex head in Algonquian languages. As we have already seen, the host of the prefix and the host of the suffix can be separated by prosodic word boundaries, and even by whole phrases. This makes it unlikely that the prefix and the suffix are related in any direct way, and it makes Harbour's analysis unworkable. In his analysis, the suffixal part of the agreement head would only be shunted off to the end of the complex head that the prefix is part of. In Algonquian languages, this would incorrectly put it as a suffix on the same preverb that hosts the prefix. As the following example

reiterates, the central ending goes on the verb stem, while the prefix goes on the first preverb, which is a separate prosodic word. In this example it is also separated from the verb stem by another prosodic word (another preverb):

(56) a. Aqami = te = hc **'t**-oli koti olluk-hoti-ni-**ya**.
more = Emph = Fut 3-thus want do-Pl-N-Pl
'They will want to do it even more.' (Mitchell 1921/1976d: line 99)

b. *'**t**-oli-**ya** koti olluk-hoti-n
3-thus-Pl want do-Pl-N

It would be completely ungrammatical to put the central agreement suffix on the same preverb that the prefix appears on (56b).

Consider also the coordination facts discussed above in relation to example (39), repeated in (57). Here the prefix appears on a preverb, while the suffixes appear on two coordinated verbs below it. In (57), the subject happens to be singular, and so there is no central ending, but if the subject were plural, I assume that each of the main verbs would bear a central suffix (I have not been able to verify this, but all the other suffixes go on both verb stems). If this is correct, then in Harbour's analysis, a single morpheme would have to be duplicated and realized twice, once in each conjunct. This is an extremely dubious analysis. Examples of coordination like this rather show that the prefix and the suffix are independent and are not related formally, except indirectly, insofar as they agree with the same argument.

(57) 't-oli tpitahasi-n tan oc <u>'t-oli</u> <u>kisi</u> **'siki-y-a-n** naka
3-thus think.AI-N how Fut 3-thus Able suffer-make.TA-Dir-N and
wani-y-a-n,
tame-make.TA-Dir-N
'he thinks about how he can torment them and be kind to them.' (Francis & Leavitt 1995: 156)

Additionally, other morphemes can also agree with the same NP that the prefix does. The theme sign, for instance, commonly treated as object agreement (e.g., Oxford 2019), can index the same NP in person. In the following example (repeated from (23a)), the theme sign suffix *-ol* indicates a first person subject with a second person object, duplicating the second person features of the prefix (inaudible for phonological reasons):

(58) (**K**)-kisi nil motewolonuwihponol-**ol**.
(2)-Perf 1 curse.TA-1Subj/2Obj
'I've been putting a curse on you.' (Newell 1979: 16)

Yet no one that I know of has proposed formally relating the prefix and the theme sign in the way that Harbour (2008) and Oxford (2019) have proposed to relate the prefix and the central

ending. Why not is unclear; but turning it around, if we are not to relate the theme sign and the prefix in our formal model, then we should not relate the prefix and the central ending, either.

I take all of these considerations to indicate that the prefix and the suffix are independent and are not a single instance of agreement that is realized discontinuously. I therefore treat them independently in the analysis. I also conclude that any analysis of the cross-linguistic pattern that relates the prefix and the suffix formally, like that in Harbour (2008; 2023), cannot work for Algonquian and is therefore not a viable explanation for the cross-linguistic pattern as a whole.

4.5 Summary, and an issue

The proposed analysis explains the different distributions of the prefix and suffixes. The suffixes are placed on the verb stem by movement of the lexical verb through a sequence of heads to a low head H. The prefix is an Agr head on Infl, which is higher. Infl attracts the highest [+V] head. This correctly puts the prefix on the main verb if there is no preverb, but on the highest preverb if there are any. In the proposed analysis, the main verb moves to H and then to Infl if there is no preverb. If there is a preverb, the verb stays in H while the highest preverb moves to Infl. There are multiple projections to the left of Infl, so the highest verbal element has not moved very high and can be preceded by multiple words and phrases.

While this analysis accounts for all the facts discussed in this paper, there are some additional suffixes that can appear on the verb that raise non-trivial issues of clause structure. In addition to the negative suffix that I have provided an analysis of, there can also be suffixes indicating "preterite" and "dubitative preterite." The preterite is apparently a past tense, while the dubitative preterite is a modal or evidential of some kind. In many cases the preterite is one morpheme while the dubitative preterite is another, mutually exclusive one, as in the following:

(59)

Preterite	Dubitative Preterite
k-tok-om-a-wi-wa-**hpon**	k-tok-om-a-wi-wa-**ss**
2-hit-TA-Dir-Neg-Pl-Pret	2-hit-TA-Dir-Neg-Pl-DubPret
'you (Pl) didn't hit him/her' (Pret)	'you (Pl) didn't hit him/her' (DubPret)

However, in some forms, the dubitative preterite seems to add a morpheme to the preterite:

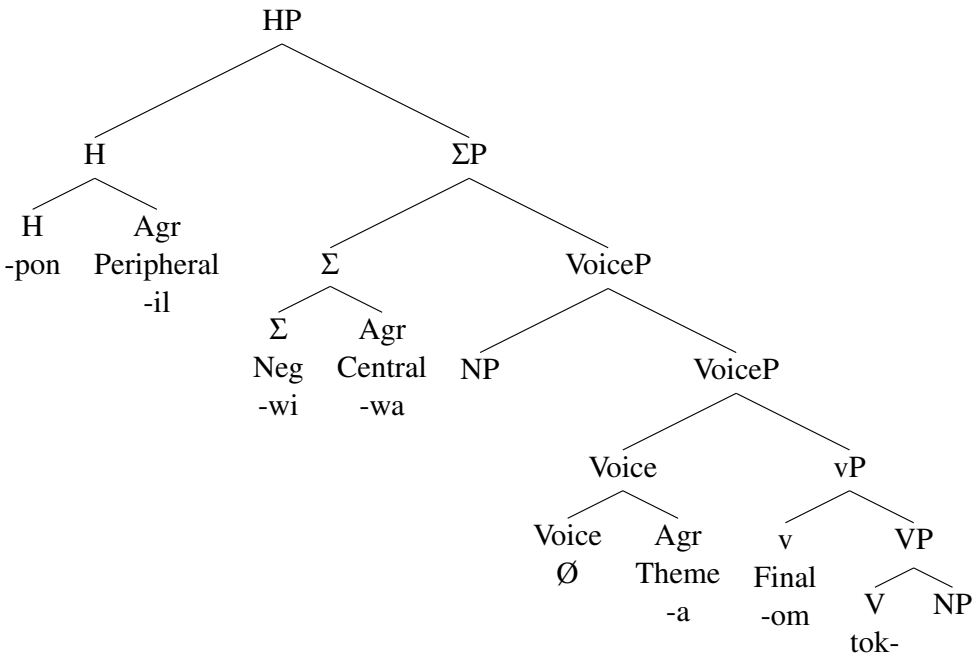
(60)

Preterite	Dubitative Preterite
'-tok-om-a-wi-wa-**pon**-il	'-tok-om-a-wi-wa-**so-pon**-il
3-hit-TA-Dir-Neg-Pl-Pret-Obv	3-hit-TA-Dir-Neg-Pl-Dub-Pret-Obv
'they (Prox) didn't hit him/her (Obv)' (Pret)	'they (Prox) didn't hit him/her (Obv)' (DubPret)

In these forms we can also see that the preterite and dubitative preterite come in between the central agreement and the peripheral agreement. A natural analysis in the current proposal

would be that the preterite/dubitative is the head H, to which the peripheral ending adjoins (the Obv suffix in the above examples). I repeat the proposed analysis of the inflectional suffixes from (43) below, with the verb changed to match the examples here, and the preterite *-pon* located in H:

(61)



However, if the dubitative preterite is actually two morphemes, then it is not clear how to analyze them. It is also not clear what tense and modal categories are doing in such a low position, below the preverbs that are ability modals and aspectual categories. In most languages, tense and modals are higher (and Passamaquoddy-Maliseet has another modal, *op*, which is higher than even the highest preverb; see (53)). Of course, we could just say that in Passamaquoddy-Maliseet, preterite and dubitative preterite are low, and there is a language-specific clause structure that differs from what we tend to find in other languages. This may or may not be unsatisfying. I will have to leave this issue unresolved here.

5 Initial change

There is another morphological phenomenon that obeys the same distribution as the person prefix. In fact it is in complementary distribution with the person prefix. This is an ablaut process known as “initial change.” Initial change occurs in some Conjunct forms (like relative clauses, some adjunct clauses). The difference between the Unchanged Conjunct and the Changed Conjunct is shown below:

(62)

Unchanged Conjunct	Changed Conjunct
tok-om-i-yeq	**tek**-om-i-yeq
hit-TA-2Subj/1Obj-2Pl	IC.hit-TA-2Subj/1Obj-2Pl
‘you (Pl) hit me’	‘you (Pl) hit me’

Initial change affects the first vowel of the verb complex. This is the first vowel of the verb stem itself if there is no preverb. Examples (33a–b) illustrated. I repeat them here. In (63a), the verb is in the Independent and has no initial change. The first vowel of the stem is /u/. In (63b), initial change takes place, turning /u/ into /e/:

(63) a. Msi = te el-ehl-ut **’-kis-uwehka-n**.
all = Emph IC.thus-do.to-IndefSubj.3 3-able-use.TI-Inan
‘All that has been done to him he can now use.’ (Mitchell 1921/1976d: 15)

b. On [’]-kisi kpukow-a-n piksi piyehs **ewehke-t**.
then 3-Perf sew.TA-Dir-N pig hair IC.use.TI-3Conj
‘[Then] He sews him up using a pig’s hair.’ (Anonymous 1974: 9)

If there is a preverb, initial change affects the first vowel of the preverb rather than the verb stem. This is illustrated nicely by the two clauses of the following sentence:

(64) Not ehta yaq eniqs **pemi**-ya-t, sopayi **pomi**-ye.
that.An Emph Quot ant IC.along-go.AI-3Conj along.edge along-go.AI.3
‘When this ant comes along, he’s going along the edge.’ (Anonymous 1974)

The initial adjunct clause uses the Changed Conjunct, so the first vowel of the preverb has changed from /o/ (schwa) to /e/. In the following main clause, there is no initial change (the verb is in the Independent Order), and the vowel is /o/.

If there is more than one preverb, initial change affects the first vowel of the first preverb. In the following pair of sentences, initial change affects the preverb ‘thus’ (*oli*) when it precedes *qolop*, but when it is absent, it affects *qolop* instead (because it is now first):

(65) a. **Eli**-qolop-essi-li-t w-ikuwoss-ol, kotama = te wen-il
IC.thus-around-turn-Obv-3Conj 3-mother-Obv Neg = Emph who-Obv
(’)-nomi-y-a-wiy-il.
3-see-TA-3Subj-Neg-Obv
‘When his mother turns, she sees no one.’ (Mitchell 1921/1976e: line 60)

b. Apc w-ikuwoss-ol **qelop**-ap-essi-li-t,…
again 3-mother-Obv IC.around-back-turn-Obv-3Conj
‘When his mother looks back again,…’ (Mitchell 1921/1976e: line 64)

Initial change has exactly the same distribution as the person prefix: Its morphological host is the first preverb if there is one, otherwise the verb stem.

We can give initial change the exact same analysis as the person prefix. Suppose that initial change is driven by an abstract morpheme, which is to say a syntactic head (as was proposed by Brittain 2001; Brittain & Dyck 2006). Its phonological realization is to affect the phonology of its host, but as far as the syntax is concerned it is identical to the person prefix in being a head. Like the person prefix, it merges with Infl. Infl always attracts the highest [+V] head, so this will always put the abstract ablaut head on the first preverb if there is one, or the main verb if there is not. This accounts for initial change in the exact same way as the prefix.[13]

It should also be noted that we can give the same word order argument for initial change that we gave for the prefix, and show that it should not be associated with the clause periphery. Initial change, like the prefix, can be separated by quite a bit of lexical material from the left edge of CP. Some researchers have proposed that Conjunct verbs move to C (e.g., Campana 1996; Brittain 1997), and it might be tempting to locate initial change in C, but this does not seem to be correct for Passamaquoddy-Maliseet. As the following examples show, multiple elements can come to the left of the verb or the preverb that hosts initial change. These include left-edge particles like *nit* and *kesq* that might be analyzed as C, and these particles can be followed by NPs and second-position citics, or both:

(66) a. **Nit** Espons etoli-sankew-ossi-t tokkiw Pokomk maca-ha-t,
then Espons IC.Prog-still-lie-3Conj until Pokomk away-go.AI-3Conj
'Espons lies there very still until Pokomk is gone,' (Mitchell 1921/1976a: line 55)

c. **Kesq** yaq wot sqotes etol-apekiya-t,
while Quot this.An ember IC.Prog-swing-3Conj
'As the Ember is swinging,' (Anonymous 1974: line 11)

Additionally, wh-words used as indefinites, which tend to appear right before the verb but lower than the modal particle and negation, can also come to the left of initial change. So can demonstrative pronouns, which also tend to come right before the verb:

(67) a. Wot yaq mahtoqehs naka coqols **tama** al kcihk-uk
Dem Quot rabbit and frog where Uncertain forest-Loc
etol-akonutoma-htit.
IC.Prog-tell.stories-3PlConj
'This rabbit and a frog somewhere in the woods were telling stories.' (Newell 1974a: line 1)

[13] Dahlstrom (1997) describes a pattern of bisyllabic reduplication in Fox (Mesquakie) that is consistent with the analysis proposed here. Briefly, the reduplicative morpheme can copy segmental material from inflectional suffixes, but never from the prefix in the Independent Order. The prefix instead attaches outside the reduplicated material. Similarly, initial change affects the first vowel of the reduplicated material, and not the input to reduplication. These facts follow if the reduplicative morpheme is a preverb, and it always copies material to its right.

b. Tan te keq wen-il ptewolon yah-a-t, nit te=hc **wen**
how Emph what who-Obv motewolon tell-DIr-3Conj, that.Inan Emph=Fut who
el-essi-t.
IC.thus-happen.to-3Conj
'Whatever a *motewolon* tells you—that's what happens to you.' (Newell 1979: line 16)

c. Kesq yaq **nit** etol-akonutoma-htit,
while Quot there IC.Prog-tell.stories-3PlConj
'While they were telling stories there,' (Newell 1974a: line 7)

In wh-questions, full phrases can come between the wh-phrase in Spec-CP and the verb with initial change:

(68) a. **Wen-il** tehpu niktok nemi-y-a-htic-il?
who-Obv only those.An IC.see-TA-Dir-3PlConj-Obv
'Who did only they see?' (Bruening 2001: 226, (579b))

b. **Wen** pihce w-itapihi-l nekol-iht kcihku-k?
who long.ago 3-friend-Obv IC.leave.TA-3ConjInv forest-Loc
'Who$_1$ did his$_1$ friend abandon in the forest a long time ago?' (Bruening 2001: 30, (21a))

The negative particle also obligatorily precedes the verb with initial change, as the following relative clause shows (and initial change is clearly visible in comparison with the same verb in the main clause):

(69) katama u-tomitahat-omu-w-on 't-ahsom-a-n [yuhuht **skat**
Neg 3-worry-TI-Neg-N 3-feed.TA-Dir-N these.ObvP Neg
ehsom-ok-c-ihi]
IC.feed-Inv-3Conj-ObvP
'He doesn't worry himself about feeding [those who don't feed him]' (Francis & Leavitt 1995: line 7)

While I do not have any examples showing the Changed Conjunct with negation and other elements in addition, the Unchanged Conjunct shows the same order as we saw in the Independent. The preverbal negative particle (boldface) obligatorily precedes the verb and all preverbs (first preverb underlined); a wh-word used as an indefinite comes between them; and other material can precede negation:

(70) Nit olu **skat** keq koti ol-luhke-w-on,
then Emph Neg what Fut thus-do-Neg-2Conj
'If you don't do something,' (Mitchell 1921/1976d: line 48)

Examples like these show that the verb is just as low in the Conjunct as it is in the Independent. In particular, it could not have raised as far as C. In the current analysis, initial change is a head

merged with Infl, and there are at least Pol and Mod projections between C and Infl. The highest [+V] element moves to Infl. If this is a preverb, then the main verb stays even lower, in H; if there is no preverb, then the main verb moves to Infl.

6 Conclusion

Halle & Marantz (1993) proposed that the person prefix that appears on Independent Order verbs in Potawatomi is a pronominal clitic and not an agreement affix, and this analysis has been followed for a variety of Algonquian languages by a large number of researchers. In this paper, I have shown that the prefix is not a pronominal clitic, it is an agreement affix, and I have provided an analysis of it that explains its unusual distribution compared to the other inflectional morphology. Initial change shows the same unusual distribution, and I proposed an almost identical analysis for it. I have also proposed an analysis of preverbs where they are syntactic heads above the main verb and never form a complex head with the main verb. This is amply justified by their separability, their prosody (they are often separate prosodic words), and coordination facts. Word order facts also indicate that the verb does not move very high in Algonquian languages, contrary to many analyses since Halle & Marantz (1993).

Acknowledgements

The author would like to thank the *Glossa* editors and anonymous reviewers for helpful comments and criticism.

Competing interests

The author has no competing interests to declare.

References

Anagnostopoulou, Elena. 2017. The person case constraint. In Everaert, Martin & van Riemsdijk, Henk (eds.), *The Wiley Blackwell companion to syntax*. Somerset, NJ: John Wiley and Sons 2nd edn. DOI: https://doi.org/10.1002/9781118358733.wbsyncom101

Anonymous. 1974. *Akonutomuwin!* Indian Township, Maine: Wabnaki Bilingual Education Program.

Baker, Mark & Kramer, Ruth. 2018. Doubled clitics are pronouns: Amharic objects (and beyond). *Natural Language and Linguistic Theory* 36. 1035–1088. DOI: https://doi.org/10.1007/s11049-018-9401-8

Baker, Mark C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.

Baker, Mark C. 1996. *The polysynthesis parameter*. New York and Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780195093070.001.0001

Bloomfield, Leonard. 1946. Algonquian. In Hoijer, Harry (ed.), *Linguistic structures of native america* (Viking Fund Publications in Anthropology 6), 85–129. New York: Viking Fund.

Bloomfield, Leonard. 1962. *The Menomini language*. New Haven: Yale University Press.

Branigan, Phil. 2012. Macroparameter learnability: An Algonquian case study. Ms., http://www.ucs.mun.ca/~branigan/branigan-amp.pdf.

Branigan, Phil & MacKenzie, Marguerite. 2002. Altruism, ā movement, and object agreement in Innu-aimûn. *Linguistic Inquiry* 33. 385–407. DOI: https://doi.org/10.1162/002438902760168545

Brittain, Julie. 1997. The conjunct verb in Sheshatshit Montagnais. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 42. 253–284. DOI: https://doi.org/10.1017/S0008413100016947

Brittain, Julie. 2001. *The morphosyntax of the Algonquian conjunct verb: A minimalist approach*. New York: Garland.

Brittain, Julie. 2003. A Distributed Morphology account of the syntax of the Algonquian verb. In Somesfalean, Stanca & Burrell, Sophie (eds.), *Proceedings of the 2003 annual conference of the Canadian Linguistic Association*, 26–41. Montreal: Département de linguistique et de didactique des langues: Université du Québec à Montréal.

Brittain, Julie & Dyck, Carrie. 2006. Initial change as abstract vowel realization. In Wolfart, Hans Cristoph (ed.), *Papers of the thirty seventh Algonquian conference*, 19–35. Winnipeg: University of Manitoba.

Bruening, Benjamin. 2001. *Syntax at the edge: Cross-clausal phenomena and the syntax of Passamaquoddy*: MIT dissertation. Distributed by MIT Working Papers in Linguistics, Cambridge, MA.

Bruening, Benjamin. 2004a. Two types of *Wh*-scope marking in Passamaquoddy. *Natural Language and Linguistic Theory* 22. 229–305. DOI: https://doi.org/10.1023/B:NALA.0000015793.52445.4e

Bruening, Benjamin. 2004b. Verbal reciprocals. In Solstad, Torgrim & Lyngfelt, Benjamin & Krave, Maria Filiouchkina (eds.), *Demoting the agent: Passive and other voice-related phenomena*. 3–12. Oslo: University of Oslo.

Bruening, Benjamin. 2005. The Algonquian inverse is syntactic: Binding in Passamaquoddy. Ms., University of Delaware. Available at https://udel.edu/~bruening/Downloads/SyntacticInversion2.pdf.

Bruening, Benjamin. 2006a. Differences between the wh-scope-marking and wh-copy constructions in Passamaquoddy. *Linguistic Inquiry* 37. 25–49. DOI: https://doi.org/10.1162/002438906775321166

Bruening, Benjamin. 2006b. The morphosyntax and semantics of verbal reciprocals. Ms., University of Delaware.

Bruening, Benjamin. 2007. Wh-in-situ does not correlate with wh-indefinites or question particles. *Linguistic Inquiry* 38. 139–166. DOI: https://doi.org/10.1162/ling.2007.38.1.139

Bruening, Benjamin. 2008. Quantification in passamaquoddy. In Matthewson, Lisa (ed.), *Quantification: A cross-linguistic perspective*, 67–103. Bingley, UK: Emerald.

Bruening, Benjamin. 2009. Algonquian languages have A-movement and A-agreement. *Linguistic Inquiry* 40. 427–445. DOI: https://doi.org/10.1162/ling.2009.40.3.427

Campana, Mark. 1996. The conjunct order in Algonquian. *Canadian Journal of Linguistics* 41. 201–234. DOI: https://doi.org/10.1017/S0008413100016406

Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780195115260.001.0001

Cook, Clare. 2003. A semantic classification of Menominee preverbs. In Wolfart, Hans Cristoph (ed.), *Papers of the 34th Algonquian conference*, 35–56. Winnipeg: University of Manitoba.

Cook, Clare. 2008. *The syntax and semantics of clause-typing in Plains Cree*: University of British Columbia dissertation.

Cook, Clare. 2014. *The clause-typing system of Plains Cree: Indexicality, anaphoricity, and contrast*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199654536.001.0001

Costa, David J. 2002. Preverb usage in Shawnee narratives. In Wolfart, Hans Cristoph (ed.), *Papers of the 33rd Algonquian conference*, 120–161. Winnipeg: University of Manitoba.

Dahlstrom, Amy. 1991. *Plains Cree morphosyntax*. New York: Garland.

Dahlstrom, Amy. 1995. *Topic, focus and other word order problems in Algonquian*. Winnipeg: Voices of Rupert's Land.

Dahlstrom, Amy. 1997. Fox (Mesquakie) reduplication. *International Journal of American Linguistics* 63. 205–226. DOI: https://doi.org/10.1086/466319

De Clercq, Karen. 2013. *A unified syntax of negation*. Universiteit Gent dissertation.

Déchaine, Rose-Marie. 1999. What Algonquian morphology is really like: Hockett revisited. In Bar-el, Leora & Déchaine, Rose-Marie & Reinholtz, Charlotte (eds.), *Papers from the workshop on structure and constituency in Native American languages*, vol. 17 (MIT Occasional Papers), 25–72. Cambridge, MA: MITWPL.

Francis, David A. & Leavitt, Robert M. 1995. The Indian devil, mischief-maker. In Swann, Brian (ed.), *Coming to light: Contemporary translations of the native literatures of North America*, 503–518. New York: Random House.

Francis, David A. & Leavitt, Robert M. 2008. *Peskotomuhkati wolastoqewi latuwewakon a Passamaquoddy-Maliseet dictionary*. Orono, Maine: The University of Main Press.

Frantz, Donald G. 1978. Copying from complements in Blackfoot. In Cook, Eung-Do & Kaye, Jonathan (eds.), *Linguistic studies of native Canada*, 89–109. Vancouver: University of British Columbia Press.

Goddard, Ives. 1974. Remarks on the Algonquian independent indicative. *International Journal of American Linguistics* 40. 317–327. DOI: https://doi.org/10.1086/465328

Goddard, Ives. 1979. *Delaware verbal morphology*. New York: Garland.

Goddard, Ives. 1988. Post-transformational stem derivation in Fox. *Papers and Studies in Contrastive Linguistics* 22. 59–72.

Goddard, Ives. 2007. Reconstruction and history of the independent indicative. In Wolfart, Hans Cristoph (ed.), *Papers of the 38th Algonquian conference*, 207–271. Winnipeg: University of Manitoba.

Halle, Morris & Marantz, Alec. 1993. Distributed morphology and the pieces of inflection. In Hale, Kenneth & Keyser, Samuel Jay (eds.), *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*, 111–176. Cambridge, MA: MIT Press.

Halpern, Aaron. 1992. *Topics in the placement and morphology of clitics*. Stanford University dissertation.

Harbour, Daniel. 2008. Discontinuous agreement and the syntax-morphology interface. In Harbour, Daniel & Adger, David & Béjar, Susana (eds.), *Phi theory: Phi-features across modules and interfaces*, 185–220. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780199213764.003.0007

Harbour, Daniel. 2023. Discontinuous agreement: Nine birds, two stones. *Brill's Journal of Afroasiatic Languages and Linguistics* 15. 23–66. DOI: https://doi.org/10.1163/18776930-01501009

Hockett, Charles F. 1948. Potawatomi I–IV. *International Journal of American Linguistics* 14. 1–10, 63–73, 139–149, 213–225. DOI: https://doi.org/10.1086/464008

Jelinek, Eloise. 1984. Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2. 39–76. DOI: https://doi.org/10.1007/BF00233713

Johnson, Meredith. 2016. New arguments for the position of the verb in Potawatomi. In Macaulay, Monica & Noodin, Margaret & Valentine, J. Randolph (eds.), *Papers of the 44th Algonquian conference*, 157–173. Albany, NY: SUNY Press. https://ojs.library.carleton.ca/index.php/ALGQP/article/download/2322/2096.

Kramer, Ruth. 2014. Clitic doubling or object agreement: The view from Amharic. *Natural Language and Linguistic Theory* 32. 593–634. DOI: https://doi.org/10.1007/s11049-014-9233-0

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Rooryck, Johan & Zaring, Laurie (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-015-8617-7_5

Leavitt, Robert M. 1985. Passamaquoddy-Malecite preverbs. In Cowan, William (ed.), *Papers of the sixteenth Algonquian conference*, 73–90. Ottawa: Carleton University.

Leavitt, Robert M. 1996. *Passamaquoddy-Maliseet*. München: Lincom Europa.

LeSourd, Philip S. 1993. *Accent and syllable structure in Passamaquoddy*. New York: Garland.

LeSourd, Philip S. 2006. Problems for the pronominal argument hypothesis in Maliseet-Passamaquoddy. *Language* 82. 486–514. DOI: https://doi.org/10.1353/lan.2006.0150

LeSourd, Philip S. 2015. Enclitic particles in Western Abenaki: Form and function. *International Journal of American Linguistics* 81. 301–335. DOI: https://doi.org/10.1086/681577

LeSourd, Philip S. 2019. Raising and long-distance agreement in Passamaquoddy: A unified analysis. *Journal of Linguistics* 55. 357–405. DOI: https://doi.org/10.1017/S0022226718000415

LeSourd, Philip S. 2023. Second position without movement: Enclitic particles in Passamaquoddy. In Müller, Stefan & Winckel, Elodie (eds.), *Proceedings of the 30th international conference on Head-driven Phrase Structure Grammar*, 45–58. Frankfurt/Main: University Library. Available online at https://proceedings.hpsg.xyz. DOI: https://doi.org/10.21248/hpsg.2023.3

Lochbihler, Bethany & Mathieu, Eric. 2009. Wh-agreement in Ojibwe: Consequences for feature inheritance and the categorial status of tense. In Bliss, Heather & Girard, Raphael (eds.), *Proceedings of WSCLA 13 and 14: The workshop on structure and constituency in the languages of the Americas*, 14–31. Vancouver: University of British Columbia Press.

Marantz, Alec. 1993. Implications of asymmetries in double object constructions. In Mchombo, Sam A. (ed.), *Theoretical aspects of Bantu grammar*, 113–150. Stanford: CSLI Publications.

McGinnis, Martha. 1995. Word-internal syntax: Evidence from Ojibwa. In Koskinen, Päivi (ed.), *Proceedings of the 1995 annual conference of the Canadian Linguistics Association*, 337–347. Somerville, MA: Cascadilla.

Mitchell, Lewis. 1921/1976a. *Espons ('raccoon')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in J. D. Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis. 1921/1976b. *Koluskap naka 'siwiyi/oqim/wocawson ('Koluskap and his relatives/loon/wind')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in J. D. Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis. 1921/1976c. *Koluskap nekotok skitkomiq ('when Koluskap left the earth')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in J. D. Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis. 1921/1976d. *Mikcic ('turtle')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in J. D. Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis. 1921/1976e. *Pukcinsqehs ('the tree-stump woman')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in J. D. Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Nevins, Andrew. 2011. Multiple agree with clitics: Person complementarity vs. omnivorous number. *Natural Language and Linguistic Theory* 29. 939–971. DOI: https://doi.org/10.1007/s11049-011-9150-4

Newell, Elizabeth. 1974a. *Mahtoqehs naka malsom ('rabbit and wolf')*. Indian Township, Maine: Wabnaki Bilingual Education Program.

Newell, Heather & Piggott, Glynne. 2014. Interactions at the syntax-phonology interface: Evidence from Ojibwe. *Lingua* 150. 332–362. DOI: https://doi.org/10.1016/j.lingua.2014.07.020

Newell, Irene. 1979. *Kehtaqs ('ghost stories')*. Indian Township, Maine: Wabnaki Bilingual Education Program.

Newell, Wayne. 1974b. *Kukec*. Indian Township, Maine: Wabnaki Bilingual Education Program.

Nichols, John D. 1980. *Ojibwe morphology*. Harvard dissertation.

Oxford, Will. 2016. From head-final to head-initial in Algonquian: Evidence and implications. *Toronto Working Papers in Linguistics* 37. Retrieved from https://twpl.library.utoronto.ca/index.php/twpl/article/view/26837.

Oxford, Will. 2019. Inverse marking and multiple agree in Algonquin: Complementarity and variability. *Natural Language and Linguistic Theory* 37. 955–996. DOI: https://doi.org/10.1007/s11049-018-9428-x

Oxford, Will. 2023. A tale of two inverses. *Syntax* 26. 311–354. DOI: https://doi.org/10.1111/synt.12251

Oxford, William Robert. 2014. *Microparameters of agreement: A diachronic perspective on Algonquian verb inflection*: University of Toronto dissertation.

Piggott, Glynne & Newell, Heather. 2007. Syllabification, stress and derivation by phase in Ojibwa. Ms., McGill University.

Poletto, Cecilia. 2008. On negative doubling. Ms., University of Venice.

Preminger, Omer. 2009. Breaking agreements: Distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry* 40. 619–666. DOI: https://doi.org/10.1162/ling.2009.40.4.619

Preminger, Omer. 2014. *Agreement and its failures*. Cambridge, MA: MT Press. DOI: https://doi.org/10.7551/mitpress/9780262027403.001.0001

Richards, Norvin W. 2004. The syntax of the conjunct and independent orders in Wampanoag. *International Journal of American Linguistics* 70. 327–368. DOI: https://doi.org/10.1086/429206

Ritter, Elizabeth & Wiltschko, Martina. 2014. The composition of INFL: An exploration of tense, tenseless languages, and tenseless constructions. *Natural Language and Linguistic Theory* 32. 1331–1386. DOI: https://doi.org/10.1007/s11049-014-9248-6

Roberts, Ian. 1991. Excorporation and minimality. *Linguistic Inquiry* 22. 209–218.

Sherwood, David F. 1986. *Maliseet-Passamaquoddy verb morphology* (Canadian Museum of Civilization Mercury Series). Ottawa: National Museum of Canada. DOI: https://doi.org/10.1353/book65578

Shields, Rebecca. 2005. Menominee preverbs as functional categories. In Wolfart, Hans Cristoph (ed.), *Papers of the 36th Algonquian conference*, 383–406. Winnipeg: University of Manitoba.

Thoms, Gary & Adger, David & Heycock, Caroline & Jamieson, E & Smith, Jennifer. 2023. English contracted negation revisited: Evidence from varieties of Scots. *Language* 99. 726–759. DOI: https://doi.org/10.1353/lan.2023.a914192

Trommer, Jochen. 2002. The interaction of morphology and syntax in affix order. *Yearbook of Morphology* 2002. 283–324. DOI: https://doi.org/10.1007/0-306-48223-1_9

Zanuttini, Raffaella. 1997. *Negation and clausal structure: A comparative study of Romance languages*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780195080544.001.0001

Zwicky, Arnold M. & Pullum, Geoffrey K. 1983. Cliticization vs. inflection: English *n't*. *Language* 59. 502–513. DOI: https://doi.org/10.2307/413900