Multiple instances of agreement in Mi'gmaq verbs

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1 INTRODUCTION

Like many Algonquian languages, Mi'gmaq has multiple verbal affixes which index the phi(ϕ)-features (person, number, gender) of arguments, shown in bold in (1).[1]

(1) mu ges- -al **-ugsi** -'w **-eg** -pn **-ig**
NEG love VTA **3>SAPPL** NEG **1PL** PST.DK **3PL**
'They didn't love us(me and another)'

One possibility is that verbal affixes are instances of agreement, a relationship (AGREE) between a functional head (probe) and a DP argument (goal) resulting in the functional head displaying the ϕ-features of the goal (Chomsky, 2000). Another possibility is that verbal affixes are clitics, a D-like pronoun which is a copy of the ϕ-features of a DP argument and attaches to a functional projection (Preminger, 2009). In this paper I show that Mi'gmaq has both agreement affixes (theme signs and inner suffixes) and clitics (outer suffixes).

The presence of multiple agreement affixes is important as it supports the presence of ϕ-feature agreement in the thematic domain (Oxford, 2013), as opposed to agreement being solely limited to the inflectional domain (Woolford, 2010; Nevins, 2011). I conclude that theme signs and inner suffixes are instances of ϕ agreement on $Voice^0$ and T^0, respectively. However, these cannot simply be classified as object and subject agreement, as multiple arguments can, and often must, be probed in order to account for the conditioning of

[1]All data is primary data from the Listuguj dialect. I would like to thank Janine Metallic, Mary Ann Metallic, Janice Vicaire, and Joe Wilmont for sharing their knowledge of Mi'gmaq with me. I would like to thank Jessica Coon, Alan Bale, Michael Wagner, the McGill Mi'gmaq Research group, audiences of the 45th Algonquian Conference, and two anonymous reviewers for comments on this paper. Abbreviations: 1 = first person, 2 = second person, 21 = first person inclusive (including the second person), 3 = animate third person singular proximate (discourse salient), AN = animate, CONJ = conjunction, DK = direct knowledge, FUT = future, IC = initial change, IN = inanimate, INV = inverse, NEG = negation OBJ = object, OBV = obviative, PL = plural, PST = past, SAP = speech act participant (first and/or second person), SG = singular, VTA = transitive verb with both animate subject and object, VTI = transitive verb with animate subject and inanimate object X>Y = X agent, Y patient.

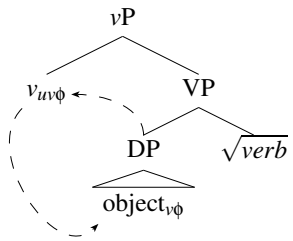
agreement affixes. I find evidence to support two different notions of multiple argument probing, Cyclic Agree (Béjar and Rezac, 2009) and Multiple Agree (Nevins, 2011), which are not mutually exclusive, but represent the specific nature of AGREE on Voice^0 and T^0, respectively.

2 BACKGROUND

A recent line of research hypothesizes that what appears to be object agreement on verbs is actually clitic doubling, e.g., Preminger (2009), Woolford (2010), Nevins (2011). In its strongest form, this hypothesis only recognizes subject agreement as a true instance of ϕ-feature agreement within the clause (Woolford, 2010). This has sparked interest in the distinction between agreement affixes and clitics.

The appearance of an agreement affix is the result of an AGREE relation between a functional head and a DP (Chomsky, 2000). A functional head with unvalued ϕ-features (uvϕ) probes downward in its search space (the domain it c-commands) for a DP with valued ϕ-features (*v*ϕ), enters into an AGREE relationship with an appropriate goal DP, and as a result the ϕ-features on the functional head are valued correspondingly. In (2), v^0 has uvϕ and probes its search space finding the object DP in Spec-VP with vϕ. Then v^0 enters into an AGREE relation with the object DP and the DP's ϕ features value the ϕ-features of v^0.

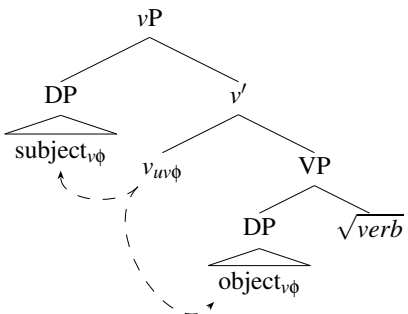
(2)



It is also possible to have a more complex pattern of agreement where more than one goal is probed, e.g., Cyclic Agree (Béjar and Rezac, 2009) and Multiple Agree (Nevins, 2011). In the Cyclic Agree model, the probe is in between two goals and the functional head can probe upwards and enter into an AGREE relation with the subject DP if the probe is not satisfied with the ϕ-features of the object DP on the first probe downward, as in (3). In the Multiple Agree pattern, the probe is situated above both goals and the functional head probes down for two arguments simultaneously, and can chose either, or both, to enter into an AGREE relation with, as in (4).[2]

[2]Assuming that v^0 is a phase head, the object DP will need to move to Spec-vP in order to be visible to the probe on T^0 given a strict definition of the Phase Impenetrability Constraint (Chomsky, 2001). I'm ignoring this motivated movement for ease of exposition.

(3) a.



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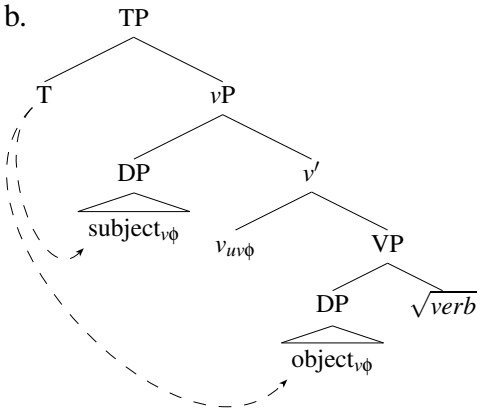
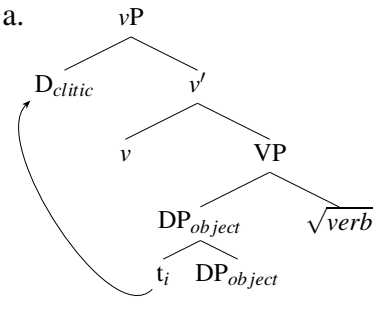


When multiple arguments are probed, it is possible for an agreement affix to index both arguments, resulting in a portmanteau, or select one, depending on the conditioning of the probe. Given a probe-goal account, we predict locality restrictions on AGREE, since structural proximity to the probe will determine accessibility of a goal to a probed (Preminger, 2009). In addition, since agreement affixes are mandatory, default forms should appear if an AGREE relation cannot be entered, i.e., a probe cannot find a suitable goal (Preminger, 2009).

Clitics, on the other hand, have been argued to be a determiner (D) pronoun-like element that is base generated as an adjunct in a "big-DP structure", as in (4) (Roberts, 2010; Nevins, 2011). The clitic then moves to Spec-*v*P as in (4a), and attaches via morphological merger (Matushansky, 2006) to the verbal stem at PF (Nevins, 2011) (4b). Given their proclitic or enclitic status, clitics undergo a form of post-syntactic linearization at PF (Kramer, forthcoming), this places them either verb initially or finally depending on how clitics are linearized in specific languages.

(4) a.



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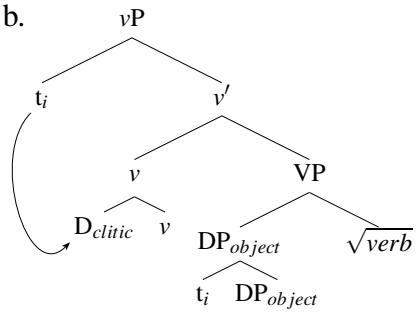


Compared to agreement morphemes, clitics are optional, thus default forms and locality restrictions in general are not predicted. Given that clitics are linearized post-syntactically, we expect to only find clitics at the edge of words or inside other clitics, and specifically outside of material linearized syntactically, e.g., functional heads and agreement affixes (Zwicky and Pullum, 1983). As such, we don't expect the form of clitics to be conditioned by other morphemes, e.g., functional heads, agreement affixes or other clitics (Nevins, 2011), or to index the ϕ-features of multiple arguments (Woolford, 2014). A summary comparison between the properties of agreement affixes and clitics is shown in Table 1.

TABLE 1
Agreement vs. clitics

properties	*agreement*	*clitic*
form	affix	morphophonological clitic
appearance	obligatory	optional
realization on functional head	valued ϕ	D adjoined
linearization	syntactic	post-syntactic
ordering	any	edges of words
portmanteau	possible	not possible
multiple-goal conditioning	possible	not possible
locality restrictions	yes	no
default form	yes	no
tense-variant	yes (on T^0)	no

Couched within the agreement-clitic debate, Oxford 2013 argues that Proto-Algonquian provides evidence of both subject (inner suffixes) and object (theme signs) agreement. I support this analysis by showing that there are two separate instances of ϕ-feature agreement in Mi'gmaq: one in the thematic domain on $Voice^0$ (theme signs) and another in the inflectional domain on T^0 (inner suffixes). However, I show that neither is exclusively subject or object indexing. Agreement on $Voice^0$ is either solely object or both subject and object indexing, depending on the ϕ-features of the object. The agreement on T^0 indexes either the subject or object depending on the ϕ-features of the subject. I show that the agreement on $Voice^0$ fits a Cyclic Agree model, while agreement on T^0 fits with a Multiple Agree model.

This analysis has implications on the syntactic account of Mi'gmaq. The lack of exclusive subject and object ϕ-indexing verbal suffixes casts doubt on the applicability of the Pronominal Argument Hypothesis (PAH, Jelinek, 1984). The PAH analyzes verbal ϕ-indexing suffixes as pronouns base generated in argument positions. These pronouns attach to the verb via an operation such as cliticization (overt NPs are exclusively adjuncts). Such an analysis necessitates clear mappings from argument positions to either overt or null pronouns/affixes, which is not feasible in Mi'gmaq. In addition to arguing that verbal ϕ-indexing suffixes are agreement, I will show that there are no clear pronominal arguments in the PAH sense. This presents evidence against applying the PAH to Mi'gmaq.

In the following sections, I present five diagnostics in turn to determine whether each verbal ϕ-indexing suffix in Mi'gmaq is an agreement affix or clitic: linear order within the verbal complex, ϕ-feature realization, locality, default agreement, and tense-variance. Based on these diagnostics, I conclude that theme signs and inner suffixes are instances of agreement, while outer suffixes are clitics. Before concluding, I discuss the implication of these diagnostics for the application of the PAH to Mi'gmaq, and present further evidence against such an analysis.

3 ORDERING

The ordering of verbal affixes within the verb is an important diagnostic for the agreement-clitic distinction given their contrast in syntactic or post-syntactic linearization. Based on the assumption that no syntactic operations, such as AGREE, can follow clitic placement (Zwicky and Pullum, 1983), we expect that while clitics can appear outside of agreement morphemes (or other clitics), agreement morphemes cannot appear outside of clitics. Since agreement surfaces on functional heads, we expect that clitics appear outside of functional heads but not inside them, i.e., not between functional heads or between functional heads and the verb root. In Mi'gmaq, theme signs and inner suffixes appear inside or between functional heads, which supports an agreement analysis, while the position of outer suffixes on the periphery is inconclusive.

Based on Oxford 2013's template for Proto-Algonquian, I propose a template for the verbal suffixes in realis mood, shown and exemplified in (5) (also see Coon and Bale 2013).[3] It is important to note that Mi'gmaq does not have person prefixes in these, or most, environments.

(5) TEMPLATE

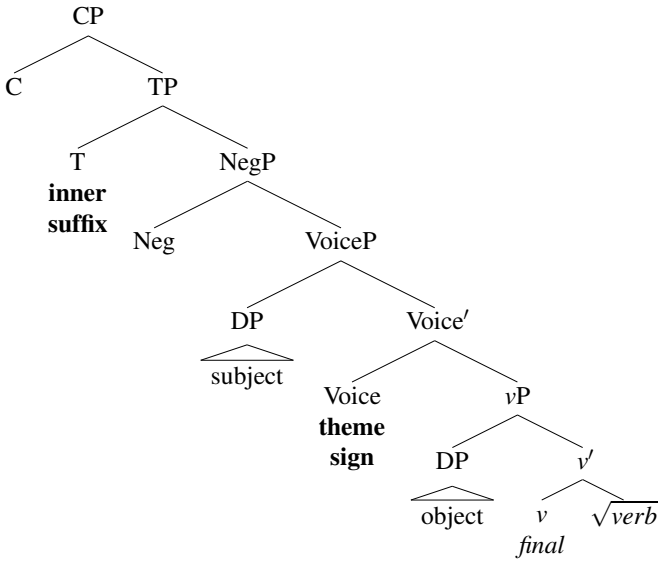
	root	final	**theme sign**	NEG	**inner suffix**	T	**outer suffix**
mu	ges-	-al	**-ugsi**	-'w	**-eg**	-pn	**-ig**
NEG	love	VTA	**3>SAPPL**	NEG	**1PL**	PST.DK	**3PL**
			'They didn't love us(me and another)'				

Theme signs appear between the verb final and negation, e.g., *ges-* 'love' and *-'w* in (5), and inner suffixes appear between negation and tense, e.g., *-'w* and *-pn* in (5). This suggests that both are agreement morphemes. The outer suffix, on the other hand, always appears verb final, e.g., outside of tense *-'w* in (5). This could be either consistent with an agreement or clitic analysis.

Based on linear order, the assumption that the verb root raises via head movement, and the mirror principle (Baker, 1985), I assume the clause structure in (6) throughout. Following ordering evidence supporting theme signs and inner suffixes as agreement, I place the theme sign in Voice^0 (Lochbihler, 2009; Oxford, 2013; Coon and Bale, 2013) and the inner suffix on T^0 (Oxford, 2013; Coon and Bale, 2013). While Voice^0 and T^0 are canonical object and subject agreement positions respectively, I show in the next section that the argument(s) marked in these positions are conditioned in a more complex manner. Given the inconclusive evidence from order, I leave the outer suffix aside.

[3] I have collapsed tense and evidentiality into T, for convenience and because both certainly occur higher in the syntactic representation, although further research is needed. For more information about the interaction between tense and evidentiality in Mi'gmaq see Inglis (2002), Loughran (2012), and Little (2013)

(6) MI'GMAQ VTA CLAUSE *adapted from Oxford (2013); Hamilton (2013)*



4 CONDITIONING

The second diagnostic is the conditioning of affixes. Given a probe-goal analysis of AGREE, agreement morphemes can be conditioned by multiple arguments (Béjar and Rezac, 2009; Nevins, 2011). While agreement morphemes can be portmanteau (mark two arguments) clitics cannot by definition, given that they are pronouns (Woolford, 2014). So if we find a portmanteau ϕ-indexing affix, this is evidence that it is an agreement morpheme. I show that there are portmanteau theme signs, further supporting an agreement analysis.

In addition, probing multiple arguments can lead to complex patterns of conditioning depending on the ϕ-features of the argument and the nature of the probe. This can give rise to an alternation between arguments, i.e., subject or object, conditioning an agreement affix based upon the specific nature of the probe. This is different from the kind of factors which cause deletion between multiple clitics, e.g., Person Case Constraint effects, which prohibit the co-occurrence of certain combinations of arguments, such as unmarked>marked (e.g., 3>Speech Act Participant (SAP)), and bans on adjacent identity, which is a post-syntactic operation that bans the co-occurrence of 2 identical clitics, such as [+SAP] (Nevins, 2011). Clitic deletion is related to person features, thus not predicted to occur with number (Nevins, 2011). I show that agreement on T^0 is conditioned by number, which supports an agreement analysis of inner suffixes.

Conditioning, on the other hand, is an inconclusive diagnostic for outer suffixes. I will discuss each affix in turn below.

4.1 *Theme signs*

A summary of theme signs is shown in Table 2. It is important to note that theme signs are obligatory on transitive verbs with an animate subject and object (VTA), although may not appear on some forms due to the application of phonological processes. Note that 1st and

2nd persons are referred to jointly as SAP below. As well, in Mi'gmaq, the inverse refers to forms in which the subject is 3rd person animate obviative and the object is 3rd person animate proximate.[4], There can only be one proximate 3rd person per clause, and typically it is the topic of the sentence or discourse, while all other 3rd persons are marked obviative.

TABLE 2
Theme signs

theme sign	*gloss*	*environments*
-(*i'l)i*	1OBJ	2(pl)>**1**(pl), 3(pl)>**1**
-*ul*	2OBJ	1(pl)>**2**(pl), 3(pl)>**2**
-(*a*)	3OBJ	2(pl)>3(pl), 1(pl)>3(pl), 3(pl)>**3.obv**(pl)
-*ugsi*	3>SAPPL	3(pl)>2pl, 3(pl)>1pl
-(*gw*)	INV(3.OBV>3)	3.obv(pl)>3(pl)

A variety of previous analyses propose that theme signs exclusively index the ϕ features of the object, e.g., McGinnis (1999) and Brittain (1999). However, this kind of analysis is not possible for Mi'gmaq, since the 3>SAP and inverse theme signs are portmanteau affixes which index the person features of both the subject and the object. That is, whenever the object is 1st or 2nd person plural, the ϕ-features of the subject must be taken into consideration in order to determine the theme sign. If the subject is 3rd person, then the theme sign will be -*ugsi*, but if the subject is the other SAP, then -*(i'l)i* '1st person' or -*ul(n)* '2nd person' will appear. Similarly, whenever the object is 3rd person, the ϕ-features of the subject must also be considered. If the subject is 3rd person obviative, then the theme sign will be -(*gw*), but if the subject is a SAP, then -(*a*) will appear. In fact, it is only when the object is 1st person singular, 2nd person singular, or 3rd person obviative that the ϕ features of the subject are irrelevant, since -*(i'l)i*, -*ul(n)*, or -(*a*) respectively, will appear regardless of the ϕ-feature specification of the subject. Since some theme signs are portmanteau affixes and often the ϕ-features of both must be considered in determining which one conditions the theme sign, it is clear that both the subject and object can, and often must, be probed. This makes an agreement analysis the most appropriate, supporting Voice^0 as the most appropriate location given that it is in a local configuration with both the subject and object DPs.

As such, a Cyclic Agree (Béjar and Rezac, 2009) account is the most appropriate given that the first goal (object DP) is lower than the probe and the second goal (subject DP) is higher than the probe. When Voice^0 MERGEs, it probes the object DP in Spec-*v*P and, if necessary, probes the subject DP when it MERGEs in Spec-VoiceP. The primacy of probing object DPs allows this relation to bleed subject-probing, which fits the pattern in Mi'gmaq when the object is 1st or 2nd person singular or 3rd person obviative. In all other cases, the probe on Voice^0 will probe the subject DP, which accounts for portmanteau affixes and conditioning pattens described above.

[4]This supports the observation that the inverse in Mi'gmaq closely resembles the inverse in Proto-Algonquian Goddard (1974). This is supported by LDA evidence in which 3>SAPpl forms pattern with the direct, where LDA generally occurs with the subject, rather than the inverse where LDA generally occurs with the object (Fry and Hamilton, 2013)

4.2 *Inner suffixes*

A summary of inner suffixes and what they index is shown in Table 3. Inner suffixes also appear to be obligatory, but may delete due to phonological processes.

TABLE 3
Inner suffixes

suffix	*gloss*
-eg	1PL
-oq	2PL
-gw	21PL
-(*an*)	1
-(*n*)	2
-t/*-g*	3

Inner suffixes can index the subject or the object. SAP plural will be indexed on the probe regardless of whether it is the subject or object. In forms with both a 1st person plural and 2nd person plural, the 2nd person plural form will appear as the inner suffix regardless of which is the subject or object. In all other environments with no SAP plurals, the subject is marked. Descriptively, it looks like number, particularly SAP plural, conditions the inner suffix and subject is marked as a default. This supports an agreement analysis of inner suffixes. It is unclear why a preference for overt marking of plural arguments would apply in cliticization.

Inner suffixes are also most appropriately accounted for under a analysis in which multiple arguments are probed, particularly a Multiple Agree (Nevins, 2011) account, in which omnivorous number arises. Under this account, the functional head is higher than both goal arguments and probes both downwards. As such, after T^0 MERGEs, it probes the subject DP in Spec-VoiceP and then the object DP in Spec-*v*P if necessary, as in (7). If probing occurs one argument at a time, then an SAP plural in subject position AGREES with T^0 and bleeds object-probing. However, in all other cases, the object DP would be probed in a second step, and if it is SAP plural it will AGREE with T^0. But, if neither is SAP plural, the ϕ-features of the subject will value the T^0. If the probing of both the subject and object is done in one step, as Nevins (2011) suggests, then both are probed simultaneously and AGREE occurs with the SAP plural argument if present, or the subject otherwise. Either formulation of probing is possible.

4.3 *Outer suffixes*

A summary of outer suffixes and what they index is shown in Table 4. Outer suffixes seem to be optional, since they only appear when the arguments in (7) are present.

TABLE 4
Outer suffixes

suffix	*gloss*
-i('g)	3.AN.PL
-l/-n	3.OBV
-l/-n	3.IN.PL

Outer suffixes mark non-SAP arguments and can index the subject or object. 3rd person animate obviative and plural arguments and 3rd person inanimate arguments are overtly indexed regardless if subject or object. However, in forms with both a 3rd person plural and 3rd person obivative, the 3rd person plural form will appear as the outer suffix.

An argument in favour of an agreement analysis is that only one outer suffix can ever appear, even if there is more than one 3rd person argument present. If these were clitics, we might expect that two outer suffixes would be possible, e.g., a 3rd person plural subject and a 3rd person obviative object. However given that only one can appear, and the plural marker is preferred, a Multiple Agree omnivorous number account is plausible, following the one proposed for the inner suffix. Both arguments could be probed from above (possibly from C^0 given linear order)[5] in search of 3rd person plural, which enters into an AGREE relation if present, otherwise any other 3rd person argument would be indexed.

An alternate hypothesis is that the outer suffix is a clitic (Oxford, 2013). This analysis receives superficial, although inconclusive, support from the identical distribution of outer suffixes in the verbal and nominal domain, as in (7).

(7) a. wi'gatign -**n**
book -**3.IN.PL**
'books (inanimate)'

b. atlai -**'g**
shirt -**3.PL**
'shirts (animate)'

c. atlai -**l**
shirt -**3.OBV**
'shirt (obviative)'

In sum, while a Multiple Agree analysis is possible for outer suffixes, a clitic analysis is equally plausible. While conditioning supports the agreement status of the theme sign and inner suffix, the status of the outer suffix is still consistent with either an agreement or clitic analysis. The conditioning of theme signs and inner suffixes is best accounted for under an AGREE relation in which both arguments can be probed, although they will not always be. Interestingly, a Cyclic Agree account seems more appropriate for the theme signs, while an Multiple Agree account is more appropriate for the inner suffixes. Portmanteau theme signs and conditioning of both theme signs and inner suffixes are unexpected if these are clitics and not agreement affixes.

[5]Support for the outer suffix as agreement on C^0, comes from the fact that they cannot appear on the verb when it is marked with the subjunctive suffix *-eg*, which is likely on C^0.

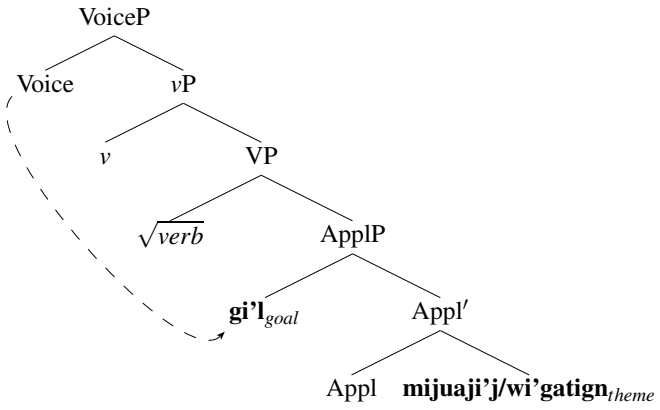
5 LOCALITY

The third diagnostic comes from locality restrictions (Preminger, 2009). If an AGREE relationship holds between a probe and a goal, it will be subject to some form of locality, i.e., the available search space of the probe. This is not necessarily the case with clitics. In double object constructions in Mi'gmaq, both the theme sign and the inner suffix can only refer to the ϕ features of the goal, and not the theme. In (8), theme sign can only index the ϕ-features of the goal (2PL). The ϕ-features of the theme (3.AN or 3.IN) are not marked, and the theme can be animate, *mijua'ji'j* 'baby', or inanimate, *wi'gatign* 'book'.

(8) mu ignm-**uln**-u-**oq**-op mijua'ji'j/wi'gatign
NEG give.VTA-**2OBJ**-NEG-**2PL**-PST baby(AN)/book(IN)
'I didn't give you-all the baby/book'

Assuming that goals are structurally higher than the themes (Branigan and MacKenzie, 1999; Lochbihler, 2012), this can be analyzed as a locality restriction, since the theme signs can only index the structurally closest DP, the goal. When Voice^0 is merged into the clause, it probes for the closest DP with ϕ-features and finds the goal *gi'l* 2nd person singular (which will be deleted at PF), as in (9). However, it cannot find a structurally lower DP, the theme *mijua'ji'j/wi'gatign*. Note that this supports the Cyclic Agree analysis for theme signs presented in the last section, as both the goal and theme would be accessible via Multiple Agree from Voice^0. This data also supports Multiple Agree analysis for inner suffixes, since only the structurally highest arguments (subjects and goals) are accessible from T^0.

(9)



In contrast to the theme sign and the inner suffix, the outer suffix can index the theme. The verb forms in (10) crucially differ when animate and inanimate themes are plural. In (10a), the outer suffix indexes 3rd person animate plural (*-ig*) and is only grammatical with the animate plural theme *atla'ig* 'shirts.' While in (10b), the outer suffix shows 3rd person inanimate plural marking (*-n*), which is only grammatical with the inanimate plural theme *wigatignn* 'books.' Note again the similarity between the outer suffix on the verb and the plural marker on the respective nominals.

(10) a. ignm-uln-u-oq-opn-**ig** **atla'i-g**/*wigatign-n
give.VTA-2OBJ-NEG-2PL-PST-**3PL.AN** **shirt.AN-PL**/book.IN-PL
'I didn't give you-all shirts'

b. ignm-uln-u-oq-opn-**n** **wigatign-n**/*atla'i-g
give.VTA-2OBJ-NEG-2PL-PST-**3PL.IN** **book.IN-PL**/shirt.AN-PL
'I didn't give you-all books'

Locality considerations support an agreement analysis of the theme sign and inner suffix, particularly the one developed in the previous section. This contrasts with the outer suffix here which is not restricted in the same manner and provides evidence in favuor of a clitic analysis.

6 DEFAULT AGREEMENT

The fourth diagnostic comes from the appearance of default agreement forms. Preminger (2009) argues that when an probe-goal AGREE relationship cannot be established either a default form appears or the resulting form is ungrammatical. The appearance of a default agreement form is direct evidence in favour of an agreement affix account as agreement is obligatory, whereas clitic doubling is optional as nothing need appear. Mi'gmaq, like many Algonquian languages, has constructions which display Long-Distance Agreement (LDA), where the matrix verb shows agreement with an embedded argument. An example where LDA does not occur is shown in (11a), and an example of where it does is in (11b). The matrix verb *ge(j)i-* 'know' in (11a) has the verb final *tu*, which appears on forms with an animate subject and inanimate object (TI). In (11b), *ge(j)i-* 'know' lacks the TI final, and appears with the theme sign (*-ugsi* 3>SAPPL) and inner suffix (*-oq* 2nd person plural) that indexes an embedded argument (*gilew* 'you-all') .

(11) a. ge(j)i-tu [(gilew) wigtm-oq plamuei]
know-VTI [(2pl) like.taste.of.VTI-2PL salmon.meat]
'I know you-all like salmon'

b. gej-**uln-oq** [(**gilew**) wigtm-oq plamuei]
know.VTA-**2obj-2PL** [(**2pl**) like.taste.of.VTI-2PL salmon.meat]
'I know **you-all** like salmon'

Some analyses of LDA in Algonquian posit that the embedded argument which undergoes LDA is in the left-periphery of the embedded clause, e.g., Bruening (2001), Branigan and MacKenzie (2002), Mathieu and Lochbihler, Fry and Hamilton (2013). The goal of LDA agreement is in a local enough configuration for the probe on matrix Voice^0 to check its ϕ-features, and conditioning both the theme sign and the inner suffix. But in the cases where LDA does not occur, the potential LDA triggering argument is not in a local enough configuration, e.g., not at the left-periphery of the embedded clause. As such, the resulting TI theme sign inflection on the matrix verb can be analyzed as default agreement (Piggott, 1989; Bruening, 2001). When the probe on matrix Voice^0 does not find a sufficiently local DP with ϕ features, a default TI theme sign appears. This explains why TI morphology appears with verbs that take a complement clause.

One source of support for this analysis is from conjoined embedded clauses, as the matrix verb will not be marked with a plural inanimate outer suffix. The form in (12a) shows that when the object is 3rd person inanimate plural, the corresponding outer suffix *-n* appears. However, the 3rd person inanimate plural outer suffix cannot appear with conjoined clauses, as in (12b).

(12) a. (gi'l) gei-tu-n-**n**
(2) know-VTI-2-**IN.PL**
'You know them(IN.PL), e.g., phone numbers'

b. (gi'l) gei-tu-n-*(**n**) [[(Lance) pegwatel-g-'p wi'gatign] aq [(ni'n)
2 know-VTI-2-(**IN.PL**) [[(Lance) buy-3-PST book] CONJ [(1)
maqut-m-a-p wenju'su'n]]
eat.VTI-1-PST apple]]
'You know Lance bought a book and I ate an apple.'

A probe-goal AGREE relationship does not exist between the matrix Voice^0 and the complement clause itself, since the CP does not have ϕ features. Thus the appearance of the TI theme sign can be analyzed as default agreement, which occurs when the probe on Voice^0 does not find an internal argument with ϕ-features.

7 TENSE-VARIANCE

The fifth, and final, diagnostic comes from the ability for affixes to show allomorphy related to the properties of functional head on which they appear. Nevins 2011 argues that agreement affixes can display allomorphy conditioned by tense, but clitics cannot. However, since Nevins (2011) only considers true agreement as subject agreement on T^0, this should be interpreted as agreement on T^0 potentially showing tense-variance. In fact, if agreement occurs in the verbal complex, as I argue for Mi'gmaq, then we do not expect such agreement to be tense-variant since it occurs on a lower functional head, e.g., Voice^0. If we find a ϕ-indexing verbal suffix that shows tense-variance, we can conclude both that it is an agreement affix and occurs on T^0. This is what we predict for the inner suffix, which I argue is agreement on T^0. However, if we do not find tense variance, then we cannot conclude whether the suffix is agreement or a clitic. In fact, this is what we predict for the theme sign which I argue to be agreement on Voice^0, as well as for the outer suffix, which appears to be a clitic.

All of these predictions are correct, as in Mi'gmaq only the inner suffix has separate allomorphs, and these appear in irrealis environments (also see Inglis 2002). Table 5 shows the contrast between the realis and irrealis sets, with corresponding examples in (13).

TABLE 5
Mi'gmaq VTA inner suffix allomorphy

ϕ	*Realis*	*Irrealis*
1SG	-(*an*)	-∅
2SG	-(*n*)	-(*g*)
3SG	-*t*/-*g*	-*ew*
1PL	-*eg*	-*nen*
2PL	-*oq*	-*oq*
21PL	-*'gw*	-*nu*

(13) a. 'gs-al-ulsi-tis-**nen**
love(IC)-VTA-3>SAPPL-FUT-**2PL**
'S/he/they will love us(me and another)'

b. ges-al-ugsi-**eg**-pn-ig
love-VTA-3>SAPPL-**2PL**-PST.DK-3PL
'They loved us(me and another)'

First, it is important to note that although it shows a consonant alternation, -***ul***si/***ug***si, the theme suffix stays constant between irreals and realis moods. This is consistent with our prediction for the theme sign. Second, the inner suffix shows separate sets of affixes between irrealis, e.g., -*nen* 2PL in (13a), and realis, e.g.,-*nen* 2PL in (13a), moods. Although there is still much research to be done regarding the interaction of mood, tense and evidentiality in Mi'gmaq, this variance is predicted for inner suffixes, given that it is agreement on T^0. Third, the outer suffix does not appear in irrealis contexts, which is not surprising given that optionality is a characteristic of clitics. Thus this data supports the prediction of tense variance for inner suffixes, but not for theme signs or and outer suffixes.

8 CONCLUSION

Table 6 is a summary of the results from the diagnostics provided.

TABLE 6
Summary of results

diagnostic	*theme sign*	*inner suffix*	*outer suffix*
ordering	**AGR**	**AGR**	AGR/CLITIC
conditioning	**AGR**	**AGR**	AGR/CLITIC
locality	**AGR**	**AGR**	**CLITIC**
default form	**AGR**	AGR/CLITIC	AGR/CLITIC
tense-variance	AGR/CLITIC	**AGR**	AGR/CLITIC

Both theme signs and inner suffixes meet four of the five diagnostics for agreement, with tense variance and default form being inconclusive for each, respectively. I conclude that both are instances of agreement, with the theme sign as agreement on $Voice^0$ and the inner suffix as agreement on T^0. This supports Oxford 2013's argument in favour of ϕ agreement in the thematic domain ($Voice^0$) as well as the inflectional domain (T^0).

Thus Mi'gmaq presents further evidence against the hypothesis that there is only one true instance of ϕ agreement (Woolford, 2010). It also provides support for both Cyclic Agree and Multiple Agree, and presents an interesting case for both being possible within a given language.

Although the outer suffix is indeterminate in four of the five diagnostics, the absence of locality effects supports a clitic analysis. This also supports Oxford (2013), and the examination of the exact details regarding cliticization and linearization are important topics for further research.

References

Baker, M. (1985). The mirror principle and morphosyntactic explanation. *Linguistic Inquiry*, 16(3):373–415.

Béjar, S. and Rezac, M. (2009). Cyclic agree. *Linguistic Inquiry*, 40(1):35–73.

Branigan, P. and MacKenzie, M. (1999). Binding relations and the nature of 'pro' in Innu-Aimun. In Nancy Hall, Masako Hirotani, P. T., editor, *Proceedings of NELS*, volume 29, pages 475–486.

Branigan, P. and MacKenzie, M. (2002). Altruism, A-movement, and object agreement in Innu-aimûn. *Linguistic Inquiry*, 33(3):385–407.

Brittain, J. (1999). A reanalysis of transitive animate theme signs as object agreement: Evidence from Western Naskapi. In *30th Algonquian Conference*, pages 34–46.

Bruening, B. (2001). *Syntax at the edge: Cross-clausal phenomena and the syntax of Passamaquoddy*. PhD thesis, Massachusetts Institute of Technology.

Chomsky, N. (2000). Minimalist inquiries: The framework. Step by step: Essays on minimalist syntax in honor of Howard Lasnik, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–15.

Chomsky, N. (2001). Derivation by phase. Ken Hale: A life in language, Ed. by Michael Kenstowicz, 1-52.

Coon, J. and Bale, A. (2013). The inseparability of person and number in Mi'gmaq. Presented at Features in Phonology, Morphology, Syntax, and Semantics, University of Tromsø, CASTL, Norway.

Fry, B. J. and Hamilton, M. D. (2013). Long-Distance Agreement in Mi'gmaq and Ojibwe: towards a comparative study. Presented at the 45th Algonquian Conference, University of Ottawa.

Goddard, I. (1974). Remarks on the Algonquian independent indicative. *International Journal of American Linguistics*, 40(4):317–327.

Hamilton, M. D. (2013). Wh-movement in Mi'gmaq. Presented at the Canadian Linguistics Association, University of Victoria.

Inglis, S. H. (2002). *Speaker's experience: A study of Mi'kmaq modality*. PhD thesis, Memorial University of Newfoundland.

Little, C. R. (2013). Evidentiality in Mi'gmaq. Presented at the 45th Algonquian Conference, University of Ottawa.

Lochbihler, B. (2009). Discontinuous DP constructions. In *Proceedings of the 2009 annual conference of the Canadian Linguistics Association*.

Lochbihler, B. (2012). *Aspects of argument licensing*. PhD thesis, McGill University.

Loughran, J. (2012). The fusion of tense and evidentiality in Mi'gmaq. Master's thesis, McGill University.

Mathieu, E. and Lochbihler, B. C. Clause typing and feature inheritance of discourse features. in press.

Matushansky, O. (2006). Head movement in linguistic theory. *Linguistic Inquiry*, 37(1):69–109.

McGinnis, M. (1999). Is there syntactic inversion in Ojibwa? In Leora Bar-El, R.-M. D. and Reinholtz, C., editors, *Workshop on Structure and Constituency in Native American Languages*, volume 17, pages 101–118. University of Calgary.

Nevins, A. (2011). Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language & Linguistic Theory*, 29(4):939–971.

Oxford, W. R. (2013). Multiple instances of agreement in the clausal spine: Evidence from Algonquian. In *Proceedings of WCCFL*, volume 31.

Piggott, G. (1989). Argument structure and the morphology of the Ojibwa verb. *Theoretical perspectives on Native American languages*, pages 35–49.

Preminger, O. (2009). Breaking agreements: Distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry*, 40(4):619–666.

Roberts, I. (2010). *Agreement and head movement*, volume 59. The MIT Press.

Woolford, E. (2010). Active-stative agreement in Lakota. Ms., UMass Amherst.

Woolford, E. (2014). Two types of portmanteau agreement: Syntactic and morphological. Ms., UMass.

Zwicky, A. M. and Pullum, G. K. (1983). Cliticization vs. inflection: English n't. *Language*, pages 502–513.