

Configurationality and object shift in Algonquian

Benjamin Bruening and Andrea Rackowski
MIT

The Eastern Algonquian languages Delaware, Western Abenaki, Mahican, and Wampanoag all make a morphological contrast that resembles specificity phenomena in many languages. We show that the verbal agreement pattern signifying this contrast in Wampanoag is crucially sensitive to hierarchical relations among overt NPs, which must be in argument positions in the syntax. This fact, plus an attendant pattern of object shift, argue against a Pronominal Argument Hypothesis or Polysynthesis Parameter account of Algonquian languages.

1 Introduction

Languages of the “polysynthetic” type, characterized by extensive, agglutinative morphology, null anaphora, and free word order, have achieved some prominence in the recent theoretical literature. Since Ken Hale’s publications on “nonconfigurational” languages (e.g., Hale 1983), various theorists have attempted to account for their properties in terms known from configurational languages. One of the most popular approaches is the Pronominal Argument Hypothesis (PAH) of Jelinek (1984). According to this hypothesis, what distinguishes polysynthetic languages from more familiar, configurational languages is the fact that argument positions may not be filled by overt noun phrases, but are instead occupied by null pronominals. Any actual noun phrases present are likened to clitic left-dislocation in the Romance languages: they are adjoined to the clause, like adverbials, and coindexed with a pronominal argument. Like adverbials, they can appear in any order, and are fully optional; hence null anaphora and free word order follow.

The latest instantiation of this hypothesis is the Polysynthesis Parameter of Baker (1996), which attempts to derive far-reaching properties of the grammars of polysynthetic languages from the PAH and an accompanying requirement that all arguments be marked morphologically on the verb (the Morphological Visibility Condition). The paradigm case of a polysynthetic language, for Baker, is the Iroquoian language Mohawk. However, neighboring languages of the Americas can be shown to share similar properties, particularly the far-reaching ones that follow from the Polysynthesis Parameter. For example, the Algonquian languages have been shown to share (at least) the following properties with Mohawk:

- (1) Properties of Polysynthetic Languages (Baker 1996), Mohawk and Algonquian:
 - a. Free word order and massive pro-drop;
 - b. Condition C violable within a clause (Russell and Reinholtz 1997);
 - c. WCO apparently absent (Dahlstrom 1986; but see Brittain 1999);
 - d. NP anaphors absent (Grafstein 1989);
 - e. Universal quantifiers with singular agreement absent (but see Reinholtz and Russell 1995);
 - f. Determiners can be separate from their associated NP (Dahlstrom 1987);
 - g. Wh-movement does take place (Brittain 1999; but see Reinholtz and Russell 1997, Blain 1997).

To give one example from the above list, the hypothesis that NPs must be adjoined at the clausal level predicts that the Binding Theory will give slightly different results compared to non-pronominal argument languages. For example, a pronoun in subject position will not c-command any adjoined NP, permitting free violation of Condition C within a clause. This is apparently true in Mohawk (Baker 1996), and holds in Algonquian languages as well:

(2) Condition C absent in Swampy Cree:

? kî-pîkonam [animêniw John o-môhkomân]
Tns-broke.it [that John his-knife]
'He_i broke that knife of John_i's'

(Russell and Reinholtz 1997)

According to the diagnostics listed above, then, Algonquian languages are pronominal argument languages, and are possibly polysynthetic in Baker's sense. (Baker actually excludes Algonquian from his polysynthetic type, on the grounds that it lacks productive noun incorporation. The question then becomes, why should Algonquian and Mohawk share so many properties, if they differ on such a fundamental point as the Polysynthesis Parameter? This question will be dealt with more below. See also Davis 1997.)

However, closer inspection indicates that the PAH cannot be correct for at least the Eastern Algonquian languages. Overt NPs must be able to occupy argument positions, from which they can be moved by operations familiar from configurational languages. The argument that this must be the case consists of the following points:

- i. *Agreement*: Verbal agreement with arguments is crucially dependent on hierarchical relations among overt NPs, and does not depend solely on grammatical or thematic role.
- ii. *Pronouns vs. NPs*: Verbal agreement marks a distinction in specificity, which is only relevant to overt NPs. If overt NPs doubled pronouns, there could be no difference in agreement.
- iii. *Object Shift*: Nonspecific objects appear postverbally close to 100% of the time in Wampanoag, an Eastern language. In contrast, specific objects precede the verb more than 50% of the time (66% in ditransitives). This phenomenon closely resembles object shift in German and other languages (e.g., Diesing 1996). The simplest account involves movement of specific objects from argument position.

To the extent that these arguments go through, the result questions the explanatory power of the PAH or the Polysynthesis Parameter. If the Eastern Algonquian languages are configurational but still display all of the properties listed above, we need configurational mechanisms to account for them. (And many of these have been proposed, in the literature on scrambling languages.)

2 Agreement, specificity, and case

The Eastern Algonquian languages Delaware, Western Abenaki, Mahican (extinct), and Wampanoag (extinct) distinguish specific and nonspecific arguments in the form of verb agreement (Goddard 1967, 1974). The contrast is illustrated below for Delaware and Western Abenaki:

(3) Delaware (Goddard 1974:320)

- a. n-ná:t:um-**un** ní túntay
1-go.after-**SpIn** Dem. fire
'I am going after the fire'
- b. n-ná:t:um-**Ø** túntay
1-go.after-**NonSp** fire
'I am going after some fire'

(4) Western Abenaki (Laurent 1884: 93)

- a. n'-waniado-**n** môni
1-lose-**SpIn** money
'I lost the money'

- b. n'-waniado-Ø mōni
1-lose-NonSp money
'I lost some money'

Most of the data here will be drawn from Wampanoag (aka Massachusett, Natick), a language formerly spoken in southern New England (Massachusetts and Connecticut).

The composition of the verbal word in Wampanoag is shown in (5). Agreement appears in several different positions, one prefix and four suffixes:

(5) *Morpheme order*

Prefix	(prevb)	STEM	Agr1	Neg	Def	Agr2	Pret	Agr3
<i>nu</i> 1			<i>ô</i> Dir	<i>w</i>	<i>m</i> NonSp	<i>unôn</i> 1Pl	<i>p ~</i>	<i>ah</i> Obv
<i>ku</i> 2			<i>q</i> Inv		<i>w</i> SpAn	<i>uwôw</i> Pl	<i>pan</i>	<i>ak</i> AnPl
<i>wu</i> 3Pr			...		<i>unâ</i> SpIn			<i>ash</i> InPl

There are two discontinuous (and overlapping) patterns of agreement, illustrated in (6). The prefixes and Agr2 (called Central Endings in Algonquianist literature) agree with first, second, and proximate third person arguments, whether subject or object (morphemes underlined). Agr3 (the Peripheral Endings, in boldface) agree with non-proximate third persons, and the head labeled "Def" in (3) is conditioned by the same argument (in a way that will be explained below).¹

(6)

- a. nu-wenuhkunk-q-(w)-unôn-**ak**
1-compass-Inv-SpAn-1Pl-AnPl
'**They** have compassed us' (M Ps 17:11)
- b. ku-ttogkodchehh-ô-(w)-pan-eeg
2-put.to.shame-Dir-SpAn-Pret-AnPl
'thou hast put **them** to shame' (M Ps 44:7)

Grammatical role is indicated by Agr1, referred to by Algonquianists as the Theme Sign. The pattern is the following: -q- = 1, 2, 3Prox object; -ô- = 3, 3Obv object. So, for instance, the prefix in (6a) agrees with the object—the theme sign -q- indicates that the object is first person. The pattern reverses in (6b), where the theme sign -ô- indicates that the object is third person.

The morpheme we will be focussing on here is Def, the one boldfaced in the Delaware and Western Abenaki examples in (3) and (4). This morpheme takes one of three forms in Wampanoag, depending on the specificity, animacy, and Case of a non-proximate third person argument:

- (7) a. -w- [+Specific, +Animate, +NACC] (animate nom/accusative)
-unâ- [+Specific] (inanimates and obliques)
-m- otherwise (no [+Specific] argument)

By Case we mean whatever distinguishes between the "structural" cases of canonical subjects and objects, which we label with the convenient cover term [+NACC] (for Nominative and ACCusative), and non-canonical objects (which we will occasionally refer to as obliques). The latter include the Algonquian "secondary objects" (Bloomfield 1946, Rhodes 1990), which do not participate in the inverse and are subject to special restrictions. The spell-outs of Def listed in (7) are arranged in a disjunctive hierarchy (Kiparsky 1973, Anderson 1992, Noyer 1992, Halle and Marantz 1993), so that -w- will be inserted before -unâ-,

¹ References: M = Mayhew 1709 (Ps = Psalms); GB = Goddard and Bragdon 1988 (doc. number: line number). Parts of the original spelling have been phonemicized to indicate morpheme boundaries. ô = [ã], â = [a:], u = schwa, ee = [i:].

which will be inserted before *-m-*. The resulting contrasts are illustrated for [+NACC] arguments in (8) (Def in boldface, the argument it agrees with underlined):

(8) Nominative and Accusative ([+NACC]):

- a. Nu-ssoh-ô-**m**-un(ôn) J8nesogn-ag
1-send.out-Dir-Non**Sp**-1Pl juryman-AnPl
'We sent out jurymen.' (GB 17:14)
- b. Koshkuhtauquainnin shanuh wu-tahtauw-**unâ**-(a)sh mitcheme.
K. these.Inan 3-have-**SpIn**-InPl forever
'Koshkuhtauquainnin has these forever.' (GB 74:6-7)
- c. wame nawnawumpotammaenewm-aug nu-ttums-ô-**w**-aug
all successor.to.sachemship-AnPl 1-cut.off-Dir-**SpAn**-AnPl
'...all my successors to the sachemship I cut off.' (GB 29:25-26)

In (8a), the non-specific 'jurymen' is indicated by the *-m-* exponent of Def, and by the lack of peripheral agreement, which only appears with a specific argument. The form of peripheral agreement will be an important diagnostic below for determining which argument the verb agrees with. In both (8b) and (8c), the specific object—inanimate in (8b), animate in (8c)—triggers peripheral agreement, underlined in the examples.

When we turn to [-NACC] arguments, only a two-way contrast holds. When a ditransitive verb agrees with its indirect object (the primary object, or canonical object receiving structural Case, i.e. [+NACC]), as in (9a), we see the animate exponent (primary objects must be animate). However, when the verb agrees with the direct object, a secondary object receiving non-structural Case, there is no animacy distinction. *-unâ-* appears when the argument is specific, whether or not it is animate (9b). (When the verb agrees with which argument will be taken up below.)

- (9) a. onk woh wu-ttunumau-ô-(w)-**uh** michemohtae pomantam8onk
that should 3Prox-give-Dir-**SpAn**-Obv eternal life
'that he (Prox) should give [them (Obv)] eternal life' (M John 17:2)
- b. yeu nu-ttinnunnummung-q-**unâ**-(u)nôn-up Indianne sachumo-og
this 1-convey-Inv-**SpOb**-1Pl-Pret Indian sachem-AnPl
'Indian sachems conveyed this to us.' (GB 154:12)

There is also a class of transitive verbs, called "pseudo-intransitives" or "AI+Os" in the Algonquianist literature, which take a single non-canonical object. Here too no distinction of animacy is made:

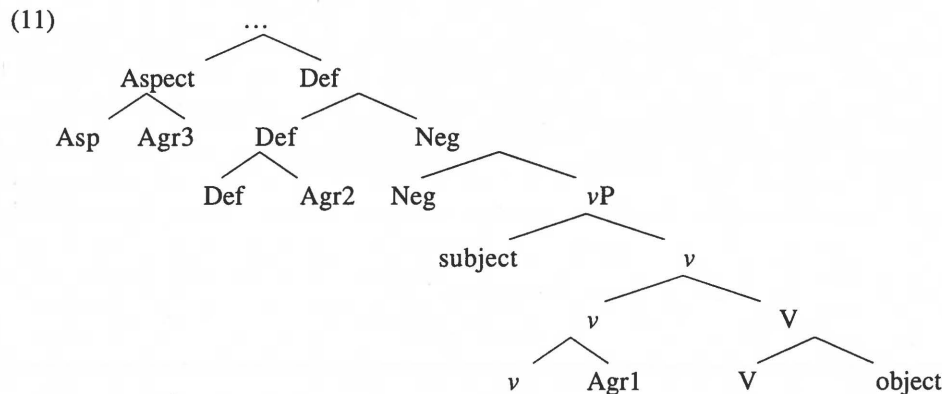
- (10) wu-toosh-**unâ**-ah Sontimmo-oh
3-have.as.father-**SpOb**-Obv sachem(An)-Obv
'His father was the sachem.' (GB 37:13)

3 Analysis

Before turning to the more complicated facets of this agreement system, we will sketch the bare bones of an analysis of how this pattern of agreement works. Our analysis relies on recent proposals of Chomsky (1998, 1999) regarding long-distance agreement.

The extended projection of the Independent Order verb in Wampanoag is shown in (11) (cf. Halle and Marantz 1993). We assume that agreement nodes do not project but are instead adjoined to existing functional heads after the syntax proper, in the morphological component (Halle and Marantz 1994). The

first functional head that we can be fairly certain of is *v*, a verbalizing head that projects the external argument and licenses an internal argument (Chomsky 1995, Kratzer 1996). This head corresponds to the Abstract Final of Algonquian verbs, which determine the Case of the object and are conditioned by the animacy of the object or subject. Agr1, the Theme Sign, adjoins to this head. Negation appears above *v*; above Neg is the head of interest here, Def. This morpheme may be responsible for the semantics of specificity and may correspond to the Clitic Voice head of Sportiche 1996.



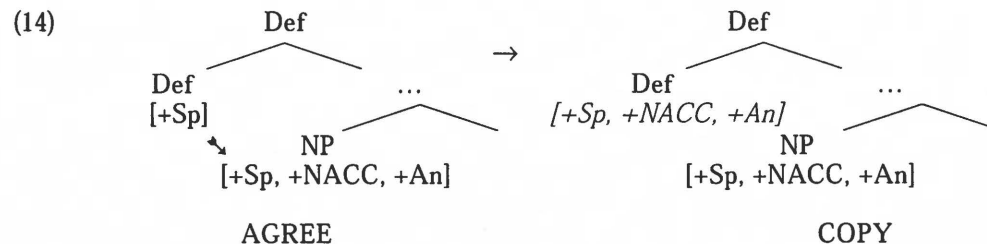
Agr2, the Central Endings, adjoin in the morphology to Def. Agr3, the Peripheral Endings, adjoin to Aspect, above Def. This head is realized as either *-p(an)-* (Perfective) or zero. The verbal word resulting from movement of V through *v*, Neg, Def, and Asp is shown in (12):

- (12) [Prefix (preverbs) [[[V [v Agr1]] Neg] [Def Agr2]] [Asp Agr3]]

Def's form will be conditioned by the features of specific arguments, in the following way. In the syntax an abstract Agree relation will be established between Def and all [+Specific] NPs.

- (13) AGREE: A relation (agreement, Case-checking) between a Lexical Item α and a feature F in the domain of α (Chomsky 1998, 1999).

In Chomsky's terms, Def *probes* for the feature [+Specific] in its c-command domain. When it finds this feature it establishes an Agree relation with the NP bearing the feature. The NP's values for animacy and case are copied onto Def, as illustrated in (14).



The feature [Specific] is only relevant for non-proximate third person NPs. First, second, and third person proximate NPs are ignored. Pronouns—non-proximate third person pronouns—are obligatorily [+Specific], just as they are in other languages with syntactic distinctions of specificity. In (15), the object *them*, not expressed overtly, must trigger the specific animate reflex of Def (allomorphs repeated in (16)).

- (15) ku-ttogkodchehh-ô-(w)-pan-eg
 2-put.to.shame-**DIR-SpAn**-Pret-**AnPl**
 'Thou hast put them to shame.'
 (M Ps 44:7)

- (16) Allomorphs of Def:
- Def \leftrightarrow -w- / [+Specific, +Animate, +NACC]
 - Def \leftrightarrow -unâ- / [+Specific]
 - Def \leftrightarrow -m- / elsewhere

Aspect, the head to which Agr3 (Peripheral Agreement) is adjoined, is also a Probe looking for a [+Specific] goal; hence Agr3 also only agrees in features with non-proximate specific third person NPs (this time in animacy, obviation, and number). (Central Agreement probes for the set of first, second, and proximate third person arguments, irrelevant here.)

3.1 Could this work with the PAH?

We can now relate this characterization of agreement to the PAH. Suppose that all arguments were *pro*, as claimed by the PAH. There would then be no way to account for the fact that pronominal arguments are obligatorily specific (they trigger either -unâ- or -w-, and agree at Agr3). Only overt NPs can be nonspecific (trigger -m- and do not agree at Agr3). There is simply no way to encode the contrast under the PAH, since all arguments are pronouns according to the PAH. In the theory outlined above, it is crucial that argument positions be filled by NPs carrying the feature [Specific], which entails that overt NPs can appear in argument position, since only overt NPs can be [-Specific].

One could try to save the PAH by claiming that nonspecific NPs incorporate into the verb (as has been suggested for Turkish by Enç 1991). This would preserve the distinction in specificity, by stipulating that all non-incorporated arguments—which must be pronouns—are obligatorily specific, and remove NPs from argument position. However, this explanation would fail, since it is easy to show that nonspecifics are not incorporated into the verb. For one thing, when wh-movement occurs with an independent order verb, it triggers nonspecific agreement:

- (17) a. uttoh woh nu-ttisse-**m**-un(ôn) wutche papaume nu-ttohke-un(ôn)
what Modal 1-do-**NonSpec**-1Pl from about 1-land-1Pl
 ‘what can we do with regard to our land?’ (GB 154:10–11)
- b. teaguas nu-ppahtissoowontom-Ø?
what 1-await-**NonSpec**
 ‘what wait I for?’ (M Ps 39:7)

The object has overtly moved away from the verb—that is, it could not be incorporated—yet wh-words are usually counted as non-specific for agreement (cf. Richards 2000). Furthermore, object incorporation usually detransitivizes a verb, but verbs with nonspecific arguments are demonstrably transitive in Wampanoag. That is, they have transitive abstract finals agreeing in animacy with the object, and, if the Theme Sign is object agreement, they still show agreement with the object. The conclusion must be that elements other than *pro* are allowed in argument position.

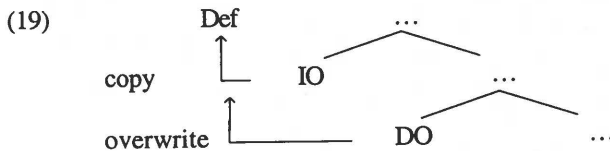
4 Hierarchy and movement: ditransitives and subordinatives

In ditransitives there is a three-way distinction in the form of Def. If the direct object—the secondary, [-NACC] object—is non-specific, the indirect object ([+NACC]) is what matters for agreement. If it also is non-specific, -m- appears, as expected, and there is no agreement at Agr3 (the peripheral endings). If it is specific, it will trigger -w- (indirect objects are obligatorily animate) and full agreement. This pattern is in line with other Algonquian languages (and unrelated languages, such as Mohawk), where indirect objects agree with the verb to the exclusion of direct objects. However, if the direct object is specific, it takes over agreement from the indirect object. Def takes the form -unâ-, whether the DO is animate or inanimate, and the peripheral endings (Agr3) agree with the DO. In other words, a specific direct object usurps agreement that otherwise would go with the indirect object. There is no distinction registered on the verb for the specificity of the IO.

This pattern is illustrated in (18). In (18a) both the indirect object and the direct object are non-specific, so the default *-m-* appears (which alternates with \emptyset , as in this example). In (18b), the direct object is non-specific but the indirect object is specific and animate, and Def registers these features by appearing as *-w-*. Peripheral agreement is animate plural, agreeing with the indirect object. In (18c), however, the direct object is specific. Def appears as *-unâ-*, and peripheral agreement goes with the direct object rather than the indirect: here, inanimate plural.

- (18) a. Jehovah uninnumau- δ - \emptyset u-mmissinninneum-oh menuhkesuonk
 J. give-Dir-NonSpec 3-people-Obv power
 'The LORD will give strength unto his people' (M Ps 29:11)
- b. Nu-tinnammau- δ -w-unôn-ak Passanne minnehkesooong
 1-give-Dir-SpecAn-1Pl-AnPl complete power
 'We gave them complete power' (GB 17:15–16)
- c. wame nu-t-innumaw- δ -unâ-unôn-ash Elisha
all 1-give-Dir-SpecObl-1Pl-InanPl E.
 'We give them all (inan.) to Elisha.' (GB 45:2.59)

Our analysis already has all the tools necessary to explain this fact, with one additional stipulation. This is that Def probes for *all* [+Specific] NPs in its domain, just as in multiple wh-movement where all [+wh] arguments interact with C (see Richards 1997 and references there). Since Agree is feature copying, copying the features of a *second*-NP will overwrite the features of the first, as diagrammed in (19).



The result of this copying is that Def takes its form according to (and Agr3 agrees with) the *structurally lowest* [+Specific] NP, which in ditransitives is the direct object.

If this is how multiple agreement works generally, we would expect similar overwriting of features to take place in multiple Agree relations cross-linguistically (e.g., in multiple wh-movement, multiple object shift, multiple subject constructions). That is, agreement should be with the *lowest* element. Data are, however, currently lacking on this point.

4.1 The subordinate

This analysis extends to another construction in Wampanoag, called the subordinate. In this construction an argument-taking preverb is added to the verb, or, for a certain class of verbs, the verb itself requires an adverbial argument. The preverb increases the valence of the verb by the addition of an adverbial argument (cf. Rhodes 1998). For example, the verb 'stay' in (20a) requires a locative argument, 'here'; while in (20b) a preverb adds a manner adverbial to an already ditransitive verb:

- (20) a. kah yeu wu-ttapp-un(â) annis mommehkummut
 and here 3-stay-SpecObl A. M.
 'And Annis Mommehkummut is here.' (GB B46: Num 5.3)
- b. yeu nu-ttinne wonnahtau- δ -(u)n(â) nu-ttahtowonk
this 1-Prev set.up.for-Dir-SpecObl 1-estate
 'this is how I set up for her my estate' (GB 48:17)

Of interest is the fact that Def appears in its *-unâ-* exponent in this construction.

If we make the minimal assumption that the adverbial is syntactically lower than the direct object (as in Marantz 1993, Hale and Keyser 1993), this pattern is exactly the same as the ditransitive one: agreement goes with the lowest argument of the verb. The adverbial argument, being structurally lowest, controls Def, explaining its spell-out as *-unâ-*. This exponent appears in the context of a [+specific, -NACC] argument; the adverbial fits this profile. In addition, Agr3 is always null in these cases, regardless of the features of the direct and indirect objects, presumably because it is agreeing with a non-plural, inanimate, non-obviative argument (the adverbial), for which the spell-out of Agr3 is \emptyset .

Note also that the direct object does not agree with the verb at all in (20b) (the indirect object is marked in the theme sign). This is a violation of the Morphological Visibility Condition of Baker 1996, suggesting again that (a particular version of) the PAH is not correct for Wampanoag.

4.2 The inverse

Our analysis predicts that if the lowest [+Specific] argument in the clause happens to be the subject, then that will control the shape of Def and Agr3. This is exactly what occurs in the inverse, where the subject is a non-proximate third person. In (21), the *-w-* allomorph of Def appears, signaling agreement with a specific animate argument. The only argument in the clause which has these features is the subject *yeug Englishmansog*, 'these Englishmen'.

- (21) *newutche moochuke nu-wutamh-uq-w-unôn-og yeug Englishmans-og*
because much 1-trouble-Inv-SpecAn-1Pl-AnPl these Englishman-pl
 'Because these Englishmen trouble us very much.' (GB 154:37)

If, however, a lower [+Specific] argument is present in addition to the subject, as in a ditransitive, it takes over agreement from the subject, since, once again, the lowest argument controls the form of this agreement:

- (22) *munnohanne wossuskeh nu-nnemmunnuma-q-unâ-n(ôn) chaquaquass-og*
island meadow 1-take.away-Inv-SpecObl-1Pl English-Pl
 'The island meadow [at Menemsta] the English took away from us.' (GB 49:31)

In summary, from ditransitive and subordinative verb forms we can see that agreement makes crucial reference to hierarchical relations among NPs of a certain syntactic/semantic type. Their grammatical role is irrelevant. The simplest explanation requires overt NPs in argument positions in the syntax.

5 Movement operations: object shift

As in many other languages, specific objects shift out of the VP in Wampanoag to a pre-verbal position. Examples of object shift in Wampanoag are given in (23b–c), contrasting with the non-specific (23a).

- (23) a. *Nu-ssoh-ô-m-un(ôn) J8nesogn-ag*
1-send.out-DIR-NonSp-1Pl juryman-AnPl
 'We sent out jurymen.' (GB 17:14)
- b. *Koshkuhtauquainnin shanuh wu-tahtauw-unâ-(a)sh mitcheme.*
K. these.Inan 3-have-SpIn-InPl forever
 'Koshkuhtauquainnin has these forever.' (GB 74:6–7)

- c. wame nawnawumpotammaenewm-aug nu-ttums-ô-w-aug
all successor.to.sachemship-AnPl 1-cut.off-Dir-SpAn-AnPl
 '...all my successors to the sachemship I cut off.' (GB 29:25-26)

Theoretically, object shift is usually ascribed either to the need to escape existential closure in the VP (Diesing 1996) or to a requirement that a specificity feature be checked higher up (Sportiche 1996).

5.1 German object shift

In German (and other Germanic languages), specific objects shift out of the VP, as indicated by their position outside of negation/adverbs (Diesing 1996):

- (24) a. *? weil ich selten die Katze streichle.
 since I seldom the cat pet
 b. weil ich die Katze selten streichle.
 since I the cat seldom pet
 'since I seldom pet the cat.'

Pronouns obligatorily shift out of VP (and are obligatorily specific):

- (25) a. * weil ich selten sie streichle.
 since I seldom her pet
 b. weil ich sie selten streichle.
 since I her seldom pet
 'since I seldom pet her.'

Objects that do not shift are non-specific (or must be contrastively focused):

- (26) a. weil ich nicht eine einzige Katze gestreichelt habe.
 since I not a single cat petted have
 'since I have not petted a single cat.'
 b. weil ich eine einzige Katze nicht gestreichelt habe.
 'since one (particular) cat I have not petted.' (Diesing 1996:73)

5.2 Specific vs. nonspecific in Wampanoag texts

We surveyed transitive and ditransitive verb forms in texts produced by native speakers of Wampanoag. These texts are collected in Goddard and Bragdon 1988; the relevant verbs are listed on pages 517-540 (we included forms from Mayhew (a native speaker) but not from Eliot or Cotton). In these texts 605 transitive and ditransitive verbs appear that both make a morphological contrast for specificity and have an overt non-proximate argument. 505 of these were transitive verbs, of which 152 had non-specific objects and 353 had specific objects (based on their morphology). Specific arguments and pronouns appeared preverbally more than 50%² of the time, while nonspecifics appeared postverbally nearly 100% of the time.

In ditransitives the pattern is even more striking. Out of a total of 100 ditransitive verbs, 29 had nonspecific direct objects and 71 had specific direct objects. 66% of the specific direct objects appeared

² Bobaljik 1995 argues that specific objects which do not appear to have shifted out of the VP in Germanic languages must still have shifted covertly to satisfy the requirements of specificity checking, whether or not they are pronounced in their shifted position. A similar analysis might be plausible for Algonquian as well. Another possibility is that object shift occurs in two steps, with the lower movement feeding the higher one. In this case, all specific objects would have to shift to at least the lower position (which would keep them post-verbal), but only some of them would continue on to the higher pre-verbal position.

preverbally and 100% of the nonspecifics appeared postverbally. (27) gives an example of a shifted DO with a ditransitive verb.

- (27) yo Quiet Claim Deet Nu-ttinnumau-ô-**unâ**-n(ôn) Elisha Amos
this quit claim deed 1-give-Dir-**SpecObl**-1Pl E. A.
 'We give this quitclaim deed to Elisha Amos.' (GB 45:1.40)

In subordinative verbs the adverbial argument generally appears in a pre-verbal position, as illustrated in (28). In our analysis this adverbial counts as a specific [+NACC] argument, which agrees with Def. Its preverbal position then follows the same pattern of object shift (cf. Goddard 1983).

- (28) a. kah yeu wu-ttapp-**un(â)** annis mommehkummut
 and here 3-stay-**SpecObl** A. M.
 'And Annis Mommehkummut is here.' (GB B46: Num 5.3)
- b. yeu nu-ttinne wonnahtau-ô-(**u**)n(â) nu-ttahtowonk
this 1-Prev set.up.for-Dir-**SpecObl** 1-estate
 'this is how I set up for her my estate' (GB 48:17)

As in German, pronouns are obligatorily specific in Wampanoag and always trigger specific agreement on the verb, even though they are generally null:

- (29) a. nu-mmahche n8tau-ô-(**w**)-un(ôn)
 1-perf.prev hear-Dir-**SpAn**-1Pl
 'We have heard him.' (M John 4:42)
- b. ku-ttogkodchehh-ô-(**w**)-pan-eg
 2-put.to.shame-DIR-**SpAn**-Pret-**AnPl**
 'Thou hast put them to shame.' (M Ps 44:7)

When there is an overt demonstrative, it almost always appears before the verb, as demonstrated in (30) (only one or two counterexamples to this have been found, in Mayhew):

- (30) Koshkuhtauquainnin shanuh wu-tahtauw-**unâ**-(**a**)sh mitcheme.
 K. these.Inan 3-have-**SpIn**-InPl forever
 'Koshkuhtauquainnin has these forever.' (GB 74:6-7)

These findings are striking in that the Wampanoag pattern appears quite similar to Germanic object shift. The simplest and most general account is the one that unifies them; therefore, to the extent that a movement analysis is warranted for Germanic, we would argue that it is also warranted for Wampanoag. Given the reasons outlined above to believe that overt NPs appear in argument positions in Wampanoag, we have a strong argument that the Wampanoag word-order pattern is the result of specificity-conditioned object shift, rather than, say, discourse conditioning the order of adjoined NPs (on a PAH account).

6 Other movement processes in Algonquian

Several other movement processes have been argued to exist in Algonquian, which supports our theory that these languages are configurational and target NPs in argument position in their syntax. One important process is wh-movement (Blain 1997, Brittain 1999, Richards 2000), illustrated for Plains Cree and Western Naskapi in (31).

- (31) a. **Plains Cree:**
 Awîna Mary ê-wâpamât?

who Mary conj-see-DIR-3
'Who did Mary see?'

(Blain 1997)

b. **Western Naskapi:**

Awân châkwân-iyuw kâ-iyât?
who what-obv bought
'Who bought what?'

(Brittain 1999)

Baker (1996) argues that wh-movement actually follows from the PAH. However, the same arguments that wh-questions in Mohawk and Algonquian languages involve movement apply to other cases of movement where the landing site is an argument position, something that is not allowed by the PAH. For example, raising to object (with long-distance agreement) has been argued to exist in Innu-Aiman and other languages (Frantz 1971, 1978; Branigan and MacKenzie 1999). Constituents of a complement clause must normally remain to the right of a complementizer, but in (30) *Mâni* appears to the left of a moved wh-word:

(32) **Innu-Aimun:**

Tshi-tshissenimâu-a Mâni tshekuân kuet aimiât Pûna utshimâminua.

2-know-TA-3-Q Marie why called Paul's boss

'Do you know why Marie called Paul's boss?'

(Branigan and MacKenzie 1999)

Another process is that of raising to subject (Frantz 1980, James 1984) in, for example, Moose Cree:

(33) **Moose Cree:**

a. a:liman kihçi-milowe:li-m-ak me:ri
hard-II-0 sub-like-TA-1:3 Mary
'It is hard for me to like Mary.'

b. a:lime:liht-a:kosi-w me:ri kihçi-milowe:li-m-ak
hard-AI-3 Mary sub-like-TA-1:3
'Mary is hard for me to like./It is hard for me to like Mary.'

(James 1984)

7 Implications and conclusions

We have argued that word order permutations in Algonquian are the result of object shift, which follows the standard pattern of object shift familiar from Germanic languages. Under Baker's Polysynthesis and PAH account of non-configurationality, however, none of the restrictions on object positions and the accompanying structure-dependent morphology can be explained, and in fact, are in no way predicted. Therefore, we argue, the PAH cannot hold in Algonquian. This raises the question: Should the PAH hold even in Mohawk, Baker's canonical polysynthetic language? As already discussed, there are many similarities between Mohawk and Algonquian (see also (1) above):

- (34)
- a. discontinuous expressions restricted on how and where they can be discontinuous
 - b. wh-movement obligatory
 - c. NP anaphors absent
 - d. lack of infinitives
 - e. lack of synthetic causatives

The only relevant (for Baker's Polysynthesis Parameter) difference between the two languages is the lack of noun incorporation in Algonquian. While this is enough to disqualify Algonquian as polysynthetic under Baker's definition, the overwhelming similarities between the languages suggest that perhaps we need to take another look at so-called non-configurationality in Mohawk as well. Since we need configurational mechanisms to account for the same properties in Algonquian, the PAH becomes redundant. It would be

very strange if all of these shared properties arose from very different syntactic mechanisms. Given the conclusions that follow from closer examination of so-called non-configurational languages, we may doubt the existence of any pronominal argument language at all.

References

- Anderson, Stephen R. (1992). *A-Morphous Morphology*. Cambridge: Cambridge University Press.
- Baker, Mark C. (1996). *The Polysynthesis Parameter*. New York and Oxford: Oxford University Press.
- Blain, Eleanor Marie (1997). *WH-Constructions in Nêhiyawêwin (Plains Cree)*. Ph.D. thesis, University of British Columbia.
- Bloomfield, Leonard (1946). Algonquian. In Harry Hoijer (ed.), *Linguistic Structures of Native America*, number 6 in Viking Fund Publications in Anthropology, pp. 85-129, New York: Viking Fund.
- Bobaljik, Jonathan David (1995). *Morphosyntax: The Syntax of Verbal Inflection*. Ph.D. thesis, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics, Cambridge, Mass.
- Branigan, Phil and Marguerite Mackenzie (1999). Altruism, A-bar movement and object agreement in Innu-aimun. Ms., Memorial University of Newfoundland.
- Brittain, Julie (1999). *The Distribution of the Conjunct Verb Form in Western Naskapi and Related Morpho-Syntactic Issues*. Ph.D. thesis, Memorial University of Newfoundland.
- Chomsky, Noam (1995). *The Minimalist Program*. Cambridge, Mass.: The MIT Press.
- Chomsky, Noam (1998). *Minimalist Inquiries: The Framework*. Number 15 in MIT Occasional Papers in Linguistics, Cambridge, Mass.: MITWPL.
- Chomsky, Noam (1999). *Derivation by Phase*. Number 18 in MIT Occasional Papers in Linguistics, Cambridge, Mass.: MITWPL.
- Dahlstrom, Amy (1986). Weak crossover and obviation. In Vassiliki N. Kiforidou *et al.* (eds.), *Proceedings of the 12th Annual Meeting of the Berkeley Linguistics Society*, pp. 234-253.
- Dahlstrom, Amy (1987). Discontinuous constituents in Fox. In Paul D. Kroeber and Robert E. Moore (eds.), *Native American Languages and Grammatical Typology*, pp. 53-73, Bloomington: Indiana University Linguistics Club.
- Davis, Henry (1997). Turning the pronominal argument hypothesis on its head. Talk presented at the Workshop on Structure and Constituency in the Languages of the Americas, University of Manitoba, March 1997.
- Diesing, Molly (1996). Semantic variables and object shift. In H. Thráinsson, S. D. Epstein, and S. Peter (eds.), *Studies in Comparative Germanic Syntax II*, pp. 66-84, The Netherlands: Kluwer.
- Enç, Mürvet (1991). The semantics of specificity. *Linguistic Inquiry* 22: 1-25.
- Frantz, Donald G. (1971). *Toward a Generative Grammar of Blackfoot*. Norman, Oklahoma: Summer Institute of Linguistics.
- Frantz, Donald G. (1978). Copying from complements in Blackfoot. In Eung-Do Cook and Jonathan Kaye (eds.), *Linguistic Studies of Native Canada*, pp. 89-109, Vancouver: University of British Columbia Press.
- Frantz, Donald G. (1980). Ascensions to subject in Blackfoot. In *Proceedings of the Sixth Annual Meeting of the Berkeley Linguistics Society*, pp. 293-299.
- Goddard, Ives (1967). The Algonquian independent indicative. In *Contributions to Anthropology: Linguistics I (Algonquian)*, volume 214 of *National Museum of Canada Bulletin*, pp. 66-106, Ottawa: National Museum of Canada.
- Goddard, Ives (1974). Remarks on the algonquian independent indicative. *International Journal of American Linguistics* 40: 317-327.
- Goddard, Ives (1983). The Eastern Algonquian subordinative mode and the importance of morphology. *International Journal of American Linguistics* 49: 351-387.
- Goddard, Ives and Kathleen J. Bragdon (1988). *Native Writings in Massachusetts*. Philadelphia: The American Philosophical Society.

- Grafstein, Ann (1989). Disjoint reference in a 'free word order' language. In Donna B. Gerds and Karin Michelson (eds.), *Theoretical Perspectives on Native American Languages*, pp. 163-175, Albany: SUNY Press.
- Hale, Ken (1983). Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1: 5-47.
- Hale, Kenneth and Samuel Jay Keyser (1993). On argument structure and the lexical expression of syntactic relations. In Kenneth Hale and Samuel Jay Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, Mass.: The MIT Press.
- Halle, Morris and Alec Marantz (1993). Distributed morphology and the pieces of inflection. In Kenneth Hale and Samuel Jay Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, Mass.: The MIT Press.
- Halle, Morris and Alec Marantz (1994). Some key features of Distributed Morphology. In Andrew Carnie, Heidi Harley, and Tony Bures (eds.), *Papers on Phonology and Morphology*, volume 21 of *MIT Working Papers in Linguistics*, pp. 275-288, Cambridge, MA: MITWPL.
- James, Deborah (1984). Raising to subject in Moose Cree: A problem for subadjacency. In Eung-Do Cook and Donna B. Gerds (eds.), *The Syntax of Native American Languages*, volume 16 of *Syntax and Semantics*, pp. 205-213, New York: Academic Press.
- Jelinek, Eloise (1984). Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2: 39-76.
- Kiparsky, Paul (1973). "elsewhere" in phonology. In Stephen R. Anderson and Paul Kiparsky (eds.), *A Festschrift for Morris Halle*, pp. 93-106, New York: Holt Rinehart.
- Kratzer, Angelika (1996). Severing the external argument from its verb. In John Rooryck and Laurie Zaring (eds.), *Phrase Structure and the Lexicon*, pp. 109-137, Dordrecht: Kluwer.
- Laurent, Joseph (1884). *New Familiar Abenakis and English Dialogues*. Quebec: Leger Brousseau.
- Marantz, Alec (1993). Implications of asymmetries in double object constructions. In Sam A. Mchombo (ed.), *Theoretical Aspects of Bantu Grammar*, pp. 113-150, Stanford: CSLI.
- Mayhew, Experience (1709). *Massachusee Psalter*. Boston: B. Green.
- Noyer, Robert Rolf (1992). *Features, Positions and Affixes in Autonomous Morphological Structure*. Ph.D. thesis, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics, Cambridge, Mass.
- Rhodes, Richard A. (1990). Ojibwa secondary objects. In Katarzyna Dziwirek, Patrick Farrell, and Errapel Mejías-Bikandi (eds.), *Grammatical Relations: A Cross-Theoretical Perspective*, pp. 401-414, Stanford: CSLI Publications.
- Rhodes, Richard A. (1998). Clause structure, core arguments, and the Algonquian relative root construction. Ms., University of California, Berkeley.
- Richards, Norvin (1997). *What Moves Where When in Which Language*. Ph.D. thesis, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics, Cambridge, Mass.
- Richards, Norvin (2000). Some notes on conjunct and independent orders in Wampanoag. Talk presented at WSCLA 5, Toronto, March 2000.
- Russell, Kevin and Charlotte Reinholtz (1995). Hierarchical structure in a non-configurational language: Asymmetries in Swampy Cree. In José Camacho, Lina Choueiri, and Maki Watanabe (eds.), *Proceedings of the Fourteenth West Coast Conference on Formal Linguistics*, pp. 431-445, Stanford: CSLI.
- Russell, Kevin and Charlotte Reinholtz (1997). Nonconfigurationality and the syntax-phonology interface. In *Proceedings of the Fifteenth West Coast Conference on Formal Linguistics (WCCFL 15)*, pp. 441-455, Stanford: CSLI.
- Sportiche, Dominique (1996). Clitic constructions. In Johan Rooryck and Laurie Zaring (eds.), *Phrase Structure and the Lexicon*, pp. 213-276, Dordrecht: Kluwer.

