

How to agree with the lowest DP*

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Abstract

I present a strikingly nonlocal agreement pattern found in Passamaquoddy-Wolastoqey (Eastern Algonquian), where C agrees with the lowest clausemate third person DP after A movement, in seeming violation of standard locality principles of agreement. I show that various existing analyses of lowest-preference in agreement, such as case discrimination with ergative-aligned case, a low probe, syntactic inversion, and the Activity Condition, all fail to capture all the morphosyntactic properties of this particular agreement phenomenon. Instead, I propose that Passamaquoddy-Wolastoqey C agrees with *all* accessible third persons, only exponing the last set of features it has acquired. I implement this with a microparameter Expone Outermost, which states that only the outermost features on a multiply-valued head are to be expounded, building a parallel between multiple agreement and multiple case assignment. I then discuss the typological ramifications of this proposal, both within and outside of Algonquian, showing that it provides insights into some of the variation we find in agreement systems within and across different languages and language families.

Keywords: agreement, locality, lowest preference, Algonquian, Passamaquoddy-Wolastoqey

1 Introduction

I'll start by introducing two seemingly unrelated topics—the goal of this paper is to forge a fruitful connection between them. The first, the main case study of this paper, is an agreement puzzle in Passamaquoddy-Wolastoqey (Eastern Algonquian), henceforth just Passamaquoddy.¹ The observation is that an agreement suffix in C, which I'll call C agreement, indexes the lowest clausemate third person argument *after A movement*. To get a first taste of the pattern, let's look at the basic examples below:²

*Many people have helped bring this paper into being. In particular, I thank Yadong Xu for bringing the cross-Algonquian variation in C agreement to my attention and making me realize how troubling the Passamaquoddy pattern is, Emily Clem for suggesting the particular morphological implementation of the core idea, and Amy Rose Deal for pointing out relevant crosslinguistic parallels (like in Nakh-Dagestanian) and coining the term Expone Outermost. I also thank Tanya Bondarenko, Will Oxford, David Pesetsky, and Norvin Richards for helpful discussion, and Margaret Apt, Edwina Mitchell, Grace Paul, and Roger Paul for their work in helping me understand their language. Blame me for mistakes, misunderstandings, and misrepresentations.

¹Also known as Passamaquoddy-Maliseet; *Maliseet* is an exonym deriving from the Mi'gmaq (Eastern Algonquian) word *mali'sit* 'speak poorly, weakly'. *Wolastoqey* is an endonym for the variety spoken around the *Wolastoq* (St. John River) in New Brunswick.

²All uncited Passamaquoddy data is based on the verbal paradigms in the Passamaquoddy-Maliseet Language Portal (<https://pmportal.org/>), published as Francis and Leavitt (2008), as well as the paradigms in Sherwood (1986). Abbreviations: 1 = first person, 2 = second person, 3 = third person, ABS = absolutive, ACC = accusative, AGT = agent, AI = animate intransitive, AN = animate, AOR = aorist, APPL = applicative, C = complementizer, CJ = conjunct, DAT = dative, DEF = definite, DEM = demonstrative, DOM = differential object marker, DUB = dubitative preterit, EMPH = emphatic, ERG = ergative, EXC = exclusive, EXCL = exclusive, F = feminine, FUT = future, IC = initial change, IC = initial change, II = inanimate intransitive, IN = inanimate, INV = inverse, LOC = locative, M = masculine, N = N formative, NEG = negative, OBJ = object, OBV = obviative, PART = participant, PAT = patient, PFV = perfective, PL = plural, POSS = possessive, PRET = preterit, PROX = proximate, PST = past, REFL = reflexive, REP = reportative, SG = singular, TA = transitive animate, TA+O = transitive animate with secondary object, TI = transitive inanimate, W = W formative, WH = *wh*.

- (1) a. *ikolisomanuwi-w-ol* Intransitive → index subject
 be.white.person_{AI}-3-OBV.SG
 ‘she_{OBV} is a white person’
- b. *Ø-nomiy-a-wa-l* Direct monotransitive → index patient
 3-see_{TA}-3OBJ-PL-OBV.SG
 ‘they_{PROX} see her_{OBV}’
- c. *Ø-nomiy-uku-wa-l* Inverse monotransitive → index agent
 3-see_{TA}-3OBJ-PL-OBV.SG
 ‘they_{PROX} were seen by her_{OBV}’
- d. *Ø-mil-a-ni-ya-l* Ditransitive → index theme
 3-give_{TA+O}-3OBJ-N-PL-OBV.SG
 ‘they_{PROX} give them_{OBV} it_{OBV}’

In (1a), we see that C agreement (bolded) indexes the single argument of an intransitive. In (1b), we see that C generally indexes the patient of a monotransitive, skipping over the agent—however, if the patient has A moved over the agent, as in the inverse construction (see Bruening 2001, 2005, 2009 and Grishin 2022 for arguments that at least the third person inverse involves the patient A moving over the agent), then C will index the agent (1c). In (1d), we see that C agrees with the theme of a ditransitive, skipping over both the agent and recipient. Thus, Passamaquoddy C displays a phenomenon we can call LOWEST PREFERENCE (this has also been termed OBJECT OR INTERNAL ARGUMENT PREFERENCE; Béjar and Rezac 2009, Colley 2018): C prefers agreeing with more distant goals over more local ones. This is puzzling given the consensus that agreement is generally local. Why would C skip over more local goals in preference for ones further away?

The second topic I introduce is an empirical observation about configurations involving multiple case assignment: in some languages/syntactic configurations, a nominal receiving multiple cases will only have the *last* case assigned to it spelled out (Béjar and Massam 1999, Yoon 2004, Merchant 2006, Pesetsky 2013, Alboiu and Hill 2016, Levin 2017, Richards 2017). One context in which this can happen is hyperraising, where a nominal is assigned case inside a finite embedded clause, raises out into the matrix clause, and then has another case assigned to it in the matrix clause. In many languages, this results in only the matrix clause case being spelled out, as in the Romanian (Romance) examples of hyperraising to object below:

- (2) a. *Am ghicit [că **Mihai** își aranjează plecarea].* No raising
 have.1SG guessed that **Mihai** REFL.DAT arrange.3SG leave.DEF
- b. *L-am ghicit **pe Mihai** [că-și aranjează plecarea].* Raising
him.ACC-have.1SG guessed **DOM Mihai** that-REFL.DAT arrange.3SG leave.DEF
 ‘I figured out that Mihai is arranging his leave.’ Romanian (Alboiu and Hill 2016:257)
- (3) a. *Am văzut [că **lui Ion** i-a fost foame].* No raising
 have.1SG seen that **the.DAT Ion him**.DAT-have.3SG been hunger
- b. *L-am văzut **pe Ion** [că i-a fost foame].* Raising
him.ACC-have.1SG seen **DOM Ion** that **him**.DAT-have.3SG been hunger
 ‘I saw that Ion was hungry.’ Romanian (Alboiu and Hill 2016: 269)

The (a) examples above serve as a baseline, with the embedded subject surfacing downstairs—a nominative subject in (2a), and a quirky dative subject in (3a). In the (b) examples, the embedded subject surfaces upstairs, to the left of the complementizer, marked with the differential object marker *pe* and doubled by an accusative clitic. Alboiu and Hill (2016) argue extensively that these constructions do not involve prolepsis or control, and that the embedded clause is truly finite and able to assign case to the embedded subject. Thus, they conclude that the embedded subject is assigned case twice in the derivation: once downstairs

and another time upstairs. Example (3b) is particularly instructive here, as the dative memories of *Ion*’s past life are revealed by the downstairs the dative clitic. However, only the upstairs case surfaces on the DP, in the form of the differential object marker *pe* rather than the dative article *lui*—thus, in Romanian, when a nominal is assigned case multiple times, only the outermost case is realized. We can call this particular parametric specification **EXPONE OUTERMOST**: the parametrization of a particular multiply valued head to spell out only the *last*, “outermost” features it has received over the course of the derivation.

(4) *Expone Outermost*

On a multiply-valued head $H_{\langle [A], [B], \dots [Z] \rangle}$, expone only the outermost feature bundle $[Z]$: $H_{[Z]}$.

Though the Passamaquoddy agreement puzzle and the case facts may look quite different on the surface, I propose that these two phenomena stem from the same source: *Expone Outermost*. I’ll argue that Passamaquoddy C agrees with *every* accessible goal in the clause—thus, there isn’t actually any locality violation—but only ever spells out the features that it has *most recently acquired*, per *Expone Outermost*, exactly parallel to the case behavior in Romanian (and other languages). This suggestion about Passamaquoddy agreement isn’t entirely novel—a brief suggestion to this effect was first made (to the best of my knowledge) by Bruening and Rackowski (2001:77) and Bruening (2001:234),³ but here I mount a detailed defense of this idea and demonstrate that it makes welcome typological predictions.

This paper is organized as follows. First I will provide some background on various aspects of Algonquian and Passamaquoddy morphosyntax—specifically obviation, the verbal template, and the inverse—that will be taken for granted throughout this paper. Then, I detail the behavior of C agreement with all different permutations of arguments in a clause, demonstrating that C indexes the lowest third person argument after A movement. I proceed to discuss the existing analyses of lowest preference in the literature, demonstrating that each makes incorrect predictions for the Passamaquoddy case, before turning to the novel morphological analysis and the rule of *Expone Outermost*. With that in place, I extend the analysis to C agreement in Ojibwe and Delaware, demonstrating that C in these languages also shows an equivalent kind of lowest-preference, but with different domains of accessibility (Xu 2021a). I argue that *Expone Outermost* provides a more insightful understanding of these languages as well as the broader cross-Algonquian picture than existing approaches. I end by considering various kinds of typological predictions this proposal makes more broadly, arguing that these predictions are verified.

2 Background

In this section, I’ll provide some background on Algonquian morphosyntactic phenomena that will be relevant for the discussion ahead—obviation, the verbal template, and the inverse—before we can get to the lowest preference pattern we see in Passamaquoddy.

2.1 Obviation

Algonquian languages are known for their distinction between **PROXIMATE** and **OBVIATIVE** third persons. Roughly, within a certain domain (e.g. a noun phrase, a clause, or a stretch of discourse), there will be one proximate third person, and the rest must obviate. The proximate is considered to be the (in some sense) “highlighted” third person referent in the domain. The proximate-obviative distinction is marked morphologically on nominals, as well as reflected in verbal agreement, with obviate being the morphologically

³“We might explain this as a preference principle in spelling out abstract Agree relations: if a head enters into more than one Agree relation, the one that is established *last* is the one that is spelled out” (Bruening 2001:234). My proposal differs from Bruening’s tentative suggestion in that *Expone Outermost* is a microparameter, rather than a universal principle, and it applies to all cases of multiple valuation (both agreement and case), rather than just agreement (a similar idea in the domain of case is found in Pesetsky 2013 and Levin 2017). Of course, if one believes that all instances of case marking are derived by Agree, then it could be that *Expone Outermost* only applies to Agree operations.

more marked category. In Passamaquoddy, as in several (but not all) Algonquian languages, the proximate-obviative distinction is limited to animate third persons.⁴ First and second persons do not participate in the proximate-obviative contrast.

As Goddard (1990) puts it, there are “two unbreakable rules” (Goddard 1990:318) of obviation across Algonquian: (i) there can be at most one proximate argument of a verb (5a), and (ii) an animate noun possessed by an animate third person must be obviative (5b).

- (5) a. *Mali Ø-nomiy-a*(-l) Piyel*(-ol).*
 Mary 3-see_{TA}-3OBJ-OBV.SG Peter-OBV.SG
 ‘Mary sees Peter.’
- b. *Mali ’-tus*(-ol)*
 Mary 3-daughter-OBV.SG
 ‘Mary’s daughter’

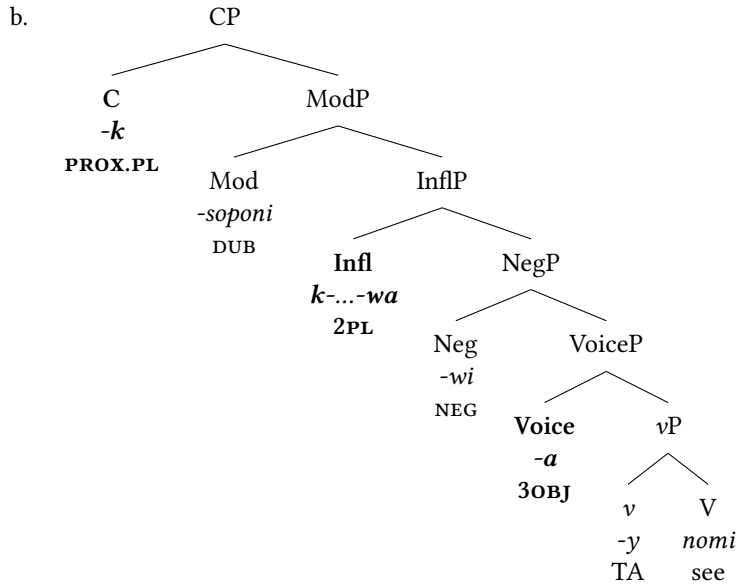
Another way of putting this is to say that the CP and DP are domains for obviation, within which a general rule of “at most one proximate in the domain” is calculated.

2.2 Verbal template

Algonquian languages are famed for their complex verbal morphology and agreement systems. Here I would like to provide a quick overview of the verbal template in the INDEPENDENT ORDER (characteristic of matrix declaratives and the core focus of this paper; the other main agreement paradigm, the CONJUNCT ORDER, has different behavior which I don’t discuss here), in order to hopefully render the verb forms I present here more parseable to the reader. To illustrate, let’s take a look at the following maximally-inflected verb form, focusing on the three main agreement markers in Voice, Infl, and C:

- (6) *(ma-te) knomiyawiwasonik* ‘y’all apparently didn’t see them_{PROX}’⁵
- | | | | | | | | |
|----|-------------|------------------------------------|--------------|------------|----------------|----------------|-------------------|
| a. | k- | [<i>nomi</i> -y] _{stem} | -a | -wi | -wa | -soponi | -k |
| | 2- | see -TA | -3OBJ | -NEG | -PL | -DUB | -PROX.PL |
| | prefix | stem final | theme sign | negation | central suffix | mode | peripheral suffix |
| | Infl | V v | Voice | Neg | Infl | Mod | C |

⁴This wasn’t always the case: in older varieties of Passamaquoddy, verbs would very occasionally show obviative agreement with inanimates, demonstrating that there used to be a proximate-obviative contrast for inanimates (LeSourd 1988:32).



In the third line of (6a) I provide some standard Algonquianist terminology for these slots. In the fourth line I give a more-or-less standard mapping of these slots to positions in the clausal spine that I will assume in this paper, illustrated in tree form in (6b).⁶ I remain agnostic as to how these heads in the clausal spine end up as a single morphological/phonological word; for the purposes of this paper, head movement all the way up to C suffices (though that's surely not the final story—see Bruening 2019 for discussion).

The verbal stem consists of the verb root plus any number of derivational morphemes, most notably the series of *FINAL*S, which indicate the transitivity of the verb and index the animacy of the intransitive subject and transitive object. In the verb stem *nomiy-* ‘see s.o.’, we have the transitive animate (TA) final *-y*, indicating that the verb is transitive and has a grammatically animate object. In this paper, I will generally not decompose morphologically complex stems.

Outside of the stem, there are three core sites of agreement, corresponding to the heads Voice, Infl, and C on the clausal spine:

1. **Theme sign:** located in Voice, the theme sign agrees in person with the (highest) internal argument or is realized as the inverse marker (see below for discussion of the inverse). The analysis of the theme sign as object agreement follows Rhodes (1976), Brittain (1999), McGinnis (1999), Goddard (2007), Oxford (2014), and its location in Voice follows Bruening (2001), Béjar and Rezac (2009), Coon and Bale (2014), Oxford (2019b), among others.
2. **Central agreement:** comprised of the prefix and the central suffix and located in Infl, it agrees in person and number with the animate argument highest on the hierarchy *SAP* > *PROX* > *OBV*.⁷ The placement of central agreement in Infl follows Halle and Marantz (1993), Bruening (2005), Coon and Bale (2014), Hamilton (2017), among others.

⁵Negation in Passamaquoddy is bipartite: the verbal negative suffix (here, *-wi*) must co-occur with an independent negative particle (here, *ma-te* NEG).

⁶A notable point of analytic variation is whether the person prefix is a part of the same head as the central suffix, appearing discontinuous due to a morphological process like Fission (Noyer 1992), or whether it comes from a distinct head. The former analysis is a classic one in the descriptive Algonquianist literature, as in Goddard (1979), and is defended in the theoretical literature by Oxford (2019a). The latter analysis is more common in the theoretical literature: see Halle and Marantz (1993), McGinnis (1995), Brittain (2001), Richards (2004), Cook (2014), Oxford (2014), Bondarenko (2020), among others. I side with the traditional analysis here, as it correctly captures the fact that the prefix and the central suffix disappear together in the C-Infl bleeding relationship discussed by Oxford (2017a).

⁷In the case where the subject and object are both *SAP*s, Infl can agree with and index features from both arguments; see discussion by Oxford (2019a, 2019b). Infl does not obviously show agreement with inanimates in Passamaquoddy.

3. **Peripheral agreement:** located in C, it agrees in animacy, obviation, and number of the lowest clause-mate third person argument. Its placement in C follows Halle and Marantz (1993), Branigan and MacKenzie (1999), Bliss (2013), and Oxford (2017a).

We will focus on peripheral agreement here (which I'll be calling C agreement), as it is the suffix that shows an agree-with-lowest pattern in Passamaquoddy.

2.3 Inverse

Descriptively, we can understand the Algonquian direct and inverse to be morphological agreement patterns that depend on the relative ranking of the agent and patient on the following hierarchy (note that this is the same hierarchy that governs Infl agreement; see Oxford 2019b for an analysis that derives this fact):⁸

- (7) SAP > PROX > OBV > IN

If the agent outranks the patient on this hierarchy, then we get the direct agreement pattern; conversely, if the patient outranks the agent on this hierarchy, we get the inverse agreement pattern.

The direct agreement pattern involves Infl indexing the agent and Voice indexing the patient (8a), and the inverse agreement pattern involves Infl indexing the patient and Voice displaying the inverse morpheme *-oku* (8b):

- | | | | | | |
|--------|--|--------|----|---|---------|
| (8) a. | <i>n-</i> <i>kikehl</i> <u><i>-a</i></u> <i>-n</i>
1- <i>cure</i> _{TA} <u><i>-3OBJ</i></u> <i>-1PL</i>
Infl <u>Voice</u> Infl
'we cured <u>her</u> ' | Direct | b. | <i>n-</i> <i>kikehl</i> <u><i>-oku</i></u> <i>-n</i>
1- <i>cure</i> _{TA} <u><i>-INV</i></u> <i>-1PL</i>
Infl <u>Voice</u> Infl
'She cured <u>us</u> ' | Inverse |
|--------|--|--------|----|---|---------|

In (8a), we have a direct agreement pattern, with Infl indexing the first person plural features of the agent with the prefix *n-* and suffix *-n*, and Voice indexing the third person features of the patient with the suffix *-a* (often traditionally called the "direct" theme sign). In contrast, we see an inverse agreement pattern in (8b), with Infl now indexing the *patient*, and Voice featuring the inverse suffix *-oku*.

Several authors have argued that the direct and inverse agreement patterns reflect distinct syntactic derivations (Rhodes 1976, 1994, Bruening 2001, 2005, 2009, Quinn 2006, Oxford 2019b, a.o.).⁹ The general idea is that in the direct, the agent has the syntactic properties of subjects, whereas in the inverse, the patient does. Here, however, I will follow a kind of mixed view espoused by Oxford (2022) and Grishin (2022), in which the 3>3 inverse does involve this kind of syntactic inversion, but the 3>SAP inverse does *not*. This is implemented in the following way: the patient does not A-move over the agent in the direct and the 3>SAP inverse, but it does in the 3>3 inverse.

I won't rehash all of the arguments for this conclusion here, but I will briefly present two: (i) in the 3>3 inverse, the patient can bind into the agent, unlike in the direct (Bruening 2001, 2005), indicating that the patient has A-moved over the agent; and (ii) in the 3>SAP inverse, it's only the third person agent that's accessible to the matrix clause in a particular long-distance agreement/raising to object construction (Grishin 2022), indicating that the SAP patient has *not* moved over the third person agent.

Bruening (2001, 2005) demonstrates that Passamaquoddy has weak crossover effects (WCO) in 3>3 direct configurations that are repaired in the inverse.¹⁰ In (9a) we have a direct configuration, with a third person animate agent *not kisuwikhok* 'the one who wrote it' and an inanimate *wh* patient *keqsey* 'what'. In (9b) we have an inverse configuration, with an obviative agent *witapihil* 'his friend' and a proximate *wh* patient *wen* 'who'.

⁸This is the hierarchy for the Independent order, which is what we are concerned with here. The Conjunct order, found in various kinds of embedded clauses and *wh* questions, behaves differently.

⁹Though see Dahlstrom (1991) and Lochbihler (2012) for opposing views.

¹⁰Similar facts hold in other Algonquian languages, like Blackfoot (Bliss 2013), Plains Cree (Dahlstrom 1986, Blain 1997, Grishin 2023), and Ojibwe (Lochbihler 2012, Oxford 2022).

- (9) a. $\left[\begin{array}{c} \text{[PAT } \textit{Keqsey}] \textit{pett-aqoso-k} \\ \text{what IC.accidentally-burn}_{\text{TI-3CJ}} \end{array} \right] \left[\begin{array}{c} \text{[AGT } \textit{not} \textit{kis-uwikho-k}] \textit{t ?} \\ \text{DEM.AN IC.PFV-write}_{\text{TI-3CJ}} \end{array} \right]$
 ‘What_i did the one who wrote it_i accidentally burn?’ (Bruening 2001:115)
- b. $\left[\begin{array}{c} \text{[PAT } \textit{Wen}] \textit{pihce} \\ \text{who long.ago} \end{array} \right] \left[\begin{array}{c} \text{[AGT } \textit{w-itapi-hil}] \textit{nekol-ih} \textit{t kcihku-k?} \\ \text{3-friend-OBV.SG IC.leave}_{\text{TA-3SG.INV.CJ}} \text{forest-LOC} \end{array} \right]$
 ‘Who_i was abandoned by his_i friend in the forest long ago?’ (Bruening 2005:14)

We find a WCO violation in the direct (9a): the patient *keqsey* ‘what’ has been \bar{A} -extracted, and cannot bind a variable inside the agent *not kisuwuikhok* ‘the one who wrote it’—only a noncoreferential reading is available. However, WCO is obviated in the inverse (9b): here, the patient *wen* ‘who’ is able to bind into the agent *witapihil* ‘his friend’. This demonstrates that in the 3>3 inverse, the patient A-moves over the agent.

We find a different state of affairs in the 3>SAP inverse. In a close examination of the syntax of a particular long distance agreement/raising to object construction found under verbs like *’pawatomuwan* ‘want’, Grishin (2022) identifies a locality effect: the matrix verb can show object agreement only with the highest embedded argument. When we embed a 3>SAP configuration under *’pawatomuwan* ‘want’, we find that the matrix verb can only show agreement with the third person agent (10a), not the SAP patient (10b):

- (10) a. *Roger ’pawatom-uw-a-n [Asawis-ol nt-olintuw-ew-ku-n]*.
 Roger 3-want_{TI-APPL-3OBJ-N} John-OBV.SG 1-sing_{AI-APPL-INV-N}
 ‘Roger wants John to sing to me.’
- b. **Roger n-puwaitom-a-ku-n [Asawis(-ol) nt-olintuw-ew-ku-n]*.
 Roger 1-want_{TI-APPL-INV-N} John-OBV.SG 1-sing_{AI-APPL-INV-N}
 Intended: ‘Roger wants John to sing to me.’ (Grishin 2022)

Thus, despite the fact that we have an inverse agreement pattern in the embedded clause, the SAP patient does not A-move over the third person agent. We only get syntactic inversion in the 3>3 inverse.

3 The data

With that background out of the way, let’s get our hands dirty with Passamaquoddy agreement data, focusing on the behavior of C agreement. As mentioned above, C indexes the animacy, obviation, and number features of some third person argument in the clause—as we’ll see, it indexes the features of the *lowest* third person argument. If there is no third person argument in the clause, then there is no C agreement. I give the possible exponents of C agreement in Passamaquoddy below:

- (11) C agreement suffixes¹¹

	IN	PROX	OBV
SG	-Ø	-Ø	-(o)l
PL	-(o)l	-(o)k	- ^L

In this section, we’ll go through different permutations of arguments in a clause, examining the behavior of C agreement in each. First we’ll look at configurations with only one third person argument—intransitives, SAP>3, and 3>SAP—observing that C displays an omnivorous third person agreement pattern, always indexing the features of the third person argument no matter its syntactic role (see Grishin 2023 for detailed

¹¹The superscript ^L, representing the exponent of obviative plural agreement, represents stress/a low pitch accent that appears on the final vowel of the verb, which isn’t marked in the practical orthography—see LeSourd (1993) for detailed discussion.

argumentation supporting this interpretation of the facts across Algonquian). Then, we'll move on to configurations with two third persons—3>3 direct and 3>3 inverse—finding that C indexes the features of the *lower* one. Finally, we examine the case of ditransitives, learning that C will always index the lowest argument, the theme. Throughout, I use first person plural exclusive forms to exemplify SAPs—other first and second person forms pattern similarly—and I will underline the controller of C agreement in the English translation.

3.1 C agreement seeks out third person

When there is only one third person argument in the clause, C will index its features, no matter its syntactic role or position. In intransitives, C indexes the number, animacy, and obviation features of third person subjects:

- | | |
|--|---|
| <p>(12) a. <i>n-ulapewi-pon</i>
1-be.handsome_{AI}-1PL
'we_{EXCL} are handsome'</p> <p>b. <i>wolapewi-w-ok</i>
be.handsome_{AI}-3-PROX.PL
'<u>they</u>_{PROX} are handsome'</p> | <p>c. <i>wolapewi-w-ol</i>
be.handsome_{AI}-3-OBV.SG
'<u>he</u>_{OBV} is handsome'</p> <p>d. <i>pileyaw-i-w-ol</i>
be.new_{II}-3-IN.PL
'<u>they</u>_{IN} are new'</p> |
|--|---|

With an SAP subject (12a), we get no C agreement (the agreement we do see is Infl agreement). In contrast, when we have a third person subject (12b-d), we do find C agreement, and we can see that it tracks the number, animacy, and obviation features of the subject.

In mixed transitive configurations (SAP>3 and 3>SAP), C will seek out the third person to agree with, no matter its syntactic position. This is demonstrated most strikingly in SAP>3 configurations (which give rise to a direct agreement pattern), where C skips over the SAP agent in preference for the third person patient:

- | | |
|--|--|
| <p>(13) a. <i>n-kinoluw-a-n-Ø</i>
1-praise_{TA}-3OBJ-1PL-PROX.SG
'we_{EXCL} praise <u>her</u>_{PROX}'</p> <p>(14) a. <i>n-punom-one-n-Ø</i>
1-place_{TI}-N-1PL-IN.SG
'we_{EXCL} place <u>it</u>'</p> | <p>b. <i>n-kinoluw-a-nnu-k</i>
1-praise_{TA}-3OBJ-1PL-PROX.PL
'we_{EXCL} praise <u>them</u>_{PROX}'</p> <p>b. <i>n-punom-one-nnu-l</i>
1-place_{TI}-N-1PL-IN.PL
'we_{EXCL} place <u>them</u>_{IN}'</p> |
|--|--|

In (13) we have an animate patient and in (14) an inanimate patient, and the contrast between the (a) and (b) examples demonstrates that C agreement covaries with the number of the patient.

This isn't just C generally agreeing with the lowest clausemate argument, as in 3>SAP configurations, C agrees with the agent:

- | | |
|---|---|
| <p>(15) a. <i>n-kinoluw-ok-u-n-Ø</i>
1-praise_{TA}-INV-1PL-PROX.SG
'<u>she</u>_{PROX} praises us_{EXCL}'</p> <p>(16) a. <i>n-kikehl-ok-u-ne-n-Ø</i>
1-heal_{TA}-INV-N-1PL-IN.SG
'<u>it</u> heals us_{EXCL}'</p> | <p>b. <i>n-kinoluw-ok-u-nnu-k</i>
1-praise_{TA}-INV-1PL-PROX.PL
'<u>they</u>_{PROX} praise us_{EXCL}'</p> <p>b. <i>n-kikehl-ok-u-ne-nnu-l</i>
1-heal_{TA}-INV-N-1PL-IN.PL
'<u>they</u>_{IN} heal us_{EXCL}'</p> |
|---|---|

Recall that, despite the inverse morphology, there is no syntactic inversion in these configurations: the SAP patient does not A-move over the agent, and the third person agent remains the highest argument in the clause. Thus, C agrees with the *highest* argument here, rather than the lowest.

C agreement therefore displays an omnivorous third person pattern, as evidenced by its behavior in sentences with only one third person argument. I will assume this conclusion in the rest of this paper, analyzing the probe in C as a dedicated third person probe [u3] (whose exact specification will be refined later). See Grishin (2023) for further justification of this conclusion in other Algonquian languages, and see also Nevins (2007) on the existence of third person features.

3.2 C agreement prefers lower third persons

What happens when there are multiple potential third person goals for C to target? Standard assumptions about the locality of agreement would lead us to predict that the highest matching goal should be the one that C agrees with, as it would be the closest to C when C is first merged. In fact, this is how C agreement works in several Algonquian languages, like Blackfoot (Plains Algonquian) and Plains Cree (Central Algonquian)—C agrees with the highest third person argument (Grishin 2023). However, in Passamaquoddy, C actually agrees with the *lower* third person.

In the following 3>3 direct examples, we see the features of the patient reflected on C:

- | | |
|---|---|
| <p>(17) a. 'kinoluw-a-wa-l
3-praise_{TA}-3OBJ-PL-OBV.SG
'they_{PROX} praise <u>her</u>_{OBV}'</p> | <p>b. 'kinoluw-a-wa-l
3-praise_{TA}-3OBJ-PL-OBV.PL
'they_{PROX} praise <u>them</u>_{OBV}'</p> |
| <p>(18) a. 'punom-oni-ya-Ø
3-place_{TI}-N-PL-IN.SG
'they place <u>it</u>'</p> | <p>b. 'punom-oni-ya-l
3-place_{TI}-N-PL-IN.PL
'they place <u>them</u>_{IN}'</p> |

Since in the 3>3 direct the agent remains above the patient, in these examples we can note that C skips over the higher argument in preference for indexing the lower argument.

Conversely, in the 3>3 inverse, the features of the agent are reflected on C:

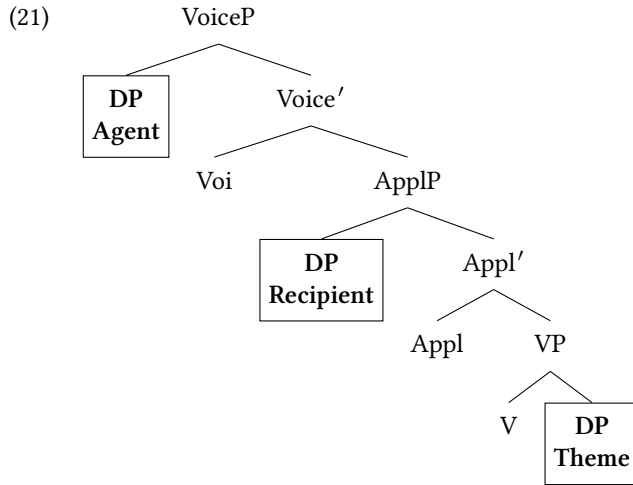
- | | |
|---|--|
| <p>(19) a. 'kinoluw-oku-wa-l
3-praise_{TA}-INV-PL-OBV.SG
'<u>she</u>_{OBV} praises them_{PROX}'</p> | <p>b. 'kinoluw-oku-wa-l
3-praise_{TA}-INV-PL-OBV.PL
'<u>they</u>_{OBV} praise them_{PROX}'</p> |
| <p>(20) a. 'kikehl-oku-ni-ya-Ø
3-heal_{TA}-INV-N-PL-IN.SG
'<u>it</u> heals them'</p> | <p>b. 'kikehl-oku-ni-ya-l
3-heal_{TA}-INV-N-PL-IN.PL
'<u>they</u>_{IN} heal them'</p> |

Again, this is lowest preference: as we've seen, in the 3>3 inverse the patient A-moves over the agent, rendering it closer to C. Accordingly, C skips over the patient to index the features of the (now) lower agent. The agreement pattern in the 3>3 inverse thus illustrates one of the core puzzles by C agreement in Passamaquoddy: it displays lowest-preference *after A-movement*.

3.3 Ditransitives: confirming the generalization

What if we have three third person arguments in the clause? Given lowest-preference, we would expect the lowest third person argument to control C agreement—and that is indeed what we find. C always indexes the features of the theme of a ditransitive.

Bruening (2001) shows that Passamaquoddy ditransitives have the following structure, with the recipient c-commanding the theme (with his *v* relabeled to Voice; I also don't represent the structure above VoiceP):



The core data he presents to motivate these c-command relationships involves variable binding; for instance, the recipient can bind variables in the theme, but not vice versa:

- (22) a. $[_R \text{ Psi=te } wen] \text{ } n\text{-kisi= messunom-uw-a-n } [_T \text{ oqiton kisi-ht-aq }]$.
 all=EMPH who 1-PFV= show_{TI}-APPL-3OBJ-N canoe PFV-make_{TI}-3CJ
 ‘I showed everyone_i the canoe he_i built.’ (Bruening 2001:135)
- b. * $N\text{-kisi= messunom-uw-a-n-ol } [_T \text{ psi=te oqitonu-l }] [_R \text{ kisi-ht-aq-il }]$.
 1-PFV= show_{TI}-APPL-3OBJ-N-IN.PL all=EMPH canoe-IN.PL PFV-make_{TI}-3CJ-IN.PL
 Intended: ‘I showed every canoe_i to the one who made it_i.’ (Bruening 2001:135)

In (22a), we see that the recipient *psi-te wen* ‘everyone’ is able to bind into a relative clause *kisihtaq* ‘that he built’ which modifies the theme *oqiton* ‘canoe’. However, the reverse is not possible (22b), even with the theme linearly preceding the recipient. Thus, we can conclude that the recipient underlyingly c-commands the theme, and the theme never A-moves over the recipient.

Additionally, the direct-inverse contrast only involves the agent and recipient, the highest two arguments in the clause. That is, if the agent outranks the recipient, we get a direct agreement pattern, and if the recipient outranks the agent, we get an inverse agreement pattern:

- (23) a. *nt-oliht-uw-a-ne-n* 1>3, direct b. *nt-oliht-a-ku-ne-n*¹³ 3>1, inverse
 1-make_{TI}-APPL-3OBJ-N-1PL 1-make_{TI}-APPL-INV-N-1PL
 ‘we_{EXCL} make it for them’ ‘they make it for us_{EXCL}’

In (23a) the agent outranks the recipient, and we get the direct agreement pattern, with Voice (bolded) agreeing with the goal, and in (23b) the recipient outranks the agent, and we get the inverse agreement pattern, with Voice featuring the inverse marker. And similarly, the syntactic inversion found in the 3>3 inverse is also found between the agent and recipient in ditransitives—see Bruening (2001) for evidence to this effect. The theme never gets touched in any of the morphosyntactic operations associated with Voice—this is likely a locality effect, as the recipient is more local to Voice than the theme, given the structure in (21).¹⁴

¹³The applicative marker *-uw* has an allomorph *-a* immediately preceding a small set of morphemes, like the inverse theme sign *-(o)ku* and the reflexive suffix *-(o)si*, among others.

¹⁴Probably related to this is the fact that themes of ditransitives in Passamaquoddy (and across Algonquian in general) can only be third person—in other words, Passamaquoddy features the Strong PCC (Rhodes 1990, Bruening 2001).

Thus, no matter whether we have direct or inverse, the lowest argument will always be the theme, and the theme will always be third person—so C should always agree with the theme in every ditransitive. And this is exactly what we get, as the following examples demonstrate:

- (24) a. *'t-oliht-uw-a-ni-ya-l*
 3-make_{TI}-APPL-3OBJ-N-PL-OBV.SG
 'they_{PROX} make it_{OBV} for her/them_{OBV}'
- b. *'t-oliht-uw-a-ni-ya-l*
 3-make_{TI}-APPL-3OBJ-N-PL-OBV.PL
 'they_{PROX} make them_{OBV} for her/them_{OBV}'
- (25) a. *'t-oliht-a-ku-ni-ya-l*
 3-make_{TI}-APPL-INV-N-PL-OBV.SG
 'she/they_{OBV} make it_{OBV} for them_{PROX}'
- b. *'t-oliht-a-ku-ni-ya-l*
 3-make_{TI}-APPL-INV-N-PL-OBV.PL
 'she/they_{OBV} make them_{OBV} for them_{PROX}'

In these examples, all three arguments of the verb *'tolihtuwan* 'make something for someone' are third person—thus, all three arguments are potential controllers of C agreement.¹⁵ In (24) we have direct verb forms, with a proximate agent and obviative recipient, and in (25) we have inverse verb forms, with an obviative agent and proximate recipient. In each case, the proximate argument is plural, as indicated by third person plural agreement *'t-...-ya* in Infl, and the higher obviative argument (agent or recipient) is not marked for number on the verb. The contrast between singular themes in the (a) examples and plural themes in the (b) examples demonstrates that C agreement is controlled by the theme—so C skips over both agent and recipient to agree with the theme.

To summarize: we've seen that Passamaquoddy C specifically searches for third person arguments (i.e. is an omnivorous third person marker), and when there are multiple third person arguments in the clause, it indexes the features of the lowest one, crucially after the step of A movement found in the 3>3 inverse—the patient of a direct monotransitive, the agent of an inverse monotransitive, and the theme of a ditransitive. With the empirical picture now in place, let's now turn to the main theoretical question of this paper: how to best capture the lowest-preference of Passamaquoddy C. First we'll see how existing approaches fail to capture this data, and then turn to the positive proposal: Expone Outermost.

4 Previous accounts of lowest preference

Lowest preference is not a new phenomenon: there has been a rich literature exploring various kinds of lowest preference in different kinds of agreement systems, as it poses an interesting challenge to probe-goal theories of agreement (e.g. Chomsky 2000, 2001, a.o.). These theories bake-in the principle of *locality*: all else being equal, a probe will agree with the *closest* accessible matching goal. Thus, in the Passamaquoddy case, we don't *a priori* expect C to be able to skip over both agent and recipient in preference for indexing the theme. This locality problem is the core puzzle of lowest-preference.

There are several analyses of lowest-preference that already exist in the literature. We can broadly identify four kinds:

1. **Case-discrimination + ergative-absolutive case** (Bobaljik 2008, Preminger 2014): the relevant probe is specified to only be able to agree with absolutive case-marked nominals, and will thus skip over ergative subjects in preference for absolutive objects.
2. **Low probe + Cyclic Expansion** (Béjar 2003, Rezac 2003, Béjar and Rezac 2009): the probe sits in between two potential goals, and first probes for the lowest goal, before reprojecting and probing for the higher goal if necessary.
3. **Syntactic inversion** (Myler 2017, Colley 2018): the probe sits above both goals, but the lower goal moves over the higher one, thus restoring locality.

¹⁵ Additionally, they are all animate—one might wonder how one could "make" something animate, but grammatical animacy doesn't completely track notional animacy (see Dahlstrom 1995, Goddard 2002, Quinn 2019 for discussion)—there are animates like *akom* 'snowshoe', *sukolopan* 'cake', *walot* 'bowl, plate', and so on.

4. **Activity Condition** (Oxford 2014, Hammerly 2020, Xu 2021a): the higher goal was already agreed-with by another probe, and is thus “deactivated”—the lowest-preferring probe now cannot interact with the higher goal, and must search down lower.

As is evident, these different analyses make various kinds of morphosyntactic predictions. In this section, I’ll demonstrate for Passamaquoddy that we can falsify predictions of all four of these extant analytical routes to lowest-preference:

1. Contra case-discrimination + ergative-absolutive case: there is no clear evidence for either morphological or syntactic ergativity across Algonquian, and the indexed argument isn’t tied to any particular syntactic role—it can be the subject, direct object, indirect object: whatever is the lowest third person argument.
2. Contra low probe + Cyclic Expansion: we can show that C agreement really is high, in the CP domain, above all clausemate arguments.
3. Contra syntactic inversion: C agreement indexes the lowest accessible DP *after* A movement; thus, if the patient has A moved over the subject (as in the third person inverse), C will index the *agent*.
4. Contra Activity Condition: we can show that other probes do *not* deactivate goals, as goals that have already been agreed-with can be subject to later rounds of Agree (notably in various cross-clausal agreement phenomena; Bruening 2001, Grishin 2022), and we can show that goals that can’t have been deactivated can still be skipped over in ditransitives.

4.1 Against case discrimination

Lowest-preference looks a lot like ergative alignment in agreement: agreeing with the subject of an intransitive and the patient of a transitive. Many languages have ergative agreement patterns, and there are a host of analytic options available for these kinds of agreement systems in the literature. Maybe the right path forward for Passamaquoddy C-agreement is to pursue this parallel?

One influential analysis of ergatively-aligned agreement that is fundamentally distinct in character from the other analyses considered in this section is case-discrimination: the idea that probes can be specified to agree only with certain cases, usually constrained by a hierarchy of least marked to most marked (Bobaljik 2008, Preminger 2014, a.o.). Thus, we could specify Passamaquoddy C to only agree with absolutes, and set up a (covert) dependent case system (Marantz 1991, Baker 2015, a.m.o.) that assigns the lowest argument absolutive case, the highest argument ergative, and the recipient of a ditransitive dative. In this way, we could get C to skip over the higher arguments, which bear more marked cases (ergative and dative), in order to agree with the absolutive (i.e. the lowest argument).

One immediate discomfort with this case-based analysis is that Passamaquoddy does not have overt grammatical case marking of any sort—nor does any other Algonquian language, for that matter.¹⁶ Nor does any Algonquian language show properties of syntactic ergativity, like ergative extraction restrictions. However, it’s not completely inconceivable that there could be covert dependent case, perhaps tied to nominal licensing (e.g. Fong 2021 and Branen 2022a). So, for the purposes of argument, let’s grant the possibility of null ergatively-aligned dependent case in Passamaquoddy.

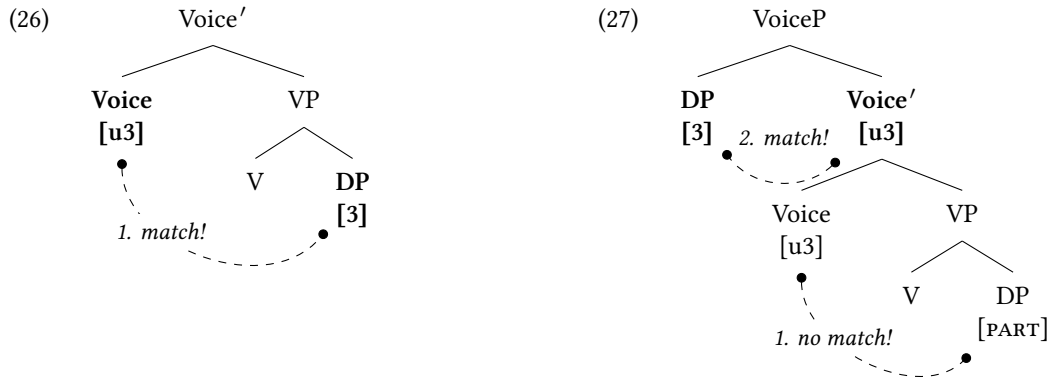
The real issue with the case discrimination account is the fact that C agreement is not linked to syntactic role or position, as C agreement is omnivorous. The sticking point is 3>SAP configurations, which, as discussed above, do not involve syntactic inversion (despite the presence of inverse morphology): the SAP patient remains below the third person agent. In these configurations, the dependent case analysis would assign the higher argument—the third person agent—ergative case, which should render it invisible to C.

¹⁶Algonquian languages, including Passamaquoddy, do have a locative morpheme that can be reconstructed as **-enki* in Proto-Algonquian (its Passamaquoddy reflex is *-ok*), and Mi’gmaq (Eastern Algonquian) has developed an innovative possessive suffix *-ewei* (McClay 2012, Hamilton 2015). However, no Algonquian language marks any kind of core grammatical case, e.g. nominative, accusative, ergative, absolutive, etc.

However, in 3>SAP configurations, C agrees with the third person agent, contrary to the predictions of the dependent case + case discrimination account. Thus, case discrimination is not a viable path forward for Passamaquoddy lowest-preference.

4.2 Against low probe

A classic analysis of lowest-preference is to put the probe low, so that it interacts first with the lowest argument, before potentially reprojecting to interact with the specifier of the probe (Béjar 2003, Rezac 2003, Béjar and Rezac 2009). For the case of a Passamaquoddy direct monotransitive, this would look as follows for a third person patient (26) and a non-third-person patient (27):



If the patient is third person (26), then Voice will simply probe down and copy its features. If the patient is not third person (27), then Voice will be forced to reproject the probe and search its specifier—and if the agent is third person, it will value the probe. As we’ve seen, this is exactly the behavior of direct monotransitives.

Even if this can be made to work in theory (some difficulties that would need to be worked out include ditransitives and the inverse), there’s a bigger, more fundamental issue: C agreement really is high. I provide two arguments to this effect. The first is a simple Mirror Principle argument (Baker 1985, a.m.o.), which is the observation that C agreement sits outside of the tense and evidential markers: the preterite (past tense) suffix *-(o)pon(i)* and the dubitative preterit (some kind of indirect evidential) suffix *-(o)sopon(i)*.

- | | |
|--|---|
| <p>(28) a. <i>n- conehl -a -nu -poni -k</i>
 1- stop_{TA} -3OBJ -1PL -<u>PRET</u> -PROX.PL
 ‘we stopped them’</p> | <p>b. <i>n- conehl -a -nu -soponi -k</i>
 1- stop_{TA} -3OBJ -1PL -<u>DUB</u> -PROX.PL
 ‘we apparently stopped them’</p> |
|--|---|

Furthermore, C agreement is several slots outside of what is usually taken to occupy Voice, the theme sign, which in (28) is the object agreement marker *-a* ‘3OBJ’.

The second argument is that C agreement is systematically absent in syntactic contexts that lack a CP. This is completely unexpected if C agreement were actually much lower. Complements to the verbs ‘*pawatomon* ‘want’, ‘*kisehtun* ‘make’, and ‘*kiseltomon* ‘let’ are one such context: the complements of these predicates feature verbs in the inflectional paradigm known as the SUBORDINATIVE MODE, which systematically lacks C agreement entirely:

(29) Subordinative verbs

- a. *Roger n-kiseht-a-ku-ne-n* [*n-uskicinu-westuwam-a-ne-n* *wasis-ok*].
 Roger 1-make_{TI}-APPL-INV-N-1PL 1-Indian-speak.to_{TA}-3OBJ-N-1PL child-PROX.PL
 ‘Roger made us speak to the kids in Passamaquoddy.’ (Grishin 2022)

- b. Roger *'puwatom-uw-a-n* [*Asawis-ol* *'tolintuwew-a-n* *'-temis-ol*].
 Roger 3-want_{TI}-APPL-3OBJ-N John-OBV.SG 3-sing.to_{TA}-3OBJ-N 3-dog-OBV.SG
'Roger_{PROX} wants John_{OBV} to sing to his dog_{OBV}.' (Grishin 2022)

(30) Independent verbs

- a. *Komac k-menakaci= macekon-a-wa-k* *wasis-ok.*
 very 2-slow= raise_{TA}-3OBJ-2PL-PROX.PL child-PROX.PL
'You raise children very slowly.' <https://pmportal.org/dictionary/macekonal>
- b. *'Tucitaham-a-l* *'-temis-ol* *tahalu nisuwihtic-il.*
 3-like.so.much_{TA}-3OBJ-OBV.SG 3-dog-OBV.SG like spouse-OBV.SG
'He likes his dog as much as he likes his wife.'
<https://pmportal.org/dictionary/tucitahamal>

As can be seen by comparing the embedded subordinative verbs *nuskicinuwestuwamanen* 'we speak to her/them in Passamaquoddy' and *'tolintuwewan* 'he sings to her/them' in (29) to the independent verbs *kmenakaci-macekonawak* 'y'all raise them slowly' and *'tucitahamal* 'he likes him this much' in (30), the subordinative verbs lack the C agreement slot that the independent verbs have, which in these cases would be indexing the third person object. Here, I make two syntactic arguments that subordinative clauses lack a CP layer.

The first is that *wh* movement to the edge of a subordinative clause is impossible. To demonstrate this, I must first introduce a *wh*-scope marking construction in Passamaquoddy. In Passamaquoddy, you can form a long-distance *wh* question by moving the *wh* item to embedded Spec,CP, and then putting *keq(sey)* 'what' in the matrix clause to mark the matrix scope of the question:

- (31) a. *Keqsey cel elitahasi-t* [*weni-l* *nemiy-a-c-il*]?
 what even IC.think_{AI}-3CJ who-OBV.SG IC.see_{TA}-3OBJ-3CJ-OBV.SG
'Who did he think he saw?' (Bruening 2004:230)
- b. *Keq kt-itom* [*tan tuwihput li-kon-Ø*]?
 what 2-say_{AI} how table thus-look_{II}-3
'What did you say this table looks like?' (Bruening 2004:240)

Bruening 2001 (2001, 2004, 2006) argues that this construction involves two distinct \bar{A} dependencies, one in the embedded clause and one in the matrix clause:

- (32) [CP *keq(sey)*_i ... *t*_i [CP *wh*_j ... *t*_j]]

Crucially, there's \bar{A} movement in the embedded clause to Spec,CP, which has to stop there.

The relevant observation Bruening makes, but does not analyze, is that this is impossible out of subordinative complements:

- (33) a. **Keqsey kiseltom-uw-a-t* *'-tus-ol* [_{SUB} *weni-l* *Ø-nomiy-a-n*]?
 what IC.permit_{TI}-APPL-3OBJ-3CJ 3-daughter-OBV.SG who-OBV.SG 3-see_{TA}-3OBJ-N
'Who does he permit his daughter to see?' (Bruening 2001:251)
- b. **Keq pawatom-a-s-k* *'Tolitoli* [_{SUB} *tama kt-oli=* *nomiy-a-n*]?
 what IC.want_{TI}-APPL-2OBJ-3CJ Tolitoli where 2-there= see_{TA}-3OBJ-N
'Where does Tolitoli want you to meet her?' (Bruening 2001:251)

If Bruening is right that this construction involves the lower *wh* item moving and stopping at embedded Spec,CP, then the ungrammaticality of subordinative *wh*-scope marking is immediately predicted if subordinative clauses lack a CP.

The second argument involves comparing the locality properties of two different long distance agreement (LDA) constructions in Passamaquoddy, one which I'll call CP LDA and the other subordinative LDA. In CP LDA, found under verbs like 'kosiciyal' 'know' and 'wewitahamal' 'remember' which embed CP-sized complements (which can host C agreement), the matrix verb can agree with any argument in the embedded clause (Bruening 2001, LeSourd 2019). In other words, we find a FREE LDA pattern in Fry and Hamilton's (2016) typology:

- (34) a. *N-wewitaham-a-k* [IND *ma=te* Ø-*nomiy-a-wi-k* *mawsuwinu-wok*
 1-remember_{TA}-3OBJ-PROX.PL NEG=EMPH 3-see_{TA}-3OBJ-NEG-PROX.PL person-PROX.PL
Kehlis-k].
 Calais-LOC
 'I remember that I didn't see people in Calais.' (Bruening 2001:259)
- b. *N-kosiciy-a-k* [CJ *eli Piyel litahasi-t* [CJ *eli kis-ankum-i-hti-t* *nikt*
 1-know_{TA}-3OBJ-PROX.PL C Peter think_{AI}-3CJ C PFV-sell_{TA}-1OBJ-3PL-3CJ those.PROX.PL
ehpic-ik *posonuti-yil*]].
 woman-PROX.PL basket-IN.PL
 'I know that Peter thinks that those women sold me the baskets.' (LeSourd 2019:360)

In (34), *nwewitahamak* 'I remember (of them)' agrees with the embedded object *mawsuwinuwok* 'people', and in (34b), *nkosiciyak* 'I know (of them)' agrees with the (doubly) embedded subject *nikt ehpicik* 'those women', across two clause boundaries. Bruening (2001), in line with similar proposals by Polinsky and Potsdam (2001) for Tsez and Branigan and MacKenzie (2002) for Innu, argues that this free LDA pattern is derived by (possibly covert) \bar{A} movement to Spec,CP in the embedded clause.

Subordinative LDA is found under complements of verbs like 'pawatomuwan' 'want', 'kisehtuwan' 'make', and 'kiseltomuwan' 'let', and it has a strikingly different locality profile—you can only get LDA with the highest argument in the embedded clause (Grishin 2022):

- (35) a. *Sapet n-pawatom-a-ku-n* [SUB 'kinolu-l-on].
 Elizabeth 1-want-APPL-INV-N 2-praise-2OBJ-N
 'Elizabeth wants me to praise you.'
- b. **Sapet k-puwatom-a-ku-n* [SUB 'kinolu-l-on].
 Elizabeth 2-want-APPL-INV-N 2-praise-2OBJ-N
 Intended: 'Elizabeth wants me to praise you.' (Grishin 2022)

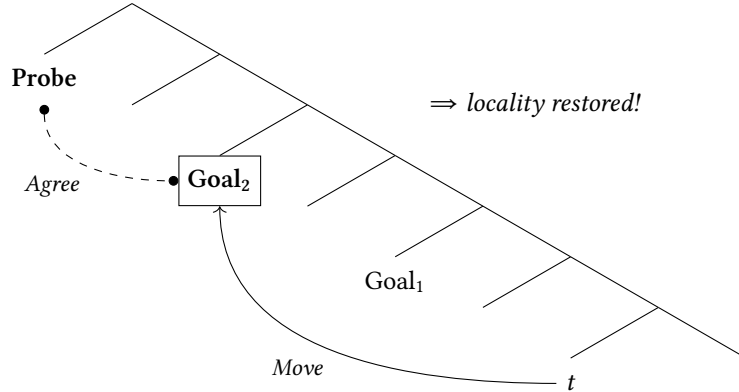
Thus, it's only possible to agree with the embedded subject in (35), and not the embedded object. This contrast in the locality profile of CP and subordinative LDA falls out naturally from the analysis of subordinative clauses as structurally reduced: subordinative clauses lack a CP layer to host \bar{A} movement, and thus we cannot get \bar{A} movement feeding the free LDA pattern.

On the basis of this syntactic evidence, we can conclude that subordinative clauses lack CPs. Given that, the systematic absence of C agreement from subordinative verbs falls out entirely naturally if C agreement really is in C. If C agreement were lower, as the low probe analysis would require it to be, this absence would remain a mystery. Therefore, I conclude that the low probe analysis is also not a viable path forward to analyze Passamaquoddy lowest-preference.

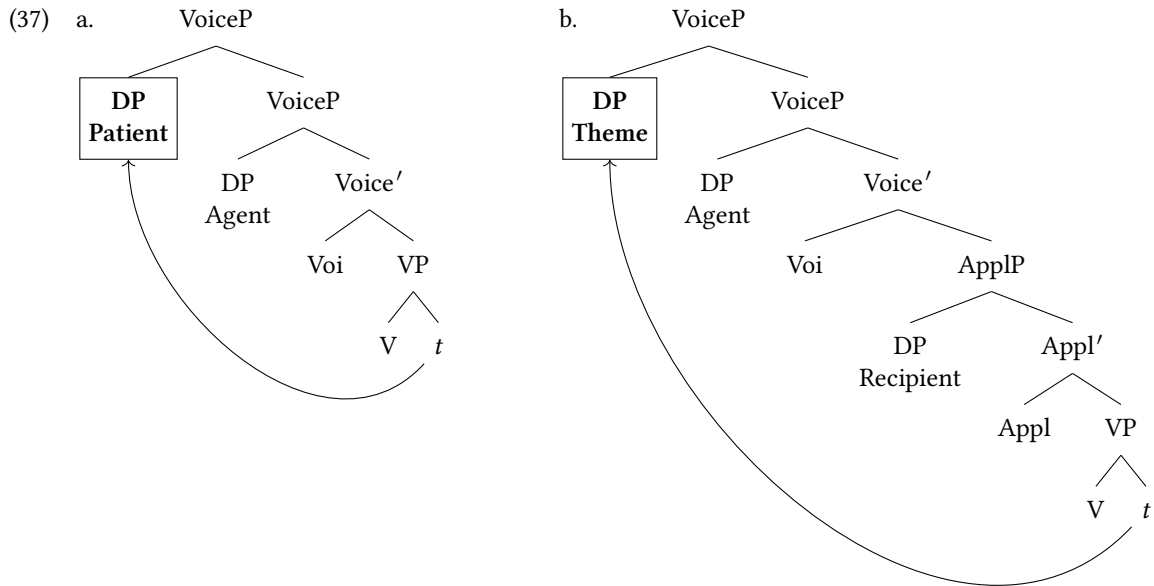
4.3 Against syntactic inversion

Let's try something else. An approach sometimes presented as an alternative to the low probe account is one involving syntactic inversion. The core idea behind the syntactic inversion analysis of lowest-preference is simple: there is no lowest-preference. Rather, the lower goal has actually moved over the higher goal, making it now the new highest goal (Myler 2017, Colley 2018):

(36)



How would a syntactic inversion analysis fare against Passamaquoddy? We would need to ensure that the lowest argument ends up the most local to C. Let's first consider the case of direct transitives and ditransitives first—we need the lowest argument to move over the agent, minimally as follows:



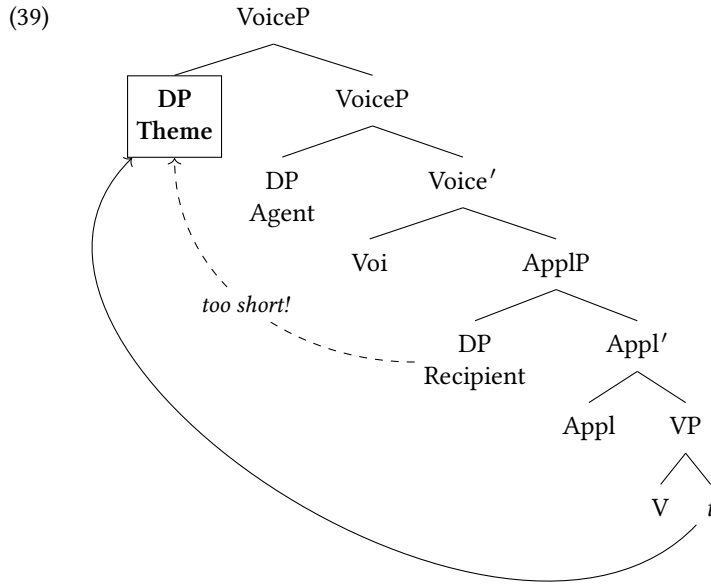
We can set up this state of affairs with two assumptions: (i) there is a probe on Voice that attracts a DP to its specifier without tucking-in (contra Richards 1997, 1999); and (ii) Spec-to-Spec Antilocality (Erlewine 2016, Deal 2019). In the basic direct monotransitive case, Voice simply probes down, finds the patient, and moves it to the highest specifier. In the ditransitive case, we can appeal to Spec-to-Spec Antilocality in order to prevent Voice from moving the recipient:

(38) **Spec-to-Spec Antilocality:**

Movement of a phrase from Spec,XP must cross a maximal projection other than XP.

(Deal 2019:408)

With Spec-to-Spec Antilocality in place, recipients (or more generally, applied objects) cannot be attracted to the specifier of Voice because they wouldn't cross any maximal projection other than ApplP. Thus, the most local argument that could move to Voice would be the theme:



From this configuration, C can probe down for the most local argument, agreeing with the patient of a monotransitive or the theme of a ditransitive. One important thing to note about this account is that this movement must be \bar{A} movement, as it cannot feed variable binding—recall that Bruening (2001, 2005) shows that patients of direct transitives and ditransitive themes occupy the lowest A position and cannot bind into higher arguments.

4.3.1 Lowest *after* inversion

However, the core problem with the syntactic inversion account of Passamaquoddy C-agreement appears when we consider how we could account for the behavior of the 3>3 inverse. Recall that in the 3>3 inverse, the patient A-moves over the agent, and C indexes the features of the agent. Thus, the syntactic inversion account would somehow need to get the agent to \bar{A} -move back over the inverted patient, resulting in a kind of “leapfrogging” derivation, in order to render the agent most local to C (again).¹⁷ Our probe in Voice can’t do this, as the agent is not in the c-command domain of Voice. We would thus need to put the probe responsible for raising the lowest argument *higher* than Voice, contrary to what was suggested above.

But placing this probe higher than Voice renders us unable to account for the behavior of ditransitives, as we can no longer make use of Spec-to-Spec Antilocality. If the “inversion” probe was higher than Voice, then it would need to somehow skip over both the agent and recipient in a ditransitive to move the theme, and Spec-to-Spec Antilocality cannot derive that for us. At this point, we could consider an alternative that appeals to case-sensitivity instead of antilocality, and endow both agents as well as recipients with some kind of marked case, in contrast to themes. But this just brings us back to the case-sensitivity analysis of lowest-preference, which we’ve already seen makes poor predictions about 3>SAP configurations.

Thus, the syntactic inversion account of lowest-preference forces us into an analytical impasse where we cannot square together the conflicting empirical requirements of ditransitives and 3>3 inverse monotransitives. The core empirical fact that problematizes this analysis is that C-agreement demonstrably tracks the lowest argument *after* inversion (i.e. after the step of A movement found in the 3>3 inverse); thus, syntactic inversion is not the path forward for Passamaquoddy lowest-preference.

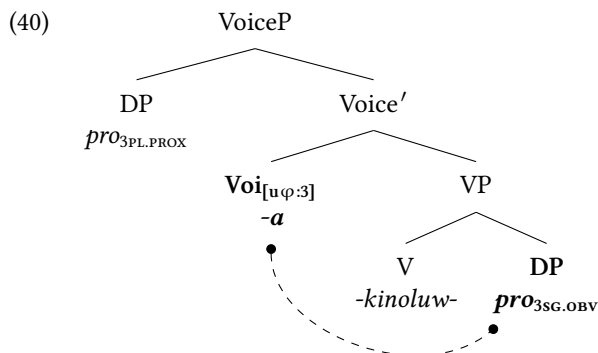
¹⁷Hammerly (2021) in fact proposes an analysis that is strikingly similar to this in order to account for some word order facts in Border Lakes Ojibwe. However, his analysis won’t work for Passamaquoddy because it crucially relies on the Activity Condition in a way that makes incorrect predictions—see Section 4.4.

4.4 Against the Activity Condition

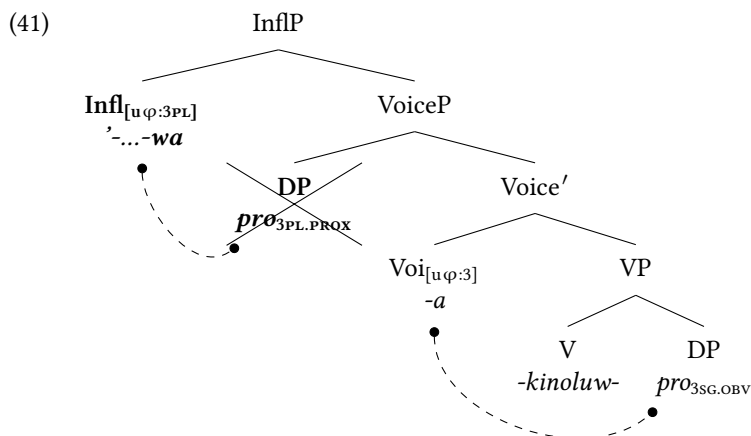
Oxford (2014), Hammerly (2020), and Xu (2021a) propose to make use of the Activity Condition (Chomsky 2000, 2001) in order to derive the behavior of C agreement in various Algonquian languages. The guiding intuition is that lower probes have already agreed with the higher arguments, “deactivating” them for later instances of agreement, and so all that’s left for C to agree with is the lowest argument.

The way this is implemented is first to somehow restrict deactivation to just Infl: only Infl has the power to deactivate goals for future instances of agreement. This is either done by microparametrizing the Activity Condition (it’s a property of specific heads, rather than a property of a language or a general principle), as Oxford (2014) proposes, or by modifying the Activity Condition to be sensitive to the morphological realization of probes: a probe P only deactivates a goal G if P expresses all the φ features of G, as Hammerly (2020) proposes. The reason for limiting deactivating power to Infl is that C and Voice can clearly agree with the same goal (e.g. the object of a direct monotransitive), so Voice cannot be endowed with deactivating power.

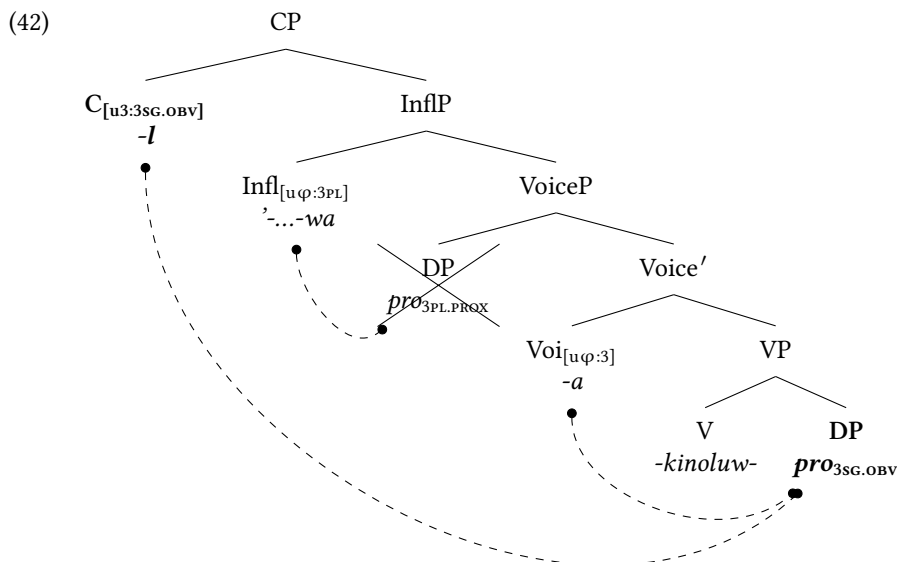
Let’s illustrate the idea with the verb form *’kinoluwawal* ‘they_{PROX} praise her_{OBV}’. First, we build up VoiceP, and Voice probes down and copies the features from the patient, resulting in the spellout of the third person theme sign *-a*, and no deactivation of the patient (either because Voice is microparametrized to not deactivate goals, or because Voice fails to spell out all the features of the goal):



Then, we build up InflP, and Infl probes down for the most local goal, copying the features from the agent and resulting in the spellout of the third person (animate proximate) plural marker *’-...-wa*. Infl here deactivates the goal, either because it’s microparametrized to do so or because Infl spells out all the features of the goal. I remain agnostic here as to whether the agent then moves to Spec,InflP.



Finally, we merge C, which probes down for a third person goal. It can't agree with the most local goal, the agent, as the agent has been deactivated. Thus, it must probe further, agreeing with the patient, resulting in the spellout of the obviative singular marker *-l*.



This system also naturally generalizes to 3>3 inverse monotransitives: as the patient A moves over the agent, the patient is now more local to Infl, and Infl agrees with the patient, deactivating it. C is thus forced to agree with the agent, as desired.

However, there are two serious problems with the Activity Condition analysis of C agreement in Pas-samaquoddy: it both undergenerates and overgenerates deactivation. It undergenerates deactivation in ditransitives, as it predicts that the recipient of a ditransitive shouldn't be deactivated, yet C can still skip over it to agree with the theme. It overgenerates deactivation in long-distance agreement (LDA), as probes in a higher clause can agree with arguments in a lower clause that should have been already deactivated by embedded Infl.

4.4.1 Undergenerating deactivation in ditransitives

In direct ditransitives, Voice, Infl, and C all agree with different arguments: Voice agrees with the recipient, Infl agrees with the agent, and C agrees with the theme:

- (43) 't- oliht -uw -a -ni -ya -l
 3- make_{TI} -APPL -3OBJ -N -PL -OBV.SG
 Infl Voice Infl C
 'they_{PROX} make it_{OBV} for her/them_{OBV}'

Here, Voice indexes the third person recipient (unspecified for number) with the third person theme sign *-a*, Infl indexes the third person plural agent with the marker *'t-...-ya*, and C indexes the theme with the obviative singular suffix *-l*.

The problem is this: as discussed above, we need to specify Voice as a *non*-deactivating probe. Thus, Voice doesn't deactivate the recipient. Infl does deactivate the agent, so when it comes time for C to probe, it should skip over the deactivated agent and agree with the undeactivated recipient. But this is not what we get—what actually happens is that C skips over not only the agent *but also the recipient*, agreeing with the theme instead. Thus, the Activity Condition analysis undergenerates deactivation of goals of ditransitives.

4.4.2 Overgenerating deactivation in LDA

As discussed briefly above, Passamaquoddy, like many (if not all) Algonquian languages, features LDA: agreement that crosses clause boundaries. In Passamaquoddy, there are two kinds of LDA we see: free LDA into the independent indicative and conjunct clause types (found under verbs like *'kosiciyal* 'know' and *'piluwitahamal* 'suspect'), which can occur with any argument in the embedded clause (Bruening 2001, LeSourd 2019), and restricted LDA into the subordinative clause type (found under verbs like *'pawatomon* 'want'), which can only occur with the argument in the highest A position in the embedded clause (Grishin 2022). In each case, the matrix verb can agree with the same argument that embedded Infl does, even though that argument should have been deactivated:

- (44) a. *N-piluwitaham-a-Ø* [_{IND} *Piyel* *'-kisi= komutonom-a-l weni-l*].
 1-suspect_{TA}-3OBJ-PROX.SG *Peter* 3-PFV= rob_{TA}-3OBJ-OBV.SG someone-OBV.SG
 'I suspect that *Peter* robbed someone.' (Bruening 2001:260)
- b. *'-Kosiciy-a-l* =yaq [_{CJ} *Ø-uhsimis-ol eli keka peciya-li-t*].
 3-know_{TA}-3OBJ-OBV.SG =REP *3-younger.sibling-OBV.SG* C almost come_{AI}-OBV-3CJ
 'She knew that *her brother* had almost arrived.' (Bruening 2001:258)
- c. *Roger 'pawa-tom-uw-a-n* [_{SUB} *Asawis-ol 't-olintu-li-n*].
 Roger 3-want-TI-APPL-3OBJ-N *John-OBV.SG* 3-sing_{AI}-OBV-N
 'Roger wants *John* to sing.' (Grishin 2022)

In (44a) we have LDA into an indicative clause: the matrix verb *'piluwitahamal* 'suspect' is inflected for a proximate singular third person object, agreeing with the embedded subject *Piyel* 'Peter'. However, *Piyel* has already been indexed by embedded Infl with the third person prefix *'-*. In (44b) we have LDA into a conjunct clause: the matrix verb *'kosiciyal* 'know' is inflected for an obviative singular third person object, agreeing with the embedded subject *uhsimisol* 'her brother'. Similarly, *uhsimisol* has already been indexed by embedded Infl with the obviative conjunct Infl suffix *-li*. In (44c) we have LDA into a subordinative clause: the matrix verb *'pawatomuwan* 'want' is inflected for a third person object, agreeing with the embedded subject *Asawisol* 'John'. Again, the embedded subject has already been indexed by embedded Infl with the third person obviative marker *'t...-li*. In each case, the Activity Condition analysis should predict that we cannot get LDA in these sentences, counter to fact—thus, the Activity Condition overgenerates deactivation in LDA.

While the Activity Condition account of C agreement works in the basic monotransitive cases, it faces serious challenges with under- and overgeneration of deactivation in more complex syntactic configurations. Thus, the Activity Condition also cannot be the right solution to the puzzle of Passamaquoddy C agreement.

5 Expone Outermost

So what to do? None of the existing solutions to lowest-preference in the literature—case-discrimination, a low probe, syntactic inversion, the Activity Condition—are up to the challenge of Passamaquoddy C agreement. We need a novel proposal.

The intuition I pursue here is a to build a parallel between Passamaquoddy lowest-preference and instances in other languages where a single probe agrees with multiple goals. The idea is to derive the following behavior: C agrees with/interacts with *all* the accessible arguments in its domain, but through some mechanism only ever spells out the features of the goal it has interacted with *last*. Thus, Passamaquoddy lowest-preference is in some sense a morphological illusion: there is no violation of locality in the syntax, as C agrees with *everything*, not just the lowest goal. Instead, there's some morphological principle that allows for spelling out only the newest, "outermost" features of a multiply-valued probe.¹⁸

¹⁸This differs from the way Bruening and Rackowski (2001) implement this intuition: they propose that successive Agree relations

This kind of behavior exists in the domain of multiple case assignment: in some languages, when a single nominal has received multiple cases throughout the derivation, only the last case assigned is expounded (Béjar and Massam 1999, Yoon 2004, Merchant 2006, Pesetsky 2013, Alboiu and Hill 2016, Levin 2017, Richards 2017). In addition to the Romanian case discussed in the introduction, we also see a similar phenomenon Niuean (hyper)raising, where nominals that are assigned ergative in an embedded finite clause can raise out into the matrix clause and get their ergative case “overwritten” with absolutive, both in raising to subject as well as raising to object structures (Seiter 1980, Massam 1985):

(45) Raising to subject

- a. *To maeke [ke lagomatai **he ekekafo** e tama ē].* No raising
 FUT possible SBJV help **ERG doctor** ABS child this
 ‘The doctor could help this child’.
- b. *To maeke **e ekekafo**_i [ke lagomatai t_i e tama ē].* Raising
 FUT possible **ABS doctor** SBJV help ABS child this
 ‘The doctor could help this child.’ Niuean (Seiter 1980:158)

(46) Raising to object

- a. *To nākai toka e au [ke kai **he pusi** e ika].* No raising
 FUT not let ERG 1SG SBJV eat **ERG cat** ABS fish
 ‘I won’t let the cat eat the fish’.
- b. *To nākai toka e au **e pusi**_i [ke kai t_i e ika].* Raising
 FUT not let ERG 1SG **ABS cat** SBJV eat ABS fish
 ‘I won’t let the cat eat the fish’. Niuean (Seiter 1980:196)

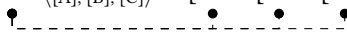
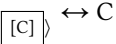
In the (a) examples, we have sentences without raising, and we can see that the embedded subject receives ergative case. When the embedded subject raises out, either to subject or object positions (both of which would receive absolutive case) as in the (b) examples, we can see that the embedded subject appears with *absolutive* case instead of ergative (see Seiter 1980 and Massam 1985 for arguments that this really does involve raising). Morphologically, this is entirely parallel to what I propose for Passamaquoddy C-agreement: the raised argument is multiply valued, just like C in Passamaquoddy, and we spell out only the features that were received last, whether they’re φ features or case features.

I implement this idea with a morphological rule of Exponen Outermost, following a suggestion by Emily Clem (p.c.) and Amy Rose Deal (p.c.).

(47) *Exponen Outermost*

On a multiply-valued head $H_{\langle [A], [B], \dots [Z] \rangle}$, exponen only the outermost feature bundle $[Z]$: $H_{[Z]}$.

The idea is that the distinct feature bundles on multiply-valued heads are crucially *ordered*, so that the morphology can identify which features were copied first/last, and heads can be microparametrically specified for how the morphology should deal with multiple valuation. Here, I just assume that Outermost is just one possible specification; other specifications are in principle imaginable.¹⁹ To illustrate Exponen Outermost, consider the sketch derivation below:

- (48) a. $\text{Probe}_{\langle [A], [B], [C] \rangle} \dots [A \dots [B \dots [C \dots]]]$ Multiple agreement

- b. $\text{Probe}_{\langle [A], [B], [C] \rangle} \leftrightarrow C$ Exponen Outermost


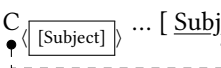
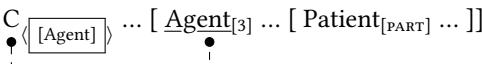

overwrite previously-copied features. While this implementation is compatible with the data I present here, I do not pursue it as there are cases crosslinguistically of multiple feature bundles on a single head all being spelled out, like in Nez Perce complementizer agreement (Deal 2015) or Korean case stacking (Levin 2017), among others.

¹⁹For instance, one might wonder whether “innermost” patterns exist in any natural language.

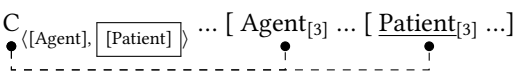
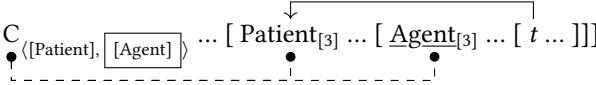
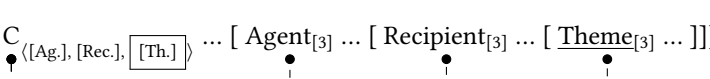
First, in the narrow syntax, the probe searches down and copies features from all matching, accessible goals (48a). Then, when it comes time to spell out the probe, *Expone Outermost* kicks in and results in the spellout of only the outermost features (48b).

For concreteness, I will treat Passamaquoddy C as an *INSATIABLE* probe—one that doesn’t stop probing and copying features after the first goal—in Deal’s (2015, 2021) Interaction-Satisfaction system for Agree. We can specify Passamaquoddy C as [INT:3, SAT:—], which gives us a probe that agrees with every third person goal in its domain, from closest to furthest. Then, with *Expone Outermost*, we realize the features from the furthest goal. I sketch some schematic derivations below, showing how analyzing C as an instatiable third person probe [INT:3, SAT:—] with *Expone Outermost* derives both the omnivorous third person agreement pattern and lowest-preference:

(49) Omnivorous third person

- a. C \langle [Subject] \rangle ... [Subject_[3] ...] Third person intransitive

- b. C \langle [Agent] \rangle ... [Agent_[3] ... [Patient_[PART] ...]] 3>SAP monotransitive

- c. C \langle [Patient] \rangle ... [Agent_[PART] ... [Patient_[3] ...]] SAP>3 monotransitive


(50) Lowest-preference

- a. C \langle [Agent], [Patient] \rangle ... [Agent_[3] ... [Patient_[3] ...]] 3>3 direct monotransitive

- b. C \langle [Patient], [Agent] \rangle ... [Patient_[3] ... [Agent_[3] ... [t ...]]] 3>3 inverse monotransitive

- c. C \langle [Ag.], [Rec.], [Th.] \rangle ... [Agent_[3] ... [Recipient_[3] ... [Theme_[3] ...]]] Ditransitive


I box the outermost feature bundle, which is the one that gets expounded, and underline the argument it comes from. In (49) I sketch the behavior of C agreement when there’s only one third person, demonstrating the omnivorous third person agreement pattern. In (50) I provide configurations with all third person arguments, showing how C always indexes the lowest third person. I omit the inverse ditransitive derivation, as the morphological outcome on C is exactly the same.

This exactly captures the empirical picture we’ve seen—C indexes only the features from the lowest third person DP in its domain—without falling into any of the failings of other accounts: we don’t need to stipulate any kind of covert case assignment (unlike the case discrimination and low probe analyses), we can keep C agreement high (unlike the low probe analysis), we don’t need to stipulate otherwise unmotivated movement steps (unlike the syntactic inversion analysis), and we don’t over- or underpredict deactivation of goals (unlike the Activity Condition analysis).

6 To Algonquian and beyond

So far I have focused my discussion on Passamaquoddy, but here I expand the picture to other Algonquian languages. We can identify four broad classes of C agreement behavior in Algonquian, as detailed by Oxford (2017b) and Xu (2020, 2021a), though this particular categorization is mine:²⁰

²⁰There is another parameter of variation which has to do with the agreement pattern in AI+O verbs (verbs with intransitive *v* that still take on object): in languages like Odawa (a variety of Ojibwe), C agrees with third person objects of AI+O verbs, but in other

1. HIGHEST: C agrees with the highest third person.

Languages: Arapaho, Blackfoot, Cree-Innu-Naskapi, Menominee, Meskwaki-Sauk-Kickapoo, Miami-Illinois

2. LOWEST: C agrees with the lowest third person...

- (A) ...full stop.

Languages: Cheyenne, Mi'gmaq, Passamaquoddy, Penobscot

- (B) ...but themes of ditransitives are invisible for agreement.

Languages: Ojibwe, Potawatomi, Shawnee

- (C) ...that is definite/specific. If all third persons are indefinite/nonspecific, C agrees with the highest argument.

Languages: Delaware, Mahican, Massachusetts, Western Abenaki, Proto-Algonquian

The first broad categorization we can make is between Highest and Lowest languages, which roughly splits the family in half. In Highest languages, discussed by Grishin (2023), C shows the most straightforward behavior we'd expect from a probe relativized to third person: agreement with the most local third person goal. Below, I illustrate with Plains Cree, a Lowest language:

- (51) Omnivorous third person

- a. *ni-wâpam-â-nân-Ø*
1-see_{TA}-3OBJ-1PL-**PROX.SG**
'we_{EXC} see her_{PROX}'

- b. *ni-wâpam-â-nân-ak*
1-see_{TA}-3OBJ-1PL-**PROX.PL**
'we_{EXC} see them_{PROX}'

Plains Cree (Wolfart 1973:41)

- (52) Highest-preference

- a. *wâpam-ê-w-Ø*
see_{TA}-3OBJ-3-**PROX.SG**
'she_{PROX} sees her/them_{OBV}'

- b. *wâpam-ê-w-ak*
see_{TA}-3OBJ-3-**PROX.PL**
'they_{PROX} see her/them_{OBV}'

Plains Cree (Wolfart 1973:41)

In (51), we see that C skips over a [PART] subject in preference for indexing the third person object—the same pattern we saw in Passamaquoddy—but in (52) we see that Plains Cree C prefers higher third persons over lower third persons, the reverse of the Passamaquoddy Lowest pattern. In an interaction-satisfaction model of agreement, we can simply specify Plains Cree C as hosting a probe [INT:3, SAT:3]. With that probe specification, C will only agree with one goal—the highest third person—and stop probing. There is no need to worry about how to spell out multiply-valued C, as C will never acquire multiple feature bundles.

In Lowest languages, like Passamaquoddy, C generally agrees with the lowest third person, modulo certain quirks in some languages. I've already presented an analysis of Lowest A languages, as exemplified by Passamaquoddy. In this section, I will show how to expand the analysis to Lowest B and Lowest C languages, as exemplified by Ojibwe and Delaware,²¹ arguing that Expone Outermost offers an insightful analysis of their agreement patterns once we work out a way to modulate which arguments end up in the accessibility domain of C, following an insight from Xu (2021a). Once that's in place, I broaden my sights even further, showing that we get similar Highest-Lowest behavior in other language families, focusing on

languages, like Oji-Cree (another variety of Ojibwe), C cannot agree with objects of AI+O verbs, instead agreeing with the subject (Xu 2020). I abstract away from this point of variation here.

²¹Of course, boundaries between distinct languages are never clear. Ojibwe is best thought of as a dialect continuum of several closely-related languages with varying levels of mutual intelligibility (see Valentine 1994 for detailed discussion of the dialectology of Ojibwe), and Delaware is composed of two distinct languages/dialects Unami and Munsee (see Goddard 1979 for discussion). I use the umbrella terms Ojibwe and Delaware here as various dialects of Ojibwe and Delaware do not relevantly differ in the behavior of C agreement (except for the case of AI+O verbs, which I set aside here).

Dargwa (a set of closely-related, variably mutually-intelligible Nakh-Dagestanian languages), and demonstrating that the analysis extends straightforwardly to these languages as well. The benefit of this analysis is that it puts all the variation on the specification of a single probe, rather than a conspiratorial constellation of multiple distinct morphosyntactic factors.

6.1 To Algonquian...

Ojibwe and Delaware behave exactly like Passamaquoddy in that (i) C agreement is an omnivorous third person probe and (ii) in 3>3 monotransitives C targets the lowest argument. I illustrate these facts below, with Southwestern Ojibwe (Nichols 1980) and Unami Delaware (Goddard 1979, 2021).

(53) Omnivorous third person

- a. *ni-waapam-aa-naan-ik*
 1-see_{TA}-3OBJ-1PL-**PROX.PL**
 ‘we_{EXCL} see them_{PROX}’ Southwestern Ojibwe (Nichols 1980:289)
- b. *nno-t-ama-wəná-nak*
nə-nōtəm-ā-w-ənān-ak
 1-guard_{TA}-3OBJ-W-1PL-**PROX.PL**
 ‘we_{EXCL} guard them_{PROX}’ Unami (Goddard 2021:64)

(54) Lowest-preference

- a. *o-waapam-aa-waa-n*
 3-see_{TA}-3OBJ-PL-**OBV**
 ‘they_{PROX} see her/them_{OBV}’ Southwestern Ojibwe (Nichols 1980:289)
- b. *wəno-t-əmawwá-ɔ(l)*
wə-nōtəm-ā-w-əwāw-a(l)
 3-guard_{TA}-3OBJ-W-PL-**OBV**
 ‘they_{PROX} guard her/them_{OBV}’ Unami (Goddard 2021:64)

In (53), C skips over the first person agent in preference for the third person patient, demonstrating the omnivorous third person agreement pattern. In (54), C skips over the proximate third person agent to agree with the obviative third person patient, demonstrating lowest-preference.²² I don’t provide a fuller paradigm here for reasons of space—I refer the interested reader to one of the many grammars of Ojibwe varieties,²³ and Goddard (1979, 2021) for Delaware.

However, Ojibwe and Delaware diverge in interesting ways from Passamaquoddy. In Ojibwe, themes of ditransitives *never* control agreement (Rhodes 1990)—instead, in ditransitives, C indexes the recipient of a direct ditransitive or the agent of an inverse ditransitive (i.e. whatever the second lowest third person argument is). Here I illustrate with Odawa:

(55) No agreement with themes in Ojibwe

- Ngii-biidmawaag* *mnikwewnan.*
Ni-gii=biid-amaw-aa-ag *minikwewin-an.*
 1-PST=bring-APPL-3OBJ-**PROX.PL** drink-IN.PL
 ‘I brought them_{PROX} the drinks.’ Odawa (Rhodes 2010:648)

²²Note that both Southwestern Ojibwe and Delaware have lost the Proto-Algonquian number distinction in obviatives, unlike Passamaquoddy.

²³Todd (1970) for Oji-Cree (Severn Ojibwe), Jones (1977) for Kitigan Zibi Algonquin, Nichols (1980) for Southwestern Ojibwe, and Valentine (2001) for Nishnaabemwin (Odawa and Eastern Ojibwe), among others.

Thus, in the Odawa direct ditransitive in (55), we find the proximate plural C agreement suffix *-(a)g* on the verb, rather than the inanimate plural marker *-(a)n*, indicating that the verb agrees with the (null) recipient ‘them’ rather than the theme *mnikwewnan* ‘drinks’. Interestingly enough, this is exactly the agreement pattern in ditransitives that the Activity Condition analysis predicts, as discussed in Section 4.4.1—however, I will argue below that the Activity Condition analysis ultimately doesn’t work for Ojibwe either, due to the existence of LDA and the ability of Infl and C to show overt agreement with the same argument in intransitives with inanimate obviative subjects.

In Delaware, C agreement is sensitive to definiteness in an interesting kind of differential object marking: indefinite objects and indefinite inanimate/obviative agents are not indexed by C (Goddard 1979, 2021, Xu 2021b). Let’s take a look at the following pair of direct monotransitives:

(56) Delaware differential argument marking

- a. *wənat·o·naɔwwá·ɔl.*
wə-natōnaw-ā-w-əwāw-al
 3-look.for_{TA}-3OBJ-W-PL-OBV
 ‘They_{PROX} looked for him_{OBV}.’
- b. *Mata nhile·í·ɔk.*
Mata nəhl-ē-wī-w-ak.
 NEG kill_{TA}-3OBJ-NEG-3-PROX.PL
 ‘They_{PROX} did not kill any_{OBV}.’

Unami (Goddard 2021:65)

In (56) we can see the contrast between indefinite versus definite patients. In (56a) we have a definite patient, and C agreement is with the obviative patient, as we’ve seen in Passamaquoddy and Ojibwe. However, when the patient is indefinite, as in (56b), C no longer indexes the patient but instead indexes the proximate agent (and this is not an intransitive, as there is object agreement in Voice).

We find similar behavior in Unami ditransitives—C indexes the theme, unless it’s indefinite, in which case it indexes the recipient.

(57) Differential object marking in ditransitives

- a. *nəmi·lá·na*
nə-mīl-ā-n-a
 1-give_{TA+O}-3.OBJ-N-IN.PL
 ‘I gave them_{IN} to him_{PROX}.’
- b. *kəni·tamáo*
kə-nəht-am-aw-ā-w-Ø
 2-kill_{TI}-IN.OBJ-APPL-3.OBJ-W-PROX.SG
 ‘you killed (a fat calf_{OBV}) for him_{PROX}.’

Unami (Goddard 2021:72)

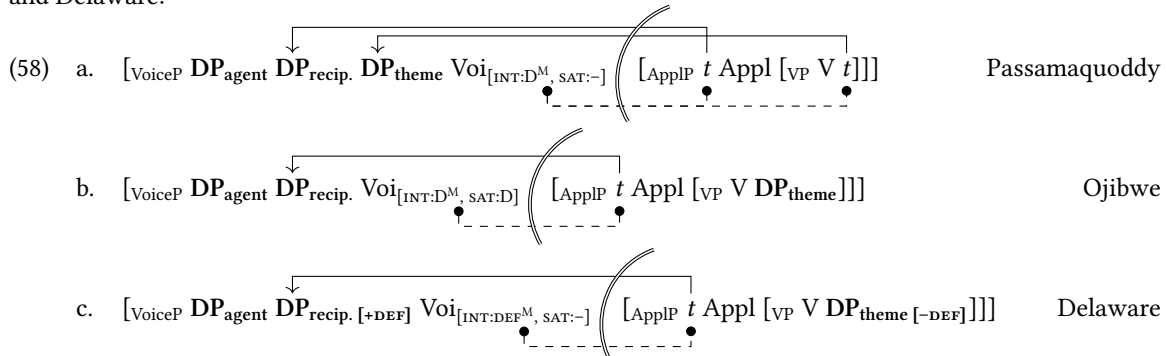
Unami (Goddard 2021:166)

We can see parallel behavior with Passamaquoddy in (57a), where both the goal and theme are definite—in this case C indexes the theme. However, in (57b), the theme is indefinite—“a fat calf”—and accordingly C indexes the proximate recipient rather than the obviative theme, much like in Ojibwe.

These agreement patterns fall out straightforwardly from a combination of Exponence Outermost and a mechanism to delimit domains of accessibility for probes, like phases (Chomsky 2000, 2001). One way of implementing this idea (among others), following a suggestion by Xu (2021a), is to say that Voice is a phase head (Voice here is equivalent to Chomsky’s *v*), and that Passamaquoddy, Ojibwe, and Delaware vary with regards to which objects can move to the edge of VoiceP. We can parametrize Voice to move all goals in its domain (Passamaquoddy), only one (the highest) goal in its domain (Ojibwe), or only definite goals (Delaware), by simply modulating the interaction and satisfaction conditions of a movement-driving probe on Voice: [INT:D^{EPP}, SAT:–] for Passamaquoddy, [INT:D^{EPP}, SAT:D] for Ojibwe, and [INT:DEF^{EPP}, SAT:–] for Delaware. I assume that this probe that moves arguments to the edge of VoiceP is distinct from the probe

that is expounded by the theme sign (i.e. Voice agreement), hence the use of the categorial feature D instead of φ . I do this mostly for simplicity's sake, so as to not mess with the basic analysis of Voice agreement that I've been assuming here: Voice just probes down and displays φ agreement with the most local goal.

Let's take a look at the following abstract representations of ditransitives in Passamaquoddy, Ojibwe, and Delaware:



In (58a), Passamaquoddy Voice has an insatiable probe that moves every goal it interacts with, deriving the Passamaquoddy pattern. Thus, it probes down and finds both the recipient and theme and moves them to the specifier of VoiceP, allowing them to escape the phase and be accessible to C. Note that it is crucial here that each of these movements tucks in (Richards 1997, 1999), in order to preserve their relative C-command relationships. In (58b), Ojibwe Voice has a probe that is satisfied by the same features it interacts with, resulting in a probe that stops probing once it's interacted with just one goal, deriving the Ojibwe pattern. In this way, Voice only moves the recipient to the specifier of VoiceP, leaving the theme inside the VoiceP phase and inaccessible to C. In (58c), we have one possible configuration for Delaware, with a definite recipient and indefinite theme.²⁴ Since only the recipient is definite, only the recipient is able to escape the VoiceP phase and be accessible to C agreement. If both recipient and theme were definite, then both would escape the VoiceP phase and be accessible to C agreement, just like in Passamaquoddy.

With that all in place, Expone Outermost immediately generates the right C agreement facts: C will expone the features of the lowest accessible argument—that is, the lowest argument not inside the VoiceP phase.²⁵ In Passamaquoddy this will always be the theme, in Ojibwe this will always be the recipient, as the theme remains trapped inside the VoiceP phase, and in Delaware this will be the lowest definite object, as indefinite objects remain inside the VoiceP phase.²⁶

6.1.1 Against other analyses

As we've seen, Expone Outermost can easily derive the cross-Algonquian picture in the domain of lowest-prefering C-agreement languages with a simple modulation of movement-driving probes on Voice: an insatiable probe in Passamaquoddy, a probe that stops probing after interacting once in Ojibwe, and an insatiable definiteness probe in Delaware. Under this analysis, the behavior of C does not vary between these languages, but rather it's VoiceP-internal syntax that varies.

²⁴I have unfortunately not been able to find any examples of ditransitives with an indefinite recipient in Delaware. However, Massachusetts (Eastern Algonquian), also known as Wampanoag (the endonym for a dialect of Massachusetts), has a similar system of differential argument marking, and there if both recipient and theme are nonspecific C will agree with the agent (Goddard and Bragdon 1988, Bruening and Rackowski 2001). I assume that Delaware behaves similarly.

²⁵A crucial part of this proposal is that specifiers of the same projection *not* be equidistant, contra Ura (1996), Chomsky (1995, 2000), Hornstein (2009), Oxford (2014), and Longenbaugh and Polinsky (2018), but following Zwart (1996), Chomsky (2001), Doggett (2004), and Hiraiwa (2005). See also Branan (2022b), who derives Equidistance-like effects without Equidistance, but instead through the interaction of locality and antilocality constraints on movement.

²⁶The picture sketched here doesn't derive the behavior of inanimate and obviative external arguments in Delaware, which are also sensitive to definiteness in the same way as objects. However, Xu (2021b) proposes that inanimate and obviative external arguments are actually introduced in a *lower* projection than VoiceP as “doer” rather than “agent” arguments—thus, they can remain inside the VoiceP phase and be sensitive to definiteness in the same way as objects.

There are other analyses of the Ojibwe and Delaware facts in the literature, however—in particular, the lowest-preference of Ojibwe and Delaware C-agreement has been given an Activity Condition analysis (Hammerly 2020 for Border Lakes Ojibwe, and Xu 2021a for Delaware). Here I would like to show that the arguments against an Activity Condition analysis for Passamaquoddy apply equally to Ojibwe and Delaware; thus, the morphological analysis presented here is to be preferred.

As far as I am aware, all varieties of Ojibwe have an LDA construction, in which the matrix verb agrees with an argument inside a clausal complement (there is variation regarding which embedded argument(s) the matrix verb can index—see Rhodes 1994 and Fry and Hamilton 2016 for discussion). And just like in Passamaquoddy, the matrix verb can agree with the same argument that has been indexed by Infl in the embedded clause. Thus, Infl cannot have deactivated that argument, contra the Activity Condition. I provide examples of this in three varieties of Ojibwe: Southwestern Ojibwe, Odawa, and Kitigan Zibi Algonquin:

- (59) a. *Nin-kikkenim-aa-k* [*ci= caakiso-waa-t*].
 1-know_{TA}-3OBJ-PROX.PL FUT= burn_{AI}-3PL-3CJ
 ‘I know they will get burned.’ Southwestern Ojibwe (Nichols 1980:135)
- b. *Ngikenmaag* [*ninwag gii-baashkzwaawaad Maagiiyan*].
Ni-gikenim-aa-ag *aniniw-ag* *gii=baashkizw-aa-waa-d* *Maagii-an*
 1-know_{TA}-3OBJ-PROX.PL man-PROX.PL PST=shoot_{TA}-3OBJ-3PL-3CJ Marge-OBV
 ‘I know that the men shot Marge.’ Odawa (Rhodes 1994:439)
- c. *O-gikenim-aa-n* [*ked-ikedo-dj n-oos-an*].
 3-know_{TA}-3OBJ-OBV WH.FUT-say_{AI}-3CJ 1-father-OBV
 ‘She knows what my father will say.’ Kitigan Zibi Algonquin (Fry and Mathieu 2017:57)

In each case, embedded Infl (bolded) indexes the features of the embedded subject (underlined), and the matrix verb shows both object agreement in Voice and C agreement with the embedded subject (bolded). Thus, just like in Passamaquoddy, the Activity Condition overgenerates deactivation. We cannot say that Infl has deactivating power in Ojibwe.

One possible response to this argument is to note that all of the embedded verbs in these cases are in the conjunct agreement paradigm, rather than the independent. One could then say that conjunct Infl, in contrast to independent Infl, does not deactivate goals it agrees with. Unfortunately, the conjunct order does not feature C agreement, so we cannot check to see if C agreement would behave differently in the conjunct than the independent.²⁷

However, there is another, perhaps more straightforward argument that (independent) Infl does not deactivate goals in Ojibwe: the fact that C and Infl can both index the same argument in a restricted set of cases. This happens precisely in inanimate intransitive verbs (intransitives verbs with a single grammatically inanimate argument) when the subject is obviative. In this case, Infl agrees in obviation and C agrees in number with the subject (C agreement doesn’t distinguish obviation with inanimates). Here I provide examples from Southwestern Ojibwe, using with negative preterits to more precisely pin down the location of these markers:

- (60) a. *miccaa-ssin-inii-pan-Ø* b. *miccaa-ssin-inii-pan-en*
 be.big_{II}-NEG-OBV-PRET-IN.SG be.big_{II}-NEG-OBV-PRET-IN.PL
 ‘it_{OBV} isn’t big’ ‘they_{IN,OBV} aren’t big’ (Nichols 1980:273)

As we can see, an obviative marker *-(i)ni(i)* appears in between negation and the preterit marker, indicating that it occupies the central agreement slot (Infl). Nevertheless, C can still agree with the same argument that’s indexed by Infl, as evidenced by its sensitivity to number. While it is true that in the majority of cases

²⁷ There are peripheral suffixes in the Ojibwe conjunct that are cognate to the C agreement suffixes in the independent, but they only appear in relative clauses, and mark concord with the head of the relative clause, whether it’s the subject or object—see discussion by Nichols (1980) and Valentine (2001).

Infl and C never index the same argument,²⁸ the fact that we get double agreement here indicates that Infl does not possess deactivating power. Thus, the Activity Condition analysis cannot be sustained, even for Ojibwe—the morphological account proposed here is to be preferred.

In Delaware, as we’ve seen, C can agree with themes if the theme is definite:

- (61) a. *nəmi·lá·na*
nə·míl-ā-n-a
 1-give_{TA+O}-3.OBJ-N-IN.PL
 ‘I gave them_{IN} to him_{PROX}’ Unami (Goddard 2021:72)
- b. *Pəhəthitehəməə·n* *hwitaək·i·li·t.*
wə·pahwətəhte·am-aw-ā-n-Ø *wə·hitawak-īlīt*
 3-strike.off_{TA}-IN.OBJ-APPL-3OBJ-N-IN.SG 3-ear-OBV.POSS
 ‘He_{PROX} chopped off his_{OBV} ear.’ Unami (Goddard 2021:165)

In (61a) I’ve repeated the previous example (57a): here we see a straightforward instance of C skipping over the goal to agree with the theme. In (61b), we have an example of possessor raising, with the possessor of *hwitaək·i·li·t* ‘his_{OBV} ear’ being treated as an applied object and accordingly being indexed by the verb with third person animate Voice agreement *-ā*. C agreement skips over the goal to instead index the inanimate singular theme ‘ear’.²⁹ Thus, we have the same undergeneration problem here as we do in Passamaquoddy: Infl doesn’t generally agree with the goal of a ditransitive (only Voice does),³⁰ so the goal should not have been deactivated—and yet C can still skip over it to index the theme. Just like in Passamaquoddy, the Activity Condition cannot account for the behavior of ditransitives in Delaware.

In contrast, Expone Outermost can overcome both these challenges for the Activity Condition: we can don’t need to say that Infl deactivates goals, allowing for LDA (as long as the agreed-with argument is able to raise (covertly or overtly) into a domain accessible to matrix C) and double agreement with inanimate obviatives, and we do not need to worry about definite goals of ditransitives in Delaware intervening for C-agreement with definite themes. Expone Outermost is not only able to provide an account of Passamaquoddy lowest-preference, but also an insightful and empirically-sound analysis of cross-Algonquian variation in the specifics of lowest-preference.

6.2 ...and beyond

As we’ve seen in Algonquian, there is a split between those languages in which C agrees with the highest third person, and those in which C agrees with the lowest accessible third person (with different Lowest languages differing in terms of which arguments are accessible to C). I’ve analyzed this variation as a difference the specification of C: C in Highest languages is specified [INT:3, SAT:3], stopping probing after finding the first, closest third person goal, and C in Lowest languages is specified [INT:3, SAT:-] with a rule of Expone Outermost, resulting in copying features from all accessible third person goals and exponing only the last features C got.

One immediate typological question that arises is whether we see similar such variation in cognate probes in other language families. Here I show that the answer is yes, examining variation in agreement

²⁸Oxford (2017a) provides an account of this that crucially relies on the idea that Infl and C *can* in fact agree with the same argument—if they do, then Infl gets impoverished haploglogically. The case of inanimate obviatives would be the only exception to this—perhaps precisely because Infl and C don’t overlap in the features they expone (with Infl expounding obviation features and C expounding animacy and number features).

²⁹Even though inanimate singular C agreement is null, we know that C is agreeing with the theme and not the goal here because the goal is obviative, which should result in the exponent *-a(l)* of C.

³⁰There is actually a very interesting yet limited exception to this: in independent 1SG>3PL and 3PL>1SG ditransitives with definite objects (and subordinative TA with definite object), Infl does index the features of the highest third person argument in Delaware (Will Oxford p.c.). Passamaquoddy has a similar but even more restricted pattern: this only happens in independent ditransitive inverse verbs with singular goals, third plural agents, and *overt* C agreement with the theme. I do not have any explanation for these curious facts.

patterns between varieties of Dargwa (Nakh-Dagestanian). Across Dargwa, we find cognate person-number agreement suffixes that are relativized to [PART] arguments, and we see variation between languages that index the highest [PART] argument and those that index the lowest [PART] argument (see Sumbatova 2011 for discussion)—completely parallel to the Algonquian situation with third person. Thus, in configurations with only one [PART] argument, it agrees omnivorously with that argument. I follow Ganenkov (2021) in putting this agreement marker in T, c-commanding verbal arguments. To illustrate the omnivorous agreement pattern, I provide examples from Chirag Dargwa (62) and Aqusha Dargwa (63) below:

(62) Omnivorous [PART] agreement in Chirag

- a. *a^ʃ-c:e pat'imat gap-r-arq'-ib-de.*
2SG-ERG Patimat praise-F.SG-PFV-AOR-2SG
 'You praised Patimat.'
- b. *pat'imat-le u^ʃ gap-w-arq'-ib-de*
 Patimat-ERG 2SG.ABS praise-M.SG-PFV-AOR-2SG
 'Patimat praised you.'

Chirag Dargwa (Ganenkov 2021:753)

(63) Omnivorous [PART] agreement in Aqusha

- a. *hu-ni il-di b-ax-un-ri.*
2SG-ERG 3-PL F.PL-feed-AOR-2SG
 'You fed them.'
- b. *il-da-ni hu r-ax-un-ri.*
 3-PL-ERG 2SG F.SG-feed-AOR-2SG
 'They fed you.'

Aqusha Dargwa (van den Berg 1999:164)

In the (a) examples, we have a second person subject and a third person object, and the bolded person suffix indexes the subject. In the (b) examples, we have a third person subject and a second person object, and the person suffix indexes the object. In each case, T seeks out [PART] arguments in preference to third persons.

However, there is variation in SAP>SAP configurations. One kind of variation we see is between Highest and Lowest languages, with Highest languages agreeing with the higher SAP, and Lowest languages agreeing with the lower SAP. Interestingly, only Chirag is in the Highest camp, while the Lowest camp is populated by Ashti, Aqusha, Gapshimi, Tanti, and Urakhi (Sumbatova 2011, Belyaev 2013, Sumbatova and Lander 2014 ch.6).³¹ Here I illustrate, again, with Chirag and Aqusha:

(64) Highest in Chirag

- a. *di-c:e u^ʃ gap-w-arq'-ib-da.*
 1SG-ERG 2SG.ABS praise-M.SG-PFV-AOR-1
 'I praised you.'
- b. *a^ʃ-c:e du gap-w-arq'-ib-de.*
 2SG-ERG 1SG.ABS praise-M.SG-PFV-AOR-2SG
 'You praised me.'

Chirag Dargwa (Ganenkov 2021:752-753)

³¹There is more variation than this. In another group of languages (Icari, Kaytag, Khuduts, and Qunqi), T agrees with the highest argument on the hierarchy 2>1(>3). In Sanzhi, T can agree with either argument in SAP>SAP configurations (Forker 2020). Finally, Mehweb has developed an egophoric agreement system (on egophoricity, see San Roque et al. 2018 and Coppock and Wechsler 2018, a.m.o.).

(65) Lowest in Aqusha

- a. *nu-ni hu r-it-i-ri.*
 1SG-ERG 2SG F.SG-hit-AOR-2SG
 ‘I hit you.’
- b. *hu-ni nu r-it-i-ra.*
 2SG-ERG 1SG F.SG-hit-AOR-1
 ‘You hit me.’

Aqusha Dargwa (van den Berg 1999:158)

As we can see, Chirag behaves like Plains Cree, preferring the higher argument, and Aqusha behaves like Passamaquoddy, preferring the lower argument. This variation is exactly parallel to the variation we find in Algonquian, except with a different probe specification: whereas in Algonquian C is relativized to third person, here we find relativization to [PART]. We can thus say that Chirag T is specified [INT:PART, SAT:PART], and Aqusha T is specified [INT:PART, SAT:-] with Exponen Outermost.

6.3 Is there evidence for the hidden features?

The morphological proposal I have made involves overagreement: the lowest-prefering probe has agreed with and copied features from all other possible goals on its way down. One might wonder if there’s any evidence for this: is there a way to somehow find those other features “hiding” on the probe? One way to possibly “reveal” those features would be to impoverish the outermost features, allowing for inner features to be able to be exponed. Does this ever happen?

I know of one case that has this flavor: antiagreement in Karitiâna (Tupian). The Karitiâna verb has a single agreement slot that, in the general case, indexes the person of the lowest argument, and is likely very high in the clause, as it sits outside illocutionary mood and polarity focus markers:

(66) Intransitives: agree with subject

- a. *Y-ta-opiso-t yn.*
 1SG-DECL-listen-NFUT 1SG
 ‘I listened.’
- b. *A-ta-opiso-t an.*
 2SG-DECL-listen-NFUT 2SG
 ‘You listened.’
- c. *Ø-Naka-hÿrÿja-t i.*
 3-DECL-sing-NFUT 3SG
 ‘He sang.’ (Storto 1999:157)

(67) Transitives: agree with object

- a. *An y-ta-koy-j yn.*
 2SG 1SG-DECL-hurt-IRR 1SG
 ‘You will hurt me.’
- b. *Yn a-ta-koy-j an.*
 1SG 2SG-DECL-hurt-IRR 2SG
 ‘I will hurt you.’
- c. *Yjxa Ø-na-ahee-t iso.*
 1PL 3-DECL-blow-NFUT fire
 ‘We blew out the fire.’ (Storto 1999:157)

So far, this looks exactly like Passamaquoddy and Aqusha, except not relativized to any specific phi features in particular. Thus, we can analyze the probe here as an insatiable ϕ probe, [INT: ϕ , SAT:-] along with the rule of Exponen Outermost.

However, interesting things happen to this agreement pattern when focusing/ \bar{A} extracting the object. When extracting a transitive object, the object focus marker *ti-* appears on the verb, and the verb exceptionally indexes the *transitive subject*:

- (68) *’Ep aj-ti-pasangã-t ajxa.*
 trees 2PL-OBJ.FOC-count-NFUT 2PL
 ‘Y’all are counting TREES.’

(Storto 1999:163)

This is a kind of antiagreement effect, where agreement gets disrupted by \bar{A} movement/ \bar{A} features. The interesting thing about Karitiâna is that instead of agreement simply disappearing, we get *agreement displacement*: we agree with the subject, instead of the object.

Baier (2018) argues for a morphological, Impoverishment-based analysis of antiagreement: antiagreement happens when a probe copies over both ϕ and \bar{A} features, and there's an Impoverishment rule that deletes (certain) ϕ features in the context of \bar{A} features. Baier's account of antiagreement, combined with Exponence Outermost, can derive the Karitiâna pattern in a very elegant way: we copy both subject and object features, impoverish the object's features if they co-occur with an \bar{A} feature, and then the only features left to realize are the inner subject features. Thus, it is exactly in the context of object \bar{A} extraction that we're able to reveal the "hidden" features on the probe.

6.4 A problematic prediction?

The attentive reader might at this point be worrying about the following typological prediction my analysis makes: if we have a high probe specified [INT: ϕ , SAT:-], like in Karitiâna, along with morphological nominative-accusative case marking, then we would have an ergative-aligned agreement system in a language with accusative-aligned case. This is usually taken to be a typological gap (Dixon 1994, Bobaljik 2008). Isn't this a problematic prediction?

I think ergative agreement with accusative case isn't actually a typological gap, though it is exceedingly rare (and my proposal says nothing about why it might be rare). This gap is filled by perfectives in Marwari (Indo-Aryan), which have lost the classic Indo-Aryan ergative case marking but have preserved the ergative agreement pattern:

- (69) a. *mhaim̐ śaran̐=naim̐ dekh-ī*
 1SG *Sharan.F=ACC* see-PST.F.SG
 'I saw *Sharan*.'
- b. *mammī ma=naim̐ god-mem̐ uṭhā-li-yo*
 Mama.F 1SG=ACC lap=LOC heave-take-PST.M.SG
 'Mama took *me* up in her lap.'
- Marwari (Verbeke 2013:215)

In these examples, the verb agrees with the transitive object, which is marked with the accusative marker *=naim̐*, counter to what is typically expected.

The case of Marwari isn't unknown in the literature, and people have tried to explain it away. Bobaljik (2017) suggests that this case isn't a real counterexample because *=naim̐* is sensitive to specificity (like accusative marking in many Indo-Aryan languages, and many other languages across the world), and proposes that *=naim̐* isn't actually an accusative case marker but rather just a specificity marker. It's unclear to me how tenable this proposal is: *=naim̐* always appears with indirect objects, and it's optional with specific inanimates, which is characteristic of differential object marking but not of quantifiers. The simple fact is that *=naim̐* shows the same kind of behavior we find with many other languages' accusative case, so why is *=naim̐* suddenly not a "real" accusative case marker?

Grosz and Patel-Grosz (2014) also argue that this isn't a real counterexample, and they propose to analyze the Marwari agreement behavior along the lines of Romance participle agreement—you agree with both subject *and* object, subject in T and object in *v*—which is revealed by auxiliary verb constructions:

- (70) *mhāī sītā=ne dekh-ī hū*
 1SG *Sita.F=ACC* see-PST.F.SG *be.1SG*
 'I have seen *Sita*.'
- Jodhpur Marwari (Magier 1983:250)

In the Jodhpur Marwari example above, the lexical verb agrees with the object, but the auxiliary verb agrees with the subject. Grosz and Patel-Grosz (2014) then propose that this is exactly what happens in the simple

tenses without auxiliaries, but there T remains unpronounced.³² However, Verbeke (2013) notes that this agreement pattern is actually innovative, and not found in all dialects of Marwari. Thus, Grosz and Patel-Grosz’s (2014) proposal is not enough to explain away the case of Marwari, as the data they account for only represents a subset of varieties of Marwari.

From the point of view of Expone Outermost, it’s actually entirely expected that there should be a language with ergative agreement and accusative case marking, and the case of Marwari is thus a welcome cell in the typology. There is no reason to try and explain it away. Thus, what might have seemed like a problematic prediction actually turns into a welcome one.

7 Conclusion

In this paper, I’ve described the agree-with-lowest pattern of Passamaquoddy C-agreement, demonstrating that C agrees with the lowest third person argument after A movement. I then went through four off-the-shelf analyses of lowest-preference—case-discrimination, a low probe, syntactic inversion, and the Activity Condition—arguing that each faces crucial empirical problems. Instead, I argued for a fifth path to lowest-preference: the morphological rule of Expone Outermost. I proposed that Passamaquoddy C copies features from each third person argument in its domain, but is (microparametrically) specified to only expone the outermost feature bundle it has collected—that is, the feature bundle copied from the lowest argument. I showed that Expone Outermost doesn’t fall into the same empirical pitfalls as the other analyses of lowest-preference, and proposed to extend the analysis to Ojibwe and Delaware by modulating the domain of accessibility for C in the different languages. Finally, I demonstrated that my analysis of cross-Algonquian variation in C agreement extends even further to account for variation in person agreement across varieties of Dargwa, and showed that various predictions of the analysis are borne out in Karitiãna and Marwari.

It’s worth noting the crucially *morphological* nature of the proposal. Expone Outermost is a morphological microparameter regulating what happens when spelling out multiply-valued heads—thus, there is no change to any underlying syntactic operations. Expone Outermost makes predictions about how insatiable agreement can be realized morphologically, but it doesn’t change how the actual syntax of Agree works. This is important, because while Expone Outermost can generate instances of lowest-preference in agreement, it cannot generate instances of lowest-preference in *movement*, even if we believe movement is triggered by Agree. This is likely a welcome (non)prediction, as I am not aware of any instances of lowest-preference in movement: for instance, hypothetical “anti-superiority” effects, where a language prefers moving the lowest *wh* item in a multiple *wh* question. While there are attested cases of non-maximally-local movement processes, these have the character of moving the *second* closest goal, rather than the most distant goal—thus, those patterns have been given insightful analyses in terms of a conflict between locality properties of movement and the principle of Antilocality (Branan 2022b).

The existence of morphological spellout rules like Expone Outermost has various theoretical and analytic ramifications. One clear consequence is that we are pushed to reassess other cases of lowest-preference in the literature that have been given syntactic analyses, like Georgian (Béjar 2003, Béjar and Rezac 2009), Erzya Mordvin (Béjar 2003, Béjar and Rezac 2009, Colley 2018), Quechua (Myler 2017), and others. Maybe Expone Outermost is the right path forward for them too? Another consequence of Expone Outermost is that it forces us to really reckon with and think about the fact that morphology of agreement doesn’t always transparently betray the syntax of agreement. As we’ve seen, with Expone Outermost, an agreement marker indexing features from a single argument might actually be the exponent of an insatiable or multiply-valued probe, despite surface appearances. Further work thus remains to be done to figure out the full landscape of how multiply-valued heads are expounded, and what the range of transparent and nontransparent spellout possibilities are.

³²It is worth noting at this point the similarity between their proposal and mine—the only difference is that subject and object agreement for Grosz and Patel-Grosz (2014) come from different probes, but for me they would be on one single multiply-valued probe. In both cases the features from the higher argument go unpronounced.

References

- Alboiu, Gabriela, and Virginia Hill. 2016. Evidentiality and Raising to Object as A'-Movement: A Romanian Case Study. *Syntax* 19:256–285.
- Baier, Nicholas. 2018. Anti-Agreement. Doctoral Dissertation, University of California, Berkeley.
- Baker, Mark. 1985. The Mirror Principle and Morphosyntactic Explanation. *Linguistic Inquiry* 16:373–415.
- Baker, Mark. 2015. *Case: Its Principles and its Parameters*. Cambridge: Cambridge University Press.
- Belyaev, Oleg. 2013. Optimal Agreement at M-Structure: Person in Dargwa. In *Proceedings of the LFG'13 Conference*, ed. Miriam Butt and Tracy Holloway King, 90–110. Stanford: CSLI Publications.
- van den Berg, Helma. 1999. Gender and person agreement in Akusha Dargi. *Folia Linguistica* 33:153–168.
- Blain, Eleanor. 1997. Wh-constructions in Nêhiyawêwin (Plains Cree). Doctoral Dissertation, University of British Columbia.
- Bliss, Heather. 2013. The Blackfoot configurationality conspiracy: Parallels and differences in clausal and nominal structures. Doctoral Dissertation, University of British Columbia, Vancouver, BC.
- Bobaljik, Jonathan D. 2008. Where's Phi? Agreement as a Post-Syntactic Operation. In *Phi Theory: Phi-features across interfaces and modules*, ed. Daniel Harbour, David Adger, and Susana Béjar, number 16 in Oxford Studies in Theoretical Linguistics, 295–328. Oxford: Oxford University Press.
- Bobaljik, Jonathan D. 2017. In defense of a universal: A brief note on case, agreement, and differential object marking. Manuscript, University of Connecticut and Leibniz-Zentrum Allgemeine Sprachwissenschaft, University of Connecticut and Leibniz-Zentrum Allgemeine Sprachwissenschaft.
- Bondarenko, Tanya. 2020. Feature gluttony for Algonquian: agreement in Passamaquoddy. Generals paper, MIT.
- Branan, Kenyon. 2022a. Licensing with Case: Evidence from Kikuyu. *Natural Language and Linguistic Theory* 40:1–41.
- Branan, Kenyon. 2022b. Locality and Antilocality: The Logic of Conflicting Requirements. *Linguistic Inquiry*.
- Branigan, Phil, and Marguerite MacKenzie. 1999. Binding relations and the nature of *pro* in Innu-aimun. In *Proceedings of NELS 29*, ed. Pius Tamanji, Masako Hirotsu, and Nancy Hall, volume 1, 475–485. UMass Amherst: GLSA.
- Branigan, Phil, and Marguerite MacKenzie. 2002. Altruism, A'-movement, and object agreement in Innu-aimûn. *Linguistic Inquiry* 33:385–407.
- Brittain, Julie. 1999. A reanalysis of transitive animate theme signs as object agreement: Evidence from Western Naskapi. In *Papers of the 30th Algonquian Conference*, ed. David H. Pentland, 34–46. Winnipeg: Manitoba.
- Brittain, Julie. 2001. *The Morphosyntax of the Algonquian Conjunct Verb*. New York: Garland Publishing.
- Bruening, Benjamin. 2001. Syntax at the Edge: Cross-Clausal Phenomena and the Syntax of Passamaquoddy. Doctoral Dissertation, MIT.
- Bruening, Benjamin. 2004. Two Types of Wh-Scope Marking in Passamaquoddy. *Natural Language & Linguistic Theory* 22:229–305.
- Bruening, Benjamin. 2005. The Algonquian Inverse is Syntactic: Binding in Passamaquoddy. Manuscript, University of Delaware.
- Bruening, Benjamin. 2006. Differences Between the Wh-Scope-Marking and Wh-Copy Constructions in Passamaquoddy. *Linguistic Inquiry* 37:25–49.
- Bruening, Benjamin. 2009. Algonquian Languages Have A-movement and A-Agreement. *Linguistic Inquiry* 40:427–445.
- Bruening, Benjamin. 2019. The Algonquian Prefix is an Affix, Not a Clitic: Implications for Morphosyntax. Manuscript, University of Delaware.
- Bruening, Benjamin, and Andrea Rackowski. 2001. Configurationality and Object Shift in Algonquian. In *Proceedings of the Workshop on the Structure and Constituency of Languages of the Americas 5*, ed. Suzanne Gessner, Sunyoung Oh, and Kayono Shiobara, volume 5, 71–84. Vancouver, BC: UBC Working Papers in Linguistics.
- Béjar, Susana. 2003. Phi-Syntax: A Theory of Agreement. Doctoral Dissertation, University of Toronto.
- Béjar, Susana, and Diane Massam. 1999. Multiple Case Checking. *Syntax* 2:65–79.
- Béjar, Susana, and Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40:35–73.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by Step – Essays in Minimalist Syntax in Honor of Howard Lasnik*, ed. Roger Martin, David Michaels, Juan Uriagereka, and Samuel Jay Keyser, 89–156. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In *Ken Hale: A Life in Language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT.
- Colley, Justin. 2018. Object movement derives object preference. In *Proceedings of NELS 48*, ed. Sherry Hucklebridge and Max Nelson, volume 1, 149–162. Amherst: GLSA.
- Cook, Clare. 2014. *The Clause-Typing System of Plains Cree: Indexicality, Anaphoricity, and Contrast*. Oxford: Oxford

- University Press.
- Coon, Jessica, and Alan Bale. 2014. The interaction of person and number in Mi'gmaq. *Nordlyd: Special issue on Features* 40:85–101.
- Coppock, Elizabeth, and Stephen Wechsler. 2018. The proper treatment of egophoricity in Kathmandu Newari. In *Expressing the Self: Cultural Diversity and Cognitive Universals*, ed. Minyao Huang and Kasia M. Jaszczolt, 40–57. Oxford: Oxford University Press.
- Dahlstrom, Amy. 1986. Weak crossover and obviation. In *Proceedings of the 12th Annual Meeting of the Berkeley Linguistics Society*, ed. Vassiliki Nikiforidou, 51–60. Berkeley: Berkeley Linguistics Society.
- Dahlstrom, Amy. 1991. *Plains Cree Morphosyntax*. New York: Garland Publishing.
- Dahlstrom, Amy. 1995. Motivation vs. predictability in Algonquian gender. In *Papers of the 26th Algonquian Conference*, ed. David H. Pentland, 52–66. Winnipeg: University of Manitoba.
- Deal, Amy Rose. 2015. Interaction and satisfaction in *q*-agreement. In *Proceedings of NELS 45*, ed. Thuy Bui and Deniz Özyıldız, 179–192. Amherst, MA: GLSA.
- Deal, Amy Rose. 2019. Raising to Ergative: Remarks on Applicatives of Unaccusatives. *Linguistic Inquiry* 50:388–415.
- Deal, Amy Rose. 2021. Interaction, Satisfaction, and the PCC. *Linguistic Inquiry*.
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Doggett, Teal Bissell. 2004. All things being unequal: Locality in movement. Doctoral Dissertation, Massachusetts Institute of Technology.
- Erlewine, Michael Yoshitaka. 2016. Anti-locality and optimality in Kaqchikel Agent Focus. *Natural Language & Linguistic Theory* 34:429–479. URL <https://doi.org/10.1007/s11049-015-9310-z>.
- Fong, Suzana. 2021. Nominal licensing: the syntactic distribution and number interpretation of bare nominals in Wolof. Doctoral Dissertation, Massachusetts Institute of Technology.
- Forker, Diana. 2020. *A grammar of Sanzhi Dargwa*. Number 2 in Languages of the Caucasus. Berlin: Language Science Press.
- Francis, David A., and Robert M. Leavitt. 2008. *Peskotomuhkati Wolastoqewi Latuwewakon [A Passamaquoddy-Maliseet Dictionary]*. Orono, ME: The University of Maine Press.
- Fry, Brandon J., and Michael David Hamilton. 2016. Long-distance agreement in Algonquian: Accounting for syntactic variation. In *Proceedings of CLS 50*, 159–174. Chicago: Chicago Linguistic Society.
- Fry, Brandon J., and Éric Mathieu. 2017. La sémantique de l'accord à longue distance en algonquin. In *Papers of the 46th Algonquian Conference*, 55–70. East Lansing: Michigan State University Press.
- Ganenkova, Dmitry. 2021. Person agreement with inherent case DPs in Chirag Dargwa. *Natural Language & Linguistic Theory* 40:741–791.
- Goddard, Ives. 1979. *Delaware verbal morphology: A descriptive and comparative study*. New York: Garland Publishing.
- Goddard, Ives. 1990. Aspects of the Topic Structure of Fox Narratives: Proximate Shifts and the Use of Overt and Inflectional NPs. *International Journal of American Linguistics* 56:317–340.
- Goddard, Ives. 2002. Grammatical Gender in Algonquian. In *Papers of the 33rd Algonquian Conference*, ed. H. C. Wolfart, 195–231. Winnipeg: University of Manitoba.
- Goddard, Ives. 2007. Reconstruction and history of the independent indicative. In *Papers of the 38th Algonquian Conference*, ed. H. C. Wolfart, 207–271. Winnipeg: University of Manitoba.
- Goddard, Ives. 2021. *A Grammar of Southern Unami Delaware (Lenape)*. Petosky, MI: Mundart Press.
- Goddard, Ives, and Kathleen J. Bragdon. 1988. *Native Writings in Massachusetts*. Number 185 in Memoirs of the American Philosophical Society. Philadelphia: The American Philosophical Society.
- Grishin, Peter. 2022. Subordinative long distance agreement in Passamaquoddy-Wolastoqey and the syntax of the inverse. Talk at the 54th Algonquian Conference, CU Boulder.
- Grishin, Peter. 2023. Omnivorous third person agreement in Algonquian. *Glossa* 8.
- Grosz, Patrick, and Pritty Patel-Grosz. 2014. Agreement and verb types in Kutchi Gujarati. In *The Lexicon-Syntax Interface: Views from South Asian Languages*, ed. Pritha Chandra and Richa Srishti. Amsterdam: John Benjamins.
- Halle, Morris, and Alec Marantz. 1993. Distributed Morphology and the pieces of inflection. In *The view from Building 20*, ed. Kenneth Hale and Samuel Jay Keyser, 111–176. Cambridge, MA: MIT Press.
- Hamilton, Michael David. 2015. The syntax of Mi'gmaq: A configurational account. Doctoral Dissertation, McGill.
- Hamilton, Michael David. 2017. Multiple instances of agreement in Mi'gmaq verbs. In *Papers of the 45th Algonquian Conference*, ed. Monica Macaulay, Margaret Noodin, and J. Randolph Valentine, 73–91. East Lansing: Michigan State University Press.
- Hammerly, Christopher. 2020. Person-Based Prominence in Ojibwe. Doctoral Dissertation, University of Massachusetts Amherst.

- Hammerly, Christopher. 2021. A verb raising analysis of the Ojibwe VOS/VSO alternation: Lessons for feature copying and movement. Manuscript.
- Hiraiwa, Ken. 2005. Dimensions of symmetry in syntax: Agreement and clausal architecture. Doctoral Dissertation, Massachusetts Institute of Technology.
- Hornstein, Norbert. 2009. *A Theory of Syntax: Minimal Operations and Universal Grammar*. Cambridge: Cambridge University Press.
- Jones, David. 1977. *A basic Algonquin grammar: For teachers of the language at Maniwaki, Quebec*. Maniwaki: River Desert Band Council.
- LeSourd, Philip S. 1988. Accent and syllable structure in Passamaquoddy. Doctoral Dissertation, MIT.
- LeSourd, Philip S. 1993. *Accent & Syllable Structure in Passamaquoddy*. New York and London: Routledge.
- LeSourd, Philip S. 2019. Raising and long-distance agreement in Passamaquoddy: A unified analysis. *Journal of Linguistics* 55:357–405.
- Levin, Theodore. 2017. Successive-cyclic case assignment: Korean nominative-nominative case-stacking. *Natural Language and Linguistic Theory* 35:447–498.
- Lochbihler, Bethany. 2012. Aspects of Argument Licensing. Doctoral Dissertation, McGill University.
- Longenbaugh, Nicholas, and Maria Polinsky. 2018. Equidistance returns. *The Linguistic Review* 35:413–461.
- Magier, David S. 1983. Topics in the Grammar of Marwari. Doctoral Dissertation, UC Berkeley, Berkeley.
- Marantz, Alec. 1991. Case and licensing. In *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*, ed. German Westphal, Benjamin Ao, and Hee-Rahk Chae, 234–253. Ithaca, NY: CLC Publications.
- Massam, Diane. 1985. Case theory and the projection principles. Ph.D. dissertation, Massachusetts Institute of Technology.
- McClay, Elise. 2012. Possession in Mi'gmaq. Honors thesis, McGill.
- McGinnis, Martha. 1995. Word-internal syntax: Evidence from Ojibwa. In *Proceedings of the 1995 CLA Annual Conference*, ed. Päivi Koskinen, 337–347. Toronto: Toronto Working Papers in Linguistics.
- McGinnis, Martha. 1999. Is There Syntactic Inversion in Ojibwa? In *Papers from the Workshop on Structure and Constituency in Native American Languages*, ed. Leora Bar-el, Rose-Marie Déchaine, and Charlotte Reinholtz, volume 17, 101–118. Cambridge, Mass: MIT Working Papers in Linguistics.
- Merchant, Jason. 2006. Polyvalent case, geometric hierarchies, and split ergativity. In *Proceedings of the 42nd Annual Meeting of the Chicago Linguistics Society*, ed. Jackie Bunting, Sapna Desai, Robert Peachey, Chris Straughn, and Zuzana Tomkova, volume 2, 47–67. Chicago: Chicago Linguistic Society.
- Myler, Neil. 2017. Cliticization feeds agreement: a view from Quechua. *Natural Language and Linguistic Theory* 35:751–800.
- Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25:273–313.
- Nichols, John David. 1980. Ojibwe Morphology. Doctoral Dissertation, Harvard University.
- Noyer, Rolf. 1992. Features, positions and affixes in autonomous Morphological Structure. Doctoral Dissertation, Massachusetts Institute of Technology.
- Oxford, Will. 2014. Microparameters of Agreement: A Diachronic Perspective on Algonquian Verb Inflection. Doctoral Dissertation, University of Toronto.
- Oxford, Will. 2017a. The Activity Condition as a microparameter. *Linguistic Inquiry* 48:711–722.
- Oxford, Will. 2017b. Algonquian grammar myths. *Toronto Working Papers in Linguistics* 39.
- Oxford, Will. 2019a. Fission in Algonquian and the status of morphological templates. In *Proceedings of the Workshop on the Structure and Constituency of Languages of the Americas 23*, ed. D. K. E. Reisinger and Roger Yu-Hsiang Lo, 77–91. Vancouver, BC: UBC Working Papers in Linguistics.
- Oxford, Will. 2019b. Inverse marking and Multiple Agree in Algonquin: Complementarity and variability. *Natural Language & Linguistic Theory* 37:955–996.
- Oxford, Will. 2022. A tale of two inverses. To appear in *Syntax*.
- Pesetsky, David. 2013. *Russian Case Morphology and the Syntactic Categories*. Number 66 in Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- Polinsky, Maria, and Eric Potsdam. 2001. Long-distance agreement and topic in Tsez. *Natural Language and Linguistic Theory* 19:583–646.
- Preminger, Omer. 2014. *Agreement and its failures*. Number 68 in Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- Quinn, Conor. 2006. Referential-Access Dependency in Penobscot. Doctoral Dissertation, Harvard University.
- Quinn, Conor. 2019. Productivity vs predictability: Evidence for the syntax and semantics of Animate gender in four

- Northeastern-area Algonquian languages. In *Gender and Noun Classification*, ed. Éric Mathieu, Myriam Dali, and Gita Zareikar, 249–265. Oxford: Oxford University Press.
- Rezac, Milan. 2003. The fine structure of Cyclic Agree. *Syntax* 6:156–182.
- Rhodes, Richard A. 1976. The Morphosyntax of the Central Ojibwa Verb. Doctoral Dissertation, University of Michigan.
- Rhodes, Richard A. 1990. Ojibwa secondary objects. In *Grammatical Relations: A Cross Theoretical Perspective*, ed. Katarzyna Dziwirek, Patrick Farrell, and Errapel Meijas-Bikandi, 401–414. Stanford: CSLI.
- Rhodes, Richard A. 1994. Agency, inversion, and thematic alignment in Ojibwe. In *Proceedings of the 20th Annual Meeting of the Berkeley Linguistics Society*, ed. Susanne Gahl, Andy Dolbey, and Christopher Johnson, 431–446. Berkeley: Berkeley Linguistics Society.
- Rhodes, Richard A. 2010. Ditransitive constructions in Ojibwe. In *Studies in Ditransitive Constructions: A Comparative Handbook*, ed. Andrej Malchukov, Martin Haspelmath, and Bernard Comrie, 626–650. Berlin and New York: De Gruyter Mouton.
- Richards, Norvin. 1997. What moves where when in which languages? Doctoral Dissertation, Massachusetts Institute of Technology.
- Richards, Norvin. 1999. Featural Cyclicity and the Ordering of Multiple Specifiers. In *Working Minimalism*, ed. Samuel David Epstein and Norbert Hornstein, 127–158. Cambridge, MA: MIT Press.
- Richards, Norvin. 2004. The Syntax of the Conjunct and Independent Orders in Wampanoag. *International Journal of American Linguistics* 70:327–368.
- Richards, Norvin. 2017. Multiple case assignment and the English pseudo-passive. In *A Schrift to Fest Kyle Johnson*, ed. Nicholas LaCara, Keir Moulton, and Anne-Michelle Tessier, 313–319. Linguistics Open Access Publications.
- San Roque, Lila, Simeon Floyd, and Elisabeth Norcliffe. 2018. Egophoricity: An introduction. In *Egophoricity*, ed. Simeon Floyd, Elisabeth Norcliffe, and Lila San Roque, 1–78. Amsterdam: John Benjamins.
- Seiter, William. 1980. *Studies in Niuean syntax*. New York: Garland Publishing.
- Sherwood, David Fairchild. 1986. *Maliseet-Passamaquoddy verb morphology*. Ottawa: University of Ottawa Press.
- Storto, Luciana R. 1999. Aspects of Karitiana Grammar. Doctoral Dissertation, Massachusetts Institute of Technology.
- Sumbatova, Nina R. 2011. Person hierarchies and the problem of person marker origin in Dargwa. In *Tense, aspect, modality and finiteness in East Caucasian languages*, ed. Gilles Authier and Timur Maisak, number 30 in *Diversitas Linguarum*, 131–160. Bochum: Brockmeyer.
- Sumbatova, Nina R., and Yury A. Lander. 2014. *Даргинский говор селения Танты: грамматический очерк, вопросы синтаксиса* [*The Dargwa dialect of the village of Tanty: grammatical sketch, questions of syntax*]. Moscow: Языки славянской культуры [Languages of Slavic Culture].
- Todd, Evelyn. 1970. A Grammar of the Ojibwa language: The Severn dialect. Doctoral Dissertation, University of North Carolina, Chapel Hill.
- Ura, Hiroyuki. 1996. Multiple feature-checking: A theory of grammatical function splitting. Doctoral Dissertation, Massachusetts Institute of Technology.
- Valentine, J. Randolph. 1994. Ojibwe dialect relationships. Doctoral Dissertation, University of Texas at Austin.
- Valentine, J. Randolph. 2001. *Nishnaabemwin Reference Grammar*. Toronto: University of Toronto Press.
- Verbeke, Saartje. 2013. *Alignment and Ergativity in New Indo-Aryan Languages*. Number 51 in *Empirical Approaches to Language Typology*. Berlin: De Gruyter Mouton.
- Wolfart, H. C. 1973. Plains Cree: A grammatical study. *Transactions of the American Philosophical Society* 63:1–90.
- Xu, Yadong. 2020. The cline of the peripheral agreement and implication about object types. 52nd Algonquian Conference, University of Wisconsin-Madison.
- Xu, Yadong. 2021a. Deriving degrees of accessibility in Algonquian peripheral agreement. WSCLA 25, Sogang University.
- Xu, Yadong. 2021b. Differential subject marking also depends on syntactic height: Evidence from Delaware. In *Proceedings of the 38th West Coast Conference on Formal Linguistics*, ed. Rachel Soo, Una Y. Chow, and Sander Nederveen, 472–482. Somerville, MA: Cascadia Proceedings Project.
- Yoon, James. 2004. Non-nominative (major) subjects and case stacking in Korean. In *Non-nominative Subjects*, ed. Peri Bhaskararao and Karumuri V. Subbarao, volume 2, 265–314. Amsterdam: John Benjamins.
- Zwart, C. Jan-Wouter. 1996. “Shortest Move” versus “Fewest Steps”. In *Minimal Ideas: Syntactic studies in the minimalist framework*, ed. Werner Abraham, Samuel David Epstein, Höskuldur Thráinsson, and C. Jan-Wouter Zwart, number 12 in *Linguistic Aktuell*, 305–327. Amsterdam: John Benjamins.