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 exponed, 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 start by introducing two seemingly unrelated topics—this paper aims 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.[2] To get a first taste, let's examine the examples below:[3]

*Several people have helped bring this paper to where it is now: 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 pushing me further to pursue this analytic route, pointing out relevant crosslinguistic parallels (like in Nakh-Dagestanian), and coining the term Expone Outermost. I also thank Tanya Bondarenko, Chris Hammerly, Line Mikkelsen, Will Oxford, David Pesetsky, Norvin Richards, and two anonymous reviewers for helpful comments, questions, and discussion. Blame me and not them for any mistakes, misunderstandings, or misrepresentations.

[1] Also known as Passamaquoddy-Maliseet; *Maliseet* is an exonym deriving from Mi'gmaq (Eastern Algonquian) *mali'sit* 'speak poorly, weakly'; *Wolastoqey* is the corresponding endonym. Passamaquoddy is spoken in eastern Maine, and Wolastoqey is spoken in New Brunswick. The two varieties are mutually intelligible and don't differ with respect to the agreement patterns discussed below.

[2] This is the PERIPHERAL SUFFIX, in Algonquianist terminology. On the peripheral suffix exponing C, see Halle and Marantz (1993), Branigan and MacKenzie (1999), Bliss (2013), Oxford (2017a), and Grishin (2023b), among others.

[3] All uncited Passamaquoddy data is based on the verbal paradigms in the Passamaquoddy-Maliseet Language Portal (https://pmportal.org/), published in dictionary form 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 = ac-

(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), 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 (Bruening 2001, 2005, 2009, Grishin 2024b, 2023b), than C will index the agent (1c), skipping over the higher object. 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 (also known as 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 local. Why would C skip over more local goals in preference for ones further away?

The second topic 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].
have.1SG guessed that **Mihai** REFL.DAT= arrange.3SG leave.DEF

b. **L**=am ghicit **pe** **Mihai** [că=și aranjează plecarea].
3MSG.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)

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cusative, ADDR = addressee, AI = animate intransitive, AOR = aorist, APPL = applicative, AUTH = author, AV = actor voice, C = complementizer, CIS = cislocative, CJ = conjunct, DAT = dative, DEF = definite, DOM = differential object marker, DUB = dubitative, EMPH = emphatic, ERG = ergative, EXC = exclusive, EXCL = exclusive, F = feminine, FOC = focus, FUT = future, FV = final vowel, GEN = genitive, HAB = habitual, IC = initial change, II = inanimate intransitive, IN = inanimate, INV = inverse, IPFV = imperfective, LOC = locative, M = M formative, M = masculine, MOD = modal, N = N formative, NDEF = indefinite, NEG = negative, NOM = nominative, OBJ = object, OBV = obviative, PART = participant, PFV = perfective, PL = plural, POLQ = polar question, POSS = possessive, PRET = preterit, PROX = proximate, PRS = present, PST = past, PTCP = participle, REFL = reflexive, SBJ = subject, SBJV = subjunctive, SG = singular, SM = subject marker, STV = stative, TA = transitive animate, TA+O = transitive animate + secondary object, TI = transtitive inanimate, W = W formative, WH = *wh*.

(3) a. Am văzut [că **lui** **Ion** **i**=a fost foame].
have.1SG seen that **the.DAT** **Ion** **3SG.DAT**=have.3SG been hunger

b. **L**=am văzut **pe** **Ion** [că **i**=a fost foame].
3MSG.ACC=have.1SG seen **DOM** **Ion** that **3SG.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 that these constructions are derived by cross-clausal movement and 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 dative clitic downstairs. 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 $H_{\langle [A], [B], \ldots [Z] \rangle}$, 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),[4] 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 (§2). Then, I detail the behavior of C agreement with different permutations of arguments in a clause, demonstrating that C indexes the lowest third person argument after A-movement (§3). With the empirical puzzle thus set, I take a detour to the land of (multiple) case marking (§4.1), motivating the morphological rule of Expone Outermost, and then extend it to agreement and use it to derive Passamaquoddy lowest-preference (§§4.2–4.3). Next, I argue against various alternative accounts of lowest preference in

[4] "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.

Passamaquoddy, demonstrating that they all run into fatal empirical issues (§5). Finally, I extend the analysis to capture variation in C agreement across Algonquian, and discuss various welcome typological extensions and predictions of the analysis (§6).

2 Background

Here I provide some background on Algonquian morphosyntactic phenomena that will be relevant for the discussion ahead—obviation, the verbal template, and the inverse.

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 be obviative. 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 obviative being the morphologically more marked category. In Passamaquoddy, as in several (but not all) Algonquian languages, the proximate-obviative distinction is limited to animate third persons.[5] 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 (see also Aissen 1997). For more on obviation in Passamaquoddy specifically, I refer the interested reader to Grishin (2023b:§2.5).

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 render the verb forms I present 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:

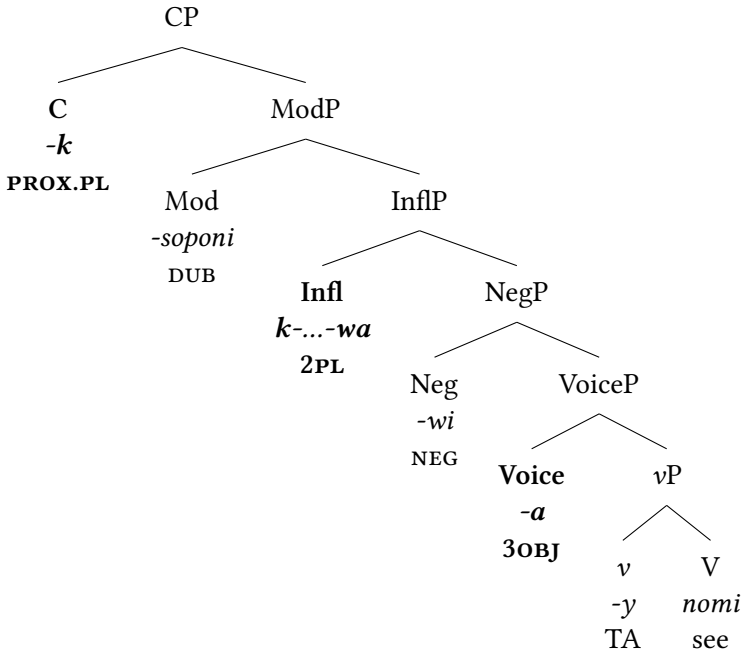
[5]This wasn't always the case: in older varieties of Passamaquoddy, verbs would very occasionally show obviative agreement with inanimates, demonstrating that there used to be a proximate-obviative contrast for inanimates (LeSourd 1988:32).

(6) *ma-te knomiyawiwasoponik* 'y'all apparently didn't see them$_{\text{PROX}}$'[6]

a.

k-	[nomi	-y]$_{\text{stem}}$	**-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**

b.



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).[7] 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 FINALS, 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.

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

[7]A 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 (2017a, 2019a,b). This analysis is also adopted by Bruening (2001), Hammerly (2020), and Grishin (2023b). The latter analysis is more common in the theoretical literature: see Halle and Marantz (1993), McGinnis (1995), Brittain (2001), Cook (2014), Richards (2004), Oxford (2014), Bondarenko (2020), Bogomolets et al. (2023), among others. I side with the former analysis here, as it correctly captures the fact that the prefix and the central suffix act as a single unit and disappear together in the C-Infl bleeding relationship discussed by Oxford (2017a, 2019a, 2020) and Grishin (2023b).

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), 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 1/2 > PROX > OBV.[8] The placement of central agreement in Infl follows Halle and Marantz (1993), Bruening (2005), Coon and Bale (2014), Hamilton (2017), among others.

3. **Peripheral agreement:** Located in C, it agrees in animacy, obviation, and number with the lowest clausemate 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):[9]

(7) 1/2 > 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 (bolded) indexing the agent and Voice (underlined) indexing the patient (8a), and the inverse agreement pattern involves Infl indexing the patient and Voice displaying the inverse morpheme *-oku* (8b):

(8) a. Direct

n-	kikehl	<u>-a</u>	**-n**
1-	cure$_{TA}$	<u>-3OBJ</u>	**-1PL**
Infl		<u>Voice</u>	**Infl**

'**we** cured <u>her</u>'

b. Inverse

n-	kikehl	<u>-oku</u>	**-n**
1-	cure$_{TA}$	<u>-INV</u>	**-1PL**
Infl		<u>Voice</u>	**Infl**

'She cured **us**'

In (8a), we have a direct agreement pattern, with Infl indexing the first person plural agent with the prefix *n-* '1-' and suffix *-n* '-1PL', and Voice indexing the third person patient with the suffix *-a*

[8] In 1>2 and 2>1 scenarios, Infl can agree with and index features from both arguments; see discussion by Bruening (2001:124–125) and Oxford (2019a,b). Infl does not obviously show agreement with inanimates in Passamaquoddy.

[9] This 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.

'-3OBJ' (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* '-INV'.

Several authors have argued that direct and inverse agreement patterns reflect distinct syntactic derivations (Rhodes 1976, 1994, Bruening 2001, 2005, 2009, Quinn 2006, Oxford 2019b, a.o.).[10] The general idea is that in the direct, the agent has the syntactic properties of subjects, whereas in the inverse, the patient does. Here I follow a kind of mixed view espoused by Oxford (2023, 2024) and Grishin (2024b, 2023b), in which the 3>3 inverse involves this kind of syntactic inversion, but the 3>SAP (speech act participant) inverse does *not*. Grishin and Oxford argue that 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 (see Oxford 2023, 2024 and Grishin 2024b, 2023b for more extensive argumentation)—instead, I'll present an argument from scope to illustrate the difference between the 3>SAP and 3>3 inverses. Essentially, the observation is that object quantifiers can scope over the external argument only in the 3>3 inverse, and not the 3>SAP inverse or the direct:[11]

(9) a. **3>3 direct**: IA $\gg$ EA **impossible**

Psi=te kesinuk-hoti-c-ik **taktal** 't-ankeyuw-a-`.
all=EMPH IC.be.sick$_{AI}$-PL-3CJ-PROX.PL **doctor** 3-care.for$_{TA}$-3OBJ-OBV.PL
'**A doctor** is taking care of all the sick people.' (Bruening 2001:112)

$\forall \gg \exists$: #
$\exists \gg \forall$: ✓

b. **3>SAP inverse**: IA $\gg$ EA **impossible**[12]

Context 1: Me, Edwina, and Elise are out on a walk, when all of a sudden three angry dogs come running out. One bites me, one bites Edwina, and one bites Elise.
Context 2: Me, Edwina, and Elise are out on a walk, when all of a sudden an angry dog comes running out and bites each of us.

Psi=te nilun n-kisi= pokehl-oku-n **pesq olomuss**.
all=EMPH 1PL 1-PFV= bite$_{TA}$-INV-1PL **one dog**
'**One dog** bit all of us.' (Grishin 2023b:70)

Context 1 ($\forall \gg \exists$): #
Context 2 ($\exists \gg \forall$): ✓

c. **3>3 inverse**: IA $\gg$ EA **possible**

Context 1: My three cats all came home injured: one was bitten by a snake, one was scratched by a raccoon, and the third was stung by a bee.
Context 2: My three cats all got stung by the same angry bee.

Psi=te n-posu-m-ok '-kisi= ksehl-oku-wa-l **pesku-wol weyossis-ol**.
all=EMPH 1-cat-POSS-PROX.PL 3-PFV= hurt$_{TA}$-INV-PL-OBV.SG **one-OBV.SG animal-OBV.SG**
'All of my cats were injured by **one animal**.' (Grishin 2023b:68–69)

Context 1 ($\forall \gg \exists$): ✓
Context 2 ($\exists \gg \forall$): ✓

[10] Though see Dahlstrom (1991) and Lochbihler (2012) for opposing views.

[11] As Bruening (2001) and Grishin (2023b) notes, word order doesn't seem to matter for scope relations in Passamaquoddy.

Under the assumption that scope is determined by c-command and A-movement expands scope possibilities, this data indicates that in the direct (9a) and the 3>SAP inverse (9b) the internal argument never A-moves over the external argument, as it cannot scope over it. In contrast, since the 3>3 inverse allows for IA ≫ EA scope (9c), we can conclude that the internal argument *has* indeed moved over the external argument. Thus, there is a syntactic difference lying underneath the surface morphological similarity between the 3>SAP and 3>3 inverse: the 3>3 inverse involves true syntactic inversion, whereas the 3>SAP inverse does not.

3 The data

With that background out of the way, let's turn our attention to 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 provide the possible exponents of C agreement in Passamaquoddy below:

(10) C agreement suffixes[13]

	IN	PROX	OBV
SG	*-Ø*	*-Ø*	*-(o)l*
PL	*-(o)l*	*-(o)k*	*-`*

In this section, I go through different permutations of arguments in a clause, looking at the behavior of C agreement in each. First I examine 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 2023c for detailed argumentation supporting this interpretation of the facts across Algonquian). I then 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, I discuss ditransitives, showing that C always index the lowest argument, the theme. Throughout, I default to 'she/her' as the translation for 3SG (though Algonquian languages don't grammatically distinguish masculine/feminine gender), use first person plural exclusive forms to exemplify SAPs—other first and second person forms behave the same way—and underline the controller of C agreement in the English translation.

[12]This example features an SAP quantifier *psi-te nilun* 'all of us'. These can take wide scope and give us distributive readings just like third person quantifiers:

(i) *Context: Me, Elise, and Tanya all love cats, and have recently decided to adopt. I adopted one cat, Elise adopted one cat, and Tanya adopted one cat—a total of three cats got adopted.*

Psi=te **nilun** n-kisi= maceph-a-n pesq psuwis.
all=EMPH **1PL** 1-PFV= bring.in$_{TA}$-3OBJ-1PL one cat

'**Each of us** brought home one cat.' (Grishin 2023b:69)

∀ ≫ ∃: ✓

Thus, the problem with (9b) really is due to the impossibility of IA ≫ EA scope in the 3>SAP inverse, rather than *psi-te nilun* 'all of us' somehow not being a true quantifier.

[13]The grave accent ` represents the exponent of obviative plural agreement, a low pitch accent that associates with the underlying final vowel of the verb—see LeSourd (1993) for detailed discussion. This isn't marked in the standard orthography.

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:

(11) a. n-ulapewi-pon
1-be.handsome$_{AI}$-1PL
'we$_{EXCL}$ are handsome'

b. wolapewi-w-**ok**
be.handsome$_{AI}$-3-**PROX.PL**
'they$_{PROX}$ are handsome'

c. wolapewi-w-**ol**
be.handsome$_{AI}$-3-**OBV.SG**
'he$_{OBV}$ is handsome'

d. pileyawi-w-**ol**
be.new$_{II}$-3-**IN.PL**
'they$_{IN}$ are new'

With an SAP subject (11a), we get no C agreement (the agreement we do see is Infl agreement). In contrast, when we have a third person subject (11b-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 scenarios (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:

(12) a. n-kinoluw-a-n-**Ø**
1-praise$_{TA}$-3OBJ-1PL-**PROX.SG**
'we$_{EXCL}$ praise her$_{PROX}$'

b. n-kinoluw-a-nnu-**k**
1-praise$_{TA}$-3OBJ-1PL-**PROX.PL**
'we$_{EXCL}$ praise them$_{PROX}$'

(13) a. n-punom-one-n-**Ø**
1-place$_{TI}$-N-1PL-**IN.SG**
'we$_{EXCL}$ place it'

b. n-punom-one-nnu-**l**
1-place$_{TI}$-N-1PL-**IN.PL**
'we$_{EXCL}$ place them$_{IN}$'

In (12) we have an animate patient and in (13) 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:

(14) a. n-kinoluw-oku-n-**Ø**
1-praise$_{TA}$-INV-1PL-**PROX.SG**
'she$_{PROX}$ praises us$_{EXCL}$'

b. n-kinoluw-oku-nnu-**k**
1-praise$_{TA}$-INV-1PL-**PROX.PL**
'they$_{PROX}$ praise us$_{EXCL}$'

(15) a. n-kikehl-oku-ne-n-**Ø**
1-heal$_{TA}$-INV-N-1PL-**IN.SG**
'it heals us$_{EXCL}$'

b. n-kikehl-oku-ne-nnu-**l**
1-heal$_{TA}$-INV-N-1PL-**IN.PL**
'they$_{IN}$ heal us$_{EXCL}$'

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 [u–PART] or [u3] (whose exact specification will be refined later). See Grishin (2023c) 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 2023c). But in striking defiance of the typical locality of agreement, 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:

(16) a. ’-kinoluw-a-wa-**l**
3-praise$_{\text{TA}}$-3OBJ-PL-**OBV.SG**
‘they$_{\text{PROX}}$ praise <u>her</u>$_{\text{OBV}}$’

b. ’-kinoluw-a-wa-**`**
3-praise$_{\text{TA}}$-3OBJ-PL-**OBV.PL**
‘they$_{\text{PROX}}$ praise <u>them</u>$_{\text{OBV}}$’

(17) a. ’-punom-oni-ya-**Ø**
3-place$_{\text{TI}}$-N-PL-**IN.SG**
‘they$_{\text{PROX/OBV}}$ place <u>it</u>’

b. ’-punom-oni-ya-**l**
3-place$_{\text{TI}}$-N-PL-**IN.PL**
‘they$_{\text{PROX/OBV}}$ place <u>them</u>$_{\text{IN}}$’

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:

(18) a. ’-kinoluw-oku-wa-**l**
3-praise$_{\text{TA}}$-INV-PL-**OBV.SG**
‘<u>she</u>$_{\text{OBV}}$ praises them$_{\text{PROX}}$’

b. ’-kinoluw-oku-wa-**`**
3-praise$_{\text{TA}}$-INV-PL-**OBV.PL**
‘<u>they</u>$_{\text{OBV}}$ praise them$_{\text{PROX}}$’

(19) a. ’-kikehl-oku-ni-ya-**Ø**
3-heal$_{\text{TA}}$-INV-N-PL-**IN.SG**
‘<u>it</u> heals them$_{\text{PROX/OBV}}$’

b. ’-kikehl-oku-ni-ya-**l**
3-heal$_{\text{TA}}$-INV-N-PL-**IN.PL**
‘<u>they</u>$_{\text{IN}}$ heal them$_{\text{PROX/OBV}}$’

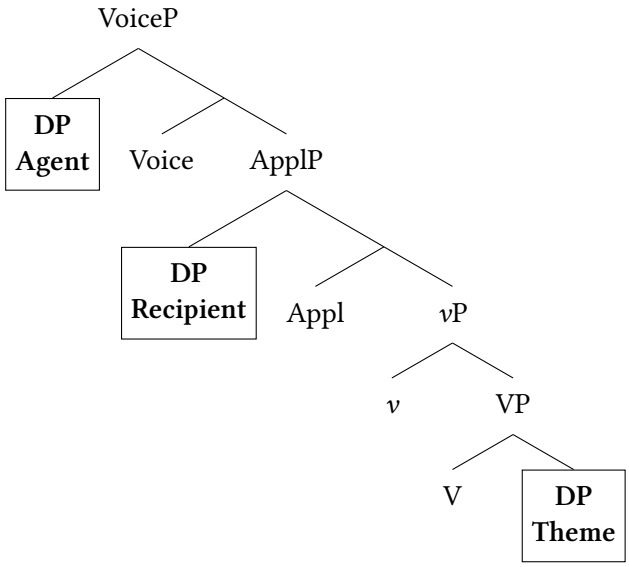
Again, this is lowest preference: as we’ve seen, in the 3>3 inverse the patient A-moves over the agent, rendering it closer to C. Accordingly, C skips over the patient to index the features of the (now) lower agent. The agreement pattern in the 3>3 inverse thus illustrates one of the core puzzles by 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, and my vP added; I also don’t represent the structure above VoiceP):

(20)



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:

(21) a. [$_R$ **Psi=te wen**] n-kisi= messunom-uw-a-n [$_T$ oqiton kisihta-q].
all=EMPH who 1-PFV= show$_{TI}$-APPL-3OBJ-N canoe IC.make$_{TI}$-3CJ
'I showed **everyone$_i$** the canoe he$_i$ built.' (Bruening 2001:135)

b. *N-kisi= messunom-uw-a-n-ol [$_T$ psi=te oqitonu-l][$_R$ **kisihta-q-il**].
1-PFV= show$_{TI}$-APPL-3OBJ-N-IN.PL all=EMPH canoe-IN.PL **IC.make$_{TI}$-3CJ-IN.PL**
Intended: 'I showed every canoe$_i$ **to the one who made it$_i$**.' (Bruening 2001:135)

In (21a), 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 (21b), 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:

(22) a. nt-oliht-uw-**a**-ne-n-Ø 1>3, direct
1-make$_{TI}$-APPL-**3OBJ**-N-1PL-IN.SG
'we$_{EXCL}$ make it for them$_{PROX/OBV}$'

b. nt-oliht-a-**ku**-ne-n-Ø[15] 3>1, inverse
1-make$_{TI}$-APPL-**INV**-N-1PL-IN.SG
'they$_{PROX/OBV}$ make it for us$_{EXCL}$'

In (22a) the agent outranks the recipient, and we get the direct agreement pattern, with Voice (bolded) agreeing with the goal, and in (22b) 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

[15]The 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.

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

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:

(23) a. 't-oliht-uw-a-ni-ya-**l**
3-make$_{TI}$-APPL-3OBJ-N-PL-**OBV.SG**
'they$_{PROX}$ make <u>it</u>$_{OBV}$ for her/them$_{OBV}$ '

b. 't-oliht-uw-a-ni-ya-`
3-make$_{TI}$-APPL-3OBJ-N-PL-**OBV.PL**
'they$_{PROX}$ make <u>them</u>$_{OBV}$ for her/them$_{OBV}$ '

(24) a. 't-oliht-a-ku-ni-ya-**l**
3-make$_{TI}$-APPL-INV-N-PL-**OBV.SG**
'she/they$_{OBV}$ make <u>it</u>$_{OBV}$ for them$_{PROX}$ '

b. 't-oliht-a-ku-ni-ya-`
3-make$_{TI}$-APPL-INV-N-PL-**OBV.PL**
'she/they$_{OBV}$ make <u>them</u>$_{OBV}$ 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.[16] In (23) we have direct verb forms, with a proximate agent and obviative recipient, and in (24) 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 has to skip 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—it agrees with the patient of a direct monotransitive, the agent of an inverse monotransitive, and the theme of a ditransitive. This is a strikingly nonlocal agreement pattern: why should a probe prefer the *furthest* accessible matching goal, sometimes skipping over two matching goals on its way there? This is the theoretical puzzle to which I now turn: how should we understand Passamaquoddy lowest preference?

4 Expone Outermost

In this section, I present a new analysis of lowest preference that combines insights from the literature on multiple case marking and agreement with multiple goals. I show that existing analyses of the morphological outcomes of multiple case assignment naturally extend to the domain of multiple agreement, and can straightforwardly derive the kind of lowest-preference we find in Passamaquoddy. The core idea is that a multiply-valued head, whether this is derived by multiple case assignment or multiple agreement, can be parametrized to only expone the *last*-assigned feature bundle: Expone Outermost.

[16] 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.

4.1 A detour to the land of case

To get to our final destination, we must first make a stop at the land of case. The literature on case has shown that it's possible for a single nominal to have been assigned multiple case values over the course of a syntactic derivation (Béjar and Massam 1999, Richards 2012, Pesetsky 2013, Levin 2017, Chen 2018, Caha 2023, Mikkelsen and Thrane 2023, a.o.). In the most straightforward instances of this, all these multiple cases can be exponed on the surface, a phenomenon often called CASE STACKING.

In some languages we find this in the domain of A-movement: a nominal is first assigned one case, and then A-moves into a new domain and receives an additional case value. Korean (Koreanic) and Amis (Austronesian) are two languages where this is (sometimes) transparently visible on the surface—though interestingly, in these two languages overt case stacking is only possible under specific informational-structural conditions: focus in Korean and contrastive topic in Amis. In Korean, it's possible to stack nominative or accusative case on top of dative (Gerdts and Youn 1988, 1989, Schütze 2001, Yoon 2004, Levin 2017, a.o.):

(25) a. **Cheli-hanthey-ka** ton-i isse.
Cheli-DAT-NOM money-NOM have
'Cheli has money.' Korean (Levin 2017:448)

b. Swunhi-ka **Yenghi-hanthey-lul** chayk-ul cwuesse.
Swunhi-NOM **Yenghi-DAT-ACC** book-ACC gave
'Swunhi gave Yenghi the book.' Korean (Levin 2017:448)

Levin (2017) argues that this is derived by A-movement into a new case domain: in certain constructions dative is assigned within the VP phase, and then if the relevant argument moves out into the TP phase, it gets assigned case again (either nominative or accusative, depending on whether it's the highest argument in the TP phrase).

We find similar data in Amis (Chen 2018), with the additional observation that raising-to-object can also feed case stacking:

(26) a. Kirami, caay ho ka-foti' **ko-no-ya wawa**.
but NEG still STV-sleep **NOM-GEN-that child**
'But that child is not sleeping yet.' Amis (Chen 2018:186)

b. Ma-fana' kako **to-ko-no tawki** mi-tangtang to kalang.
IPFV.STV-know 1SG.NOM **ACC-NOM-GEN boss** IPFV.AV-cook ACC crab
'I know that the boss, she's cooking the crabs.' Amis (Chen 2018:198)

In (26a), Chen argues that *ya wawa* 'that child' is first assigned genitive within the *v*P, and then assigned nominative once it has moved out into the TP domain, resulting in case stacking, just like in Korean. In (26b), *tawki* 'boss' has undergone that derivation in the embedded clause, and then raises to object and receives a third case, accusative—and all three case values are overtly exponed.

But outside of focus and contrastive topic, these DPs generally only show one case on the surface.[17] In Korean you typically only pronounce one of the stacked cases—but either one is possible:

[17] I just focus on Korean here; the case of Amis is slightly more complicated in ways that don't concern us, so I won't discuss it—I refer the interested reader to Chen (2018).

(27) Korean DAT-NOM case stacking: can realize either case

a. **Cheli-hanthey** ton-i isse.
Cheli-DAT money-NOM have

b. **Cheli-ka** ton-i isse.
Cheli-NOM money-NOM have
Both: 'Cheli has money.' Korean (Levin 2017:474)

(28) Korean DAT-ACC case stacking: can realize either case

a. Swunhi-ka **Yenghi-hanthey** chayk-ul cwuesse.
Swunhi-NOM **Yenghi-DAT** book-ACC gave

b. Swunhi-ka **Yenghi-lul** chayk-ul cwuesse.
Swunhi-NOM **Yenghi-ACC** book-ACC gave
Both: 'Swunhi gave Yenghi the book.' Korean (Levin 2017:474)

Levin (2017) proposes that these case-alternating DPs are first assigned dative within the VP, and then can move out of the VP phase to be assigned either nominative or accusative in the higher phase—exactly the same derivation proposed for the case-stacking DPs in (25). It seems then that in the general case, the grammar forces the exponence of only a *single* case value, but it can be either the inner or outer case. In support of this conclusion, Levin demonstrates that when the relevant DP surfaces with (only) the outer case (nominative or accusative), it shows the syntactic and semantic properties associated with having moved to a higher position, and when the relevant DP surfaces with (only) the inner case, it could have either remained low or moved high. The result is this:

1. If the relevant DP remains low (within the VP phase), it can only surface with the inner case (dative), as that's the only case it has been assigned within the derivation.

2. If the relevant DP moves to the TP domain, it can surface with just the inner case, just the outer case, or both cases (under focus).

Levin argues that the choice between these last three options (inner case, outer case, both cases) is morphological, not syntactic—the underlying syntactic derivation (the number and identity of cases assigned) is the same for all three options, and the only difference is the surface pronunciation.

If it's possible for a DP that has received multiple case values over the course of the derivation to sometimes only realize one of those features on the surface, we predict, all else being equal, that there should be languages where this is the *only* morphological outcome available in instances of multiple case assignment. Indeed, Pesetsky (2013) proposes exactly this in his analysis of case morphology with Russian numerals, where he argues that multiple cases can be assigned to the head noun and only the outermost, last-assigned case value can be exponed (the ONE-SUFFIX RULE, "Delete all but the outermost case suffix"; Pesetsky 2013:11).

In syntactic domains more parallel to those found in Korean and Amis, there are instances of A-movement that should result in multiple case assignment where only the outermost case is realized. For instance, in Niuean (Polynesian), embedded ergatives can (hyper)raise to subject or object out of finite clauses, resulting in their ergative case getting "overwritten" with absolutive (Seiter 1980, Massam 1985):

(29) Raising to subject

a. To maeke [ke lagomatai **he** **ekekafo** e tama ē]. No raising
FUT possible SBJV help **ERG** **doctor** ABS child this

b. To maeke **e** **ekekafo** [ke lagomatai *t* e tama ē]. Raising
FUT possible **ABS** **doctor** SBJV help ABS child this
Both: '**The doctor** could help this child.' Niuean (Seiter 1980:158)

(30) 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

b. To nākai toka e au **e** **pusi** [ke kai *t* e ika]. Raising
FUT not let ERG 1SG **ABS** **cat** SBJV eat ABS fish
Both: 'I won't let **the cat** eat the fish'. Niuean (Seiter 1980:196)

The (a) examples contain sentences without raising, where we can note that the embedded subject is able to receive case downstairs—in these examples, ergative case. However, the embedded subject can also raise out of the finite clause, as in the (b) examples, and the result of this is that the raised DP now surfaces with *absolutive* case, rather than ergative (see Seiter 1980 and Massam 1985 for arguments that this really does involve A-movement derivation). Since the embedded subject in the (a) examples can just as well receive ergative when it stays low, it's reasonable to assume, by parity with Amis (26b), that the hyperraised DP in the (b) examples also gets assigned ergative downstairs. Thus, *ekekafo* 'doctor' and *pusi* 'cat' actually get assigned *two* cases over the course of the derivation in the (b) examples, but only the last-assigned, "outermost" case is realized on the surface.[18] This phenomenon isn't restricted to Niuean—we already saw similar data from Romanian in the introduction (2–3), and we find the same behavior in with ABS overwriting ERG in Kalaallisut (Inuit) overt hyperraising to object (Mikkelsen and Thrane 2023).[19]

To summarize the discussion so far: *(i)* DPs can receive multiple case values over the course of the syntactic derivation, and *(ii)* DPs in a particular language can be parametrized to spell out only the last, "outermost" case assigned. At this point, it's useful to step back and note the following two properties of what's been sketched out so far, one formal and one conceptual. The formal point is that, in order to be able to state these kinds of positional rules like "expone the outermost case", the representation of multiple cases on a DP must be *orderable*. These multiple case values cannot

[18]Line Mikkelsen (p.c.) points out that in cases of covert hyperraising, where there is evidence of a cross-clausal A-movement and yet the "raised" DP is pronounced in the embedded clause, it appears that the case realized is always the *internal* case, never the external one. This behavior is found in Adyghe (Potsdam and Polinsky 2012), Nez Perce (Deal 2017), and Kalaallisut (Mikkelsen and Thrane 2023). This can be captured under my analysis if we assume that distinct copies in a movement chain can bear different features. Thus, the lower copy will bear only the case assigned to it in the embedded clause, and the higher copy will bear both the downstairs case and the upstairs case. If we choose to pronounce the lower copy, resulting in covert raising, only the lower case can be realized. If we choose to pronounce the higher copy, resulting in overt raising, either case (or all cases) could in principle be realized, depending on language-internal factors.

[19]There are also many examples of this in nominative-accusative languages with hyperraising to object where embedded nominatives get "overwritten" with matrix accusative, like in Korean and Japanese (Yoon 2007), Turkish (Şener 2008, 2011), and Mongolian (Fong 2019). For overviews, see Wurmbrand (2019), Lohninger et al. (2022), and Zyman (2023). I leave these cases aside here due to the possibility of nominative being the absence of case—if so, these instances of raising to accusative wouldn't actually involve case stacking (as proposed by Kornfilt and Preminger 2015).

be represented as an unordered set like {[GEN], [NOM], [ACC], ...}. Minimally, we'd need an ordered list, which I represent using angle brackets: ⟨[GEN], [NOM], [ACC], ...⟩. For concreteness's sake, I will adopt ordered list representation of multiple feature values on a single node, though other analytic options are available. The ordering of the list must reflect the derivational order in which each feature bundle was acquired. For instance, if a DP is first assigned ergative and then absolutive, we can represented this as ⟨[ERG], [ABS]⟩, with ergative preceding absolutive in the ordering.[20]

The broader conceptual point is that the choice of which case to pronounce is fundamentally a *morphological* property, which can parametrically vary across languages (or even across particular constructions/heads). The mechanisms involved in this kind of account—an ordered/orderable representation of multiple feature values on a single syntactic object, and a morphological statement about how to realize that resulting syntactic object—aren't specific to the morphosyntax of case, as already noted by Pesetsky (2013). These principles are straightforwardly generalizable to *any* situation in which a syntactic object receives multiple feature values over the course of a derivation. When this happens there's always a choice point in the morphology: do we realize all these feature bundles separately (like in case stacking)? Or do we realize only one feature bundle? If so, which one?[21] In fact, we'd need an additional stipulation of some kind to somehow restrict these kinds of morphosyntactic operations to the domain of case only.

We can thus generalize the analysis sketched above for case to a more general rule of Expone Outermost, applying to any situation where a head receives multiple feature values of the same type:

(31) *Expone Outermost*

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

Is so, we should then expect to see similar cases of exponing only the outermost feature bundle in other syntactic domains. I now turn to exactly this situation in the land of agreement.

4.2 Arriving at the land of agreement

Just as in the domain of case, the φ agreement literature has also shown that there are instances of a single head agreeing with multiple goals (see also the literature on multiple *wh* movement for a similar point: Rudin 1988, Richards 1997, a.m.o.). We find this in Nez Perce (Sahaptian), where C can agree with both subject and object in certain configurations (those where the subject isn't second person—see Deal 2015a,b for discussion):

(32) a. ke-**m-ex** kaa cewcew-téetu
C-**2-1** then telephone-HAB.PRS
'when I call you' (Deal 2015b:410)

b. ke-**pe-m** kaa Angel-nim kaa Tatlo-nm hi-cewcew-tée-'nix
C-**PL-2** then Angel-ERG and Tatlo-ERG 3SBJ-telephone-HAB.PRS-PL.SBJ
'when Angel and Tatlo call you' (Deal 2015b:410)

[20] This idea isn't new. For discussion of this point in the domain of agreement, see Deal (2015a) and especially Hammerly (2020), who proposes the principle PRESERVATION OF HISTORY: "If a probe P Matches with and Copies the set of a goal *G* on the first cycle, and then the set of a goal *H* on the second cycle, the Copied sets are kept in an ordered set (*G*, *H*)" (Hammerly 2020:213). See also Section 4.2 immediately below.

[21] For discussion of the various morphological outcomes of multiple valuation, I refer the reader to the conclusion (§7).

In (32a), C shows both first person *-ex* and second person *-m* markers, indexing the 1SG subject and 2SG object. In (32b), C shows both plural *-pe* and second person *-m*, indexing the 3PL subject and 2SG object. This seems like a straightforward instantiation of a single head agreeing with multiple goals—akin to case stacking in Korean and Amis.

A similar situation obtains in the domain of portmanteau agreement, where at least some portmanteaux seem to be derived by a single head agreeing with multiple goals (e.g. Georgi 2013, Woolford 2016, a.o.). We find evidence for this across Algonquian, where there are a number of portmanteau agreement suffixes in Infl in the CONJUNCT ORDER, a particular verbal inflectional paradigm typically found in embedded clauses (for a near-exhaustive survey of conjunct portmanteaux and their morphological properties across the family, see Grishin and Oxford 2023a). Some of these portmanteaux suffixes have been argued to be derived by Infl agreeing with both subject and object (Hammerly 2020, Oxford and Xu 2020, Grishin and Oxford 2023b).[22] For instance, Grishin and Oxford (2023b) argue that all conjunct portmanteaux in Nipissing Algonquian (Central Algonquian) are derived by multiple agreement—below, I exemplify with *-angid* '1PL:3' and *-amind* '3:1PL':

(33) a. wàbam-à-w-**angid**-wà-ban-èn 1PL>3PL
see$_{TA}$-3OBJ-DUB-**1PL:3CJ**-3PL-PRET-DUB
'if <u>we</u> were to see <u>them</u>'

b. wàbam-i-w-**amind**-wà-ban-èn 3PL>1PL
see$_{TA}$-1OBJ-DUB-**3:1PL.CJ**-3PL-PRET-DUB
'if <u>they</u> were to see <u>us</u>' Nipissing Algonquin (Jones 1977:126–127)

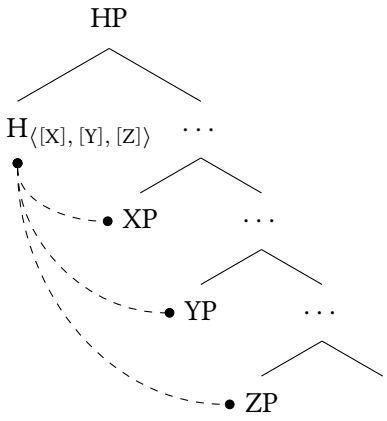
That these portmanteaux spell out multiply-valued Infl is evidenced by the following two observations: *(i)* the Infl portmanteaux are not disrupted by the dubitative suffix *-w* 'DUB' intervening between Infl and object agreement in Voice (*-à* '3OBJ' or *-i* '1OBJ'), suggesting that they aren't derived by (local) contextual allomorphy or some kind of adjacency-sensitive morphological process like Fusion or Spanning; and *(ii)* the 3PL supplement *-wà* '3PL' can be Fissioned off of Infl whether the 3PL features come from the subject or object, indicating that Infl has agreed with both subject and object in both these forms (see Oxford 2019a on Fission in the Algonquian verb). Thus, we also find evidence for a single head agreeing with multiple goals in the domain of portmanteau agreement.

Note also that *-angid* '1PL:3' and *-amind* '3:1PL' don't differ in the features of the arguments indexed—in both cases they're first person plural and third person. They also likely don't differ in case, as Algonquian languages uniformly don't show (surface) structural case distinctions (see also footnote 23). Thus, as Hammerly (2020) notes, we need an *ordered* representation of these multiple feature bundles on Infl to distinguish these two situations, $\langle$[1PL], [3]$\rangle$ versus $\langle$[3], [1PL]$\rangle$, exactly as was needed for multiple case. Both multiple case assignment and multiple agreement result in the same kind of ordered representations of multiple feature values on a single syntactic object.

I illustrate an abstract instance of multiple agreement in the tree in (34):

[22] See also Woolford (2016), Compton (2016, 2018), and Yuan (2018, 2021) for similar conclusions for Inuit languages.

(34)



In (34), H has agreed with all of XP, YP, and ZP, in that order, and copied over their features, resulting in an ordered list of feature bundles ⟨[X], [Y], [Z]⟩ on H. In the most transparent case, this would result in all these feature bundles being exponed on H, similar to Nez Perce complementizer agreement or Nipissing Algonquin conjunct Infl.

But recall the principle of Expone Outermost that we developed to account for outermost case phenomena in the domain of multiple case assignment. If Expone Outermost were in action for our head H above, then we'd only expone the *last* feature bundle that H acquired—the features copied from ZP. The surface result of this would be agreement with the least local goal: lowest preference. While on the surface this might look like a strikingly nonlocal agreement dependency, this particular syntactic derivation of this pattern entirely obeys typical assumptions about the locality of Agree: H probes its search space from closest to furthest (see more in-depth discussion on locality and search in Branan and Erlewine 2022).

Note also that this outcome is entirely predicted by pre-existing and independently-motivated theoretical mechanisms—we haven't invented any novel syntactic or morphological machinery to derive this result. I've simply combined a pre-existing analysis of a particular outcome of multiple case assignment with a by-now standard assumption that heads can agree with multiple goals. Thus, this kind of lowest preference effect in φ agreement actually comes for free from this particular combination of pre-existing and independently-motivated parts: multiple φ agreement followed by Expone Outermost. Indeed, we'd need some kind of extra principle to rule out this combination, and it's not entirely clear what that would be (or even if that would be desirable in the first place).

4.3 Applying the idea to Passamaquoddy

With the theoretical machinery appropriately motivated, I turn to applying Expone Outermost to Passamquoddy. For concreteness, I adopt the following binary person feature system, taken from Nevins (2007), though the analysis can be implemented in a number of other feature systems, as long as they have a non-underspecified representation of third person (see Grishin 2023b,c for discussion):

(35) a. First person exclusive: [+PART, +AUTH]

b. First person inclusive: [+PART, +AUTH, ADDR]

c. Second person: [+PART, −AUTH, ADDR]

d. Third person: [−PART, −AUTH]

I will also adopt (a version of) Deal's (2015a, 2023, 2024) Interaction/Satisfaction model of Agree, where probes are specified for two kinds of features: INTERACTION FEATURES, which identify what kinds of goals the probe will copy features from, and SATISFACTION FEATURES, which identify what kinds of features will stop the probe's search (see the citations above for more concrete details). To augment this system, I make the following two additional stipulations:

1. Probes can be relativized to *negative* feature values (see discussion by Grishin 2023b,c).

2. Feature copying is *coarse*—that is, *all* features of the goal are copied onto the probe, not just those that entail the interaction feature (following Baier 2018, Hammerly 2020, Coon and Keine 2021, Joshi 2021, Deal and Royer 2023, Grishin 2023b,c, Bondarenko and Zompì 2024).

With this in place, we can simply say that Passamaquoddy C is an INSATIABLE probe—one lacking a satisfaction condition—and will thus copy features from *every* goal within its locality domain that matches its interaction condition. Its interaction condition must be third person, as it probes omnivorously for third persons only and never interacts with first or second persons (a property of C agreement shared across Algonquian, Grishin 2023c). Finally, to derive lowest preference, we can parametrize C for Expone Outermost. We thus end up with the following:

(36) Passamaquoddy C: [INT:−PART, SAT:−] + Expone Outermost

This probe will copy features from every third person within its locality domain, resulting in a multiply-valued head. The features that C copies aren't restricted to third person features, due to the featural coarseness of copying, but will include features like obviation, animacy, and number. When it comes time to spell C out, because of Expone Outermost, only the outermost feature bundle will be spelled out, resulting in lowest preference. This behavior is summarized below:

(37) Omnivorous third person

a. C⟨[Subj.]⟩ … [Subject$_{[-\text{PART}]}$ …] — 3 intransitive

b. C⟨[Ag.]⟩ … [Agent$_{[-\text{PART}]}$ … [Patient$_{[+\text{PART}]}$ …]] — 3>SAP monotransitive

c. C⟨[Pat.]⟩ … [Agent$_{[+\text{PART}]}$ … [Patient$_{[-\text{PART}]}$ …]] — SAP>3 monotransitive

(38) Lowest-preference

a. C⟨[Ag.], [Pat.]⟩ … [Agent$_{[-\text{PART}]}$ … [Patient$_{[-\text{PART}]}$ …]] — 3>3 direct monotransitive

b. C⟨[Pat.], [Ag.]⟩ … [Patient$_{[-\text{PART}]}$ … [Agent$_{[-\text{PART}]}$ … [*t* …]]] — 3>3 inverse monotransitive

c. C⟨[Ag.], [Rec.], [Th.]⟩ … [Agent$_{[-\text{PART}]}$ … [Recipient$_{[-\text{PART}]}$ … [Theme$_{[-\text{PART}]}$ …]]] — Ditrans.

I box the outermost feature bundle, the one that gets exponed, and underline the argument it comes from. In (37) I sketch the behavior of C agreement when there's only one third person, demonstrating the omnivorous third person agreement pattern. In (38) I provide configurations with all third person arguments, showing how C always indexes the lowest third person. I omit the inverse ditransitive derivation (where the recipient A-moves over the agent), as the morphological outcome on C is exactly the same.

This proposal exactly captures the empirical picture we've seen—C overtly indexes only the features from the lowest third person DP in its domain—and it meshes exactly with independently-motivated assumptions about which arguments c-command each other by the time C is merged (agents c-command objects, except in the third person inverse, and recipients c-command themes in ditransitives).

5 Against previous accounts of lowest preference

The analysis I have presented works to capture all the morphosyntactic properties of lowest preference in Passamaquoddy. In this section, I would like to show that various existing accounts in the literature of lowest preference in φ agreement are unable to capture all the facts, and thus the proposed Expone Outermost analysis should be preferred.

Lowest preference is not a newly-discovered 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 the standard assumption that agreement is generally *local* (a result which is derived by probe-goal models of agreement, following Chomsky 2000, 2001, a.m.o.). There are several analyses of lowest-preference that already exist in the literature, among which we can broadly identify four general classes:

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.

4. **Activity Condition** (Oxford 2014, Hammerly 2020, Xu 2022): 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 that Passamaquoddy falsifies 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 (Odribets and Oxford 2023), 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 2024a, a.o.), and we can show that goals that can't have been deactivated can still be skipped over in ditransitives.

5.1 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 ergative-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 only agree with nominals bearing certain case values, usually constrained by a hierarchy of least marked to most marked (Bobaljik 2008, Preminger 2014, Zompì 2017, a.o.). Thus, we could specify Passamaquoddy C to only agree with absolutives, and set up a (covert) case system 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 structural case marking of any sort—nor does any other Algonquian language, for that matter.[23] Nor does any Algonquian language show properties of syntactic ergativity, like ergative extraction restrictions (see also Odribets and Oxford 2023, who argue that Algonquian languages as a whole are not ergative). However, it's not completely inconceivable that there could be covert case marking, perhaps tied to nominal licensing. So, for the purposes of argument, let's grant the possibility of null ergatively-aligned dependent case in Passamaquoddy.

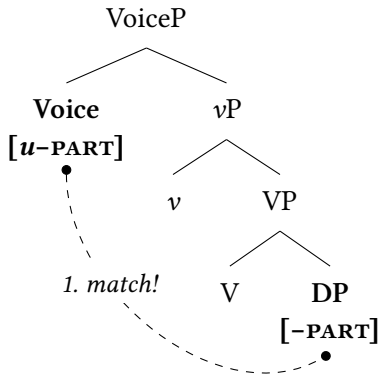
The real issue with the case discrimination account is the fact that C agreement is not linked to syntactic role or position, as C agreement is omnivorous. The sticking point is 3>SAP configurations, which, as discussed above, do not involve syntactic inversion (despite the presence of inverse morphology): the SAP patient remains below the third person agent. In these configurations, the higher argument—the third person agent—would presumably be assigned ergative case, which should render it invisible to C. However, in 3>SAP configurations, C agrees with the third person agent, contrary to the predictions of the case discrimination account. Thus, case discrimination is not a viable path forward for Passamaquoddy lowest-preference.

[23] Algonquian 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.

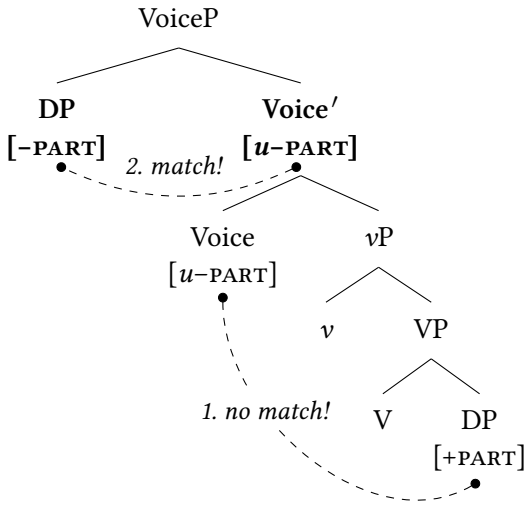
5.2 Against low probe

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 head bearing the probe if it hasn't yet found a full match in its c-command domain (Béjar 2003, Rezac 2003, Béjar and Rezac 2009). For Passamquoddy, this would involve putting the relevant probe in the head that introduces the external argument, which for me is Voice. For a direct monotransitive, this would look as follows for a third person patient (39) and a non-third-person patient (40):

(39)



(40)



If the patient is third person (39), then Voice will simply probe down and copy its features. If the patient is not third person (40), 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 suffix *-(o)sopon(i)* (a past tense marker found in questions, antecedents of counterfactual conditionals, under epistemic modals, and occasionally in traditional narratives).

(41) a. n- conehl -a -nu -poni **-k**
1- stop_{TA} -3OBJ -1PL -PRET **-PROX.PL**
'we stopped them'

b. n- conehl -a -nu -soponi **-k**
1- stop_{TA} -3OBJ -1PL -DUB **-PROX.PL**
'we apparently stopped them'

Moreover, C agreement is several slots outside of what is usually taken to occupy Voice, the theme sign (Bruening 2001, Oxford 2019b, a.o.), which in (41) 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. Grishin (2023b, 2024a) argues that clauses containing verbs inflected in the SUBORDINATIVE MODE, found under verbs like *'puwatomon* 'want' and *'kisehtun* 'make, cause', lack a CP layer entirely. He shows that these clauses cannot host Ā movement to their left edge, behave as if they are non-phasal, and don't feature a C-Infl dissimilation process whereby Infl is Impoverished when C and Infl would index the same goal (on this last point, see also Oxford 2017a, 2020). Most relevantly for our purposes, these clauses also entirely lack C agreement:

(42) Subordinative: C agreement absent

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 2024b:11)

b. Roger '-puwatom-uw-a-n [Asawis-ol 't-olintuwew-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 2024b:12)

(43) Independent: C agreement present

a. ...nt-ahcuwi= ciksotuw-a-nnu-**k** kci= pomasuwinu-wok.
1-must= listen.to$_{TA}$-3OBJ-1PL-**PROX.PL** great= person-PROX.PL
'...we have to listen to the older people.' https://pmportal.org/dictionary/itom

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

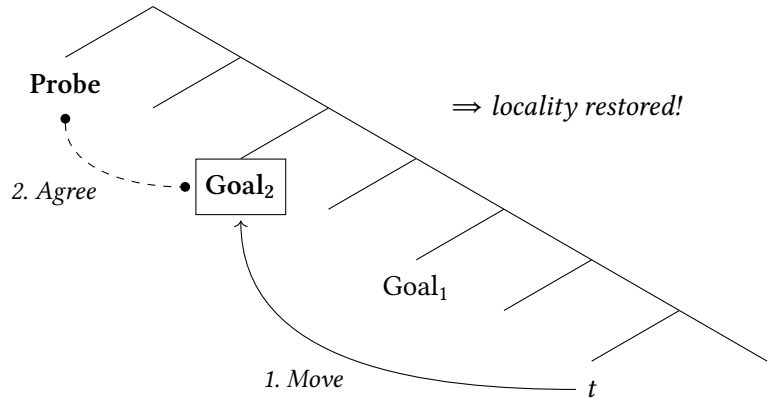
As can be seen by comparing the embedded subordinative verbs *nuskicinuwestuwamanen* 'we speak to her/them in Passamaquoddy' and *'tolintuwewan* 'he sings to her/them' in (42) to the independent verbs *ntahcuwi-ciksotuwannuk* 'we have to listen to them' and *'tucitahamal* 'he likes her this much' in (43), the subordinative verbs lack the C agreement slot found with the independent verbs, which in these cases indexes the third person object.

The systematic absence of C agreement from subordinative verbs falls out entirely naturally if C agreement really is in C, since clauses hosting subordinative verbs lack a CP domain. If C agreement were lower, as the low probe analysis would require it to be, this absence would remain a mystery—especially given how non-local to each other C and Voice are. Therefore, I conclude that the low probe analysis is also not a viable path forward to analyze Passamaquoddy lowest-preference, as it requires the probe to be much lower than it actually is.

5.3 Against syntactic inversion

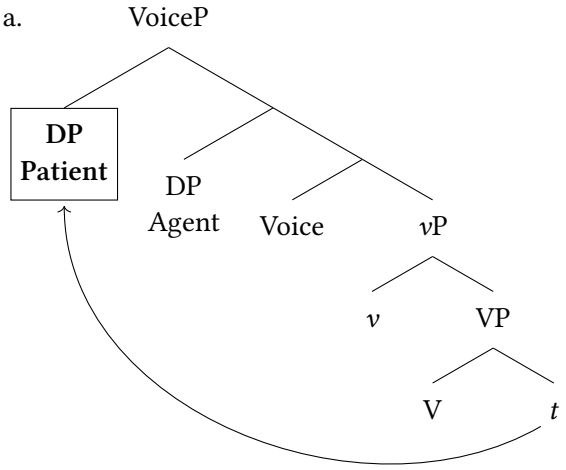
Let's try something else. An approach sometimes presented as an alternative to the low probe account is one involving syntactic inversion. The core idea behind the syntactic inversion analysis of lowest-preference is simple: there is no lowest-preference. Rather, the lower goal has actually moved over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

(44)

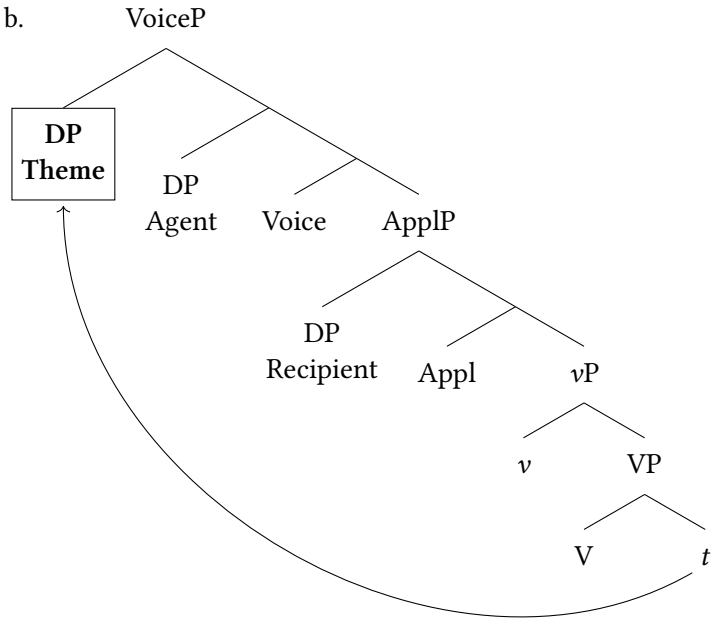


How would a syntactic inversion analysis fare with Passamaquoddy? We'd need to ensure that the lowest argument ends up the most local to C. Let's first consider the case of direct transitives and ditransitives—we need the lowest argument to move over the agent, minimally as follows:

(45) a.



b.

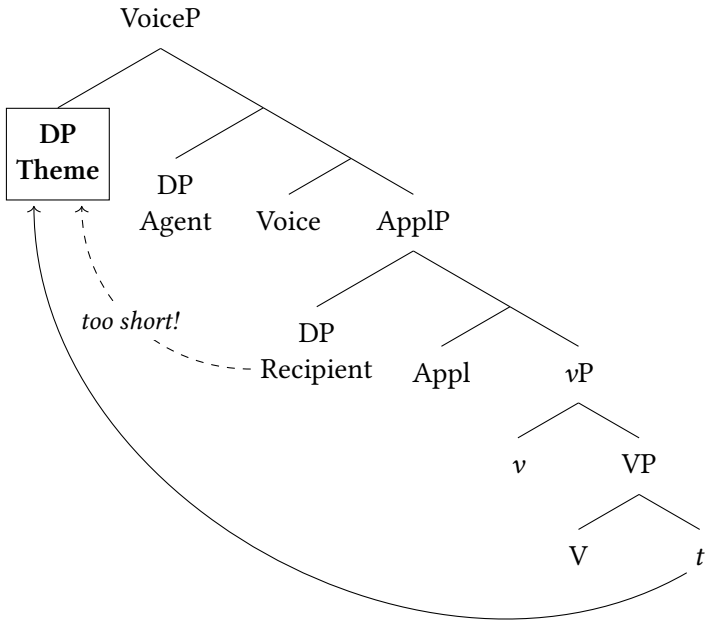


We can set up this state of affairs with two assumptions: *(i)* there is a probe on Voice that attracts a DP to its specifier without tucking-in (contra Richards 1997, 1999); and *(ii)* Spec-to-Spec Antilocality (Erlewine 2016, Deal 2019). In the basic direct monotransitive case, Voice simply probes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

(46) **Spec-to-Spec Antilocality**: (Deal 2019:408)
Movement of a phrase from Spec,XP must cross a maximal projection other than XP.

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:

(47)



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 Ā-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.

However, when we start to consider how this analysis could be extended to account for the behavior of the 3>3 inverse, we run up against an analytic impasse. 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 Ā-move back over the inverted patient, resulting in a kind of "leapfrogging" derivation, in order to render the agent most local to C (again).[24] 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 the 3>3 inverse. The core empirical fact that problematizes this analysis is that C agreement demonstrably

[24]Hammerly (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 5.4.

tracks the lowest argument *after* inversion (i.e. after the step of A-movement found in the 3>3 inverse); thus, syntactic inversion is also not the path forward for Passamaquoddy lowest-preference.

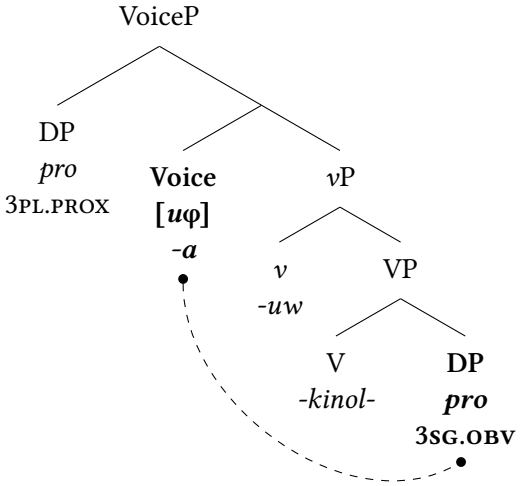
5.4 Against the Activity Condition

Oxford (2014), Hammerly (2020), and Xu (2022) propose to make use of the Activity Condition (Chomsky 2000, 2001) in order to derive the behavior of C agreement in various Algonquian languages. Their 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 because C and Voice can overtly index with the same goal—Voice always agrees with the highest object, so in direct monotransitives both Voice and C will index the object—therefore Voice cannot be endowed with deactivating power.

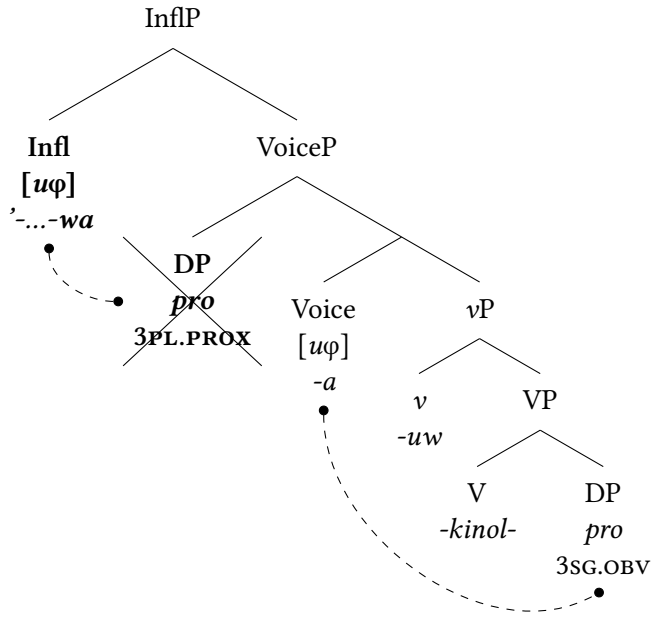
Let's illustrate the idea with the direct monotransitive verb form *'kinoluwawal* 'they$_{\text{PROX}}$ praise her$_{\text{OBV}}$'. First, we build up VoiceP, and Voice probes down and copies the features from the patient, resulting in the spellout of the third person theme sign *-a*, and no deactivation of the patient (either because Voice is microparametrized to not deactivate goals, following Oxford's 2014 analysis, or because Voice fails to spell out all the features of the goal, following Hammerly 2020):

(48)



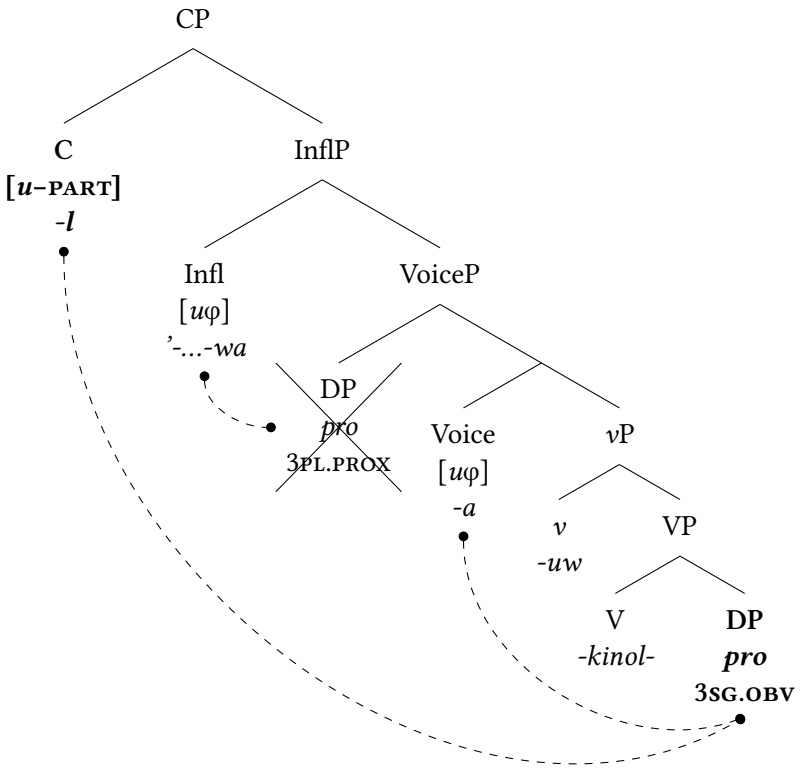
In the next step, we build up InflP, and Infl probes down for the most local goal, copying the features from the agent and resulting in the spellout of the third person (animate proximate) plural marker *'-…-wa*. Infl deactivates the goal, either because it's microparametrized to do so or because it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

(49)



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

(50)



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 Passamaquoddy: 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.

5.4.1 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:

(51)

'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 (italicized) indexes the third person recipient (which is underspecified for number) with the third person theme sign *-a*, Infl (underlined) indexes the third person plural agent with the marker *'t-…-ya*, and C (bolded) 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, in order for Voice and C to be able to agree with the same goal (in direct monotransitives). Thus, Voice shouldn't have deactivated deactivate the recipient in (51). Infl, under this analysis, does deactivate the agent, so when it comes time for C to probe, it should skip over the deactivated agent and agree with the next-closest active goal—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. In this way, the Activity Condition analysis undergenerates deactivation in ditransitives—it needs recipients to be deactivated by Voice, but Voice can't be a deactivating probe.

5.4.2 Overgenerating deactivation in long distance agreement

Passamaquoddy, like many (if not all) Algonquian languages, features long distance agreement (LDA): agreement that (seems to) cross clause boundaries (Bruening 2001, LeSourd 2019, Grishin 2023b, 2024a,b). In Passamaquoddy, there are two main kinds of LDA patterns:

1. **Free LDA**, found with verbs that take larger, CP-sized complements (independent or conjunct), like *wewitahatomon* 'remember' and *'tassokitahatomon* 'be surprised at'. In free LDA, the matrix verb can agree with *any* argument in the embedded clause, subject only to Ā locality, as there's no LDA into islands. (Bruening 2001, Grishin 2023b, 2024a)

2. **Restricted LDA**, found with verbs that take smaller, TP-sized complements (subordinative), like *'pawatomon* 'want' and *'kisehtun* 'make, cause'. In restricted LDA, the matrix verb can only agree with the embedded argument in the highest A position. (Grishin 2023b, 2024a,b)

In each case, the matrix verb can agree with the same argument as embedded Infl, even though that argument should have been deactivated:

(52) a. Ma=te n-wewitaham-**a**-w-**Ø** [$_{\text{IND}}$ psi=te wen tama **'t**-oli=
NEG=EMPH 1-remember$_{\text{TA}}$-**3OBJ**-NEG-**PROX.SG** all=EMPH who where **3**-there=
kis-onuw-a-` 't-akom-`].
PFV-buy$_{\text{TA}}$-3OBJ-OBV.PL 3-snowshoe-OBV.PL
'I don't remember where everyone bought his snowshoes.' (Bruening 2001:272)

b. 'T-assokitaham-**a**-**l** Piyel [$_{\text{CJ}}$ eli kci= wewisoski-**li**-**t** psuwis-ol].
3-be.surprised$_{\text{TA}}$-**3OBJ**-**OBV.SG** Peter IC.C great= be.nosy$_{\text{AI}}$-**OBV**-**3CJ** cat-OBV.SG
'Peter is surprised that the cat is so nosy.' (Grishin 2023b:153)

c. Makolit '-pawatom-uw-**a**-n-**Ø** [$_{\text{SUB}}$ '-qasqi-**li**-n Piyel-ol sepawonu].
Margaret 3-want$_{\text{TI}}$-APPL-**3OBJ**-N-IN.SG **3**-run$_{\text{AI}}$-**OBV**-N Peter-OBV.SG tomorrow
'Margaret wants Peter to run tomorrow.' (Grishin 2023b:153)

In (52a) we have LDA into an independent clause: the matrix verb *nwewitahamaw* 'suspect' is inflected for a proximate singular third person object, agreeing with the embedded subject *psi=te wen* 'everyone'—in this form, Voice indexes the embedded subject with *-a* '3OBJ' and C indexes it with *-Ø* 'PROX.SG'. However, *psi-te wen* 'everyone' has already been agreed with by embedded Infl, as indicated by the third person prefix *'t-* '3'—which would be impossible if Infl deactivated goals. We find a very similar situation in (52b) with a conjunct clause: both matrix Voice (*-a* '3OBJ') and C (*-l* 'OBV.SG') index the embedded subject *psuwisol* 'cat.OBV.SG', even though *psuwisol* 'cat.OBV.SG' has already been indexed by embedded (conjunct) Infl with the suffixes *-li-t* 'OBV-3CJ'. Finally, in the subordinative example in (52c), matrix Voice (*-a* '3OBJ') is able to agree with *Piyelol* 'Peter.OBV.SG' even though it has already been indexed by embedded Infl with the third person obviative marker *'-…-li*. In each of these examples, the Activity Condition analysis should predict that we cannot get LDA, counter to fact—thus, the Activity Condition overgenerates deactivation in LDA.[25]

To summarize: 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, like ditransitives and long-distance agreement. Thus, the Activity Condition also cannot be the right solution to the puzzle of Passamaquoddy C agreement.

[25] An anonymous reviewer asks for some further clarification about how LDA works in Passamaquoddy. While getting into too much detail would be out of the scope of this paper (for much more detail and discussion, I refer the interested reader to Bruening 2001, LeSourd 2019, and Grishin 2023a,b, 2024a,b), it is worth summarizing some of the conclusions from this literature. First, for free LDA into independent and conjunct clauses, Bruening (2001) and Grishin (2023b, 2024a) show that it's derived by the LDA target Ā-moving (potentially covertly) to the left periphery of the complement clause—in (52a) this movement is overt, and in (52b) this movement is covert. Under the assumption that CP is a phase in Passamaquoddy, this means that the LDA target in embedded Spec,CP should be the lowest goal accessible to matrix C, resulting in the possibility of C agreement with the LDA target (if it's third person) in independent and conjunct LDA—exactly as we get. Subordinative LDA behaves differently (see Grishin 2023a,b, 2024a,b for more on subordinative LDA): it's restricted to the embedded argument in the highest A position downstairs, features the obligatory presence of an applicative marker on the matrix verb, and only Voice will agree with the LDA target—C is invariant, always inflected for inanimate singular *-Ø* 'IN.SG'. Grishin (2023a) argues that this arises because subordinative LDA actually involves (potentially covert) raising to object, with the LDA target raising to Spec,ApplP in the matrix clause. From that position, it c-commands the clause it moved out of, becoming the closest goal to matrix Voice and thus triggering Voice agreement. The complement clause in this case is now the lowest third person argument, and thus inanimate singular C agreement likely reflects C agreeing with the embedded clause as a whole.

5.5 Summary

In this section, I've shown that four pre-existing analyses of lowest preference are unable to capture all the properties of Passamaquoddy lowest preference. Particular difficulties for these alternatives are the fact that C agreement is relativized to third persons and isn't restricted to certain syntactic positions, that the (non-)locality of C agreement is fed by the syntactic inversion found in the 3>3 inverse, and C's agreement behavior in ditransitives (agreement with the theme). My proposed analysis, combining an insatiable probe specified for third person with a morphological rule of Expone Outermost, doesn't face any of these empirical issues and is thus to be preferred over any of the alternatives.

6 To Algonquian and beyond

So far I have focused my discussion on Passamaquoddy, as it displays a particularly recalcitrant form of lowest preference. But C agreement across the Algonquian family isn't uniform—as Oxford (2017b), Xu (2022, 2023), and Grishin (2023c) note, there is rather abundant variation in this domain. Thus, it's worth thinking about how the analysis I've presented for C agreement in Passamaquoddy can be extended to other Algonquian languages. This is the task I turn to in this section.

We can identify four broad classes of C agreement behavior in Algonquian, combining and organizing observations by Oxford (2017b), Xu (2022, 2023), and Grishin (2023c):[26]

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 (Eastern Abenaki)

   (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 (if third person).

   Languages: Delaware, Mahican, Wampanoag, 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 (2023c), 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 Highest language:

[26] There is another parameter of variation which has to do with the agreement pattern in AI+O verbs (verbs with intransitive *v* that still take an object): in languages like Odawa (a variety of Ojibwe), C agrees with third person objects of AI+O verbs, but in other languages, like Oji-Cree (another variety of Ojibwe), C cannot agree with objects of AI+O verbs, instead agreeing with the subject (Xu 2023). I abstract away from this point of variation here.

(53) Third person preference

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)

(54) 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 (53), 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 (54) 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:−PART, SAT:−PART]. 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 have acquired 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, which can straightforwardly be extended to the other languages in this group (Cheyenne, Mi'gmaq, and Penobscot). In this section, I will show how to expand the analysis to Lowest B and Lowest C languages, as exemplified by Ojibwe and Delaware,[27] 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 (2022). With that in place, I broaden my sights even further, showing that we get similar Highest-Lowest behavior in other language families, focusing on Dargwa (a set of closely-related Nakh-Dagestanian languages), 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. I end by discussing various typological questions arising from this analysis.

6.1 To Algonquian...

Ojibwe and Delaware are 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 data from Southwestern Ojibwe (Nichols 1980)[28] and Unami Delaware (Goddard 1979, 2021).

[27] Of 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, as mentioned in footnote 26, which I set aside here).

[28] I adapt Nichols's orthography to the Fiero double-vowel orthography, as is currently standard for this particular variety of Ojibwe. I do not adapt the orthography from Delaware sources.

(55) Third person preference

a. ni-waabam-aa-naan-**ig**
1-see$_{TA}$-3OBJ-1PL-**PROX.PL**
'we$_{EXCL}$ see <u>them$_{PROX}$</u>' Southwestern Ojibwe (Nichols 1980:289)

b. *nno·t·əma·wəná·n**ak***
nə-nōtəm-ā-w-ənān-**ak**
1-guard$_{TA}$-3OBJ-W-1PL-**PROX.PL**
'we$_{EXCL}$ guard <u>them$_{PROX}$</u>' Unami (Goddard 2021:64)

(56) Lowest preference

a. o-waabam-aa-waa-**n**
3-see$_{TA}$-3OBJ-PL-**OBV**
'they$_{PROX}$ see <u>her/them$_{OBV}$</u>' Southwestern Ojibwe (Nichols 1980:289)

b. *wəno·t·əmawwá·ɔ*
wə-nōtəm-ā-w-əwāw-**a**
3-guard$_{TA}$-3OBJ-W-PL-**OBV**
'they$_{PROX}$ guard <u>her/them$_{OBV}$</u>' Unami (Goddard 2021:64)

In (55), C skips over the first person agent in preference for the third person patient, demonstrating third person preference. In (56), C skips over the proximate third person agent to agree with the obviative third person patient, demonstrating lowest-preference.[29] For full paradigms, I refer the reader to one of the many grammars of Ojibwe varieties[30] 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, Grishin 2023b), even if they're the only third person in the clause. Instead, C will agree with whatever the remaining lowest third person argument is, as illustrated below (the boxed arguments on the right indicate the target of C agreement):

(57) Agreement in Ojibwe ditransitives

a. Gi-daa= ozhit-amaw-Ø ina minjikaawaan-ag? SAP>SAP>3
2-MOD= make$_{TI}$-APPL-1OBJ POLQ mitt-PROX.PL
'Can you make me some mitts?'
SW Ojibwe (https://ojibwe.lib.umn.edu/main-entry/ozhitamaw-vta)

b. N-gii= biid-maw-aa-**g** mnikwewn-an. SAP>[3]>3
1-PST= bring$_{TI}$-APPL-3OBJ-**PROX.PL** drink-IN.PL
'I brought <u>them$_{PROX}$</u> the drinks.' Odawa (Rhodes 2011:648)

c. Ganabaj mazina'igan in-gii= miin-igo-**og**. [3]>SAP>3
maybe paper 1-PST= give$_{TA}$-INV-**PROX.PL**
'Maybe <u>they$_{PROX}$</u> gave me a piece of paper.' SW Ojibwe (Kegg and Nichols 1991:62)

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

[30]Todd (1970) for Oji-Cree (Severn Ojibwe), Jones (1977) for Nipissing Algonquin, Nichols (1980) for Southwestern Ojibwe, and Valentine (2001) for Nishnaabemwin (Odawa and Eastern Ojibwe), among others.

d. …w-gii= miin-aa-**n** neyaab aaning iw bagoowyaan… Dir. 3>[3]>3
3-PST= give$_{TA}$-3OBJ-**OBV** back some that.IN.SG cloth
'…and she$_{PROX}$ gave <u>her</u>$_{OBV}$ back some of the cloth…' Odawa (Valentine 2001:656)

e. Gakina gegoo o-gii= wiind-ama-ago-**on**. Inv. [3]>3>3
all anything 3-PST= say$_{TI}$-APPL-INV-**OBV**
'<u>He</u>$_{OBV}$ told her$_{PROX}$ all kinds of things.' SW Ojibwe (Valentine 2005:452)

As is evident from all these examples of ditransitives in Ojibwe, the theme is never agreed with (whether by C or anything else, for that matter). Instead, C will agree with whatever the lowest third person is among the highest two arguments, the agent and the recipient. In (57a), we see that the theme is the only third person in the clause, and the other arguments are all SAPs—the results in no C agreement. In (57b,c), we see that there is only one third person among the agent and recipient—and C will index that third person, whether it's the agent or recipient. When the agent and recipient are both third person, as in (57d,e), C will index the lower one—the recipient in the 3>3 direct, and the agent in the 3>3 inverse (recall that the highest object A-moves over the external argument in the 3>3 inverse).

Interestingly enough, this is exactly the agreement pattern in ditransitives that the Activity Condition analysis predicts (see Section 5.4.1). Nevertheless, 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 certain limited configurations (intransitives with inanimate obviative subjects).

Turning now to Delaware, we find that C agreement is sensitive to definiteness in an interesting kind of differential object marking: indefinite objects are not indexed by C (Goddard 1979, 2021, Xu 2021). To illustrate, let's take a look at the following pair of direct monotransitives in Unami Delaware:

(58) 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 <u>him</u>$_{OBV}$.'

b. *Mata nhile·í·**ɔk**.*
mata nəhl-ē-wī-w-**ak**.
NEG kill$_{TA}$-3OBJ-NEG-3-**PROX.PL**
'<u>They</u>$_{PROX}$ did not kill any$_{OBV}$.' Unami (Goddard 2021:65)

In (58) we can see the contrast between indefinite versus definite patients. In (58a) 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 (58b), C no longer indexes the patient but instead indexes the proximate agent (and this is not an intransitive, as there is genuine object agreement in Voice: *-ē* '3OBJ').

We find similar behavior in Unami ditransitives—C indexes the theme, unless it's indefinite, in which case it indexes the recipient.[31]

(59) Differential object marking in ditransitives

a. *nəmi·lá·n**a***
nə-mīl-ā-n-**a**
1-give$_{TA+O}$-3.OBJ-N-**IN.PL**
'I gave <u>them</u>$_{IN}$ to him$_{PROX}$' Unami (Goddard 2021:72)

b. *kəni·tamáɔ*
kə-nəhtam-aw-ā-w-**Ø**
2-kill$_{TI}$-APPL-3.OBJ-W-**PROX.SG**
'you killed (a fat calf$_{OBV}$) for <u>him</u>$_{PROX}$' Unami (Goddard 2021:166)

We see parallel behavior to Passamaquoddy in (59a), where both the goal and theme are definite—in this case C indexes the theme. However, in (59b), the theme is indefinite—"a fat calf"—and accordingly C indexes the proximate recipient rather than the obviative theme, like in Ojibwe.

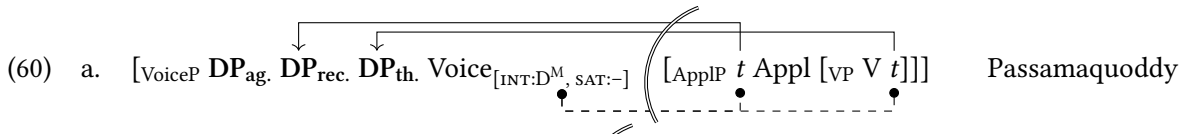
How should we understand these different agreement patterns in Ojibwe and Delaware? Here, I show that we can make them fall out straightforwardly from a combination of Expone Outermost and some mechanism to delimit which goals are in the probe's accessibility domain (Chomsky 2000, 2001). One way of implementing this idea (among others) is to say that Voice is a phase head, 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 goal (the highest one) in its domain (Ojibwe), or only definite goals (Delaware), by simply modulating the interaction and satisfaction conditions of a movement-driving probe on Voice. Under this view, variation across Lowest languages becomes variation in object shift—which is well attested in other families, like Germanic (Holmberg 1986, Diesing 1992, Thráinsson 2001, a.m.o.) and Inuit-Yupik-Unangan (Woolford 2017, Yuan 2022).[32]

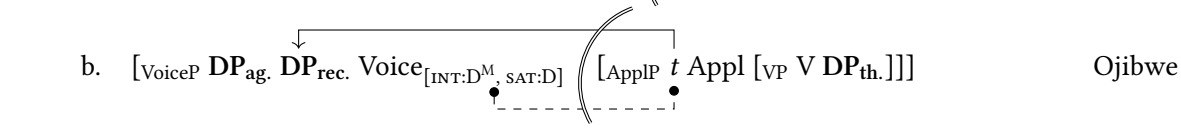
We can specify these probes on Voice as follows, with superscipt ^{M} being a diacritic that indicates that interaction/satisfaction with a goal triggers movement of that goal (Deal 2023): [INT:D^{M}, SAT:–] for Passamaquoddy, [INT:D^{M}, SAT:D] for Ojibwe, and [INT:+DEF^{M}, SAT:–] for Delaware. For simplicity's sake, I assume that this probe that moves arguments to the edge of VoiceP is distinct from the probe that is exponed by the theme sign (i.e. Voice agreement).

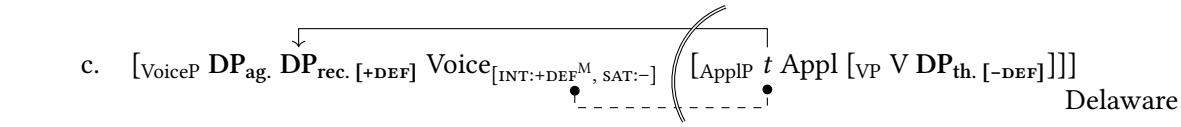
Let's take a look at the following abstract representations of ditransitives in Passamaquoddy, Ojibwe, and Delaware:

[31] I have not been able to find examples of Delaware ditransitives where the recipient is indefinite. These particular examples are quite difficult to reliably diagnose across the Lowest C languages—see Grishin (2023b:§10.2.3) for some potential instances of this in Wampanoag. The prediction, which is preliminarily borne out in the Wampanoag data, is that indefinite recipient + definite theme results in C agreeing with the theme, and if both objects are indefinite then C agrees with the agent (if it's third person).

[32] This is not the only way of working out the details. Xu (2022) proposes to use adapt the mechanism of HORIZONS from Keine (2019, 2020), and specifies C to have different horizons in different languages. Alternatively, we could parametrize the phasehood of Voice for different languages (e.g. Passamaquoddy would lack a phasal Voice), as suggested by an anonymous reviewer. I am not aware of any evidence that would tease apart these options from the object-shift analysis I propose here, and I leave further investigation of this point for future research. Ideally, we should be able to find independent evidence for different object shift behaviors across the family.

(60) a. 
[VoiceP **DP**$_{\textbf{ag.}}$ **DP**$_{\textbf{rec.}}$ **DP**$_{\textbf{th.}}$ Voice$_{[\text{INT:D}^{M}, \text{SAT:}-]}$ [ApplP *t* Appl [VP V *t*]]] Passamaquoddy

b. 
[VoiceP **DP**$_{\textbf{ag.}}$ **DP**$_{\textbf{rec.}}$ Voice$_{[\text{INT:D}^{M}, \text{SAT:D}]}$ [ApplP *t* Appl [VP V **DP**$_{\textbf{th.}}$]]] Ojibwe

c. 
[VoiceP **DP**$_{\textbf{ag.}}$ **DP**$_{\textbf{rec.}\,\textbf{[+DEF]}}$ Voice$_{[\text{INT:+DEF}^{M}, \text{SAT:}-]}$ [ApplP *t* Appl [VP V **DP**$_{\textbf{th.}\,\textbf{[−DEF]}}$]]] Delaware

In (60a), Passamaquoddy Voice has an insatiable probe that moves every goal it interacts with. 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 (60b), 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. In this way, Voice moves only the recipient to the specifier of VoiceP, leaving the theme inside the VoiceP phase and inaccessible to C. In (60c), we have one possible configuration for Delaware, with a definite recipient and indefinite theme. 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.[33]

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.[34] 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.[35]

[33] An anonymous reviewer asks how the possibility of LDA arises under this analysis. In footnote 25, I mention that the free LDA pattern involves the LDA target Ā-moving (potentially covertly) to Spec,CP to escape the CP phase, and the restricted/subordinative LDA pattern involves the LDA target A-moving (potentially covertly) to matrix Spec,ApplP. These steps of movement would place LDA targets in view of the object-shift probe on Voice, allowing for these DPs to move to Spec,VoiceP, rendering them potential targets for C agreement.

[34] A 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).

[35] The picture sketched here is slightly simplified, as it predicts that all indefinite internal arguments (including subjects of unaccusatives) shouldn't be possible goals of C agreement. But, preliminarily, this seems to be false:

(i) *Ahsëna* *hateyo* *Lënapehòkink.*
ahsən-a ahtē-w-**a** Lənāpew-ahkəy-ənk
rock-IN.PL be.there$_{II}$-3-**IN.PL** Lenape-land-LOC
'There are rocks in the land of the Lenape.' https://www.talk-lenape.org/

In this example, the verb *hateyo* 'they (IN) are there', which is presumably unaccusative, shows C agreement with a (presumably) indefinite subject *ahsëna* 'rocks', as indicated by the translation. The correct generalization seems to be this: whatever the *highest* argument is, it is always a possible candidate for C agreement, provided that it's third person; only the *lower* argument(s) need to be definite to trigger C agreement. This generalization can be made to fall out if the highest argument, whatever it is, independently moves to some higher position (e.g. Spec,InflP or Spec,TP), putting it in view of C. See also Xu (2021) for some discussion of this issue relating to external arguments of (3>3) inverse verbs, which participate in the definiteness-based C agreement pattern—Xu proposes that those subjects are actually base-generated *lower* than VoiceP (e.g. in Spec,*v*P, as "doer" rather than "causer" arguments).

6.1.1 Against other analyses

As we've seen, Expone Outermost can derive the cross-Algonquian picture in the domain of lowest-preferring 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, it's not the behavior of C that varies between these languages, but rather VoiceP-internal syntax.

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 2022 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 analysis presented here is to be preferred.

Starting with Ojibwe, I note that, 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). Moreover, 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 Nipissing Algonquin:

(61) a. Nin-gikenim-**aa-g** [ji= jaagizo-**waa-d**].
1-know$_{TA}$-**3OBJ-PROX.PL** FUT= burn$_{AI}$-**3PL-3CJ**
'I know <u>they</u> will get burned.' Southwestern Ojibwe (Nichols 1980:135)

b. N-gikenm-**aa-g** [<u>ninw-ag</u> gii= baashkzw-aa-**waa-d** Maagii-yan].
1-know$_{TA}$-**3OBJ-PROX.PL** <u>man-PROX.PL</u> PST= shoot$_{TA}$-3OBJ-**3PL-3CJ** Marge-OBV
'I know that <u>the men</u> shot Marge.' Odawa (Rhodes 1994:439)

c. O-gikenim-**aa-n** [ked-ikedo-**dj** <u>n-oos-an</u>].
3-know$_{TA}$-**3OBJ-OBV** WH.FUT-say$_{AI}$-**3CJ** <u>1-father-OBV</u>
'She knows what <u>my father</u> will say.' Nipissing 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.

An additional data point problematizing the Activity Condition comes from the fact that C and Infl can both index the same argument in a restricted set of cases in Ojibwe. This happens precisely in inanimate intransitive verbs (intransitive verbs with a single grammatically inanimate argument) when the subject is obviative. In this case, Infl agrees in obviation and C agrees in number and animacy with the subject (C agreement doesn't distinguish obviation with inanimates). Here I provide examples from Southwestern Ojibwe, with negative preterits to more precisely pin down the location of these markers:

(62) a. micaa-sin-**inii**-ban-**Ø**
be.big$_{II}$-NEG-**OBV**-PRET-**IN.SG**
'it$_{OBV}$ isn't big'

b. micaa-sin-**inii**-ban-**en**
be.big$_{II}$-NEG-**OBV**-PRET-**IN.PL**
'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 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 Infl and C never index the same argument,[36] 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.

Neither Oxford's (2014) nor Hammerly's (2020) versions of the Activity Condition can capture *both* these data points. For Oxford, the Activity Condition is a microparameter of individual heads—thus, to capture the LDA data in (61), we could say that Infl in matrix (independent) clauses has deactivating power, whereas Infl in embedded (conjunct) clauses does not. However, this can't then explain why Infl and C can index the same argument in certain cases in matrix (independent) clauses, like with intransitives with obviative inanimate subjects (62).

In contrast, Hammerly (2020) proposes that a probe P only deactivates a goal G if P expresses *all* the φ features of G. This can capture the data in (62), as *-(i)ni(i)* '-OBV' doesn't express all the features of the inanimate subject (it doesn't express its animacy or number features), therefore leaving that goal active for further probing by C. However, this doesn't work for the LDA data, as embedded (conjunct) Infl *does* index all the φ features of the embedded subject—for instance, in (61a) the conjunct Infl suffixes *-waa-d* '-3PL-3CJ' are only found with proximate third person plural animate arguments, and thus index all the features (obviation, person, number, and animacy) of the embedded subject. The embedded subject is thus predicted by Hammerly's account to be deactivated and inaccessible to further Agree operations, contrary to fact.

Turning now to Delaware, we can muster an even more straightforward argument against the Activity condition: C can agree with themes if the theme is definite, just like in Passamaquoddy:

(63) a. nəmi·lá·n**a**
*nə-mīl-ā-n-**a***
1-give$_{TA+O}$-3.OBJ-N-**IN.PL**
'I gave them$_{IN}$ to him$_{PROX}$' Unami (Goddard 2021:72)

b. Pɔhɔthitehəmáɔ·n hwitaɔk·í·li·t.
*wə-pahwatəhteh-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 (63a) I've repeated the previous example (59a): here we see a straightforward instance of C skipping over the goal to agree with the theme. In (63b), we have an example of possessor raising, with the possessor of *hwitaɔk·í·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'.[37] 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),[38] so the goal should not have been deactivated—and yet C can still skip over

[36]Oxford (2017a, 2020) 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 haplologically. 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 exponing obviation features and C exponing animacy and number features).

[37]Even 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* '-OBV' of C.

[38]There is actually a very interesting yet limited exception to this: in independent 1SG>3PL and 3PL>1SG ditransitives

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 don't need to say that Infl deactivates goals, which allows 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 thus 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:−PART, SAT:−PART], stopping probing after finding the first, closest third person goal, and C in Lowest languages is specified [INT:−PART, SAT:−] with a rule of Expone Outermost, resulting in copying features from all accessible third person goals and exponing only the last features C has copied.

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 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 (2022) in putting this agreement marker in T, c-commanding all verbal arguments.[39] To illustrate the omnivorous agreement pattern, I provide examples from Chirag Dargwa (64) and Aqusha Dargwa (65) below:

(64) Omnivorous [+PART] agreement in Chirag

a. a$^{\text{ʕ}}$-c:e pat'imat gap-r-arq'-ib-**de**.
2SG-ERG Patimat prase-F.SG-PFV-AOR-**2SG**
'You praised Patimat.'

b. pat'imat-le u$^{\text{ʕ}}$ gap-w-arq'-ib-**de**
Patimat-ERG 2SG.ABS praise-M.SG-PFV-AOR-**2SG**
'Patimat praised you.' Chirag Dargwa (Ganenkov 2022:753)

with definite objects, Infl does index the features of the highest third person argument in Delaware. I do not have an explanation for this behavior: see Grishin and Oxford (2023c) for discussion of these patterns across Algonquian and comparison to similar behavior with clitics in several Romance varieties, and arguments for a surface morphological analysis rather than a deep, syntactic account.

[39] While Ganenkov (2022) is focused on Chirag Dargwa, similar arguments can be made for Aqusha and throughout the family, as Ganenkov notes. For instance, the person suffixes sit outside of various aspectual suffixes in both languages, occupy the same slot as tense throughout the family (Ganenkov 2022:754), and are absent in nonfinite clauses in both Chirag (Ganenkov 2022:754) and Aqusha (Abdullaev et al. 2014:321).

(65) Omnivorous [+PART] agreement in Aqusha

a. ħu-ni il-di b-ax-un-**ri**.
2SG-ERG 3-PL F.PL-feed-AOR-**2SG**
'You fed them.'

b. il-da-ni ħu 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).[40] Here I illustrate, again, with Chirag and Aqusha:

(66) Highest in Chirag

a. di-c:e u^{ʕ} gap-w-arq'-ib-**da**.
1SG-ERG 2SG.ABS praise-M.SG-PFV-AOR-**1**
'I praised you.'

b. a^{ʕ}-c:e du gap-w-arq'-ib-**de**.
2SG-ERG 1SG.ABS praise-M.SG-PFV-AOR-**2SG**
'You praised me.' Chirag Dargwa (Ganenkov 2022:752-753)

(67) Lowest in Aqusha

a. nu-ni ħu r-it-i-**ri**.
1SG-ERG 2SG F.SG-hit-AOR-**2SG**
'I hit you.'

b. ħu-ni nu r-it-i-**ra**.
2SG-ERG 1SG F.SG-hit-AOR-**1**
'You hit me.' Aqusha Dargwa (van den Berg 1999:158)

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 [−PART], 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 Expone Outermost.[41]

[40] There 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.).

[41] An anonymous reviewer points out that we can also capture this variation across Dargwa without Expone Outermost

6.3 Is there evidence for the hidden features?

The morphological proposal I have made involves *overagreement*: the lowest-preferring 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, which aren't normally realized? Here I argue that the answer to this question is yes, examining the following phenomena: *(i)* the possibility of "hidden" multiple agreement triggering *syntactic* effects, like the PERSON-CASE CONSTRAINT (PCC; Perlmutter 1971, Bonet 1991, Anagnostopoulou 2003, Nevins 2007, Coon and Keine 2021, Deal 2024, a.m.o.); and *(ii)* the possibility of these hidden features triggering morphological processes like Impoverishment.[42]

6.3.1 Syntax effects: the Person-Case Constraint

Person-Case Constraint (PCC) effects are restrictions on the cooccurrence possibilities of coarguments in a particular syntactic configuration. The prototypical examples of the PCC come from person restrictions on the two objects of a ditransitive when both are overtly clitic-doubled/agreed with. We see this in Spanish (Romance), where the indirect object can be an SAP and the direct object a third person, but not vice-versa:

(68) Spanish ditransitives: ✓1>3, *3>1

a. **Me** **lo** ha-n recomendado.
1SG.DAT **3SG.M.ACC** have-3PL recommended
'They have recommended **him to me**.' Spanish

b. *{ **Me** **le** / **le** **me** } ha-n recomendado.
1SG.ACC **3SG.DAT** **3SG.DAT** **1SG.ACC** have-3PL recommended
Intended: 'They have recommended **me to him/her**.' Spanish

To express these meanings, you can use an alternative strategy (a "repair"): in Spanish, you realize the indirect object as a PP rather than a dative clitic:

(69) **Me** ha-n recomendado **a** **él**.
1SG.ACC have-3PL recomended **to** **3SG.M**
'They have recommended him to me.' Spanish

While space precludes me from discussing in any detail the different instantiations of PCC effects or the various analyses they have received (see Anagnostopoulou 2017 for an overview), I will note that the PCC literature has generally come to the conclusion that PCC effects arise from various kinds of *syntactic* issues that might come from a single head agreeing (or failing to agree) with multiple goals in its domain (e.g. Albizu 1997, Anagnostopoulou 2003, 2005, Béjar and Rezac 2003, Nevins 2007, Rezac 2008, Preminger 2019, Coon and Keine 2021, Deal 2024, a.m.o.). With this in mind, the PCC becomes relevant to us in the following way: if PCC effects are due to issues that

by putting the probe in different locations: high (e.g. T) in Chirag, and low (e.g. Voice/*v*) in Aqusha. However, given that the same kinds of arguments that the person suffixes are high apply in both languages (see fn. 39 for some discussion), it seems unlikely that the variation is due to different locations of the relevant probe across Dargwa.

[42] See also Despić et al. (2019) and Hammerly (2020:446–449) for the proposal that contextual allomorphy can be triggered by "hidden" features.

arise in one probe – multiple goal configurations, then PCC effects can be used to diagnose multiple agreement even when those Agree relationships aren't visible in the surface morphology.[43] Deal (2024:§3.3) makes exactly this point in her discussion of the PCC in Tlaxcala Nahuatl (Uto-Aztecan) ditransitives, and I'll summarize the relevant parts of her discussion here.

Tlaxcala Nahuatl is a PRIMARY OBJECT (or SECUNDATIVE) language with regards to object agreement: there is a single object marker on the verb, and it agrees with monotransitive objects and ditransitive recipients, but not ditransitive themes:

(70) Tlaxcala Nahuatl is a primary object language

a. ni-**kim**-pia trese no-kni-wan. *agree with monotransitive object*
1SG.SBJ-**3PL.OBJ**-have thirteen 1SG-sibling-PL
'I have thirteen siblings.' Tlaxcala Nahuatl (Flores Nájera 2019:541)

b. ni-**kin**-maka tlaxkal in no-kone-wan. *agree with indirect object*
1SG.SBJ-**3PL.OBJ**-give tortilla DEF 1SG-kid-PL
'I give tortilla to my children.' Tlaxcala Nahuatl (Flores Nájera 2019:76)

The same prefix *kin-* '3PL.OBJ' marks both third plural monotransitive objects as well as third plural indirect objects. In (70b), the theme *tlaxkal* 'tortilla' goes unindexed.

On the basis of this data we may be tempted to just say that the object agreement probe only ever agrees with the highest object. However, Deal (2024) notes that Tlaxcala Nahuatl displays the STRONG PCC—the theme of a ditranstive must be third person, and cannot be first or second person:

(71) Tlaxcala Nahuatl PCC: ✓1>3, *1>2

a. in obispo kema o-Ø-tech-wal-titlani-li-h ihkón ye **se** **padre**.
DEF bishop yes PST-3SBJ-1PL.OBJ-CIS-send-APPL-PFV so FOC **NDEF** **priest**
'The bishop did send **us a priest**.' Tlaxcala Nahuatl (Flores Nájera 2019:38)

b. *o-Ø-tech-wal-titlani-li-h {**teh**, ***pro***$_{2SG}$}.
PST-3SBJ-1PL.OBJ-CIS-send-APPL-PFV **2SG**
Intended: 'He sent **you to us**.' Tlaxcala Nahuatl (Flores Nájera p.c. in Deal 2024:43)

Example (71a) indicates that it's grammatical to have a first person indirect object and third person object. However, it's impossible to have a first person indirect object and a second person direct object (71b), whether or not the second person is an overt pronoun or null *pro*.

Deal (2024) proposes that in (PCC-obeying) ditransitives, the object agreement probe in Tlaxcala Nahuatl doesn't just agree with the indirect object, but actually agrees with *both* objects, only exponing the result of agreement with the higher object. For Deal, the relevant probe sits between both objects, in Appl, first probing the direct object before reprojecting and probing the indirect object via Cyclic Expansion (Béjar and Rezac 2009). Under this analysis, object agreement in Tlaxcala Nahuatl ditransitives would also be an example of Expone Outermost, as only the *last* set of features that Appl has copied are ever exponed—in ditransitives, the indirect object's features. In this way, we can use the existence of PCC effects to syntactically diagnose the existence of multiple agreement, even when those multiple agreement relationships aren't apparent on the surface.

[43]Note that this goes against Preminger (2019), who claims that there can be no φ agreement that is systematically null. Given the data from PCC effects (as well as Expone Outermost effects more generally), this cannot be correct.

6.3.2 Morphological effects: Impoverishment

If there are hidden features on a head, then in principle they should be available to trigger various kinds of morphological processes, like Impoverishment. I am aware of at least one case that has this flavor: antiagreement in Karitiâna (Tupian). Karitiâna verbs have a single agreement slot that, in the general case, indexes the person of the lowest argument. Additionally, this agreement prefix likely expones a very high head in the clause, as it sits outside of illocutionary mood and polarity focus markers (and is also absent in nominalizations/nonfinite clauses). I illustrate its agreement behavior below:

(72) 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-hỹrỹja-t i.
3-DECL-sing-NFUT 3SG
'He sang.' (Storto 1999:157)

(73) 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)

At first glance, this looks quite like Passamaquoddy and Aqusha Dargwa, except relativized to [φ] rather than [+PART] or [−PART]. We could thus analyze this prefix as an insatiable φ probe, [INT:φ, SAT:−], specified for Expone Outermost.

This normal agreement behavior gets disrupted when focusing/Ā-moving a transitive object. In this situation, the prefix exceptionally indexes the external argument rather than the object:

(74) 'Ep **aj**-ti-pasagngã-t ajxa.
trees **2PL**-OBJ.FOC-count-NFUT 2PL
'Y'all are counting TREES.' (Storto 1999:163)

We can consider this a kind of ANTIAGREEMENT effect—a phenomenon where φ agreement gets disrupted by Ā-movement of/Ā features on the goal (Ouhalla 1993, Baier 2018, a.m.o.). In the most prototypical case, this involves agreement simply disappearing, like in Tamazight (Berber) (also known as Tarifit Berber; Baier 2018):

(75) Antiagreement in Tamazight

a. **th**-zra Nunja aqzin
3FSG-see.PFV Nunja dog
'Nunja saw the dog.' (El Hankari 2010:138)

b. man tamghart ay {**y**-zri-n, *__**t**__-zra } Mohand
which woman C **3MSG**-see-PTCP **3FSG**-see.PFV Mohand
'Which woman saw Mohand?' (Ouhalla 1993:479)

Here, under Ā extraction of the subject, normal subject agreement is disrupted and we get a default third singular masculine form of the verb. What's striking about Karitiâna, in contrast with Tamazight, is that instead of agreement simply disappearing (or being realized as a default), the prefix instead indexes *another* argument, one that it normally wouldn't—the transitive agent.[44]

Baier (2018) argues extensively for a morphological, Impoverishment-based analysis of antiagreement. Under his proposal, feature copying under agreement is extremely coarse: probes copy over *both* φ features and Ā features. Antiagreement happens when there is an Impoverishment rule deleting certain φ features in the context of certain Ā features in the same feature bundle. This account of antiagreement, combined with the proposed Expone Outermost account of Karitiâna, can derive the Karitiâna antiagreement behavior in a rather elegant way: first the probe copies features from both the subject and object, resulting in a multiply-valued probe. Then, if the object's features contain Ā features, the object's features are deleted. The subject's features after this step of Impoverishment are now the outermost features, and thus will be realized on the surface in precisely this context. In this way, Impoverishment allows the "hidden" subject features on the probe to reveal themselves.

6.4 A (not so) 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). If this gap is real, then this is an extremely problematic prediction of the present account.

However, there is evidence that this gap isn't real, though ergative agreement with accusative case marking is exceedingly rare (and my proposal says nothing about why it might be rare, which remains an open question). This gap is filled by perfectives in Marwari (Indo-Aryan), which have lost the typical Indo-Aryan pattern of ergative case marking in the perfective but have preserved the ergative agreement pattern—the verb will agree with the internal argument even if it's marked with accusative case, filling in this cell in the typology:

(76) a. mhaiṃ śaraṇ=naiṃ dekh-**ī**
1SG Sharan.F=ACC see-**PST.F.SG**
'I saw Sharan.'

b. mammī ma=naiṃ god-meṃ 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)

Here, even though the transitive object is accusative-marked, the verb still agrees with it, counter to what one might normally expect.

The case of Marwari hasn't escaped the literature on case-agreement interactions, and various scholars have tried to explain it away. Bobaljik (2017) proposes that Marwari doesn't pose a real counterexample to the typological gap because accusative marking is sensitive to specificity (as is

[44]Similar behavior is found in other Tupian languages under object Ā movement, like Tupari and Wayoró (Singerman 2018, Galucio and Nogueira 2018).

typical of accusative marking in many Indo-Aryan languages as well as crosslinguistically), and claims that the accusative marker isn't really a case marker but rather a specificity marker.

I'm not sure how tenable this proposal is. In Marwari, accusative marking is obligatory on specific animates and optional with specific inanimates, and it's homophonous/identical to the dative case marker, all properties quite familiar from differential object marking across Indo-Aryan (and typical of differential object marking crosslinguistically). Hindi-Urdu (Indo-Aryan) shows very similar behavior of its accusative marking, though in Hindi-Urdu the verb cannot agree with accusative; you only get agreement with the highest unmarked nominal (Kachru et al. 1976, Mohanan 1994, a.o.). Indeed, Bobaljik (2008, 2017) accepts that Hindi-Urdu accusative case is a "real" case marker. Given that accusative marking in Hindi-Urdu and Marwari is so similar, it's unclear what independent evidence one can muster to support the claim that accusative in Hindi-Urdu is "real" case, whereas accusative in Marwari is actually specificity marking. Additionally, if *=naiṃ* in Marwari is just a specificity marker, and there is no accusative case, it's unclear how to restrict it to appearing only on objects.

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:

(77) 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.[45] However, Verbeke (2013) notes that this particular agreement pattern found in Jodhpur Marwari is actually innovative and not found in all dialects of Marwari, as illustrated below for Bikaner Marwari where both the lexical *and auxiliary* verb agree with the accusative-marked object:

(78) john bi gaai=ne kaal dekh-**i** **hii**
John.M that cow.F=ACC yesterday see-**PST.F.SG** **be.F**
'John saw that cow yesterday.' Bikaner Marwari (Chandra and D'Alessandro 2024:37)

Thus, Grosz and Patel-Grosz's (2014) proposal is not enough to explain away this data, as the data they account for only represents a subset of varieties of Marwari.

I thus conclude that Marwari (or at least certain dialects of Marwari) poses a true counterexample to the putative typological universal that ergative-aligned agreement cannot co-exist with accusative-aligned case marking. From the point of view of Expone Outermost, it's actually entirely expected that such a language should exist, and so Marwari nicely fills out the typology of possible case-agreement (non-)interactions. Given the existence of Marwari, what might have seemed like a problematic prediction actually turns out to be a welcome one.

[45] It 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, due to some surface morphological process.

7 Conclusion

In this paper, I've described the lowest preference pattern found with Passamaquoddy C agreement, demonstrating that C agrees with the lowest third person argument after A-movement. I discussed four off-the-shelf analyses of lowest preference—case-discrimination, a low probe, syntactic inversion, and the Activity Condition—arguing that each faces fatal empirical problems. Instead, I argued for a fifth path to lowest preference that doesn't face these issues: multiple agreement combined with a 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. I showed how this analysis of agreement finds striking parallels in the domain of multiple case assignment in languages like Romanian, Korean, and Niuean, lending credence to the idea that Expone Outermost is a general morphological outcome of any kind of multiple valuation in language. I also extended the analysis of Passamaquoddy to Ojibwe and Delaware by modulating with arguments are accessible to 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 Tlaxcala Nahuatl, Karitiâna, 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 take movement to be triggered by Agree. This is probably a welcome (non)prediction, as I am not aware of any genuine instances of lowest-preference in movement, like a hypothetical "anti-superiority" effect where a language prefers moving the lowest *wh* item in a multiple *wh* question.

One might wonder what other morphological outcomes of multiple valuation are attested, besides Expone Outermost. So far, we've already seen that it's possible for *all* feature bundles on a head to be exponed, like with case stacking in Korean and Amis, complementizer agreement in Nez Perce, and conjunct portmanteau agreement in Nipissing Algonquin. We might expect this pattern, "Expone Everything", to be the default behavior: you'd expect to normally expone all the features you can, given the exponents available to you. We've also seen that in Korean, it's also possible to expone the *innermost* case (which seems to occur in free variation with exponing the outermost case). In the domain of agreement, Halpert (2019) proposes that hyperraising to subject in Zulu (Bantu) shows similar behavior: she argues that the probe that drives hyperraising first agrees with the finite embedded clause, and then the embedded subject (in that order), and either set of features can be exponed on the surface:

(79) u-Zinhle **u**-/**ku**-bonakal-a [ukuthi u-xov-a u-jeqe].
1-Zinhle **1SM**-/**17SM**-seem-FV C 1SM-make-FV 1-steamed.bread
'Zinhle seems to be making steamed bread now.' Zulu (Halpert 2019:142)

In this example, T has agreed first with the embedded clause (which is noun class 17), and then with the embedded subject (which is noun class 1), and either of these feature bundles can be realized.

A rule like "Expone Innermost" is, on the surface, indistinguishable from a probe that simply

agrees with the closest matching goal. This may be the reason why many instances of Innermost patterns seem to involve optionality, like Korean and Zulu. However, there might be at least one case of obligatory Innermost, found in Tagalog (Austronesian). Rackowski and Richards (2005) argue that Tagalog voice morphology is actually the realization of a case probe on *v*, and the different voices are actually the realization of different case features copied onto *v*. They propose that under long-distance Ā extraction, *v* first agrees with the embedded clause, and then agrees with the Ā operator (very similar to what Halpert proposes for Zulu hyperraising—just in the Ā domain). However, on the surface, only the case value of the embedded clause can be realized on the surface on matrix *v*:

(80) a. ang kalabaw [na s⟨in⟩abi-**Ø** ng guro [na bi~bigy-an ng lalaki ng bulaklak]]
ANG water.buffalo C ⟨PFV⟩say-**ACC** NG teacher C FUT~give-DAT NG man NG flower
'the water buffalo <u>that the teacher said that the man would give a flower to</u>'

b. *ang kalabaw [na s⟨in⟩abih-**an** ng guro [na bi~bigy-an ng lalaki ng bulaklak]]
ANG water.buffalo C ⟨PFV⟩say-**DAT** NG teacher C FUT~give-DAT NG man NG flower
Intended: '<u>the water buffalo</u> that the teacher said that the man would give a flower to'
Tagalog (Rackowski and Richards 2005:586)

On the matrix verb, we can only get accusative agreement with the embedded clause, rather than dative agreement with *ang kalabaw* 'water buffalo'. This would be a case of obligatory Expone Innermost, if this is the right analysis of voice morphology in Tagalog.

Finally, there might be evidence for an outcome like "Expone Most Marked", where only the most marked feature bundle is exponed (e.g. the one with the most feature values). An example of this might come from free relatives in Gothic (Germanic), under the assumption that the *wh* phrase in a free relative receives case both from inside the relative clause and from outside. In Gothic, if the *wh* phrase gets two distinct case values, only the highest on the hierarchy DAT>ACC>NOM is realized (Harbert 1992, Bergsma 2023):

(81) a. [**Þan**=ei <u>frijos</u>$_{\text{ACC}}$] siuks ist$_{\text{NOM}}$. *NOM – **ACC**
who.ACC=C you.love sick is
'(The one) whom you love is sick.'

b. [**Þo**=ei ist$_{\text{NOM}}$ us Laudeikaion] jus <u>ussiggwaid</u>$_{\text{ACC}}$. **ACC** – *NOM
which.ACC=C is out Laodicea you read
'And read (the one) which is from Laodicea.' (Harbert 1992:111)

In these examples, the *wh* phrase receives one case inside the relative clause and another one from the matrix clause—and invariably the only case exponed is the more marked one. Under the assumption that the representation of accusative case contains that of nominative (Caha 2009, Zompì 2017, Smith et al. 2019, a.o.), this would fall out from a rule of "Expone Most Marked" that says to spell out the feature bundle that contains the most features (i.e. is the most marked).

Space precludes me from discussing this issue in any more depth, but given this quick survey it seems there is evidence for the following kinds of outcomes of multiple valuation: Expone Ev-

erything (perhaps the default), Expone Outermost, Expone Innermost, and Expone Most Marked. For a more restrictive theory of the syntax-morphology interface, we'd hope that there would be a limited set of these kinds of outcomes, and thus I hypothesize that these are indeed the only possible outcomes. Thus, I'd expect there not to be any rule like "Expone Middle", "Expone Second", or "Expone Least Marked". I leave it to future work, including careful typological investigation, to investigate these issues more thoroughly and hopefully come up with a more principled account of these different exponence rules.

I'd like to end with the following cautionary note: the existence of morphological spellout rules like Expone Outermost forces us in a very striking way to reckon with and think carefully about the fact that the morphology of case and agreement doesn't always transparently betray the syntax of case and 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—and similarly so for case, with a single case marker perhaps "disguising" the fact that the relevant nominal has received case multiple times. Additionally, the possibility of Expone Outermost pushes us to reassess other cases of lowest-preference in the literature that have been given alternative 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?

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