Clause size, cross-clausal dependencies, and the left periphery*

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1 Introduction

This paper investigates the interaction of long-distance agreement and *wh* movement into and out of different clause types in Passamaquoddy (Eastern Algonquian) as a lens into the structure of the left periphery. I argue that complement clauses in Passamaquoddy come in (at least) three different sizes—larger phasal CPs, smaller non-phasal CPs, and bare TPs. I then show that various facts about *wh* movement (both short and long-distance), long-distance agreement, and their interaction all fall out naturally from these independently-diagnosable clause size differences with a minimum of pre-existing theoretical machinery (e.g. phases and the economy condition of Multitasking).

When I say "clause type", I refer to the different syntactic contexts that trigger the use of the three different (non-imperative) inflectional paradigms of Passmaquoddy verbs: the INDEPENDENT, the CONJUNCT, and the SUBORDINATIVE. Below I provide examples of *opu* 'sit' inflected in each of these three paradigms, giving an initial sense of the morphological differences between them.[1]

(1)

a. *Independent*	b. *Conjunct*	c. *Subordinative*
opu-Ø-wok	epi-hti-t	't-opi-ni-ya
sit_{AI}-3-PROX.PL	IC.sit_{AI}-3PL-3CJ	3-sit_{AI}-N-PL
'they sit'	'they sit'	'they sit'

I will speak of "independent clauses", those that feature verbs inflected in the independent, "conjunct clauses", those that feature verbs inflected in the conjunct, and "subordinative clauses", those that feature verbs inflected in the subordinative.

The core empirical puzzle I focus on are various interactions between long-distance agreement (LDA), *wh* movement, and clause type. LDA into complements of epistemic predicates like *'kocicihtun* 'know' and *wewitahatomon* 'remember', which embed independent or conjunct, and LDA into direct perception complements of verbs like *nomihtun* 'see' and *nutomon* 'hear', which embed conjunct, is *free*, able to index any embedded argument, subject only to Ā-locality. Consider the following examples of LDA under epistemic and perception predicates, where either of the embedded subject or object can control LDA (throughout, I bold the exponents of LDA and underline the controller):

Pol nkoti-wolasuweltomuwa psi-te wen etolokehkimit 'tolatuwewakon: Margaret Apt, Edwina Mitchell, Grace Paul, naka Roger Paul. I'd also like to thank Tanya Bondarenko, Phil Branigan, Chris Hammerly, Sabine Iatridou, Will Oxford, David Pesetsky, Norvin Richards, anonymous reviewers, and audiences at MIT, UC Berkeley, NYU, and WSCLA 2023 for helpful questions and discussion. Finally, I'd like to thank editor Éric Mathieu for his patience as I brought this paper to light. Blame me and not any of them for any mistakes, misunderstandings, or misrepresentations.

[1] Abbreviations: 1 = first person, 2 = second person, 3 = third person, ABSN = absentative, ADJZ = adjectivalizer, AI = animate intransitive, AI+O = animate intransitive with secondary object, AN = animate, APPL = applicative, C = complementizer, CF = counterfactual, CJ = conjunct, CTOP = contrastive topic, EMPH = emphatic, GEN = genitive, IC = initial change, II = inanimate intransitive, IN = inanimate, INV = inverse, LOC = locative, N = N formative, NEG = negative, OBJ = object, OBV = obviative, OV = object voice, PERF = perfect, PFV = perfective, PL = plural, POSS = possessive, PRET = preterit, PROG = progressive, PROX = proximate, PST = past, SAP = speech act participant, SG = singular, TA = transitive animate, TA+O = transitive animate with secondary object (ditransitive), TI = transitive inanimate, WH = *wh*.

(2) LDA into epistemic complements: **free**, subject or object (Ā-locality)

a. ‘-Kociciy-**a-l** Piyel [$_{CJ}$ eli k-posum psi=te noluwitaham-i-nokot].
3-know$_{TA}$-**3OBJ-OBV.SG** Peter IC.C 2-cat all=EMPH feel.safe.with$_{TA}$-1OBJ-3:1PL.CJ
‘Peter knows that your cat feels safe with all of us.’ (GP 2023.01.24)

b. **N**-kociciy-uku-**n** Piyel [$_{CJ}$ eli k-posum psi=te noluwitaham-i-nokot].
1-know$_{TA}$-INV-**1PL** Peter IC.C 2-cat all=EMPH feel.safe.with$_{TA}$-1OBJ-3:1PL.CJ
‘Peter knows that your cat feels safe with all of us.’ (GP 2023.01.24)

(3) LDA into direct perception complements: **free**, subject or object (Ā-locality)

a. Piyel Ø-nutuw-**a-l** [$_{CJ}$ Tigaw-ol etol-ayyem-a-t wasis-`].
Peter 3-hear$_{TA}$-**3OBJ-OBV.SG** Tiger-OBV.SG IC.PROG-play.with$_{TA}$-3OBJ-3CJ kid-OBV.PL
‘Peter heard Tiger playing with the kids.’ (GP 2023.01.30)

b. Piyel Ø-nutuw-**a-**` [$_{CJ}$ Tigaw-ol etol-ayyem-a-t wasis-`].
Peter 3-hear$_{TA}$-**3OBJ-OBV.PL** Tiger-OBV.SG IC.PROG-play.with$_{TA}$-3OBJ-3CJ kid-OBV.PL
‘Peter heard Tiger playing with the kids.’ (GP 2023.01.30)

These examples demonstrate that speakers have free choice of LDA with either the embedded subject or object (but crucially, as we’ll see, it isn’t possible to get LDA with a DP inside an island).

In contrast, LDA with verbs like *’pawatomon* ‘want’ and *’kisehtun* ‘make’, which take subordinative complements, is highly restricted, subject instead to A-locality—LDA is only possible with the embedded argument that occupies the highest A position (i.e. the “subject”). In the examples below, we find LDA only with the embedded subject *Winiwol* ‘Winnie’, not the embedded first person plural object:

(4) LDA into subordinative complements: **restricted** (A-locality)

a. Roger ’-pawatom-uw-**a**-n [$_{SUB}$ Winiw-ol nt-olayyem-ku-ne-n *pro*$_{1PL}$].
Roger 3-want$_{TI}$-APPL-**3OBJ**-N Winnie-OBV.SG 1-play.with$_{TA}$-INV-N-1PL
‘Roger wants Winnie to play with us.’ (MA 2023.02.21)

b. *Roger **n**-pawatom-a-ku-ne-**n** [$_{SUB}$ *pro*$_{1PL}$ nt-olayyem-ku-ne-n Wini(w-ol)].
Roger **1**-want$_{TI}$-APPL-INV-N-**1PL** 1-play.with$_{TA}$-INV-N-1PL Winnie(-OBV.SG)
Intended: ‘Roger wants Winnie to play with us.’ (MA 2023.02.21)

From this data, it seems like there are two LDA types: *(i)* free LDA, found with independent and conjunct complements under epistemic and perception predicates, and *(ii)* restricted LDA, found with subordinative complements under verbs like *’pawatomon* ‘want’ and *’kisehtun* ‘make’.

But that’s not the full picture. There’s a different split when we examine the interaction of LDA and long-distance *wh* movement. Direct perception complements and subordinative complements retain their typical LDA patterns under long-distance *wh* movement—free (Ā-locality) and restricted (A-locality), respectively:

(5) LDA into direct perception complements + long-distance *wh* movement: **free** (Ā-locality)

a. Weni-l Tiger nutuw-**a**-t [$_{CJ}$ *pro*$_{1SG}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{TA}$-**3OBJ**-3CJ IC.PROG-talk.to$_{TA}$-1SG:3CJ
‘Who did Tiger hear me talking to?’ (GP, MA 2023.01.31)

b. Weni-l Tiger nutuw-**i**-t [$_{CJ}$ *pro*$_{1SG}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{TA}$-**1OBJ**-3CJ IC.PROG-talk.to$_{TA}$-1SG:3CJ
‘Who did Tiger hear me talking to?’ (GP, MA 2023.01.31)

(6) LDA into subordinative complements + long-distance *wh* movement: **restricted** (A-locality)

a. *Weni-l Roger pawatom-uw-**a**-t [SUB *pro*$_{1SG}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{TI}$-APPL-**3OBJ**-3CJ 1-talk.to$_{TA}$-3OBJ-N
Intended: 'Who did Roger want me to talk to?' (EM 2022.12.07)

b. Weni-l Roger pawatom-uw-**i**-t [SUB *pro*$_{1SG}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{TI}$-APPL-**1OBJ**-3CJ 1-talk.to$_{TA}$-3OBJ-N
'Who did Roger want me to talk to?' (EM 2022.12.07)

Comparing these to the baseline examples without *wh* movement in (3) and (4), we see that long-distance *wh* movement of a DP doesn't affect the baseline LDA patterns.

In contrast, LDA into epistemic complements displays a striking interaction with long-distance *wh* movement of DPs: LDA suddenly becomes restricted to the *wh*-moved DP (Bruening 2001, LeSourd 2019a, Grishin 2023b), a loss of the typical freedom of LDA into epistemic complements.[2] In the examples below, we see that LDA is restricted to the *wh* item *wen*, and we cannot get LDA with the embedded first person singular subject:

(7) LDA into epistemic complements + long-distance *wh* movement: **restricted** (*wh* phrase only)[3]

a. Wen wewitaham-**ot** [CJ eli *pro*$_{1SG}$ apsakiy-uk ~~*wen*~~]?
who IC.remember$_{TA}$-**2SG:3CJ** IC.C go.see$_{TA}$-1SG:3CJ
'Who do you remember that I went to see?' (LeSourd 2019a:389)

b. *Wen$_i$ wewitaham-**i**-hin [CJ eli *pro*$_{1SG}$ apsakiy-uk ~~*wen*~~]?
who IC.remember$_{TA}$-**1OBJ**-2SG.CJ IC.C go.see$_{TA}$-1SG:3CJ
Intended: 'Who do you remember that I went to see?' (LeSourd 2019a:389)

Comparing the baseline (2) to (7) above, we see that LDA into epistemic complements shows two different patterns, depending on the presence or absence of long-distance *wh* movement: in its absence, LDA is free, just like in direct perception complements (2), but when there's long-distance *wh* movement of a DP, we *must* get LDA with that DP—no other option is available (7).

I summarize these patterns in Table 1. One of the core goals of this paper is to provide an analysis of why we see these particular kinds of interactions in Passamaquoddy.

	No long-distance wh *mvmt. of a DP*		*Long-distance* wh *mvmt. of a DP*
Epistemic LDA (IND, CJ)	**free** (Ā-locality)	≠	**restricted** (*wh* phrase only)
Direct perception LDA (CJ)	**free** (Ā-locality)	=	**free** (Ā-locality)
Subordinative LDA (SUB)	**restricted** (A-locality)	=	**restricted** (A-locality)

Table 1: Interaction between LDA and long-distance Ā extraction

The ultimate answer I provide builds on certain observations we can make about the *internal* syntax of independent, conjunct, and subordinative clauses—namely, that independent and conjunct clauses

[2] I have not examined this issue in detail for other kinds of Ā extraction, like relativization. I leave this for future research.

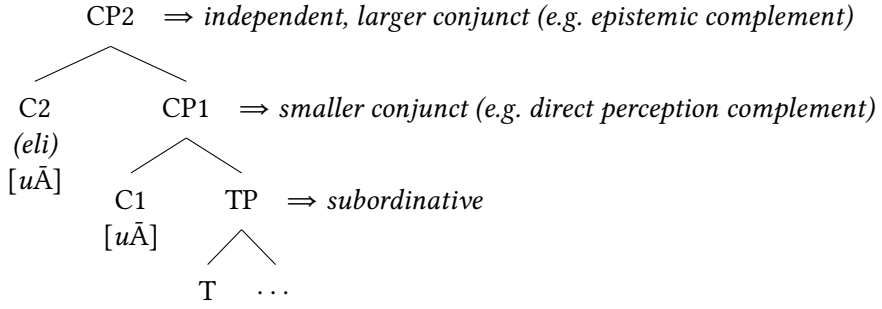
[3] This is true whether we're long-distance extracting an embedded object, as in (7), or an embedded subject, as below:

(i) a. Wen **keciciy-ukot** [CJ ~~*wen*~~ kis-oto-k mahsusi-yil]?
who **IC.know$_{TA}$-1PL:3CJ** IC.PFV-eat$_{TI}$-3CJ fiddlehead-IN.PL
'Who do we know ate the fiddleheads?' (EM 2023.12.04;NR)

b. *Wen **kecicihtu-weq** [CJ ~~*wen*~~ kis-oto-k mahsusi-yil]?
who **IC.know$_{TI}$-1PL.CJ** IC.PFV-eat$_{TI}$-3CJ fiddlehead-IN.PL
Intended: 'Who do we know ate the fiddleheads?' (EM 2023.12.04;NR)

show robust evidence of a CP domain, whereas subordinative complements seem to instead just be bare TPs. What's more, direct perception complements seem to have a reduced CP domain compared to other conjunct complements. I thus propose the following structure for the Passamaquoddy left periphery, with C2 optionally being exponed as the complementizer *eli* in conjunct clauses:[4]

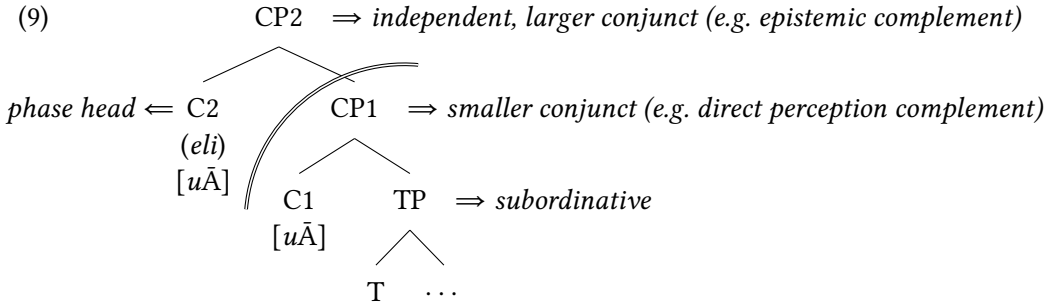
(8)



Additionally, as illustrated above, I propose that both C1 and C2 are able to host Ā probes of various types, in contrast to T, which does not. A consequences of this is that both independent and conjunct complements are able to host Ā movement to their left edge, feeding free LDA (Bruening 2001, Branigan and MacKenzie 2002, a.o.), while subordinative complements (bare TPs) are not big enough to, resulting in restricted LDA.

The last piece needed to connect this internal picture of the Passamaquoddy left periphery to the cross-clausal interactions between LDA and long-distance *wh* movement introduced above (Table 1) is the assumption that C2, but not C1, is a phase head (see Yoshimoto 2012, Carstens and Diercks 2013, and Kishimoto 2021, a.o., for similar proposals), as illustrated below:

(9)



The result is the following, in short: if a DP is to *wh*-move out of a CP2-sized clause, it *must* pass through Spec,CP2 in order to escape the phase, which will force LDA with (an intermediate copy of) the *wh* item. In contrast, since C1 and T are not phase heads, long-distance *wh* movement out of a CP1- or TP-sized clause need not pass through the edge, as there is no phase to escape—extraction can proceed directly from the next highest phase edge, which I assume to be Spec,VoiceP (equivalent to what is often labeled *v*P; here I use *v* as the label for the verbal categorizing head). The ultimate result is that long-distance *wh* movement has no effect on the LDA properties of direct perception complements (CP1) and subordinative complements (TP), as they are not phasal. LDA into direct perception complements (CP1) will universally show Ā-locality properties, as it can (optionally) be fed by Ā movement to Spec,CP1. In contrast, LDA into subordinative complements (TP) will universally show A-locality properties, as it can only be fed by A movement to Spec,TP (or some other A position above VoiceP).

[4]I remain agnostic as to how the two CP projections I propose, CP1 and CP2, map onto more familiar labels for left-peripheral projections, e.g. ForceP, TopP, FocP, and FinP (Rizzi 1997, a.m.o.). I think it's promising to equate CP1 with FinP and CP2 with ForceP, potentially with FocP and TopP available in all independent and conjunct clauses, but I leave more detailed investigation of this issue for future research. Under any analysis, subordinative clauses would lack a left periphery entirely.

This analysis has a number of theoretical consequences, not only for our understanding of Passamaquoddy morphosyntax, but also for our broader understanding of the syntax of the left periphery crosslinguistically. As a result of this investigation, we will learn that Passamaquoddy clauses come in (at least) three sizes: larger phasal CPs, smaller non-phasal CPs, and bare TPs. Additionally, this analysis has certain consequences for the theory of phases. It requires that the CP phase be a *high* projection in the split CP domain (Yoshimoto 2012, Carstens and Diercks 2013, Rizzi 2017, Kishimoto 2021, a.o.; but contra Fernandez-Rubiera 2009, López 2009, Radford and Iwasaki 2015, a.o.)—for me, CP2—and that phasehood not be contextual (contra Wurmbrand 2013, 2017, Bošković 2014, 2015, a.o.). CP2 is always a phase, and CP1 and TP are never phases, even when CP2 is not present in the structure.

This paper is organized as follows. First, Section 2 provides some background on Passamaquoddy to help orient the reader through the data to come. Next, I investigate the interaction of clause type and *wh* movement (independent of long-distance agreement) in Section 3, and then I investigate the interaction of clause type and LDA in Section 4. The core theoretical conclusion coming from these sections is that differences between independent and conjunct clauses on the one hand and subordinative clauses on the other are derivative of more basic differences in clause size: independent and conjunct clauses have a left periphery, whereas subordinative clauses are bare TPs. With the basic facts in place, we can then turn to interactions between long-distance *wh* movement and LDA in Section 5, which receives a formal analysis in Section 6. I conclude by summarizing the proposals put forth in this paper and discussing some of their consequences.

2 Background

Passamaquoddy is an Eastern Algonquian language, traditionally split into two closely related dialects: Passamaquoddy, spoken in eastern Maine, and Wolastoqey (or Maliseet), spoken in New Brunswick along the Wolastoq (St. John River). Speakers identify both dialects as being the same language and have no issue understanding each other: the differences are mainly lexical, along with a few small phonological and grammatical differences. The data in this paper represents both dialects, and as far as I am aware the dialects don't differ in the phenomena discussed here. I refer to both varieties together under the name Passamaquoddy. This paper reports on work with three Passamaquoddy speakers from Sipayik (Pleasant Point, ME), Margaret Apt, Dwayne Tomah, and Grace Paul, and two Wolastoqey speakers who grew up in Neqotkuk (Tobique First Nation), Edwina Mitchell and Roger Paul. The data presented here come from a number of sources: most of it is from regular Zoom elicitations (Summer 2020 to present day) carried out by members of the MIT Passamaquoddy Workshop with Margaret Apt, Grace Paul, Roger Paul, and Edwina Mitchell, some of it comes from an in-person field trip in January 2023, and some of it comes from various secondary sources, most notably the online Passamaquoddy-Maliseet Portal (https://pmportal.org/), an online dictionary and cultural resource. I tag each elicited example with the date of elicitation and the initials of the speaker(s) I worked with. A few examples presented here were elicited by Norvin Richards; I tag these with the initials NR.

Before we can begin in earnest, I should introduce some basic background on Passamaquoddy morphosyntax which I will be assuming throughout the rest of this paper. I'll present the different Algonquian verb classes (e.g. II/AI/TI/TA), an abbreviated description of Passamaquoddy verbal agreement and the morphology of the different Passamaquoddy clause types, and a basic description of the syntactic distribution of each clause type (for more details, see Grishin 2023b:§4.2).

2.1 Verb classes

Algonquian verbs feature derivational suffixes immediately following the verb root that mark the transitivity of the verb and the grammatical animacy of the intransitive subject and transitive object: these are traditionally called FINALS (Bloomfield 1946, Goddard 1990). There are four basic verb classes, which are abbreviated II 'inanimate intransitive', AI 'animate intransitive', TI 'transitive inanimate', and TA 'transitive animate'. I illustrate these classes in Table 2, exemplifying with the root *ewep-* 'up'.

	Subject	*Transitivity*	*Object*	*Example*	
II	Inanimate	Intransitive		*ewep-te-*	'IN is up'
AI	Animate	Intransitive		*ewep-pi-*	'AN is up'
TI		Transitive	Inanimate	*ewep-ehtu-*	'raise IN'
TA		Transitive	Animate	*ewep-ehl-*	'raise AN'

Table 2: Basic verb classes, with the root *ewep-* 'up'

In addition to conveying information about transitivity and the animacy of one of the arguments, finals can often convey other lexical information. For instance, the finals *-(o)te* and *-(o)pi* in Table 2 are intransitive finals that denote that the subject is in a particular location, whereas *-ehtu* and *-ehl* are generic causative finals that attach to unaccusative roots. Outside of these basic classes, there are also two more complex verb classes which we'll see in this paper: AI+O, which are verbs with an AI final that still take an object, and TA+O, which are ditransitive verbs (generally formed with an applicative suffix *-(u)w* or *-ew*, except for a few inherently ditransitive roots like *mil-* 'give'). Following much of the existing theoretical literature (e.g. Brittain 2003, Hirose 2003, Mathieu 2007, Slavin 2012, a.m.o.), we can treat finals as instantiations of the categorizing head *v*. In glossed examples, I will generally not segment out finals, but I will subscript each verb stem with its corresponding class abbreviation.

2.2 Agreement

There are three core sites of φ agreement in the Algonquian verb (excluding finals, if those are to be analyzed as φ agreement), distributed as follows in the verbal template, exemplifying with an independent verb:

(10) *ma-te knomiyawiwak* 'y'all don't see them$_{\text{PROX}}$'[5] Independent

k-	nomiy	*-a*	-wi	**-wa**	-k
2-	see$_{\text{TA}}$	*-3OBJ*	-NEG	**-PL**	-PROX.PL
prefix	stem	*theme sign*	negation	**central suffix**	peripheral suffix
T	V+*v*	*Voice*	Neg	**T**	C

The third line provides a standard Algonquianist label for the relevant position in the verbal template, and the fourth line lists the position in the clause spine that I assume each slot spells out. Below, I provide a summary of the general behavior of each agreement slot:

- The theme sign (italicized above) is object agreement in Voice, which is realized in certain cases as the inverse marker *-(o)q*, *-(o)ku* (Rhodes 1976, Brittain 1999, McGinnis 1999, Bruening 2001, Goddard 2007, Coon and Bale 2014, Oxford 2019b, 2023, 2024ab, a.o.).
- Central agreement (bolded above) is composed of the person prefix (in the independent and subordinative, absent in the conjunct) plus the central suffix (Goddard 1979, Oxford 2017a, 2019a, Hammerly 2020, Grishin 2023b). It agrees in person and number with the animate argument highest on the hierarchy 1, 2 ≫ PROX ≫ OBV,[6] and it occupies T (Halle and Marantz 1993, Bruening 2005, Coon and Bale 2014, Hamilton 2017, a.o.).
- Peripheral agreement (underlined above) hosts a probe that agrees omnivorously with third persons (Grishin 2023c). In the Passamaquoddy independent it indexes the lowest clausemate third

[5]Negation in Passamaquoddy is bipartite: the verbal negative suffix (here, *-wi*) must co-occur with an independent obligatorily preverbal negative particle (here, *ma-te*). There are a number of such particles with distinct semantics and/or syntactic distributions.

[6]In the case where the subject and object are both speech act participants (SAPs), T can agree with and index features from both arguments; see discussion by Oxford (2019ab). T does not obviously show agreement with inanimates in Passamaquoddy.

person argument (Xu 2022, Grishin 2024a), and in the conjunct it optionally appears, agreeing with Ā-extracted DPs. It does not appear in the subordinative. It occupies C (Halle and Marantz 1993, Branigan and MacKenzie 1999, Bliss 2013, Oxford 2017a, Grishin 2024a, a.o.).

2.3 Clause types

2.3.1 Morphology

Morphologically, independent and subordinative verbs are extremely similar, in contrast to the very different conjunct (as Goddard 1983 notes, the subordinative is an Eastern Algonquian innovation developing from the independent). The exponents of the theme sign (Voice) are identical across paradigms, but central agreement (T) is radically different, as depicted in the simplified paradigms below:

	SG	PL
1EX	*n(t)—Ø*	*n(t)—n(nu)*
1IN		*k(t)—n(nu)*
2	*k(t)—Ø*	*k(t)—(w)a*
3	*'(t)—Ø*	*'(t)—(w)a*

Table 3: Independent/subordinative T

	SG	PL
1EX	*-(an)*	*-ek*
1IN		*-oq*
2	*-on*	*-eq*
3	*-t*	*-hti-t*

Table 4: Conjunct T

In the independent and subordinative, T is realized discontinuously with prefixes and suffixes, with the prefix exponing person and the suffix exponing number (and person). In the conjunct, we only have suffixes, which expone both person and number. In addition to this difference in T, the independent/subordinative differs from the conjunct in its distribution of inverse marking in Voice; I refer the interested reader to Oxford (2024ab) and Grishin (2023b) for more details. These particular morphological differences won't prove to be crucial in the rest of this paper—I will simply clearly indicate whether a given verb is independent, conjunct, or subordinative in the relevant examples.

The conjunct also features a particular morphophonological phenomenon called INITIAL CHANGE: in Passamaquoddy, this surfaces as schwas (written *o*) in initial syllables becoming *e* /e/: *opi-t* 'sit$_{AI}$-3CJ' → *epi-t* 'IC.sit$_{AI}$-3CJ'. Conjunct verbs without initial change show up in conditional antecedents, whereas conjunct verbs with initial change show up in all other conjunct contexts. As I am not dealing with conditionals in this paper, all our examples of conjunct will feature initial change.

The independent and subordinative distinguish themselves morphologically in three main ways. First, all subordinative verbs with an animate argument feature a poorly understood multifunctional suffix *-n(e)* (which I gloss N), also found (but in different contexts) in the independent:[7]

(11) a. *Independent*
k- nomiy -a -wa
2- see$_{TA}$ -3OBJ -PL
'y'all see her'

b. *Subordinative*
k- nomiy -a **-ni** -ya
2- see$_{TA}$ -3OBJ **-N** -PL
'y'all see her'

Second, intransitive (both AI and II) independent verbs express the features of third person subjects using the peripheral suffix (C), whereas the subordinative uses central agreement (T):

(12) a. *Independent*
pomoka **-Ø** **-k**
dance$_{AI}$ -3 **-PROX.PL**
'they dance'

b. *Subordinative*
'- pomoka -ni **-ya**
3- dance$_{AI}$ -N **-PL**
'they dance'

[7]Specifically, *-n(e)* appears in the following contexts in the independent: *(i)* when C agrees with an inanimate; *(ii)* when C agrees with a secondary object (the object of an AI+O verb, or the theme of a ditransitive (TA+O) verb); *(iii)* when C agrees with an oblique argument; and *(iv)* in AI verbs with impersonal subject. See Xu (2022) for some pan-Algonquian discussion.

Finally, in contrast to the independent, the subordinative lacks peripheral agreement (C) entirely, a fact which already suggests that subordinative clauses lack CP layers:

(13) a. *Independent*

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

b. *Subordinative*

pileyawi -w
be.new$_{II}$ -3
'it/they$_{IN}$ are new'

Since peripheral agreement is the only marker that specifies the number of the inanimate argument in (13a), the subordinative form in (13b) is ambiguous for number.

A final difference between independent and conjunct verbs is the behavior of peripheral agreement (C). In the independent, C agrees with the lowest third person, but in the conjunct, peripheral agreement is optional, and when it appears it agrees with an Ā-extracted DP (Bruening 2001:§4.3, Reintges et al. 2006:§7.4).

(14) a. *Independent*

'T-otol-ahsom-a-wa-**l** Roger '-temis-ol.
3-PROG-feed$_{TA}$-3OBJ-PL-**OBV.SG** Roger 3-dog-OBV.SG
'They are feeding Roger's dog.' (GP, MA 2022.11.30)

b. *Conjunct*

Weni-k wasis-ok etol-ahsom-a-c-**ik** '-temis-uwa-l?
who-PROX.PL kid-PROX.PL IC.PROG-feed$_{TA}$-3OBJ-3CJ-**PROX.PL** 3-dog-PL-OBV.SG
'Which kids are feeding their dog?' (GP, MA 2022.11.30)

In the independent clause in (14a), C agrees with the lowest third person—the object. In contrast, in the conjunct clause in (14b), C agrees with the *subject*, as that is what's Ā-extracted here.

2.3.2 Distribution

Here, I'll briefly outline some basic facts about the distribution of each clause type, focusing primarily on clausal complementation (see Grishin 2023b for more extensive detail). Starting with the independent, we can note that it's in some sense the "default" clause type, appearing in out-of-the-blue matrix declaratives, as well as polar and alternative questions:

(15) Matrix independent clauses

a. N-itapi-yik **'-kis-onuw-a-wa-`** sukolopanis-`. Declarative
1-friend-PROX.PL **3-PFV-buy$_{TA}$-3OBJ-PL-OBV.PL** cookie-OBV.PL
'My friends bought cookies.' (GP, MA 2022.07.25)

b. Kis **nutesson-Ø-ul** mahsusi-yil? Polar question
already **come.out$_{II}$-3-IN.PL** fiddlehead-IN.PL
'Are the fiddleheads out yet?' (RP 2023.01.21)

c. **K-pawatom-on** minsoss-ey kosona pskihqimins-ey sunap? Alternative question
2-want$_{TI}$-N raspberry-ADJZ or strawberry-ADJZ jam
'Do you want raspberry or strawberry jam?' (EM 2023.07.11)

The independent is also the preferred clause type under the verbs *itom* 'say' and *litahasu* 'think', which crosslinguistically are the most common verbs to allow various kinds of main clause phenomena (though occasionally they can be found embedding conjunct):

(16) Independent complements

a. Roger itom-Ø [$_{IND}$ **koti=** **peci-ye-Ø** sepawonuk].
Roger say$_{AI}$-3 **going.to=** **come-go$_{AI}$-3** tomorrow
'Roger said he's going to come tomorrow.' (EM 2023.06.13)

b. Nt-olitahas [$_{IND}$ ma=te **ihi-w-Ø** Piyel].
1-think$_{AI}$ NEG=EMPH **be.there$_{AI}$-NEG-3** Peter
'I think that Peter's not here.' (EM 2023.08.29)

The conjunct is found under epistemic verbs like *'kocicihtun* 'know', emotives like *assokitahasu* 'be surprised', and perception verbs like *nutomon* 'hear' (though, at least under the epistemic verbs, we can occasionally find independent):

(17) Conjunct complements

a. '-Kocicihtu-n Roger [$_{CJ}$ eli yut 'pisun **koti=** **kikuh-us-k**]. Epistemic V
3-know$_{TI}$-N Roger IC.C this medicine **going.to=** **heal$_{TA}$-2OBJ-CJ**
'Roger knows this medicine is going to heal you.' (RP 2022.05.02)

b. Nt-assokitahas [$_{CJ}$ **nemihtu-Ø** yut piley utapakon]. Emotive V
1-be.surprised$_{AI}$ **IC.see$_{TI}$-1SG.CJ** this new car
'I'm surprised to see this new car.' (RP 2022.05.02)

c. Ø-Nutom-on [$_{CJ}$ **etut-amoqessi-k** welaqik]. Perception V
1-hear$_{TI}$-N **IC.much-storm$_{II}$-IN.CJ** last.night
'I heard it storming hard last night.' (GP 2023.01.30)

The subordinative is found under predicates that crosslinguistically tend to embed structurally-reduced complements, like Wurmbrand and Lohninger's (2023) SITUATION and EVENT COMPLEMENTS. These include verbs like *'pawatomon* 'want' and *'kisehtun* 'make':

(18) Subordinative complements

a. '-Pawatom-on Roger [$_{SUB}$ **n-kikuh-uku-n** yut 'pisun].
3-want$_{TI}$-N Roger **1-heal$_{TA}$-INV-N** this.IN.SG medicine
'Roger wants the medicine to heal me.' (RP 2022.05.22)

b. Motewolon '-kisehtu-n [$_{SUB}$ **wisoki=** **psan-Ø**].
sorceror 3-make$_{TI}$-N **very=** **snow$_{II}$-3**
'The sorceror made it snow a lot.' (EM 2022.08.15)

In this paper, we'll be focusing on complements of epistemic verbs (like *'kocicihtun* 'know'; I also include *itom* 'say' and *litahasu* 'think' in this category, but those don't participate in LDA), which can either be conjunct or independent, complements of perception verbs under a direct perception reading, which are always conjunct, and subordinative complements.

3 Ā extraction

With that background under our belt, we can now begin the main event. In this section, we'll investigate how clause type interacts with Ā movement, focusing especially on *wh* movement. I will argue that only independent and conjunct clauses allow for the full range of Ā movement possibilities, and that subordinative clauses are strikingly restricted: they allow for Ā movement to proceed *out* of them, but subordinative clauses cannot be the final landing site for Ā movement. I propose that we can understand these facts as arising from differences in clause size: independent and conjunct clauses have CP layers, but subordinative clauses lack them.

3.1 Ā phenomena involve CP

Before we get to the main argumentation, we first must establish one of the main assumptions of this paper: that Ā phenomena in Passamaquoddy crucially implicate the left periphery (i.e. the CP layer(s)). I focus in particular on *wh* movement and relativization (though, as far as I am aware, other kinds of Ā movement behave in very similar ways; see Grishin 2023b).

3.1.1 *Wh* phrases move into CP

Passamaquoddy has overt *wh* movement (Bruening 2001:§3.2). If *wh* phrases are not in a left-peripheral position, they can only be interpreted as plain existential quantifiers (at least *wen* 'who', *keq* 'what', and *tama* 'where', which are QUEXISTENTIALS, to use a term from Hengeveld et al. 2023):

(19) a. **Tama** Sapet olomiy-ya
where Elizabeth go.away$_{AI}$-PROX.SG.ABSN
'**Where** did Elizabeth go?' (EM, RP 2022.05.09)

b. Sapet olomiy-ya **tama**?
Elizabeth go.away$_{AI}$-PROX.SG.ABSN **where**
'Did Elizabeth go **somewhere**?'
#'**Where** did Elizabeth go?' (EM 2023.05.09)

In (19), we see the basic contrast. In (19a) the *wh* item *tama* 'where' appears in clause-initial position, and this sentence can be interpreted as a *wh* question. In contrast, (19b) features *tama* in a non-initial position, and this can't be interpreted as a *wh* question—at best it can only be a polar question.[8]

Generally, *wh* phrases will always be sentence-initial. Occasionally, certain kinds of material can precede them—but the material that can precede *wh* phrases is restricted to hanging topics and frame-setters (20), or certain kind of left-edge discourse particles (21):

(20) Hanging topics and frame-setters

a. **Kil** =op =olu tan kt-olluhka-n?
2SG =CF =CTOP WH 2-do$_{AI}$-N
'But **you**, what would you do?' (Bruening 2001:187)

b. **Ap-onuw-ot molaqs**, keq kisihtu-won?
IC.back.from-buy$_{TA}$-2SG:3CJ milk what IC.make$_{TI}$-2SG.CJ
'**After you bought milk**, what did you make?' (EM 2022.12.07)

(21) Left-edge discourse particles

a. **Apc** =op wen kis-ankum-i-t sunap?
again =CF who IC.can-sell$_{TA+O}$-1OBJ-3CJ jam
'Who **else** could sell me jam?' (EM 2023.10.30)

b. **Nita**, tan '-toli= kisi= qsokassi-n?
well.then WH 3-to.there= can= go.across$_{AI}$-N
'**Well**, **then**, how can he get across?' https://pmportal.org/dictionary/nita-2

In (20a) the *wh* phrase *tan* 'how; what; where' is preceded a hanging topic *kil* 'you', here functioning as a contrastive topic (marked by the second-position clitic *=olu* 'CTOP'), and in (20b) the *wh* phrase *keq* 'what' is preceded by a frame-setting temporal adjunct *aponuwot molaqs* 'after you bought milk'. In (21), we find examples of two discourse particles preceding the *wh* phrase: *apc* 'again; else', and *nita*

[8]This string could also be interpreted as a declarative, 'Elizabeth went somewhere', with declarative intonation.

'uh-oh; well then'.[9] On the basis of this data, we can conclude that *wh* phrases must move overtly to the left periphery in Passamaquoddy, to a position that can only be preceded by very high left-peripheral material like hanging topics, frame-setters, and certain discourse particles.

3.1.2 Ā agreement in C

The second argument that Ā phenomena in Passamaquoddy involve the CP domain comes from an Ā agreement pattern found in the conjunct clause type. In relative clauses, *wh* questions, and sentences containing DP foci, an agreement marker located in the CP domain, the PERIPHERAL SUFFIX,[10] can optionally appear and agree in number, animacy, and obviation with whatever's been Ā-extracted—a relative head, a *wh* phrase, or a focused DP (Bruening 2001, Reintges et al. 2006, Grishin 2023b). Here, I provide examples from relative clauses, to illustrate that Ā movement in relative clauses also involves the CP domain, just like *wh* questions:

(22) Ā agreement with the head of a relative clause

a. Newi-w-ok skitapi-yik [$_{RC}$ tehsahqaph-a-c-**ik** otuhk-ol].
be.four$_{AI}$-3-PROX.PL man-PROX.PL IC.above.track$_{TA}$-3OBJ-3CJ-**PROX.PL** deer-OBV.SG
'A party of four men tracked the deer on high ground.' (lit. 'The men [$_{RC}$ that tracked the deer on high ground] were four in number.')
https://pmportal.org/dictionary/tehsahqaphal

b. Piyel '-kis-onuw-a-l sukolopan-ol [$_{RC}$ wik-ahp-a-c-**il**].
Peter 3-PFV-buy$_{TA}$-3OBJ-OBV.SG cake-OBV.SG IC.like-eat$_{TA}$-3OBJ-3CJ-**OBV.SG**
'Peter bought the cake that he likes.' (GP, MA 2022.11.30)

c. N-kis-ewestuwam-a-k wasis-ok [$_{RC}$ Laca kisi= mil-a-c-**ihi**
1-PFV-talk.to$_{TA}$-3OBJ-PROX.PL child-PROX.PL Roger IC.PFV= give$_{TA+O}$-3OBJ-3CJ-**OBV.PL**
sukolopan-ol].
cake-OBV.SG
'I talked to the children [$_{RC}$ Roger gave a cake to].' (GP, MA 2022.11.16)

In (22), we see that this suffix (bolded) can agree with the head of the relative clause (underlined), no matter its syntactic role: subject (22a), direct object (22b), indirect object (22c). That a CP-layer agreement marker indexes the head of the relative clause suggests that the Ā probe involved in creating a relative clause dependency is located in the CP domain.[11]

Thus, I conclude that Ā processes in Passamaquoddy crucially implicate the CP domain: they involve a CP-layer Ā probe, which in some cases can be spelled out (above), and they involve Ā operators

[9] In (21a) the second-position counterfactual clitic *=op* 'CF' also precedes the *wh* phrase *wen* 'who', but this doesn't clearly indicate anything about the syntax, as the placement of *=op* is regulated by the phonology, coming after the first phonological word and/or phrase—here, *apc* 'again; else' (see LeSourd 2019b for arguments that second-position clitic placement in Passamaquoddy is not syntactic).

[10] See Halle and Marantz (1993), Branigan and MacKenzie (1999), Bliss (2013), and Oxford (2017a) for this conclusion across Algonquian, and Grishin (2023b) for arguments for this conclusion specifically for Passamaquoddy.

[11] One might wonder whether there's an alternative kind of analysis available here, where the peripheral suffix doesn't actually agree with an Ā-extracted relative operator, but rather gets the relative head's feature via some kind of nominal concord process (as proposed by Johansson 2011, 2013 for Blackfoot). However, there are a number of arguments against this kind of account (Bruening 2001, Reintges et al. 2006, Grishin 2023b): *(i)* it's possible for peripheral agreement to index intermediate copies of movement; *(ii)* featural mismatches are possible between peripheral agreement and external heads, indicating agreement with a relative operator/internal head (as an example, (22c) has an external head, *wasisok* 'children.PROX', which is proximate, whereas peripheral agreement *-ihi* 'OBV.PL' is agreeing with an obviative relative operator/internal head); and *(iii)* when relativizing a possessor, peripheral agreement actually indexes the *possessum* rather than the possessor, as if the whole possessed DP was pied-piped. For these reasons, the source of peripheral agreement in these constructions must be due to probe with Ā locality properties agreeing with a relative-clause-internal operator, rather than some kind of DP-level nominal concord process. I refer the interested reader to the works cited above for details.

landing in the CP domain (as in the *wh* movement examples above). With this background assumption now in place, we can turn to examining how Ā movement interacts with various different clause types.

3.2 *Wh* movement in independent and conjunct clauses

In this section, I show that Ā dependencies are robustly found in independent and conjunct clauses, indicating that they must be large enough to contain a CP domain, focusing particularly on *wh* movement. Other kinds of Ā dependencies, like relative clauses, focus movement, comparatives, and so on all involve the conjunct; I refer the interested reader to Bruening (2001, 2004, 2006), Reintges et al. (2006), and Grishin (2023b) for more extensive discussion of a wider range of Ā dependency types.

In Passamaquoddy, *wh* questions are either independent or conjunct—this is true of both matrix and embedded questions (for simplicity, I focus on matrix questions here; see Grishin 2023b for data on embedded *wh* questions). In the general case, we can see that *wh* questions are typically conjunct:

(23) Conjunct *wh* questions

a. Wen **mete-htihike-t**?
who **IC.heard-hit$_{AI}$-3CJ**
'Who's knocking?' (EM 2022.10.12)

b. Tan **eloqessi-k** n-utapakon?
WH **IC.move.toward$_{II}$-CJ** 1-car
'Where did my car go?' (EM 2023.01.22)

The independent appears in the following kinds of *wh* questions: *(i) wh* questions with *tama* 'where' and *tayuwek* 'when' (24a); *(ii) wh* questions over the complements of the verbs *luhke* 'do', *liwisu* 'be named', *itom* 'say', and *litahasu* 'think' (24b); and *(iii) tan* 'how' questions (24c).[12]

(24) Independent *wh* questions

a. Tayuwek cel **k-naci= pkon-a-k** pskihqimins-ok?
when even **2-go= pick$_{TA}$-3OBJ-PROX.PL** strawberry-PROX.PL
'When are you going to go pick strawberries?' (GP 2023.04.18)

b. Keq **toli= olluhke-Ø** Roger?
what **PROG= do$_{AI}$-3** Roger
'What is Roger doing?' (EM 2021.03.01)

c. Tan **k-tuci= kakawi-ya-n** kt-atomupil-ok?
WH **2-much= fast-go$_{AI}$-N** 2-car-LOC
'How fast do you go in your car?' (MA 2023.06.20)

We find a similar picture in long-distance *wh* extraction. *Wh* movement is possible out of and into both independent and conjunct clauses, as illustrated below:

(25) a. *Matrix independent, embedded independent*
Tama **litahasu-Ø** Piyel [$_{IND}$ **Ø-nomiy-a-l** mus-ol ~~*tama*~~]?
where **think$_{AI}$-3** Peter **3-see$_{TA}$-3OBJ-OBV.SG** moose-OBV.SG
'Where did Peter think he saw a moose?' (MA 2023.06.20)

[12] Questions with *tan* 'how' are traditionally described as triggering subordinative (e.g. Sherwood 1986:133–134, LeSourd 1993:23, Bruening 2001:48, Francis and Leavitt 2008:43). However, following Goddard (2020), I propose that these are better understood as independent verb forms showing agreement with the oblique *wh* phrase. Independent verbs that agree with oblique arguments are the historic source of the subordinative paradigm (Goddard 1983:§2), and still synchronically look identical to subordinative forms. For more discussion of this point and further arguments in favor of Goddard's conclusion, see Grishin (2023b:149–152).

b. *Matrix independent, embedded conjunct*

Weni-l **itom-Ø** [$_{CJ}$ **nemiy-a-c-il** ~~*weniil*~~]?
who-OBV.SG **say$_{AI}$-3** **IC.see$_{TA}$-3OBJ-3CJ-OBV.SG**
'Who did he say he saw?' (Bruening 2004:230)

c. *Matrix conjunct, embedded independent*

Keq **kecicihtu-weq** [$_{IND}$ **kisi=** **olluk-hotu-Ø-wok** wasis-ok ~~*keq*~~]?
what **IC.know$_{TI}$-1PL.CJ** **PFV=** **do-PL-3-PROX.PL** kid-PROX.PL
'What do we know that they did?' (EM 2023.12.04;NR)

d. *Matrix conjunct, embedded conjunct*

Keq **kecicihtu-won** [$_{CJ}$ '-qoss **ehcuwi=** **lihta-q** ~~*keq*~~]?
what **IC.know$_{TI}$-2SG.CJ** 3-son **IC.must=** **make$_{TI}$-3CJ**
'What do you know your son has to make?' (EM 2023.06.13)

In the examples above, we have plain long-distance *wh* movement. However, a common alternative for expressing long-distance *wh* questions is a *wh*-scope marking construction (26):[13]

(26) *Wh*-scope marking

a. **Keq** Roger itom-Ø [$_{IND}$ **tayuwek** koti= peciye-Ø]?
What Roger say$_{AI}$-3 **where** going.to= arrive$_{AI}$-3
'When did Roger say he was going to arrive?' (MA 2023.06.20)

b. **Keq** itom-Ø [$_{CJ}$ **weni-l** nemiy-a-c-il]?
what say$_{AI}$-3 **who-OBV.SG** IC.see$_{TA}$-3OBJ-3CJ-OBV.SG
'Who did he say he saw?' (Bruening 2004:230)

In the *wh*-scope marking construction, we find *wh* movement of the *wh* phrase within the complement clause and *keq* 'what' in the matrix clause. Here, I accept Bruening's (2001:Ch. 4, 2004, 2006) argument that Dayal's (1994) INDIRECT DEPENDENCY analysis of *wh*-scope marking is correct for Passamaquoddy. Under this analysis, there are two distinct *wh* dependencies involved in *wh*-scope marking, a lower one and a higher one:

(27) **Keq** itom-Ø *t* [**weni-l** nemiy-a-c-il *t*]?
what say$_{AI}$-3 **who-OBV.SG** IC.see$_{TA}$-3OBJ-3CJ-OBV.SG
'Who did he say he saw?' (Bruening 2004:230)

The lower *wh* phrase moves to embedded Spec,CP, and in the matrix clause we base-generate *keq* 'what' as a complement of the attitude predicate and move it to matrix Spec,CP.

As we can see in (26), *wh*-scope marking is possible out of both independent clauses (26a) and conjunct clauses (26b). This means that the embedded clauses in these examples, both independent and conjunct, must contain a CP layer to host the lower *wh* dependency. We thus find extensive evidence from various kinds of *wh* questions (short vs. long-distance, plain vs. *wh*-scope marking) that both independent and conjunct clauses are large enough to contain a CP domain. As we've seen, the alternation between independent and conjunct depends on what kind of *wh* phrase we have, but unfortunately I will have nothing to say about this phenomenon—I leave this a puzzle for future research.

[13]Some speakers also have a *wh*-copy construction, where the *wh* item is repeated in intermediate Spec,CP positions; see Bruening (2001:§4.4.6, 2004, 2006) for discussion.

3.3 No Ā movement in subordinative clauses

In contrast, subordinative clauses systematically fail to host Ā dependencies: the left edge of a subordinative clause cannot be the landing site (or trigger of) Ā movement. Again, I focus on *wh* movement.

Let's begin with *wh*-scope marking. Earlier, we saw that *wh*-scope marking was possible with both independent and conjunct complements (examples repeated below).

(28) a. Wh-*scope marking out of independent*

Keq Roger itom-Ø [$_{\text{IND}}$ tayuwek **koti=** **peciye-Ø**]?
What Roger say$_{\text{AI}}$-3 when **going.to=** **arrive$_{\text{AI}}$-3**
'When did Roger say he was going to arrive?' (MA 2023.06.20)

b. Wh-*scope marking out of conjunct*

Keq itom-Ø [$_{\text{CJ}}$ weni-l **nemiy-a-c-il**]?
what say$_{\text{AI}}$-3 who-OBV.SG **IC.see$_{\text{TA}}$-3OBJ-3CJ-OBV.SG**
'Who did he say he saw?' (Bruening 2004:230)

In striking contrast, *wh*-scope marking is impossible out of subordinative clauses:

(29) *Wh*-scope marking out of subordinative impossible

a. ??Keq cel Tihtiyas wewitahato-k [$_{\text{SUB}}$ weni-l **Ø-mattoktehmuw-a-n**]?
What even Tihtiyas IC.remember$_{\text{TI}}$-3CJ who-OBV.SG **3-call$_{\text{TA}}$-3OBJ-N**
Intended: 'Who did Tihtiyas remember to call?' (EM 2023.01.04;NR)

b. *Keq pawatom-a-s-k 'Tolitoli [$_{\text{SUB}}$ tama **kt-oli=** **nomiy-a-n**]?
what IC.want$_{\text{TI}}$-APPL-2OBJ-3CJ Tolitoli where **2-there=** **see$_{\text{TA}}$-3OBJ-N**
Intended: 'Where does Tolitoli want you to meet her?' (Bruening 2001:203)

Crucially, it's important to note that this isn't because subordinative clauses can't contain *wh* phrases at any point in the derivation: long-distance *wh* movement out of a subordinative clause is fine:

(30) Long-distance *wh* movement out of subordinative possible

a. Weni-l cel Tihtiyas wewitahato-k [$_{\text{SUB}}$ **Ø-mattoktehmuw-a-n** ~~*weni-l*~~]?
who-OBV.SG even Tihtiyas IC.remember$_{\text{TI}}$-3CJ **3-call$_{\text{TA}}$-3OBJ-N**
'Who did Tihtiyas remember to call?' (EM 2023.01.04;NR)

b. Tama k-pawatom-a-ku-n 'Tolitoli [$_{\text{SUB}}$ **kt-oli=** **nomiy-a-n** ~~*tama*~~]?
where 2-want$_{\text{TI}}$-APPL-INV-N Tolitoli 2-there= see$_{\text{TA}}$-3OBJ-N
'Where does Tolitoli want you to meet her?' (Bruening 2001:180)

This contrast suggests that, while *wh* phrases can originate in a subordinative clause, a subordinative clause cannot be their final landing site. Under the indirect dependency analysis of *wh*-scope marking, what's going wrong in (29) is the lower *wh* dependency:

(31) a. ??Keq cel Tihtiyas wewitahato-k [$_{\text{SUB}}$ weni-l **Ø-mattoktehmuw-a-n** *t*]?
What even Tihtiyas IC.remember$_{\text{TI}}$-3CJ who-OBV.SG **3-call$_{\text{TA}}$-3OBJ-N**
Intended: 'Who did Tihtiyas remember to call?' (EM 2023.01.04;NR)

b. *Keq pawatom-a-s-k 'Tolitoli [$_{\text{SUB}}$ tama **kt-oli=** **nomiy-a-n** *t*]?
what IC.want$_{\text{TI}}$-APPL-2OBJ-3CJ Tolitoli where **2-there=** **see$_{\text{TA}}$-3OBJ-N**
Intended: 'Where does Tolitoli want you to meet her?' (Bruening 2001:203)

Since the subordinative clause cannot host *wh* movement, the lower *wh* dependencies in (31) are impossible, resulting in ungrammaticality.

More evidence for this conclusion comes from trying to form plain monoclausal embedded *wh* questions out of subordinative complements. The relevant kinds of predicates to test this are predicates like *unitahasin* 'forget', which can take either subordinative complements or *wh* question complements.[14]

(32) *Unitahasin* 'forget' embeds subordinatives and (non-subordinative) *wh* questions

a. Piyel '-kisi= wonitahasi-n [$_{SUB}$ **'t-oliy-a-n** sukolopan-ol]. Subordinative
Peter 3-PFV= forget$_{AI+O}$-N **3-make$_{TA}$-3OBJ-N** cake-OBV.SG
'Peter forgot to make a cake.' (EM 2022.11.09)

b. Piyel '-kisi= wonitahasi-n [$_{CJ}$ keq **ehcuwi= lihta-q**]. *wh* Q
Peter 3-PFV= forget$_{AI+O}$-N what **1C.must= make$_{TI}$-3CJ**
'Peter forgot what he had to make.' (EM 2022.11.09)

Example (32a) involves embedding a non-interrogative subordinative complement, and the (32b) involves embedding a *wh* question conjunct complement. Notice the implicit modal in the subordinative complement (also found with the English infinitival complement), which is rendered explicit in the corresponding conjunct *wh* question with *ahcuwi* 'must, have to'.

The natural question then is whether these two properties—subordinative embedding and question embedding—can co-occur. They cannot:

(33) a. *N-kisi= wonitahas-ulti-ne-n [$_{SUB}$ tayuwek **n-maciyapasi-ne-n**].
1-PFV= forget$_{AI+O}$-PL-N-1PL when **1-leave.together$_{AI}$-N-1PL**
Intended: 'We forgot when to leave.' (EM 2023.01.22)

b. N-kisi= wonitahas-ulti-ne-n [$_{IND}$ tayuwek **nt-ahcuwi= maciyapasi-pon**].
1-PFV= forget$_{AI+O}$-PL-N-1PL when **1-have.to= leave.together$_{AI}$-1PL**
'We forgot when we had to leave.' (EM 2023.01.22)

Example (33a) shows we can't combine a subordinative verb form with a *wh* question. To convey the same information, we must use an independent or conjunct clause with an overt modal, as in (33b) (which is independent due to the *wh* item *tayuwek* 'when'). Again, this indicates that subordinative clauses cannot host *wh* movement, suggesting that subordinative clauses are structurally impoverished—they lack a left periphery that could be the landing site of Ā movement.[15]

At this point, it's worth noting that subordinative complements really are at least as big as TP, as they can contain (interpreted) past tense marking—the preterite suffix *-hpon*, which I take to be in T.

(34) a. *Context: Peter is hosting a party and sees Roger driving up in his car. He knows that Roger often brings his favorite ginger ale from New Brunswick.*
'-Pawatom-on Piyel [$_{SUB}$ Lacaw-ol **Ø-monuhm-one-hpon** cinocolel].
3-want$_{TI}$-N Peter Roger-OBV.SG **3-buy$_{TI}$-N-PST** ginger.ale
'Peter wants Roger to have bought ginger ale.' (GP, MA 2023.05.02)

[14] When these predicates take subordinative complements, the complement clause seems to be implicitly modalized, much like infinitives under these same kinds of predicates in English. Conjunct/independent complements seem to behave much like finite complements in English.

[15] See Grishin (2023b:§5.1.3) for discussion of some methodological complications in eliciting this kind of data arising from *wen* 'who', *keq* 'what', and *tama* 'where' being quexistentials (importantly, *tayuwek* 'when' is *not* a quexistential), as well as some discussion of potential dialectal variation.

b. Etokiw Sapet toke pawato-k '-kisi= kakawi= qasqi-n,
if Elizabeth now want$_{TI}$-3CJ 3-can= fast= run$_{AI}$-N

cuwitpot-Ø [$_{SUB}$ 't-iyali= qasqi-ne-**hpon** ewasisuwi-t].
should.be$_{II}$-3 3-around= run$_{AI}$-N-**PRET** IC.be.child$_{AI}$-3CJ

'If Elizabeth wants to be able to run fast now, she should have run a lot as a kid.'

(EM 2023.10.30)

In (34a), the preterite suffix *-hpon* serves the backshift the embedded buying time relative to the matrix desire time. In (34b), the modal verb *cuwitpot* 'it should be the case that' has a bouletic ordering source involving Elizabeth's present desires (as indicated by the conditional antecedent), and its complement describes what Elizabeth should have done in the past to fulfill these present desires. In both instances, *-hpon* makes a clear temporal semantic contribution, indicating the presence of fully interpretable TP. The only clausal structure, then, that subordinative clauses are missing is the CP domain.

3.4 Summary

In this section, we've examined how each clause type interacts with Ā movement. I showed that independent and conjunct clauses can host a full range of Ā dependencies, while subordinative clauses are quite restricted: they can contain the launching position of Ā movement, but an Ā-moving phrase cannot land at the left edge of a subordinative clause. This all suggests that independent and conjunct clauses contain a CP domain that can trigger and host Ā dependencies, whereas subordinative clauses lack one.

4 Long-distance agreement

Now that we have some understanding of the internal syntax of independent, conjunct, and subordinative clauses, I turn next to the behavior of long-distance agreement (LDA) into each clause type. Let's begin by first establishing some baseline properties of LDA in Passamaquoddy. First, we should note that LDA is possible into each clause type, though only a certain subset of attitude predicates participate in LDA:[16]

(35) a. Ma=te n-kocicihtu-w-on-**ol** [$_{IND}$ *pro*$_{IN.PL}$ nutesson-Ø-ul kosona tan].
NEG=EMPH 1-know$_{TI}$-NEG-N-**IN.PL** come.out$_{II}$-3-IN.PL or WH

'I don't know if they [the fiddleheads] are out or not.' (RP 2023.01.21)

b. 'T-assokitaham-**a-l** Piyel [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
3-be.surprised$_{TA}$-**3OBJ-OBV.SG** Peter IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG

'Peter is surprised that the cat is so nosy.' (GP 2023.01.24)

c. N-kiseht-uw-**a**-ne-n [$_{SUB}$ Can 't-olintu-n].
1-make$_{TI}$-APPL-**3OBJ**-N-1PL John 3-sing$_{AI}$-N

'We made John sing.' (GP, RP 2021.11.10)

Additionally, note that this is long distance *object agreement*: the matrix verb agrees with an argument in the complement clause as if it were a matrix object.

In general, LDA is optional—this is true for epistemic predicates like *'kocicihtun* 'know', emotive predicates like *assokitahasu* 'be surprised', and certain subordinative-embedding LDA predicates like *'pawatomon* 'want':

[16]For instance, *itom* 'say' and *litahasu* 'think' are not LDA predicates.

(36) LDA with *'kocicihtun* 'know' optional

a. *No LDA*

Piyel '-kocicihtu-n [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter 3-know$_{TI}$-N IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter knows that the cat is very nosy.' (GP 2023.01.24)

b. *LDA*

Piyel '-kociciy-**a-l** [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter 3-know$_{TA}$-**3OBJ-OBV.SG** IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter knows that the cat is very nosy.' (GP 2023.01.24)

(37) LDA with *assokitahasu* 'be surprised' optional

a. *No LDA*

Piyel assokitahasu-Ø [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter be.surprised$_{AI}$-3 IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter is surprised that the cat is very nosy.' (GP 2023.01.24)

b. *LDA*

Piyel 't-assokitaham-**a-l** [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter 3-be.surprised$_{TA}$-**3OBJ-OBV.SG** IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter is surprised that the cat is very nosy.' (GP 2023.01.24)

(38) LDA with *'pawatomon* 'want' optional

a. *No LDA*

Piyel '-pawatom-on [$_{SUB}$ stahqon-ol yut oloqiw Ø-maceki-li-n].
Peter 3-want$_{TI}$-N tree-OBV.SG here around 3-grow$_{AI}$-OBV-N
'Peter wants a tree to grow around here.' (GP, MA 2022.05.16)

b. *LDA*

Piyel '-pawatom-uw-**a**-n [$_{SUB}$ stahqon-ol yut oloqiw Ø-maceki-li-n].
Peter 3-want$_{TI}$-APPL-**3OBJ**-N tree-OBV.SG here around 3-grow$_{AI}$-OBV-N
'Peter wants a tree to grow around here.' (GP, MA 2022.05.16)

Without LDA, the epistemic predicates and subordinative-embedding predicates appear in an invariant transitive verb form marked for agreement with an inanimate singular object (36a, 38a)—which either reflects agreement with the embedded clause as a whole, or is default agreement indicating a failure to find a suitable φ-feature-bearing goal.[17] In contrast, emotive predicates generally appear in an *intransitive* form in the absence of LDA, agreeing only with the matrix subject (37a).

There are, however, a few predicates that seem to *obligatorily* participate in LDA: these include the subordinative-embedding predicate *'kisehtun* 'make, cause', as well as direct perception predicates:

(39) Obligatory LDA with *'kisehtun* 'make'

a. *No LDA*

*Roger '-kisehtu-n [$_{SUB}$ wasis-` n-uskicinu-wintu-wew-ku-ne-n].
Roger 3-make$_{TI}$-N child-OBV.PL 1-Indian-sing$_{AI}$-APPL-INV-N-1PL
Intended: 'Roger made the children sing to us in Passamaquoddy.' (EM, RP 2022.05.23)

[17] Though see Bruening (2001:§5.2.3) and Grishin (2023b:253–255) for some evidence from (a lack of) agreement with embedded clausal coordination that this actually reflects failed agreement.

b. *LDA*

Roger '-kisehtu-w-**a**-n [$_{SUB}$ wasis-` n-uskicinu-wintu-wew-ku-ne-n].
Roger 3-make$_{TI}$-APPL-**3OBJ**-N child-OBV.PL 1-Indian-sing$_{AI}$-APPL-INV-N-1PL
'Roger made the children sing to us in Passamaquoddy.' (EM, RP 2022.05.23)

(40) Obligatory LDA with *nutomon* 'hear'

a. *No LDA*

*Ø-Nutom-on [$_{CJ}$ ponapsku-l mete= poneqiye-k] welaqik.
1-hear$_{TI}$-N stone-IN.PL IC.unseen= fall$_{II}$-CJ last.night
Intended: 'I heard stones falling down last night.' (GP 2023.01.30)

b. *LDA*

Ø-Nutom-on-**ol** [$_{CJ}$ ponapsku-l mete= poneqiye-k] welaqik.
1-hear$_{TI}$-N-**IN.PL** stone-IN.PL IC.unseen= fall$_{II}$-CJ last.night
'I heard stones falling down last night.' (GP 2023.01.30)

We can prevent LDA from occurring under these predicates by getting rid of a suitable LDA target in the complement clause—for instance, by embedding a (presumably avalent) weather predicate downstairs. In this case, we get a non-agreeing default TI verb form with inanimate singular object agreement:

(41) No LDA with embedded weather predicates

a. Motewolon '-kisehtu-n [$_{SUB}$ wisoki= psan-Ø].
sorceror 3-make$_{TI}$-N very= snow$_{II}$-3
'The sorceror made it snow a lot.' (EM 2022.08.15)

b. Ø-Nutom-on [$_{CJ}$ etut-amoqessi-k] welaqik.
1-hear$_{TI}$-N IC.much-storm$_{II}$-CJ last.night
'I heard it storming hard last night.' (GP 2023.01.30)

Thus, these predicates (which include all instances of direct perception reports, as far as I'm aware) always participate in LDA, unless there is no suitable matching goal in the embedded clause.

Additionally, we should note that only *direct* perception reports allow for LDA. Indirect perception reports—that is, perceiving indirect evidence for the event expressed by the embedded clause, rather than directly perceiving the embedded event—disallow LDA entirely. Moreover, indirect perception reports *require* the overt complementizer *eli*, and are infelicitous without it:

(42) Context: You enter your apartment, and see that your roommate's things are gone. Clearly, they've moved out while you were gone.

a. Ø-Nomihtu-n [$_{CJ}$ **eli** kisi= nutiyute-t n-itap].
1-see$_{TI}$-N **IC.C** PFV= move.out$_{AI}$-3CJ 1-friend
'I saw that my friend had moved out.' (EM 2023.12.22)

b. *Ø-Nomihtu-n [$_{CJ}$ kisi= nutiyute-t n-itap].
1-see$_{TI}$-N IC.PFV= move.out$_{AI}$-3CJ 1-friend
Intended: 'I saw that my friend had moved out.' (EM 2023.12.22)

c. *Ø-Nomiy-**a** [$_{CJ}$ **(eli)** kisi= nutiyute-t n-itap].
1-see$_{TA}$-**3OBJ** **(IC.C)** (IC.)PFV= move.out$_{AI}$-3CJ 1-friend
Intended: 'I saw that my friend had moved out.'[18] (EM 2023.12.22)

[18]Note that the problem isn't with the presence of *kisi* 'PFV'. It's possible to felicitously leave it out in this context, but that doesn't improve LDA (or leaving out *eli*):

In this context, the matrix subject is inferring that the embedded event occurred on the basis of *post hoc* visual observation. The only way to express this is a lack of LDA and the presence of *eli* (42a)—leaving *eli* out (42b) or attempting LDA (42c) are impossible.

Conversely, direct perception reports reject *eli* entirely, in addition to requiring LDA:

(43) Context: While in your room, you hear the sounds of your roommate moving out throughout the rest of the apartment: furniture moving, plates clanking, boxes rattling.

a. Ø-Nutuw-**a** [$_{CJ}$ etoli= nutiyute-t n-itap].
1-hear$_{TA}$-**3OBJ** IC.PROG= move.out$_{AI}$-3CJ 1-friend
'I heard my friend moving out.' (EM 2023.12.22)

b. *Ø-Nutuw-**a** [$_{CJ}$ **eli** totoli= nutiyute-t n-itap].
1-hear$_{TA}$-**3OBJ** IC.C PROG= move.out$_{AI}$-3CJ 1-friend
Intended: 'I heard my friend moving out.' (EM 2023.12.22)

c. #Ø-Nutom-on [$_{CJ}$ { **eli** totoli= / etoli= } nutiyute-t n-itap].
1-hear$_{TI}$-N **IC.C** PROG= / IC.PROG= move.out$_{AI}$-3CJ 1-friend
Intended: 'I heard my friend moving out.' (EM 2023.12.22)
EM: "*Nutomon* is someone else told you."

Here, the only possibility is LDA without *eli* (43a). We can't insert an *eli* (43b), nor can LDA be absent (43c). With the non-agreeing verb form *nutomon* 'I hear it', speakers want to interpret the sentence as conveying that the matrix subject has heard reportative evidence for the embedded event (i.e. that someone told them about it), rather than having directly heard the embedded event itself, as indicated by the speaker comment. As far as I am aware, perception reports are the only situation where the presence or absence of *eli* matters: in all other contexts it seems like *eli* is entirely optional, with its presence/absence having no obvious syntactic or semantic effect (though of course this may well be due to not having found the right kinds of contexts to differentiate these options yet).

In terms of word order, a surface observation we can make is that the LDA target (the DP that the matrix verb is agreeing with) can either appear clearly inside the embedded clause, at the left edge of the embedded clause, or clearly inside the matrix clause:

(44) Multiple positions for conjunct LDA

a. N-piluwitaham-**a** [$_{CJ}$ eli Laca miyahsi= macaha-t].
1-think.differently$_{TA}$-**3OBJ** IC.C Roger early= leave$_{AI}$-3CJ

b. N-piluwitaham-**a** [$_{CJ}$ Laca eli miyahsi= macaha-t].
1-think.differently$_{TA}$-**3OBJ** Roger IC.C early= leave$_{AI}$-3CJ
Both: 'I think differently because Roger left early.' (MA 2023.06.20)

(i) Context: same as (42).

a. Ø-Nomihtu-n [$_{CJ}$ **eli** nutiyute-t n-itap].
1-see$_{TI}$-N **IC.C** move.out$_{AI}$-3CJ 1-friend
'I saw that my friend moved out.' (EM 2023.12.22)

b. *Ø-Nomihtu-n [$_{CJ}$ nutiyute-t n-itap].
1-see$_{TI}$-N IC.move.out$_{AI}$-3CJ 1-friend
Intended: 'I saw that my friend moved out.' (EM 2023.12.22)

c. *Ø-Nomiy-**a** [$_{CJ}$ nutiyute-t n-itap].
1-see$_{TA}$-**3OBJ** IC.move.out$_{AI}$-3CJ 1-friend
Intended: 'I saw that my friend moved out.' (EM 2023.12.22)

(45) Multiple positions for subordinative LDA

a. Ma=te Sapet '-pawatom-uw-**a**-wi-n [$_{SUB}$ '-peciya-li-n weni-l
NEG=EMPH Elizabeth 3-want$_{TI}$-APPL-**3OBJ**-NEG-N 3-come-OBV-N who-OBV.SG
sepawonuk].
tomorrow

b. Ma=te weni-l Sapet '-pawatom-uw-**a**-wi-n [$_{SUB}$ '-peciya-li-n
NEG=EMPH who-OBV.SG Elizabeth 3-want$_{TI}$-APPL-**3OBJ**-NEG-N 3-come-OBV-N
sepawonuk].
tomorrow

Both: 'Elizabeth doesn't want anyone to come tomorrow.' (EM 2022.08.15)

However, it seems like the syntactic properties of these different options don't particularly differ, and they can be analyzed in a unified way (Bruening 2001 and LeSourd 2019a on independent/conjunct LDA, and Grishin 2023a on subordinative LDA). Bruening (2001) and Grishin (2023a) propose that the variation in linear order simply boils down to variation in spellout of the relevant movement chain—spelling out the highest copy (overt movement) or a lower copy (covert movement). I'll follow these works in treating the varying surface syntax of apparently different LDA constructions as different surface realizations of the same underlying syntax.

Now that I've established some basic properties of different types of LDA in Passamaquoddy, in the rest of this section we'll closely examine the locality properties of independent, conjunct, and subordinative LDA. I'll show that LDA into independent and subordinative clauses shows Ā locality properties: we can get LDA with any embedded argument, as long as it's not in an island. In contrast, LDA into subordinative clauses shows A locality properties: we can only get LDA with the embedded argument in the highest A position.

I then propose that we can understand these differences as a natural consequence of the internal syntax of each clause type combined with a locality restriction on LDA: LDA is only possible with the *highest* DP in the complement clause. The idea is that independent and conjunct clauses have a left periphery to which DPs can Ā-move (potentially covertly), deriving the Ā locality properties of independent and conjunct LDA (following Bruening 2001, Polinsky and Potsdam 2001, and Branigan and MacKenzie 2002). In contrast, subordinative clauses lack a left periphery entirely, thus preventing any clause-internal Ā movement, giving us the A locality properties of subordinative LDA.

4.1 LDA into independent and conjunct clauses

LDA into independent and conjunct clauses is found with a restricted set of predicates, all of which typically embed conjunct complements but which can occasionally be found with independent complements. These include the epistemic predicates *'kocicihtun* 'know', *'piluwitahatomon* 'suspect; think differently', *wewitahatomon* 'remember', *mihqitahatomon* 'recall; remember', and *unitahasin* 'forget'; emotive predicates like *ulitahatomon* 'be happy', *'palitahatomon* 'be proud; be happy', and *'tassokitahatomon* 'be surprised'; and (direct) perception predicates like *nutomon* 'hear' and *nomihtun* 'see'.

Whether taking an independent or conjunct complement, LDA with these predicates is free—for instance, it's possible for the matrix verb to agree with either the embedded subject or object:

(46) LDA into independent clauses: free

a. Ma=te n-wewitaham-**a**-w [$_{IND}$ psi=te wen tama 't-oli=
NEG=EMPH 1-remember$_{TA}$-**3OBJ**-NEG all=EMPH who where 3-there=
kis-onuw-a-` 't-akom-`].
PFV-buy$_{TA}$-3OBJ-OBV.PL 3-snowshoe-OBV.PL

'I don't remember where everyone bought his snowshoes.' (Bruening 2001:272)

b. N-wewitaham-**a-k** [IND ma=te Ø-nomiy-a-wi-yik mawsuwinu-wok
1-remember$_{TA}$-**3OBJ-PROX.PL** NEG=EMPH 1-see$_{TA}$-3OBJ-NEG-PROX.PL person-PROX.PL
Kehlis-k].
Calais-LOC
'I remember that I didn't see people in Calais.' (Bruening 2001:259)

(47) LDA into conjunct clauses: free

a. '-Kociciy-**a-l** Piyel [CJ eli k-posum psi=te noluwitaham-i-nokot].
3-know$_{TA}$-**3OBJ-OBV.SG** Peter IC.C 2-cat all=EMPH feel.safe.with$_{TA}$-1OBJ-3:1PL.CJ
'Peter knows that your cat feels safe with all of us.' (GP 2023.01.24)

b. **N**-kociciy-uku-**n** Piyel [CJ eli k-posum psi=te noluwitaham-i-nokot].
1-know$_{TA}$-INV-**1PL** Peter IC.C 2-cat all=EMPH feel.safe.with$_{TA}$-1OBJ-3:1PL.CJ
'Peter knows that your cat feels safe with all of us.' (GP 2023.01.24)

We have LDA with the embedded subject in the (a) examples above, and LDA with the embedded object in the (b) examples—both options are possible. In fact, it's even possible to get LDA across multiple clause boundaries:

(48) N-kosiciy-**a-k** [CJ eli Piyel litahasi-t [CJ eli kis-ankum-i-hti-t
1-know$_{TA}$-**3OBJ-PROX.PL** IC.C Peter think$_{AI}$-3CJ IC.C PFV-sell$_{TA}$-1OBJ-3PL-3CJ
nikt ehpic-ik posonuti-yil]].
those.PROX woman-PROX.PL basket-IN.PL
'I know that Peter thinks that those women sold me the baskets.' (LeSourd 2019a:360)

Here, the matrix verb *nkosiciyak* 'I know (about them)' is agreeing with *nikt ehpicik* 'those women' across two clause boundaries.

However, this isn't to say that independent and subordinative LDA is completely unrestricted. If we construct sentences where the LDA target is embedded inside an island, the results are ungrammatical:

(49) a. *Adjunct island*

*Psuwis '-kociciy-**a-l** [CJ {Coraw-ol } ewiki-t [*island* 'sami
cat 3-know$_{TA}$-**3OBJ-OBV.SG** Cora-OBV.SG IC.have.home$_{AI}$-3CJ because
'-koselom-oku-l {Coraw-ol}]].
3-love$_{AI}$-INV-OBV.SG
Intended: 'The cat knows that he has a home [because Cora loves him].' (GP, MA 2024.03.04)

b. *Complex NP Constraint*

*N-kosiciy-**a-k** [CJ kis-ankuwehtu-won [*island* atomupil-ol Piyel naka Susehp
1-know$_{TA}$-**3OBJ-PROX.PL** IC.PFV-sell$_{TI}$-2SG.CJ car-IN.PL Peter and Joseph
mil-os-k-oponi-l]].
IC.give$_{TA+O}$-2OBJ-3CJ-PRET-IN.PL
Intended: 'I know that you sold [the cars Peter and Joseph gave you].'
(Bruening 2001:266)

c. Wh *island*

*Ma=te n-wewitaham-**a**-wi-**yik** [CJ Susehp kisi= qecimul-os-k
NEG=EMPH 1-remember$_{TA}$-**3OBJ**-NEG-**PROX.PL** Joseph IC.PFV= ask$_{TA}$-2OBJ-3CJ
[*island* keq kisihtu-hti-t skitapi-yik]].
what IC.make$_{TI}$-3PL-3CJ man-PROX.PL
Intended: 'I don't remember if Joseph asked you [what the men made].'
(Bruening 2001:266)

d. *Left Branch Condition*

*'-Kociciy-**oq** Piyel [$_{CJ}$ eli [$_{island}$ *pro*$_{2SG}$ k-posu-m] psi=te
2-know$_{TA}$-INV Peter IC.C 2-cat-POSS all=EMPH

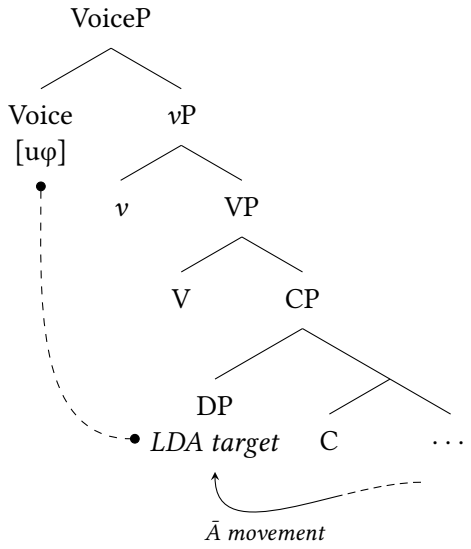
noluwitaham-i-nokot].
feel.safe.with$_{TA}$-1OBJ-3:1PL.CJ

Intended: 'Peter knows that your cat feels safe with all of us.' (GP 2023.01.24)

Note that we get island effects regardless of whether the LDA target is moved to the left edge of the embedded clause (49a) or remains in situ (49a–c). This island-sensitivity indicates that LDA in Passamaquoddy must be derived by Ā movement of the LDA target (Bruening 2001, Polinsky and Potsdam 2001, Branigan and MacKenzie 2002; contra LeSourd 2019a). This movement can be overt, resulting in the LDA target being spelled out in its landing site in Spec,CP, or it can be covert, resulting in the LDA target being spelled out in situ.

The fact that LDA must be fed by Ā movement suggests that, despite surface appearances, LDA is actually strikingly local, a conclusion echoed by much of the literature on LDA crosslinguistically (e.g. see the survey in Bhatt and Keine 2017). For our purposes, we can understand this as a probe on Voice that Agrees with the closest accessible DP (Bruening 2001)—deriving (highest) object agreement in the general case, and LDA with the highest embedded DP in LDA contexts.[19] I illustrate in (50).

(50)



4.2 LDA into subordinative clauses

Now we turn to LDA into subordinative clauses, which (as we'll see) has an A locality profile, in contrast to the Ā locality properties of independent and conjunct LDA. However, before we get there, it's useful to observe the following morphological point: in contrast to independent/subordinative LDA, where the matrix verb agrees with an embedded DP as if it were the matrix object, in subordinative

[19]This is an accurate description of the behavior of the *theme sign*, a suffix that either expones agreement with the highest object or surfaces as the inverse marker, and which is standardly analyzed as a probe in Voice/*v* (Bruening 2001, Béjar and Rezac 2009, Lochbihler 2012, Oxford 2019b, a.m.o.). However, central agreement (T/Infl) and peripheral agreement (C) can also, in various situations, index the object—but the general agreement behavior of these suffixes cannot obviously be described in terms of simple locality. The analysis of central agreement proposed by Oxford (2023, 2024b), where T/Infl can Agree with the DP in Spec,VoiceP and/or with Voice directly is straightforwardly compatible with the locality properties of LDA (T/Infl agreeing with the LDA target would be an instance of T/Infl agreeing with Voice). As for peripheral agreement, some discussion about how the locality properties of peripheral agreement in C interact with LDA can be found in Grishin 2023a. Finally, something more needs to be said to derive the restriction of LDA to a limited subset of clause-embedding verbs—I have nothing to contribute to this particular issue in this paper.

LDA the matrix verb agrees with an embedded DP as if it were the matrix *recipient of a ditransitive*. That is, subordinative LDA predicates look like ditransitive verbs (for more discussion of this fact and an analysis thereof, see Grishin 2023a). A consequence of this that we'll need to keep in mind for later is that subordinative LDA displays the following morphological property of agreement with ditransitive recipients in Passamaquoddy: agreement with third person recipients of direct verbs (SAP⟶3 or PROX⟶OBV) fails to realize the number or obviation status of the recipient, only indexing person.

To illustrate, observe the following examples :

(51) a. *Ditransitive*

N-kisihtu-w-**a**-n-ol n-itapi-yik nisonu-l posonuti-yil.
1-make$_{TI}$-APPL-**3OBJ**-N-IN.PL 1-friend-PROX.PL two-IN.PL basket-IN.PL
'I made my friends two baskets.' (EM 2022.06.06)

b. *Subordinative LDA*

Roger '-pawatom-uw-**a**-n-Ø [$_{SUB}$ minsoss-` Ø-wisa= maceki-ni-ya].
Roger 3-want$_{TI}$-APPL-**3OBJ**-N-IN.SG raspberry-OBV.PL 3-quick= grow$_{AI}$-N-PL
'Roger wants the raspberries to grow quickly.' (GP, MA 2022.03.21)

Note first that in both examples we find the applicative suffix *-(u)w*, indicating that these verbs are ditransitive. Additionally, we can see that the recipient *nitapiyik* 'my friends (PROX)' in (51a) is indexed only by the third person theme sign *-a* '3OBJ', and its number (plural) and proximate/obviative status (proximate) are left unexponed on the verb. The peripheral suffix *-ol* 'IN.PL' indexes the inanimate plural theme *nisonul posonutiyil* 'two baskets'. Similarly, in the subordinative LDA example in (51b), the embedded subject *minsòss* 'raspberries (OBV)' is indexed only by the third person theme sign *-a* '3OBJ' on the matrix verb, and its number (plural) and proximate/obviative status (obviative) are also left unindexed. In the peripheral suffix slot in subordinative LDA we always get invariant inanimate singular peripheral agreement (which is null), either a morphological default as the result of failed Agree, or agreement with the embedded clause as a whole.

Note that the number of third person indirect objects *is* in fact indexed if the verb is inverse, as in the following example:

(52) W-ikuwoss-uwa-l '-kisi= wihqeht-a-**ku**-ni-**ya**-l *pro*$_{PROX.PL}$ *pro*$_{IN.PL}$.
3-mother-PL-OBV.SG **3**-PFV= take$_{TI}$-APPL-**INV**-N-**PL**-IN.PL
'Their mother took them$_{IN}$ [the candies] from them$_{AN}$ [the children].' (GP 2022.11.02)

Here, with this inverse verb, central agreement fully indexes both the person and number of the indirect object: the indirect object 'them' (a null pronoun) is indexed by the third person prefix *'(t)-* and the plural central suffix *-(y)a*.

With this morphological preliminary out of the way, let's survey the data from subordinative LDA (for more details, see Grishin 2024b). The first observation to make is that, when there's an embedded transitive verb, we generally can only get LDA with the embedded external argument:

(53) 1⟶3: agreement with 1 only

a. Roger **n**-puwatom-a-**ku**-n [$_{SUB}$ *pro*$_{1SG}$ nt-olintu-wew-a-n Asawis].
Roger **1**-want$_{TI}$-APPL-**INV**-N 1-sing$_{AI}$-APPL-3OBJ-N John
'Roger wants me to sing to John.' (EM, RP 2021.11.17)

b. *Roger '-pawatom-uw-**a**-n [$_{SUB}$ Husaw-ol nt-olintu-wew-a-n *pro*$_{1SG}$].
Roger 3-want$_{TI}$-APPL-**3OBJ**-N John-OBV.SG 1-thus-sing$_{AI}$-APPL-3OBJ-N
Intended: 'Roger wants me to sing to John.' (GP, MA 2022.05.16)

(54) 3⟶1: agreement with 3 only

a. Roger '-pawatom-uw-**a**-n [SUB Winiw-ol nt-olayyem-ku-ne-n *pro*1PL].
Roger 3-want$_{TI}$-APPL-**3OBJ**-N Winnie-OBV.SG 1-play.with$_{TA}$-INV-N-1PL
'Roger wants Winnie to play with us.' (MA 2023.02.21)

b. *Roger **n**-pawatom-a-**ku**-ne-**n** [SUB *pro*1PL nt-olayyem-ku-ne-n Wini(w-ol)].
Roger **1**-want$_{TI}$-APPL-**INV**-N-**1PL** 1-play.with$_{TA}$-INV-N-1PL Winnie(-OBV.SG)
Intended: 'Roger wants Winnie to play with us.' (MA 2023.02.21)

In all these cases, we can only get agreement with the embedded external argument, as demonstrated by the (a) examples. Trying to agree with the internal argument, like in the (b) examples, is impossible, in striking contrast to independent and conjunct LDA.

It's important to note that this is about general A locality, and not just agreement with external arguments. To see this, we can observe that A movement of the internal argument over the external argument can feed subordinative LDA. In Passamaquoddy, we find such "syntactic inversion" in the 3⟶3 inverse (though, crucially, not the 3⟶SAP inverse as in (54) above, which is purely a surface morphological phenomenon—for extensive discussion of this issue and the difference between morphological and syntactic inversion, see Grishin 2023b:§2.4.3, 2024b and Oxford 2023, 2024a). When we find 3⟶3 inverse downstairs, LDA with the *internal* argument is the only option:

(55) OBV⟶PROX: agreement with PROX only[20]

a. ?Piyel w-ikuwoss-ol '-pawatom-a-**ku**-n-**Ø** [SUB *pro*PROX.SG Ø-uli= ciksota-ku-n
Peter 3-mother-OBV.SG **3**-want$_{TI}$-APPL-**INV**-N-**SG** 3-well= listen$_{TA}$-INV-N
olomuss-`].
dog-OBV.PL
'Peter's mother wanted him to be listened to well by the dogs.' (EM 2023.12.22)

b. *Piyel w-ikuwoss-ol '-pawatom-a-**ku**-ni-**ya** [SUB *pro*PROX.SG Ø-uli= ciksota-ku-n
Peter 3-mother-OBV.SG **3**-want$_{TI}$-APPL-**INV**-N-**PL** 3-well= listen$_{TA}$-INV-N
olomuss-`].
dog-OBV.PL
Intended: 'Peter's mother wanted him to be listened to well by the dogs.' (EM 2023.12.22)
EM: "No, that one doesn't sound good at all."

In these examples, we have 3⟶3 inverse in the embedded clause (indicated in the translation by an English passive), with a plural external argument *olomùss* 'dogs (OBV)' and a singular internal argument 'him/Peter'. Since subordinative LDA uses the same morphology associated with recipients of ditransitives, the only way to tell apart which of these third persons the matrix verb is agreeing with is if the matrix verb is inverse. With this all in place, we see that we can only get third person singular agreement with the embedded internal argument 'him/Peter' (55a), and not third person plural agreement with the embedded external argument *olomùss* 'dogs' (55b). Thus, we can conclude that subordinative LDA doesn't just index external arguments, but rather whichever embedded argument is in the highest A position. In other words, subordinative LDA is fed by A movement.

We must now ask the following question: why can subordinative LDA *only* be fed by A movement, when independent and conjunct LDA can be fed by Ā movement? Put differently, why should subordinative LDA differ in its locality properties from independent and conjunct LDA?

[20]The slightly degraded judgment in (55a) is due I suspect to the awkwardness of "successive-cyclic syntactic inversion" combined with LDA (third person inverse downstairs feeding LDA feeding third person inverse upstairs). Speakers' comments on examples like (55a) indicate that they find them unwieldy, but still possible, and they prefer rewording these kinds of sentences to have fewer instances of inversion. In any event, the contrast between (55a) and (55b) is clear—examples like (55a) are judged (merely) awkward and unnatural, whereas examples like (55b) are judged completely impossible.

The answer, I propose, is that this is a simple consequence of the structural size of subordinative versus independent/conjunct clauses. Independent and conjunct clauses contain a left periphery to host Ā probes and be a landing site for Ā movement. In contrast, subordinative clauses lack a left periphery entirely, being bare TPs, and thus cannot host (clause-internal) Ā dependencies. The reason that subordinative LDA is so restricted, then, is simply because there is nowhere at their edge for DPs to be able to Ā-move to in order to feed LDA. Thus, only A movement to lower positions (e.g. perhaps Spec,TP) is able to feed subordinative LDA.

4.3 Summary

To summarize: I have established an empirical difference between independent and conjunct LDA on the one hand and subordinative LDA on the other. Independent/conjunct LDA is free, fed by Ā movement (as indicated by its sensitivity to islands), whereas subordinative LDA is restricted, fed only by A movement. In order to account for this difference, I proposed that the structural differences in clause size diagnosed in Section 3 on the basis of Ā phenomena like *wh* movement are the source of these different locality properties: independent and conjunct clauses are large enough to contain CP layers that could host Ā movement, whereas subordinative clauses lack such structure, being bare TPs. Thus, subordinative clauses are too small for subordinative LDA to possibly be fed by Ā movement.

5 Interactions between *wh* movement and long-distance agreement

Now that we understand some of the properties of *wh* movement and LDA separately in Passamaquoddy, we can turn to their interaction. We'll see that these interactions motivate a finer-grained division of LDA types: whereas before I distinguished between independent/conjunct LDA and subordinative LDA, we'll now see that we need to distinguish (at least) three categories of LDA complements: epistemic complements, direct perception complements, and subordinative complements.

With embedded *wh* questions, we'll see that there is no interaction between LDA and Ā movement, though this is only straightforwardly testable with epistemic complements (subordinative complements can't be *wh* questions, and it's unclear whether direct perception complements can be the right semantic type to be questions). Long-distance *wh* movement out of direct perception complements and subordinative complements similarly fails to affect their normal LDA behavior: direct perception LDA is still free, and subordinative LDA is still subject to A locality. However, there are nontrivial interactions between *wh* movement and LDA into epistemic complements: if there is long-distance *wh* movement of a DP (but *not* a non-DP, like *tama* 'what' or *tayuwek* 'when'), then LDA becomes restricted to the *wh* phrase only. This behavior is summarized in Table 1, replicated below:

	No long-distance wh *mvmt. of a DP*		*Long-distance* wh *mvmt. of a DP*
Epistemic LDA (IND, CJ)	**free** (Ā-locality)	≠	**restricted** (*wh* phrase only)
Direct perception LDA (CJ)	**free** (Ā-locality)	=	**free** (Ā-locality)
Subordinative LDA (SUB)	**restricted** (A-locality)	=	**restricted** (A-locality)

Table 5: Interaction between LDA and long-distance Ā extraction (repeated)

5.1 Embedded *wh* questions: no interaction

First, let's take a look at how LDA interacts with embedded *wh* questions (in epistemic complements). In these cases, embedded *wh* questions have no effect on LDA behavior—in the normal case, these predicates participate in free LDA (Ā locality), and this is true here also:

(56) Epistemic complement + embedded *wh* question: **free LDA**

a. Piyel ma=te Ø-wewitaham-**a**-wi-**yil** [CJ weni-l kisi=
Peter NEG=EMPH 3-remember$_{TA}$-**3OBJ**-NEG-**OBV.SG** who-OBV.SG IC.PFV=
mil-uk atomupil].
give$_{TA+O}$-1SG:3CJ car
'Peter doesn't remember who I gave a car to.' (Bruening 2001:270)

b. N-kosiciy-**a**-**k** [CJ keq nuhu-wok muwinu-wok kis-otomu-hti-t].
1-know$_{TA}$-**3OBJ**-**PROX.PL** what three-PROX.PL bear-PROX.PL IC.PFV-eat$_{TI}$-3PL-3CJ
'I know what the three bears ate.' (Bruening 2001:177)

In (56a), we're getting LDA with the *wh* phrase, and in (56b) we're getting LDA with another DP in the embedded clause.

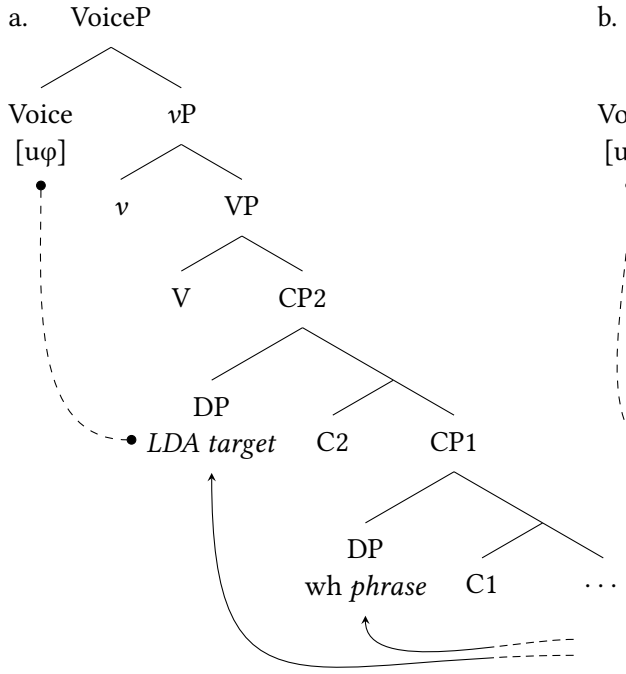
In some sense, this freeness might be surprising. If LDA into independent and conjunct clauses is fed by Ā movement, and *wh* questions are formed by obligatory *wh* movement, then one might have expected a more restricted pattern: LDA with the *wh* phrase only (a pattern found with LDA in Mi'gmaq; Hamilton 2015ab). But this is not what we get—LDA remains free.

Given what we've said so far, there are a few conclusions we can draw at this point about the scenario where we get LDA with a DP that is distinct from the *wh* phrase:

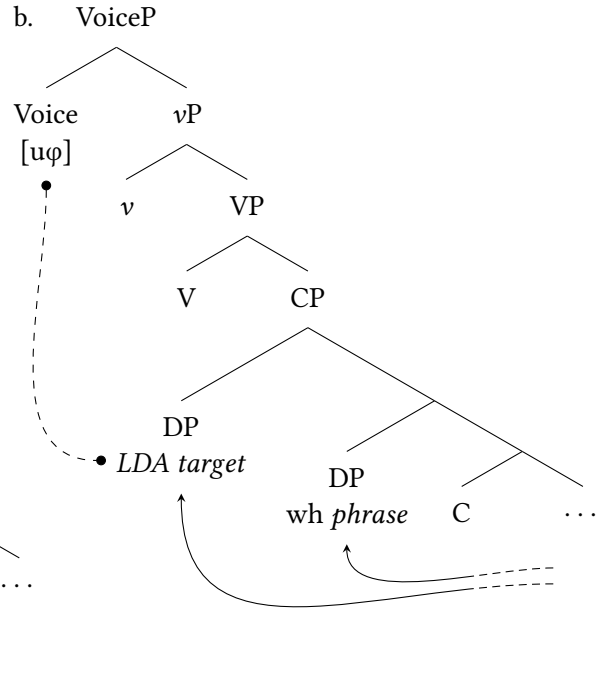
- Since LDA is sensitive to *wh* islands (49c), LDA targets that are *not* *wh* phrases (e.g. *nuhuwok muwinuwok* 'three bears' in (56b)) can't be moving entirely out of a *wh* question: they must still be inside the complement clause.
- Since LDA is, despite appearances, extremely local, the LDA target—when not the *wh* phrase—must be moving to some position *above* the *wh* phrase (potentially covertly).

These two constraints narrow down the possibility space to the following two options: either the LDA target moves to a higher CP layer than the *wh* phrase (57a), or the LDA target moves to a (higher) co-specifier of the *wh* phrase (57b).[21]

(57) a.



b.



[21]Whether it needs to move to a higher specifier or not depends on ones assumptions about the equidistance of multiple specifiers (Chomsky 1995, 2000, Ura 1996, Hornstein 2009, Longenbaugh and Polinsky 2018, a.o.).

I won't argue in favor of one or the other option here, and both will be compatible with my conclusions later on, so I will just assume (pending further investigation) that both options are possible derivations of examples like (56b).

5.2 Long-distance *wh* questions: interaction

In contrast to embedded *wh* questions, we *do* find interactions between LDA and Ā movement in the case of long-distance *wh* questions—but only when *wh*-moving a DP out of epistemic complements. In this section, I'll present the data motivating this generalization in detail.

5.2.1 Subordinative and direct perception complements

With subordinative and direct perception complements, long-distance *wh* movement doesn't affect their typical LDA behavior. Subordinative LDA is subject to A locality, and direct perception LDA is free—and it is still so when *wh* moving something out of the complement clause:

(58) Subordinative complement + long-distance *wh* question: **A locality**

a. Weni-l Roger pawatom-uw-**i**-t [$_{\text{SUB}}$ *pro*$_{\text{1SG}}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{\text{TI}}$-APPL-**1OBJ**-3CJ 1-talk.to$_{\text{TA}}$-3OBJ-N
'Who did Roger want me to talk to?' (EM 2022.12.07)

b. *Weni-l Roger pawatom-uw-**a**-t [$_{\text{SUB}}$ *pro*$_{\text{1SG}}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{\text{TI}}$-APPL-**3OBJ**-3CJ 1-talk.to$_{\text{TA}}$-3OBJ-N
Intended: 'Who did Roger want me to talk to?' (EM 2022.12.07)

(59) Direct perception complement + long-distance *wh* question: **free LDA**

a. Weni-l Tiger nutuw-**i**-t [$_{\text{CJ}}$ *pro*$_{\text{1SG}}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{\text{TA}}$-**1OBJ**-3CJ IC.PROG-talk.to$_{\text{TA}}$-1SG:3CJ
'Who did Tiger hear me talking to?' (GP, MA 2023.01.31)

b. Weni-l Tiger nutuw-**a**-t [$_{\text{CJ}}$ *pro*$_{\text{1SG}}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{\text{TA}}$-**3OBJ**-3CJ IC.PROG-talk.to$_{\text{TA}}$-1SG:3CJ
'Who did Tiger hear me talking to?' (GP, MA 2023.01.31)

In these examples, we're moving *wenil* 'who (OBV)' out of the object position of the complement clause to form a matrix *wh* question. In the subordinative examples (58), we can see that this cannot feed new LDA possibilities: LDA is still restricted to the embedded subject. Similarly, in the direct perception examples (59), long-distance *wh* extraction also has no effect on the LDA behavior: we are still able to get free LDA with either the embedded subject (59a) or the embedded object (59b).

5.2.2 Epistemic complements

So far, nothing particularly exciting has happened: on the basis of everything we've seen so far, it seems like LDA and *wh* movement don't seem to interact in any particularly special way. However, this is not true in the case of epistemic complements. With epistemic complements, long-distance *wh* movement of DPs *forces* LDA with the moving *wh* phrase:

(60) a. Wen wewitaham-**ot** [$_{\text{CJ}}$ eli *pro*$_{\text{1SG}}$ ap-sakiy-uk ~~*wen*~~]?
who IC.remember$_{\text{TA}}$-**2SG:3CJ** IC.C return-see$_{\text{TA}}$-1SG:3CJ
'Who do you remember that I went to see?' (LeSourd 2019a:389)

b. *Wen wewitaham-**i**-hin [$_{\text{CJ}}$ eli *pro*$_{\text{1SG}}$ ap-sakiy-uk ~~*wen*~~]?
who IC.remember$_{\text{TA}}$-**1OBJ**-2SG.CJ IC.C return-see$_{\text{TA}}$-1SG:3CJ
Intended: 'Who do you remember that I went to see?' (LeSourd 2019a:389)

In contrast to the normal free LDA pattern we find with *wewitahatomon* 'remember', here we can only get third person object agreement with *wen* (60a). Attempting LDA with another argument—in (60b), the null first person singular pronoun—is impossible.

Moreover, LDA with these *wh* phrase is *obligatory*—we can't get a default non-LDA verb form:

(61) a. Wen keciciy-**ukot** [$_{CJ}$ ~~*wen*~~ kis-oto-k mahsusi-yil]? *LDA*
who IC.know$_{TA}$-**1PL:3CJ** IC.PFV-eat$_{TI}$-3CJ fiddlehead-IN.PL
'Who do we know ate fiddleheads?' (EM 2023.12.04;NR)

b. *Wen kecicihtu-weq [$_{CJ}$ ~~*wen*~~ kis-oto-k mahsusi-yil]? *no LDA*
who IC.know$_{TI}$-1PL IC.PFV-eat$_{TI}$-3CJ fiddlehead-IN.PL
Intended: 'Who do we know ate fiddleheads?' (EM 2023.12.04;NR)

In (61a), we're getting LDA with the *wh* phrase *wenil* 'who'. If we use a default TI non-LDA verb form with inanimate singular object agreement, as in (61b), the results are unacceptable. Thus, epistemic LDA and long-distance Ā movement show a striking interaction: their combination restricts LDA to the moving *wh* item, and we lose both the typical freeness as well as optionality of epistemic LDA.

Note that this is also true if the *wh* item is *keq* 'what'—in this case, the verb must show inanimate object agreement, and cannot agree with another embedded argument:

(62) a. Keq kecicihtu-won [$_{CJ}$ '-qoss ehcuwi= lihta-q ~~*keq*~~]?
what IC.know$_{TI}$-2SG.CJ 2-son IC.must= make$_{TI}$-3CJ
'What do you know your son has to make?' (EM 2023.06.13)

b. *Keq keciciy-**ot** [$_{CJ}$ '-qoss ehcuwi= lihta-q ~~*keq*~~]?
what IC.know$_{TA}$-**2SG:3CJ** 2-son IC.must= make$_{TI}$-3CJ
Intended: 'What do you know that your son has to make?' (EM 2023.06.13)

In (62a), *kecicihtuwon* 'you know it' is inflected for agreement with an inanimate singular object. Given that long-distance *wh* movement out of epistemic complements forces LDA, *kecicihtuwon* 'you know it' must then be agreeing with *keq* 'what'. If we try to agree instead with the embedded subject *'qoss* 'your son', as in (62b), the result is ungrammatical.

But what happens when we're long-distance *wh*-moving something that's *not* a possible agreement target—for instance, an adverbial *wh* phrase like *tama* 'where'? Consider the following examples:

(63) Free epistemic LDA with long-distance *wh* movement of non-DPs

a. Tama apc n-kociciy-**a**-n [$_{CJ}$ *pro*$_{3SG}$ kisi= puno-k wikhikon-ol ~~*tama*~~]?
where again 1-know$_{TA}$-**3OBJ**-1PL IC.PFV= put$_{TI}$-3CJ book-IN.PL
'Where else do we know she put the books?' (EM, 2023.06.13;NR)

b. Tama Cora 't-otoli= mihqitahasi-n-**ol** [$_{CJ}$ kisi= puno-k sisqeya-l ~~*tama*~~]?
where Cora 3-there= recall$_{AI+O}$-N-**IN.PL** IC.PFV= put$_{TI}$-3CJ glasses-IN.PL
'Where did Cora remember that she put her glasses?' (GP, MA 2023.04.25;NR)

In this case, we can see that LDA remains free: we can agree with the embedded subject (63a) or the embedded object (63b). From this we can conclude that only *wh* movement of DPs restricts LDA options—*wh* movement of non-DPs doesn't interact with the normally-free LDA behavior of epistemic LDA predicates. We could imagine an alternate universe where long-distance *wh* movement of non-DPs forces inanimate singular object agreement, indicating a failed attempt to Agree with the *wh* phrase and the impossibility of trying to agree with any other possible LDA target. However, we do not live in such a world—why?

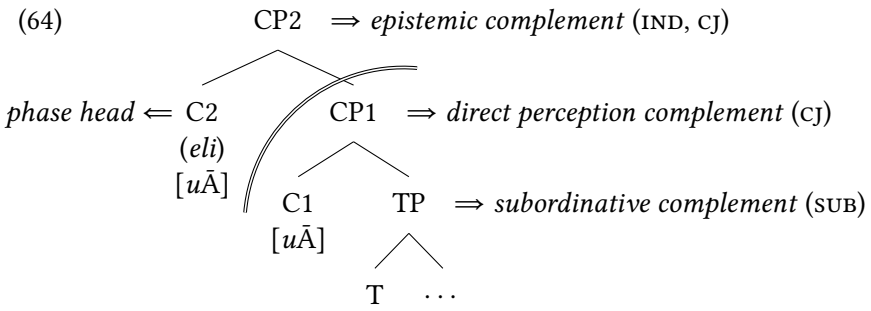
This is the question to which we now turn. Why do LDA and *wh* movement generally not affect each other, *except* in the very specific case of long-distance *wh* movement of a DP out of an epistemic

complement, which causes a normally free LDA pattern to suddenly become restricted to agreement only with the moving DP?

6 Analysis

My answer to this question draws from independently-diagnosable properties of each of the kinds of complement clauses we've looked at: epistemic complements, direct perception complements, and subordinative complements. The proposal, in short, is that the differences in the LDA properties of each complement type are derivative of their structural size. Epistemic complements are phasal CPs that are large enough to contain the complementizer *eli* (CP2), direct perception complements are smaller, nonphasal CPs that cannot contain *eli* (CP1), and subordinative complements are bare TPs:

(64)



As I've argued in Section 4, the presence/absence of CP layers can derive the contrast between the Ā locality of independent/conjunct LDA and the A locality of subordinative LDA. I additionally propose that it's the phasal status of the larger CP domain found in epistemic complements that causes the interaction between LDA and long-distance Ā movement of DPs—the lack of the phase head C2 in direct perception complements will result in no interaction, just like in subordinative complements.

6.1 Bruening's (2001) analysis

My ultimate analysis extends and modifies Bruening's (2001) proposal for epistemic LDA in order to account for the full range of LDA behaviors we find in Passamaquoddy (a similar proposal can be found in Branigan and MacKenzie 2002 for LDA in Innu). Before I present my analysis, it's worth summarizing Bruening's analysis, so that we can see what goes wrong and how we can rescue it.[22]

Bruening's (2001) account consists of the following parts:

1. **(Transitive) Voice has a φ probe**, giving us object agreement—this is the theme sign. Additionally, at least with LDA predicates, this φ probe *must* appear on Voice.[23]

[22]There's at least one other proposal out there in the literature for accounting for the interaction of LDA and long-distance *wh* movement in Passamaquody: that proposed by LeSourd (2019a). LeSourd has an interesting and rather elegant proposal built on his idea that Passamaquoddy LDA is actually prolepsis. He suggests that complements of epistemic LDA predicates are actually all islands, and thus impossible to move out of. Thus, the only way to get the surface appearance of long-distance *wh* movement out of one of these complements is to actually move out of the matrix proleptic object position, thus deriving the obligatoriness of LDA with the *wh* phrase in long-distance *wh* questions.

There are two major problems with this simple account, however. The first is that for many (if not most or even all) Passamaquoddy speakers—such as those that I've worked with—LDA does indeed seem to involve a non-proleptic derivation (for instance, as suggested by its sensitivity to islands). But, even granting that LeSourd's prolepsis account of LDA is correct, his proposal for accounting for obligatory LDA under long-distance *wh* movement fails to account for the freeness of LDA with long-distance non-DP questions (e.g. with *tama* 'where', *tayuwek* 'when', or *tan* 'how'). Under LeSourd's proposal, these would have to be base-generated in the matrix proleptic object position, as they couldn't move out of the complement clause (that would be an island violation). As a consequence, we would then be forced to agree with these non-DP objects—presumably resulting in obligatory default inanimate singular agreement. However, inanimate singular agreement isn't forced in these cases (63), falsifying LeSourd's account.

2. **Voice has an Ā probe** (Bruening labels this *v*)—this is a consequence of taking Voice to be a phase head (Chomsky 2000, 2001, a.m.o.) and adopting a featural account of successive cyclic movement (Chomsky 1995, van Urk 2015, 2020, a.o.).

3. A head containing multiple probes is subject to an economy constraint of **Multitasking** (Pesetsky and Torrego 2001, van Urk and Richards 2015, Newman 2021). For our purposes, we can understand this as the following: a head with multiple probes will *prefer to value all probes with a single goal* (if possible) rather than value each probe with a distinct goal. (More specifics on this below.)

To see how this works, let's try to derive LDA with something *other* than a DP *wh* phrase under long-distance *wh* movement, to see why this would fail. In order to set this up, we'd need both the *wh* phrase and the hopeful LDA target to move to the CP edge—the *wh* phrase needs to move there on its way into the matrix clause due to CP being a phase, and the hopeful LDA target needs to move there in order to get local enough to matrix Voice:

(65) $\text{Voice}_{[u\varphi],[u\bar{A}]}$ … [$_{CP}$ $\text{DP}_{[\varphi]}$ $wh_{[\varphi,\bar{A}]}$ [$_{C'}$ … *the setup*

Then, in order to get LDA with DP, the φ probe on Voice needs to Agree with it, and in order to move *wh* up higher, the Ā probe on Voice needs to Agree with *wh* and move it:

(66) [$_{VoiceP}$ $wh_{[\varphi,\bar{A}]}$ [$_{Voice'}$ $\text{Voice}_{[u\varphi],[u\bar{A}]}$ … [$_{CP}$ $\text{DP}_{[\varphi]}$ t [$_{C'}$ … *Multitasking problem!*

Unfortunately, this violates Multitasking! Since the *wh* phrase is a DP, it has both Ā and φ features—so by Multitasking, Voice should *only* agree with *wh*, as illustrated below:

(67) [$_{VoiceP}$ $wh_{[\varphi,\bar{A}]}$ [$_{Voice'}$ $\text{Voice}_{[u\varphi],[u\bar{A}]}$ … [$_{CP}$ $\text{DP}_{[\varphi]}$ t [$_{C'}$ … *Multitasking obeyed*

So, even if we did move DP into the embedded left periphery, that would have no effect on the LDA possibilities here. The only derivation that converges given all these assumptions is the one where we get LDA with the *wh* item, correctly deriving the attested pattern with epistemic LDA.

Moreover, Bruening correctly predicts a noninteraction between long-distance *wh* movement of non-DPs and epistemic LDA. Under the assumption that non-DPs don't have φ features, that would prevent Multitasking from kicking in, and we could satisfy Voice's φ probe with DP and the Ā probe with a non-DP *wh* phrase, as illustrated below:

(68) [$_{VoiceP}$ $wh_{[\bar{A}]}$ [$_{Voice'}$ $\text{Voice}_{[u\varphi],[u\bar{A}]}$ … [$_{CP}$ $\text{DP}_{[\varphi]}$ t [$_{C'}$ … wh *without [φ], no Multitasking*

This analysis is very successful, but it faces a crucial problem: it's tailor-made for the LDA behavior of epistemic LDA predicates, and is unable to derive differences in LDA behavior with different kinds of LDA predicates. As we've seen, this is clearly undesirable, as other types of LDA do not pattern in this way. Is there a way to modify Bruening's analysis in order to capture the full range of patterns?

Observe the role of the phasehood of CP in this account: it being a phase forces embedded *wh* phrases to move to its specifier successive-cyclically, putting them in view of matrix Voice. It is precisely this step of the derivation that feeds the Multitasking logic of Bruening's proposal and forces

[23]This is a nontrivial assumption. Minimally, given that LDA seems to be optional in the general case, we need to be able to specify the difference between LDA and non-LDA predicates as follows: LDA predicates *can* co-occur with a φ probe on Voice, and non-LDA predicates *cannot*. Bruening needs to actually strengthen this to the statement that LDA predicates *must* co-occur with a φ probe on Voice. If so, then we'd have to derive the optionality of LDA in the general case by saying that the lack of LDA with an LDA predicate comes from it being unable to find an accessible goal to agree with—perhaps because nothing has moved high enough in the embedded clause to come into view of matrix Voice.

LDA with the (intermediate copy of the) *wh* phrase. Thus, if we play with the presence or absence of a left-peripheral phase head, we should derive different LDA behavior.

6.2 Subordinative LDA

To see the logic of the proposal, lets first begin by examining the (non)interaction of subordinative LDA and long-distance *wh* movement. Subordinative clauses lack CP layers, which has the following two relevant consequences: *(i)* there are no Ā probes at the left edge of a subordinative clause, and *(ii)* the maximal projection of a subordinative clause is not phasal (under the assumption that TP is never a phase). As discussed, one repercussion of this is that subordinative LDA is predicted to display A locality properties. Another repercussion, more relevant for our current purposes, is that long-distance Ā movement will *not* proceed through the left edge of a subordinative clause: there are no Ā probes to attract *wh* phrases there, nor will *wh* phrases ever be required to move there successive-cyclically to escape a phase complement.

So what happens when we long-distance Ā-extract the object of a subordinative complement, as in (58), repeated below in (69a)? Here, the embedded object *wenil* 'who' would move to the lowest phase edge, which I assume to be embedded VoiceP. Since there is no CP phase between embedded VoiceP and matrix VoiceP (and no inverse to cause the object to A-move over the external argument), it should proceed directly from embedded Spec,VoiceP to matrix Spec,VoiceP. I illustrate below in (69b).

(69) a. Weni-l Roger pawatom-uw-**i**-t [$_{SUB}$ *pro*$_{1SG}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{TI}$-APPL-**1OBJ**-3CJ 1-talk.to$_{TA}$-3OBJ-N
'Who did Roger want me to talk to?' (EM 2022.12.07)

b. [$_{VoiceP}$ *wenil*$_{[\varphi,\bar{A}]}$ [$_{Voice'}$ Voice$_{[u\varphi],[u\bar{A}]}$ … [$_{TP}$ *pro*$_{1SG[\varphi]}$ … [$_{VoiceP}$ *t* …

Here, the most local goal to Voice for its φ probe is the first singular subject, so we can only get LDA with the embedded subject. Since there is no phase edge at the left edge of the subordinative clause, nonsubject *wh* phrases can't get close enough to matrix Voice to compete with the embedded subject for LDA. We thus predict A locality in subordinative LDA even in the presence of Ā movement out of the complement clause.

At this point, one might wonder why Multitasking shouldn't prevent the derivation schematized in (69b)—after all, *wenil* 'who' bears both φ features as well as Ā features, and so should therefore be able to satisfy both probes on Voice. Why doesn't this then force LDA with the *wh* phrase?

To address this, we must spell out our assumptions about Multitasking in more detail. The crucial issue is *which* goals exactly compete for the evaluation of this economy constraint. For many formulations of Multitasking, like that proposed by van Urk and Richards (2015) (see also the minimally different condition found in Richards 2016), provided below in (70), we compare *entire (sub)derivations*.

(70) **Multitasking** (van Urk and Richards 2015:132)
At every step in a derivation, if a probe can trigger two operations A and B, and the features checked by A are a superset of those checked by B, the grammar prefers A.

Here, "[a]t every step in a derivation" refers to the syntactic processes that occur at each Merge step in the derivation ("The reference set for Multitasking is the set of possible operations one head can trigger", van Urk and Richards 2015:132). Van Urk and Richards's proposal is that once we Merge a head H containing certain features, we compare every possible way of checking those features and evaluate them relative to Multitasking. Under this formulation, (69b) *would* indeed be ruled out, as we are comparing possible ways of satisfying the feature on matrix Voice once it's been Merged, and the derivation where we get LDA with *wenil* is indeed the most economical one given (70). This is clearly not a desirable result given our purposes.

Instead, I propose that Multitasking is to be evaluated at *each step in a probe's incremental search procedure*. I assume an Agree mechanism which proceeds incrementally down the structure, interacting with closer goals first before later interacting with more distant ones (e.g. Béjar and Rezac 2009, Kotek 2014, Deal 2015, 2024, Coon and Keine 2021, Branan and Erlewine 2022, a.m.o.). Thus, each "step" in the search procedure would be each instance of interacting with a particular matching goal (or set of goals), from closest to furthest. In the most basic cases, Multitasking won't apply, as each step in the search procedure would only involve interacting with a single matching goal. However, if one assumes that multiple constituents in a syntactic structure can be *equdistant*, such as multiple specifiers of the same phrase (Chomsky 1995, 2000, Ura 1996, Hornstein 2009, Longenbaugh and Polinsky 2018 a.o.), then we can say that they are searched *in one single step* by a particular probe, and can thus compete for the satisfaction of various kinds of syntactic economy constraints (for the same idea but with different kinds of constraints, see Oxford 2017b, 2019b, 2024b). I provide such a version of Multitasking in (71).

(71) **Multitasking**

At each step in a probe-bearing head H's search procedure, if H can Agree with two goals A and B, and the features checked(/valued/satisfied, etc.) by A are a superset of those checked by B, the grammar prefers Agreeing with A.[24]

Under this definition, since *wenil* in (69) (repeated below) sits in the specifier of embedded VoiceP, and the subject sits in Spec,TP (or some other A position above VoiceP), they will not compete for the evaluation of Multitasking, as they are not equidistant and thus will not be visible to matrix Voice in the same step.

(72) a. Weni-l Roger pawatom-uw-**i**-t [$_{\text{SUB}}$ *pro*$_{\text{1SG}}$ nt-olewestuwam-a-n ~~*wenil*~~]?
who-OBV.SG Roger IC.want$_{\text{TI}}$-APPL-**1OBJ**-3CJ 1-talk.to$_{\text{TA}}$-3OBJ-N
'Who did Roger want me to talk to?' (EM 2022.12.07)

b. [$_{\text{VoiceP}}$ *wenil*$_{[\varphi,\bar{A}]}$ [$_{\text{Voice}'}$ Voice$_{[u\varphi],[u\bar{A}]}$ … [$_{\text{TP}}$ *pro*$_{\text{1SG}[\varphi]}$ … [$_{\text{VoiceP}}$ *t* …

Thus, we correctly derive the (non)interaction of long-distance *wh* movement and subordinative LDA. I will assume this formulation of Multitasking throughout the rest of this paper.

6.3 Direct perception complements vs. epistemic complements: differences in clause size

Let's now investigate the differences between direct perception complements and epistemic complements, to try to understand their different syntactic properties with regards to LDA and long-distance

[24] It's worth noting that this version of Multitasking easily accomodates the data that motivates van Urk and Richards's (2015) formulation of Multitasking. In short, the core data of interest for them are *wh* questions on the theme of a ditransitive in Dinka (Nilotic), which they show block movement of the higher recipient to Spec,VoiceP (*v*P for them):

(i) a. Yè **ŋó** cíi môc [$_{\text{VoiceP}}$ ~~*ŋó*~~ [$_{\text{Voice}'}$ yiɛ̈n Àyén ~~*ŋó*~~]]?
be **what** PERF.OV man.GEN give Ayen
'What has the man given Ayen?'

b. *Yè **ŋó** cíi môc [$_{\text{VoiceP}}$ ~~*ŋó*~~ Àyén [$_{\text{Voice}'}$ yiɛ̈n ~~*Àyén*~~ ~~*ŋó*~~]]?
be **what** PERF.OV man.GEN Ayen give
Intended: 'What has the man given Ayen?' (van Urk 2015:162)

They propose that this is is because the *wh* phrase *ŋó* 'what' would satisfy all the features on Voice (for them, an Ā feature and a case feature), and thus we can't motivate any additional movement of another DP to Spec,VoiceP, by Multitasking. Since ditransitive recipients are introduced in Spec,ApplP c-commanding the theme in Comp,V in Dinka (van Urk 2015:§4.1), this means we'd have to compare derivations involving the movement of two non-equidistant goals. However, if ApplP is a phase (McGinnis 2001, Citko 2014:§5.3), then the *wh* theme would need to successive-cyclically move to Spec,ApplP, in which case we'd create a multiple specifier configuration at the edge of the ApplP phase, feeding Multitasking.

Ā movement. I discuss two such differences here: the presence/absence of the complementizer *eli*, and the semantic interpretation of the complement clause. I propose that both of these differences indicate that epistemic complements are larger than direct perception complements.

Let's first begin with *eli*. Morphologically, *eli* is composed of two components: the preverb *(o)li* which in its lexical use means 'to there; thus, in that way', plus the suprasegmental morpheme of initial change, which turns initial schwas into *e* (hence *(o)li* /əli/ → *eli*). I follow Bruening (2001:§3.3.2) in treating *eli* as being a simple semantically-bleached complementizer, the relationship between *eli* and the preverb *(o)li-* being now just diachronic (see also Grishin 2023b:97–98,fn.1 for some critical evaluation of LeSourd's 2019a:§3.2 dissenting view). Observe that *eli* is optional in epistemic complements but banned in direct perception complements:

(73) *Optional in epistemic complements*

a. Piyel '-kocicihtu-n [$_{CJ}$ kehci= wewis-oski-t psuwis].
Peter 3-know$_{TI}$-N IC.big= nosy-behave$_{AI}$-3CJ cat

b. Piyel '-kocicihtu-n [$_{CJ}$ **eli** kci= wewis-oski-t psuwis].
Peter 3-know$_{TI}$-N **IC.C** big= nosy-behave$_{AI}$-3CJ cat
Both: 'Peter knows (that) the cat is very nosy.' (GP 2023.01.24)

(74) *Impossible in direct perception complements*

Context: While in your room, you hear the sounds of your roommate moving out throughout the rest of the apartment: furniture moving, plates clanking, boxes rattling.

a. Ø-Nutuw-a [$_{CJ}$ etoli= nutiyute-t n-itap].
1-hear$_{TA}$-3OBJ IC.PROG= move.out$_{AI}$-3CJ 1-friend
'I heard my friend moving out.' (EM 2023.12.22)

b. *Ø-Nutuw-a [$_{CJ}$ **eli** totoli= nutiyute-t n-itap].
1-hear$_{TA}$-3OBJ **IC.C** PROG= move.out$_{AI}$-3CJ 1-friend
Intended: 'I heard my friend moving out.' (EM 2023.12.22)

Since direct perception complements can't host complementizers, we might already be thinking that they are missing some structure.

Additional suggestive evidence for direct perception complements being structurally reduced comes from comparing direct and indirect perception reports (Barwise 1981, a.m.o.). In a direct perception report, the attitude holder directly perceives the event described by the embedded clause, and the embedded clause doesn't describe anything about the subject's beliefs—it just describes an actual event in the world. In contrast, with an indirect perception report, the attitude holder perceives evidence for the content of the embedded clause, and the embedded clause represents a belief state.

To illustrate the difference, in English direct perception reports are expressed with bare infinitive or gerund complements, whereas indirect perception reports are expressed with finite complements:

(75) a. Laura saw the cat nap(ping), but she believed it wasn't. *Direct perception*

b. Laura saw that the cat was napping, #but she believed it wasn't. *Indirect perception*

The direct perception report can be followed with something like *but she believed it wasn't*, indicating that the embedded clause doesn't represent Laura's belief state. In contrast, the indirect perception report can't be felicitously followed with such a continuation, indicating that the embedded clause does represent Laura's belief state (in this particular example).

In Passamaquoddy, as discussed above, the difference between direct and indirect perception reports is syntactically expressed via the presence or absence of *eli* (in addition to the presence or absence of LDA—direct perception reports allow LDA, indirect perception reports ban it). In addition, we find

the same semantic contrasts that we find in English. To illustrate, consider the following examples, where in (76) we have a direct perception report and in (77) we have an indirect perception report:

(76) Context: Elizabeth looks outside and sees the apple tree in the front yard shaking violently. She thinks it's very windy, but actually Peter is shaking the tree to get the apples to fall down and it isn't windy; she just can't see him from where she is.

a. Sapet Ø-nomiy-a-l [$_{CJ}$ Piyel-ol etoli= macihpul-a-t oposi-yil].
Elizabeth 3-see$_{TA}$-3OBJ-OBV.SG Peter-OBV.SG IC.PROG= shake$_{TA}$-3OBJ-3CJ tree-OBV.SG
'Elizabeth saw Peter shaking the tree.' (EM 2024.01.04)

b. #Sapet Ø-nomihtu-n [$_{CJ}$ **eli** Piyel totoli= macihpul-a-t oposi-yil].
Elizabeth 3-see$_{TI}$-N **IC.C** Peter PROG= shake$_{TA}$-3OBJ-3CJ tree-OBV.SG
#'Elizabeth saw **that** Peter was shaking the tree.' (EM 2024.01.04)

(77) Context: Same as (76).

a. #Sapet Ø-nomihtu-n [$_{CJ}$ wisok-olamso-k].
Elizabeth 3-see$_{TI}$-N IC.very-be.windy$_{II}$-CJ
#'Elizabeth saw it being very windy.' (EM 2024.01.04)

b. Sapet Ø-nomihtu-n [$_{CJ}$ **eli** wisok-olamso-k].
Elizabeth 3-see$_{TI}$-N **IC.C** very-be.windy$_{II}$-CJ
'Elizabeth believed of what she saw that it was very windy.' (EM 2024.01.04)

The context sets up a situation in the actual world where Peter is shaking the apple tree, but Elizabeth comes to the wrong conclusion about this event, believing that the tree shaking is a result of strong winds. Thus, we can differentiate between a description of the actual event/situation—Peter shaking the tree—from the belief that Elizabeth holds as a result of witnessing this event/situation: that it's very windy outside. This allows us to very clearly distinguish between a direct perception report, where the complement describes the actual event of Peter shaking the tree, from an indirect perception report, where the complement describes Elizabeth's (false) belief that it was very windy, which she developed from visual evidence.

When the complement describes Peter's shaking of the tree, we see that *eli* is impossible (76)—we can therefore conclude that *eli* is impossible in direct perception complements. This is paralleled in the English translation by the impossibility of a finite complement of *see*: that would (incorrectly) attribute to Elizabeth the belief that Peter was shaking the tree, a belief she doesn't hold. In contrast, when the complement describes it being very windy, we see that *eli* is *required* (77). We can conclude from this that *eli* is necessary in an indirect perception report.[25] Put differently, it seems like adding *eli* to a perception complement turns it from a plain event/situation description to a full proposition representing something about the attitude holder's beliefs.

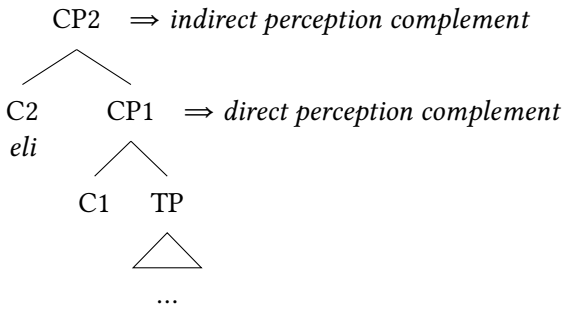
We probably don't want an analysis where this contrast between direct and indirect perception is due to accidental homophony between two verbs 'see'. For one thing, we find this same kind of contrast with many other verbs (e.g. *nutomon* 'hear'), and we also find the exact same kind of ambiguity in other languages, with strikingly similar syntactic reflexes—that is, more syntactic structure in indirect perception complements (Moulton 2009, Bondarenko 2022, a.m.o.). I thus assume that perception verbs are not ambiguous: *nomihtun* 'see' describes a seeing eventuality under all its uses, *nutomon* 'hear' describes a hearing eventuality under all its uses, and so on. Instead, to derive these different readings of perception predicates, we can follow Moulton (2009) and Bondarenko (2022) in concluding that indirect perception reports involve more syntactic structure—in particular, more syntactic structure *in the*

[25]Interestingly, we can note that these *eli*-full indirect perception complements *aren't* factive in Passamaquoddy, given the felicity of (77b), in contrast to English finite perception complements. The English sentence *Elizabeth believed that was very windy* is infelicitous in this context, as it *wasn't* actually windy and thus the factive presupposition isn't satisfied. I leave further exploration of this intriguing point of crosslinguistic variation to future research.

complement clause, which, crucially, has the semantic effect of "intensionalizing" the perception verb's complement. For instance, Bondarenko (2022) proposes that these opaque intensional complements contain an extra functional head Cont in the CP domain, the addition of which has the consequence of turning a clause which would normally be a predicate of situations to one that represents some kind of belief state. More precisely, under the kind of semantics of attitudes employed by Bondarenko (building off of Kratzer 2006, Moulton 2009, 2015, Bogal-Albritten 2016, Elliott 2020, a.o.), it is an entity with propositional content.

In this paper I won't dig into the details of the semantics of attitude reports—for our purposes, it suffices to note that the *semantics* of direct and indirect perception reports suggests that indirect perception complements really do contain more syntactic structure than direct perception complements. That is, we don't have an alternation here between an overt C *eli* and a null C, but between a smaller *eli*-less CP and a larger *eli*-full CP. I'll label these two CP layers CP1 and CP2:

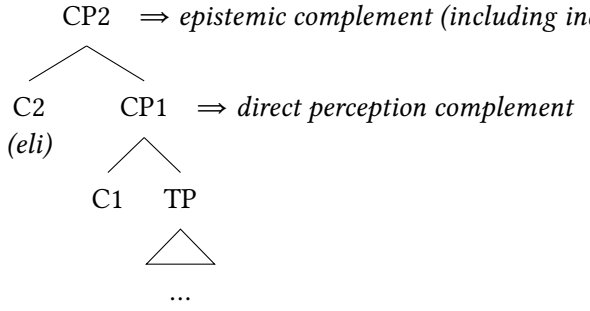
(78)



Moreover, we can also attribute to C2 a distinct semantic contribution: it's what converts a predicate of situations into a full proposition (however one would like to formalize that), deriving the semantic distinctions between direct and indirect perception reports.

How does this all connect to epistemic complements? The answer is simple: since epistemic complements are intensional contexts denoting propositions rather than situations, they must then contain a CP2 layer. This accords with the fact that epistemic complements can always optionally contain an overt instance of *eli*. And thus, in effect, indirect perception complements are really just a subtype of epistemic complements:

(79)



There is one last issue that needs to be addressed: the fact that *eli* is *optional* in non-perception epistemic complements, but *obligatory* in indirect perception complements. For our purposes, we can adopt a stipulative and ultimately unexplanatory analysis, whereby there are two exponents of *C2*, *eli* and a null complementizer, and perception verbs subcategorize either for C1 or *eli* (as well as DPs), but not the null version of C2. In contrast, the other epistemic predicates subcategorize for C2, without regard for which version of C2 they appear with. There is surely more to be said here, and I leave this issue aside for further research. The main takeaway is that there are syntactic and semantic reasons to think that epistemic complements are systematically larger than direct perception complements. This independently-motivated syntactic distinction between these two complement types can now be leveraged for an explanation of the distinct behavior of epistemic and direct perception LDA.

6.4 Accounting for differences in direct perception LDA vs. epistemic LDA

With this all in place, we are finally at a point where we can account for the differences between direct perception and epistemic LDA. There are two important differences which we can identify. The first is that direct perception LDA is *obligatory*, as long as there's a φ-bearing DP in the embedded clause. In contrast, epistemic LDA is always *optional*, in the basic case. I repeat the relevant data below.

(80) LDA into epistemic complements optional

a. *No LDA*

Piyel '-kocicihtu-n [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter 3-know$_{TI}$-N IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter knows that the cat is very nosy.' (GP 2023.01.24)

b. *LDA*

Piyel '-kociciy-**a-l** [$_{CJ}$ eli kci= wewis-oski-li-t psuwis-ol].
Peter 3-know$_{TA}$-**3OBJ-OBV.SG** IC.C big= nosy-behave$_{AI}$-OBV-3CJ cat-OBV.SG
'Peter knows that the cat is very nosy.' (GP 2023.01.24)

(81) LDA into direct perception complements obligatory

a. *No LDA*

*Ø-Nutom-on [$_{CJ}$ ponapsku-l mete= poneqiye-k] welaqik.
1-hear$_{TI}$-N stone-IN.PL IC.unseen= fall$_{II}$-CJ last.night
Intended: 'I heard stones falling down last night.' (GP 2023.01.30)

b. *LDA*

Ø-Nutom-on-**ol** [$_{CJ}$ ponapsku-l mete= poneqiye-k] welaqik.
1-hear$_{TI}$-N-**IN.PL** stone-IN.PL IC.unseen= fall$_{II}$-CJ last.night
'I heard stones falling down last night.' (GP 2023.01.30)

The second is that long-distance Ā extraction has no effect on direct perception LDA, which remains free, whereas long-distance Ā extraction *requires* epistemic LDA with the moving *wh* phrase:

(82) Epistemic complement + long-distance *wh* question: **restricted LDA** (*wh* phrase only)

a. Wen wewitaham-**ot** [$_{CJ}$ eli *pro*$_{1SG}$ ap-sakiy-uk ~~*wen*~~]?
who IC.remember$_{TA}$-**2SG:3CJ** IC.C return-see$_{TA}$-1SG:3CJ
'Who do you remember that I went to see?' (LeSourd 2019a:389)

b. *Wen wewitaham-**i**-hin [$_{CJ}$ eli *pro*$_{1SG}$ ap-sakiy-uk ~~*wen*~~]?
who IC.remember$_{TA}$-**1OBJ**-2SG.CJ IC.C return-see$_{TA}$-1SG:3CJ
Intended: 'Who do you remember that I went to see?' (LeSourd 2019a:389)

(83) Direct perception complement + long-distance *wh* question: **free LDA**

a. Weni-l Tiger nutuw-**a**-t [$_{CJ}$ *pro*$_{1SG}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{TA}$-**3OBJ**-3CJ IC.PROG-talk.to$_{TA}$-1SG:3CJ
'Who did Tiger hear me talking to?' (GP, MA 2023.01.31)

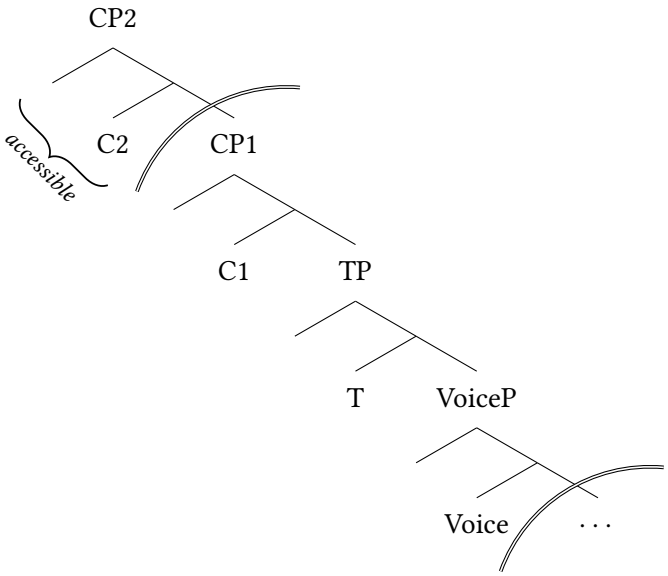
b. Weni-l Tiger nutuw-**i**-t [$_{CJ}$ *pro*$_{1SG}$ etol-ewestuwam-uk ~~*wenil*~~]?
who-OBV.SG Tiger IC.hear$_{TA}$-**1OBJ**-3CJ IC.PROG-talk.to$_{TA}$-1SG:3CJ
'Who did Tiger hear me talking to?' (GP, MA 2023.01.31)

I propose that taking C2 to be a phase head provides a natural account of both of these differences. I'll show that the first difference can be derived if probes cannot see into the complements of phase

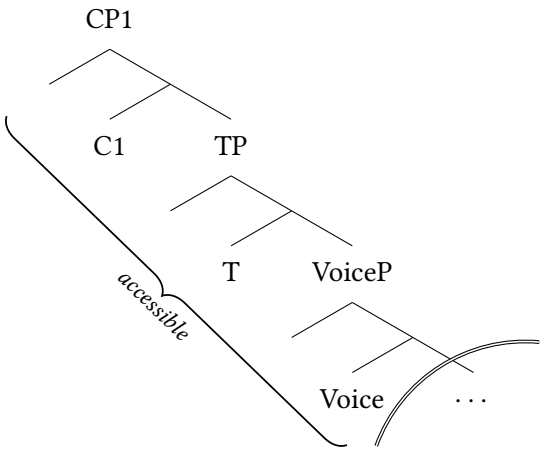
heads, and the second can be derived under the Multitasking-based account of the interaction between long-distance Ā movement and epistemic LDA.

If C2 is a phase head, then epistemic complements are phasal, whereas direct perception complements are not. This immediately predicts a difference in the amount of material available inside them that matrix probes like Voice can see: in epistemic complements, only the material at the phase edge (Spec,CP2) should be visible, while in a direct perception complement, all the material at the edge of the lower phase (e.g. embedded Spec,VoiceP) and higher should be accessible. I illustrate in (84).

(84) a. *Epistemic complement*



b. *Direct perception complement*



Given the small accessibility domain for epistemic complements, only DPs that have moved to Spec,CP2 can be targets for epistemic LDA. If nothing has moved there, there would be no goals in the complement clause accessible to matrix probes, and thus no LDA. The optionality of epistemic LDA, under this proposal, arises from the choice of whether to move anything to Spec,CP2. In contrast, direct perception complements have a much larger accessibility domain for matrix probes, including much of the A domain of the clause. Under the assumption that at least *one* DP argument will appear in this domain—for instance, an external argument being base-generated in Spec,VoiceP (Kratzer 1996, a.m.o.), or a DP A-moving to Spec,TP—LDA into direct perception complements is essentially guaranteed, even in the absence of anything moving into the left periphery. Thus, we correctly capture the first difference between direct perception LDA and epistemic LDA: the obligatoriness of the former and the optionality of the latter.

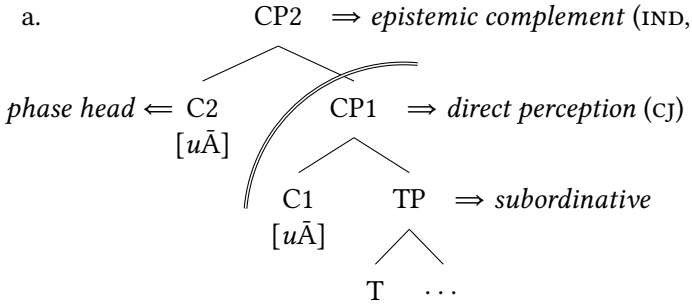
As for the second difference, recall the Multitasking-based explanation for obligatory LDA with *wh* DPs moving out of epistemic complements from Bruening (2001). Since CP2 is a phase, *wh* phrases trying to make their way into the matrix clause *must* pass though Spec,CP2. This step renders them automatically accessible to the matrix clause for agreement, thus resulting in forced LDA with the *wh* phrase. The reason we can't get LDA with any other DP is because of Multitasking: in order to get another potential LDA target in a position accessible to the matrix clause, it would also need to move to Spec,CP2, making it equidistant with the intermediate copy of the *wh* DP. However, since these two specifiers are equidistant, Multitasking will result in Voice preferring to Agree with only the *wh* DP, since that would satisfy both the φ probe and Ā probe on Voice, bleeding LDA with any other DP (even one that had moved to Spec,CP2).

And recall that it's crucially the phasehood of the highest projection in the complement clause that gives us this result: in subordinative clauses, since there are no CP layers (and thus no phase), no successive-cyclic movement to the subordinative clause edge is triggered, so we are not forced to agree with the *wh* phrase and we preserve the typical subordinative LDA pattern (A locality). Direct perception complements, though they have a CP layer (unlike subordinative clauses) that allows them an Ā locality pattern in LDA, lack a CP2 phrase: thus, we don't expect any interaction between long-distance Ā extraction and LDA. A *wh* phrase can move directly into the matrix clause from embedded Spec,VoiceP, easily allowing for LDA with another DP that has moved to a higher position, such as Spec,TP or Spec,CP1. Alternatively, we could decide to move the *wh* phrase to Spec,CP1, resulting in LDA with the *wh* phrase. But rememember: this step of movement isn't forced, as CP1 is not a phase. Thus, we preserve the free LDA pattern in direct perception complements, even under long-distance Ā extraction.

6.5 Summary

In this way, we can reduce this three-way typology of LDA behaviors found with these three different complement types to three independently-diagnosable sizes of clause, with epistemic complements being CP2-sized, direct perception complements being CP1-sized, and subordinative complements being TP sized. In addition to this core difference between each complement type, we needed a few additional assumptions: the phasehood of CP2, the possibility of both C2 and C1 hosting Ā probes, and Multitasking, as illustrated below in (85).

(85) a.



b. **Multitasking**

At each step in a probe-bearing head H's search procedure, if H can Agree with two goals A and B, and the features checked(/valued/satisfied, etc.) by A are a superset of those checked by B, the grammar prefers Agreeing with A.

To end this section, it's worth discussing a few points about phasehood crucial to this analysis. The first point is that, as mentioned, this analysis requires C2, but not C1, to be a phase head in Passamaquoddy. This accords with several scholars who assume, suggest, or argue for a high projection in the left periphery (e.g. ForceP) corresponding to the traditional CP phase in various languages, like Yoshimoto (2012), Carstens and Diercks (2013), Rizzi (2017), Alboiu and Hill (2019), Branigan (2020), Kishimoto (2021), among others. This conclusion stands in opposition to proposals that it's actually a

low projection in the split CP (e.g. FinP) that is the phase, following Fernandez-Rubiera (2009), López (2009), Radford and Iwasaki (2015), Baier (2018), and van Craenenbroeck and van Koppen (2018), among others. An alternative possibility is that a non-universalist position might be the right approach: it could be that languages differ in the precise position of the CP phase within the left periphery (e.g. Hinterhölzl 2017 on (Standard) German vs. Cimbrian). Suffice it to say that it's still an open question which projection in a split CP corresponds to the traditional CP phase from Chomsky (2000, 2001). The analysis presented in this paper is only compatible with the "universally-high" view of the CP phase or the non-universalist view. If the proposal I put forth is convincing, then this paper could be read as an argument against a "universally-low" view of the location of the CP phase.

It is also crucial for this analysis that phasehood never be contextual (at least in the environments we're examining here): C2 must always be a phase head, and C1 and T can never be phase heads. This is at odds with various kinds of proposals for contextual phasehood. For instance, Wurmbrand (2013, 2017) and Bošković (2014, 2015) propose that the highest projection of a clause (or, more generally, the highest extended projection of a phrase) is a phase, and similarly Chomsky (2015) and Branigan (2023) propose that if C is structually removed then T inherits C's phasal properties via a mechanism of feature inheritance. These kinds of views are incompatible with the analysis presented here, as it is crucial for me that a lack of CP2 corresponds with a lack of a CP phase, deriving the differences between epistemic LDA on the one hand and direct perception LDA and subordinative LDA on the other. Finally, there is another set of views about contextual phasehood, which is that head movement can "extend" phasehood up the tree (e.g. den Dikken 2007, a.o.). In the absence of conclusive evidence for where the verb moves to, if it even moves anywhere at all (a difficult question, given the striking freedom of Passamaquoddy word order; see some discussion in Bruening 2019), it's difficult to ascertain how compatible these kinds of phase-extension ideas are with the analysis I've argued for, and I leave further investigation of this particular issue to future work.

7 Conclusion

This paper has examined a complex constellation of facts regarding the interaction of *wh* movement, LDA, and clause typing in Passamaquoddy, and argued that, at their core, these facts arise from independently-diagnosable differences in the *size* of different types of complement clauses: epistemic complements being large CPs, direct perception complements being smaller CPs, and subordinative complements being bare TPs. I showed that this conclusion, combined with a few reasonable assumptions (Agree being subject to locality, an economy condition like Multitasking, any C head being able to host $\bar{A}$ probes in Passamaquoddy, and a high locus of phasehood in a split CP), is able to derive all of the interactions between $\bar{A}$ movement, LDA, and clause typing.

To diagnose differences in clause size, I first used the possibility of clause-internal *wh* movement in independent and conjunct clauses but not subordinative clauses to argue that subordinative clauses are bare TPs, whereas the other clause types contain CP layers (Section 3). Then, to diagnose a difference in the size of direct perception complements and epistemic complements, I used syntactic data from the presence and absence of the complementizer *eli* as well as semantic data from direct and indirect perception reports to argue that epistemic complements are systematically larger than direct perception complements (Section 6.3).

I then connected these differences in clause size to differences in LDA behavior. In Section 4, I showed that the $\bar{A}$ locality of LDA into epistemic and direct perception complements can be captured by the fact that they both contain CP layers that could host $\bar{A}$ movement, feeding the locality of agreement. Subordinative clauses, in contrast, lack CP layers that could host $\bar{A}$ movement, deriving the impossibility of $\bar{A}$ movement feeding subordinative LDA, which results in subordinative LDA displaying A locality properties. Finally, Section 5 examined the interaction between LDA and long-distance *wh* movement, which demonstrates a different split between LDA types: subordinative and direct perception LDA don't display any interaction, whereas epistemic LDA is restricted to the *wh* phrase under long-distance *wh* movement. In Section 6 I connected this split to a difference in phasehood, adapting

Bruening's (2001) Multitasking-based economy account of the LDA restriction into epistemic complements and proposing that CP2 is a phrase, but not CP1 or TP. The result is that only in epistemic complements, which are phasal, do we get forced LDA with intermediate copies of *wh* movement.

If correct, this analysis has a number of consequences for certain aspects of syntactic theory. First, the competitors for satisfying the economy condition of Multitasking must be *equidistant*. Second, the CP phase must be located in a high position within a split CP; it cannot be the lowest phrase in the left periphery. Finally, phasehood of the CP phase cannot be contextual (at least in the syntactic contexts examined in this paper): CP2 must always be a phase, and CP1 and T can never be phases.

To end, I would like to point out that conclusions about clause size proposed in this paper nicely correlate with the syntactic contexts in which we find independent, conjunct, and subordinative clauses (for more detailed discussion, I refer the reader to Grishin 2023b:Ch. 6). In the domain of complementation, Wurmbrand and Lohninger (2023) distinguish between three broad classes of complement types: PROPOSITION COMPLEMENTS, which are minimally CP-sized, SITUATION COMPLEMENTS, which are minimally TP-sized, and EVENT COMPLEMENTS, which are minimally VP-sized. Grishin (2023b:§6.1) demonstrates that Passamaquoddy perfectly obeys this cline. All proposition complements are conjunct or independent and never subordinative, an observation which can be explained by subordinative clauses being bare TPs and thus not large enough to be a proposition complement. In contrast, situation and event complements are most often subordinative (though they can occasionally be conjunct under a few verbs). Similarly, in the domain of coordination, Bjorkman (2012, 2013) argues that asymmetric clausal coordination—clausal coordination in which the second conjunct temporally and/or causally follows from the first—involves coordinating two TPs. Strikingly, Grishin (2023b:§6.2) demonstrates that asymmetric coordination is expressed in Passamaquoddy by putting the second conjunct in the subordinative—again, this nicely patterns together with the fact that subordinative clauses are TP-sized. Thus, there is converging evidence from multiple domains in Passamaquoddy—Ā movement, LDA, clause typing, distribution of complement types, and the interpretation of clausal coordination—that different kinds of clauses come in different sizes, in a systematic and principled way. There is still much work to be done, however, in explaining how and why exactly all these phenomena correlate in the ways that they do.

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