Workshop on Structure and Constituency in Languages of the Americas

Program Book

McGill University

28-30 April

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ISCEI

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Workshop on Structure and Constituency of Languages of the Americas
McGill University — April 28–30, 2023

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8:30	registration & light breakfast	registration & light breakfast	registration & light breakfast
9:00	Welcome remarks: Lisa Shapiro & Mary Onwá:ri Tekahawáhkwen McDonald	Invited speaker: **Michelle Yuan** (UCSD) *Two restrictions on pronominal clitics in San Juan Piñas Mixtec (Tò'ōn Ndā'ví)*	Invited speaker: **Julien Carrier** (UQÀM) *Resolving an unexpected split ergative pattern in North Baffin Inuktitut*
9:30	**Phil Branigan** (MUN) *Excorporation through feature deletion*		
10:00	**Peter Grishin** (MIT) *CP-less clauses in Passamaquoddy*	break, 10:00–10:30	break, 10:00–10:30
10:30	break, 10:30–11:00	**Tessa Scott** (Berkeley) *Agreement and Impoverishment in Mam Pronouns*	**Colin Brown** and **Noah Elkins** (UCLA) *Headless relative clauses in Mam*
11:00	**Lauren Schneider** (SFU) *Word order gymnastics: VSVO and other orders in transitive MVCs in Hul'q'umi'num' Salish*	**Amy Rose Deal** and **Justin Royer** (Berkeley) *Mayan animacy restrictions and dynamic interaction*	**Maria del Mar Bassa Vanrell** (Wellesley) and **Karin Vivanco** (Campinas) *Factivity and clausal nominalization in Karitiana*
11:30	**Alice Johnson** and **Shanley Allen** (RPTU) *MATTR: Measuring lexical diversity in Inuktitut*	**Hunter Johnson** (UCLA) *Feature Gluttony in the Guaraní inverse*	**Neda Todorović** (Toronto) *Different sizes of Gitksan complements*
12:00	**Seth Cable** (UMass) and **James Crippen** (McGill) *Stative Marking in Tlingit: Evidence for the Complexity of States*	lunch, 12:00–13:00 *provided by Messy Kitchen*	lunch, 12:00–13:00 *provided by Messy Kitchen*
12:30	lunch, 12:30–14:00 (not provided; note after-lunch venue change!)		
13:00		Invited speaker: **Emily Elfner** (York) *Re-examining default-to-opposite stress in Kwak'wala*	**Anne Bertrand** (UBC), **Terrance Gatchalian** (McGill), **Rose Underhill** (UBC) *A typology of roots in Ktunaxa*
13:30			**Henry Davis** (UBC) *Edge Asymmetries in St'át'imcets*

	Friday afternoon: Haudenosaunee languages special session, **Leacock 232**	Saturday, continued **Thomson House Ballroom**	Sunday, continued **Thomson House Ballroom**
14:00	Invited speaker: **Charlotte Logan** (Cornell)	break, 14:00–14:30	Closing remarks and departure ceremony
14:30	*Polyfunctional discourse markers: Evidence from narrative and natural discourse in Gayogo̱hó:nǫˀ (Cayuga)*	**Daniel Harbour** (QMUL) *The calculus of Kiowa tone*	
15:00	break, 15:00–15:30	**Gabriela Caballero**, **Claudia Duarte-Bórquez**, **Claudia Juárez Chávez** (UCSD) *Tonal upstep and downstep in San Juan Piñas Mixtec (Tò'ōn Ndā'ví)*	
15:30	**Tehokwiráthe Cross** (KOR), **Terrance Gatchalian** (McGill), **Katya Morgunova** (McGill), **Willie Myers** (McGill), **Ro'nikonhkátste Norton** (KOR) *Lexical aspect and the stative present in Kanien'kéha*	break, 15:30–16:00	
16:00	**Stephen Henhawk** and **John Whitman** (Cornell) *The Position and Interpretation of Neʔ-headed Nominals in Gayogohó:nǫʔ (Cayuga)*	Invited speaker: **Andrew McKenzie** (U Kansas) *Polysynthesis and the division of labor in grammar*	
16:30	break, 16:30–17:00		
17:00	Invited speakers: **Kahtehrón:ni Iris Stacey** (Turtle Clan, Kanien'kehá:ka of Kahnawà:ke; McGill; KEC) and **Wahéhshon Shiann Whitebean** (Wolf Clan, Kanien'kehá:ka of Kahnawà:ke; McGill; KEC) *Reflection, resistance, and resilience: The past, present, and future of Indigenous language reclamation efforts in Kahnawà:ke*	Poster session* *snacks provided* **Susana Bejar & Alana Johns** (Toronto) **Phil Branigan & Nicholas Welch** (MUN) **Colin Brown** (UCLA) **Peter Grishin & Will Oxford** (MIT) **Yoann Levéillé** (UQÀM) **Pedro Mateo Pedro & Suzi Lima** (Toronto) **Virgilio Partida-Peñalva** (Toronto) **Martin Renard** (Toronto) **Mskwaankwad Rice** (Minnesota) **David Shanks** (McGill)	
17:30			
18:00	reception, catered by *Messy Kitchen*		
18:30		*student mixer, Siboire St-Laurent*	

*Poster titles

Susan Béjar and Alana Johns (Toronto)
Labrador Inuttitut causatives: The view from non-transitives

Phil Branigan and Nicholas Welch (MUN)
Ahtna verb formation and multiple head-movement

Colin Brown (UCLA)
Polar questions in Sm'algyax

Peter Grishin and Will Oxford (MIT)
Three paths to portmanteau agreement

Yoann Léveillé (UQÀM)
On Inuktut cleft constructions: small clauses and focus fronting

Pedro Mateo Pedro & Suzi Lima (Toronto)
Itzaj is a classifier-for-numerals language

Virgilio Partida-Peñalva (Toronto)
Two derivations of VO order in Mazahua: Predicate fronting and noun-incorporation

Martin Renard (Toronto)
Stem and Initial Segment Faithfulness in Kanien'kéha

Mskwaankwad Rice (Minnesota)
Understanding the Functions of Verbal Order in Ojibwe

David Shanks (McGill)
Vowel length, epsilon and schwa in Southern Tutchone (Dene)

Polyfunctional Discourse Markers: Evidence from Narrative and Natural Discourse

Charlotte Logan (PhD Candidate Cornell University Linguistics)

This work aims to describe several of the most frequently used discourse particles in Gayogo̱hó:nǫˀ (Cayuga) narrative and conversation to understand characteristics of grammatical, socio-cultural, and spatio-temporal contexts and usage. Through examination of constructions involving the "assertion marker" ne:ˀ, and taking into account typological variation of cognates across Haudenosaunee languages, I will characterize the linguistic function and meaning of particles necessary for successful communicative language use; and will offer a preliminary theory of particle usage in Haudenosaunee languages.

The term "discourse particle" in this work will refer to particles that shape the flow of discourse by exhibiting behavior of common ground modification both pragmatically and semantically. Predicating discourse particles like diˀ and giˀ track how the speaker situates contributions in relation to preceding discourse, and take second position to both modification and reference discourse particles. Combinations of these particles function together with evidential particles such as ayęˀ "it seems" and a:gęˀ "it is said." to frame discourse and narrative with the strength, source, and nature of information.

The particle at the center of this functional diversity, ne:ˀ, relates to both evidentiality and information structure. The "assertion marker" designation (Chafe 2020, Woodbury 2018), often rendered in English as "it is (the case that) S", can be understood as an evidential in the sense of Delahunty's (1990) analysis of sentence focus. In its second function, ne:ˀ has been identified in the literature as a focus marker (Keusen 1994). In this analysis I will show that ne:ˀ interacts with prosodic prominence to identify focused elements and exhibits structural encoding mechanisms unique to Indigenous languages of the Americas.

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Reflection, resistance, and resilience: The past, present, and future of Indigenous language reclamation efforts in Kahnawà:ke

Presenters will share reflections on the past, present and future of Kanien'kéha language revitalization in Kahnawà:ke, Mohawk Territory. Together they will describe pivotal events impacting the language revitalization movement in their community through family stories, language learning journeys, research, and activism. This presentation traces key steps in the development of strategic language learning opportunities through education reform and language advocacy, featuring the shift from Indian Day Schools to community-governed schooling. The presenters will propose pathways forward and the integral role of women L2 speakers and learners in revitalizing Kanien'kéha in Kahnawà:ke.

Wahéhshon Shiann Whitebean (she/her)
Wolf Clan, Kanien'kehá:ka of Kahnawà:ke

PhD Candidate (ABD), Educational Studies
DISE, McGill University
Vanier Scholar

Bio
Wahéhshon is a traditional Wolf Clan woman of the Kanien'kehá:ka (Mohawk) Nation at Kahnawà:ke. As a second language learner and language advocate, her doctoral research on Indian Day Schools examines the multigenerational impacts, including language loss and language reclamation. She worked at the Kahnawà:ke Education Center for several years on language and culture revitalization projects, and is currently the Education Research Coordinator & Ethics Chair at the KEC.

Kahtehrón:ni Iris Stacey
Turtle Clan, Kanien'kehá:ka of Kahnawà:ke

PhD Candidate, ABD
Integrated Studies in Education, McGill University
Vanier Scholar

Bio
Kahtehrón:ni is turtle clan of the Kanien'kehá:ka Nation from Kahnawà:ke, Mohawk Territory. She is a traditional Haudenosaunee woman that has extensive experience doing language work in her community. She is the curriculum team coordinator at the Kahnawà:ke Education Center, leading the development of their N-11 curriculum. He doctoral research investigates the integral role of women in revitalizing Kanien'kéha in Kahnawà:ke, focused on supporting advanced level L2 speakers through Haudenosaunee centric pedagogies and the resurgence of Haudenosaunee pathways in education.

Two restrictions on pronominal clitics in San Juan Piñas Mixtec (Tò'ōn Ndā'ví)

Michelle Yuan, UC San Diego

San Juan Piñas Mixtec (Tò'ōn Ndā'ví, though henceforth SJPM here) is a previously undocumented variety of Mixtec spoken in Oaxaca, Mexico and in diaspora communities in California. The work reported in this talk is part of an ongoing collaborative project documenting and analyzing SJPM and developing linguistic resources for language reclamation purposes (e.g. Duarte Borquez and Juárez Chávez, 2022; Juárez Chávez et al., 2022; Caballero et al., to appear). In SJPM, pronouns may either appear as prosodically dependent pronominal clitics or as tonic (independent) pronouns. In this talk, I investigate two restrictions on the pronominal clitics of SJPM and show that they have distinct grammatical sources. This, in turn, illustrates a diagnostic for differentiating between (purely) "morphophonological clitics" vs. "morphosyntactic clitics", whereby only the latter subtype is formed through syntactic operations. While all pronominal clitics in SJPM are morphophonological clitics, only the 1st/2nd person ones are morphosyntactic in nature.

The first restriction is a familiar ban on 1st/2nd person object clitics in the presence of a subject (of any person, pronominal or not)—an instance of the Person Case Constraint (PCC) (e.g. Perlmutter, 1971; Anagnostopoulou, 2003; Coon and Keine, 2021; Deal, to appear). Interestingly, there is variation across the wider Oto-Manguean language family in whether 3rd person object clitics also participate in the PCC (cf. Foley and Toosarvandani, 2022; Sichel and Toosarvandani, 2022). I propose that this variation boils down to whether 3rd person clitics are morphosyntactic clitics alongside the 1st/2nd person clitics: in SJPM, 3rd person clitics are better analyzed as determiners with null nominal complements (e.g. Elbourne, 2005) rather than morphosyntactic clitics, and therefore they are not under the purview of the PCC. To further strengthen this point, I turn to a second restriction in SJPM, whereby certain 3rd person clitics *are* banned in object position. I show that this restriction is purely morphophonological in nature: it only arises with vowel-initial forms, affects clitics and determiners alike, and is sensitive to linear order rather than structural hierarchy.

References

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Re-examining default-to-opposite stress in Kwak'wala

Emily Elfner (York University)

Kwak'wala (North Wakashan: British Columbia, Canada) has a default-to-opposite side stress system: in words with one or more heavy syllables, stress is assigned to the leftmost heavy syllable, and in words with no heavy syllables, stress is (by 'default') assigned to the rightmost syllable (Boas 1947; Bach 1975). This pattern, although typologically rare, is commonly assumed to fall neatly into the typology of quantity-sensitive unbounded stress systems, exhibiting one of four logical possibilities (Hayes 1995). However, there are several reasons to re-examine the stress system of Kwak'wala and the existent analyses of default-to-opposite stress systems, which require stipulation of the patterns of conflicting directionality, and oversimplify (and arguably misanalyse) the system of weight-sensitivity and vowel length in the language.

A closer examination of the stress system of Kwak'wala indicates a dichotomy between peripheral vowels and schwa, and that vowel quality rather than vowel length is primarily responsible for the quantity-sensitive stress system. Diachronic as well as synchronic evidence further suggests that schwa derives from epenthesis motivated by syllable structure well-formedness constraints. Taken together, I propose a serial account of stress assignment in Kwak'wala using Harmonic Serialism (McCarthy 2016), in which the assignment of stress interacts with epenthesis in an opaque fashion. In this theory, stress and epenthesis are assumed to be faithfulness-violating, and hence separate, sequential operations in Harmonic Serialism, whose order of application in the derivation is determined via constraint ranking.

As explored in this talk, this theory predicts that words with multiple epenthetic vowels will insert these vowels one-at-a-time rather than all at once. This predicts that in a language where epenthetic vowels avoid being stressed, the order and direction of epenthesis may interact and affect stress assignment. I argue that Kwak'wala is such a language, and that the quantity-sensitive, default-to-opposite stress system may be reanalyzed as a system with a single edge-alignment preference for stress assignment (leftmost), which can be disturbed by opaque stress-epenthesis interactions. I show that a Harmonic Serialism analysis of the patterns of epenthesis and their interaction with stress assignment can derive the default-to-opposite pattern of stress without the need to stipulate constraints regarding conflicting directionality for stress assignment and provides a clearer picture of the language's prosodic system.

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Bach, Emmon. 1975. Long vowels and stress in Kwakiutl. *Texas Linguistic Forum* 2:9-19.

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Polysynthesis and the division of labor in grammar

Andrew McKenzie (KU)

In this talk I argue that some aspects of polysynthesis result from the use of heads in the extended verbal projection to saturate arguments and link them to the main event. Stems combine directly with these rather than with distinct heads (like determiners) that project non-verbal phrases.

Problem. Recent inroads in understanding the way polysynthetic verbs are built have led to a disconnect. Syntacticians have generally assumed that polysynthesis builds words without significantly affecting the semantics. Meanwhile, linguists focused on functions or truth-conditions repeatedly point out that polysynthetic phenomena do affect the meaning. However, these linguists do not often concern themselves with how the verbs get built. Under the by-now standard conception that the syntax and semantics correspond (whether directly or via LF), these two approaches seem incompatible.

Approach. A full solution to this problem is too large for one talk. Yet I will propose that focusing on the semantics of polysynthesis will get us closer to an answer, by revealing elements of structure that need to be present and also which seem to be available in non-polysynthetic cases/languages. Polysynthetic strings are known to have internal structure and composition. Semantic studies of noun incorporation emphasize its weak compositionality—the meaning of the sum is more than the meanings of the parts. These studies show that verbal elements can provide quantification and thematic links for incorporated nouns.

Basic idea. Building from there, I hypothesize about what leads to polysynthesis: The verb handles the 'functional' components of the semantics that meaningfully link lexical stems to the sentence. Focusing on Kiowa (kio | Kiowa-Tanoan), I apply this division of labor to more than just noun incorporation— It helps us understand verb incorporation and pronominal arguments, along with different kinds of stems that are put into verbs: adverbial, classificatory, thematic, modal, and illocutionary. In cases/languages without polysynthesis, determiners convert nominal properties into entities or quantifiers. Complementizers and infinitivals convert propositions and verbal properties into content for perception or attitude verbs. Adpositions, case-assigners, and low verbal heads convert these into event modifiers (or arguments thereof). In polysynthetic cases/languages, these conversions are effected directly by heads in the extended verbal projection. Only when these verbal heads do this work can the stems combine directly in the syntax. Otherwise a phrase is needed, headed by something that does that work.

Looking more broadly. I will lay out how this idea works with Kiowa and some other cases of polysynthesis in the Americas. Assuming a roughly universal phrase structure, we can predict that non-polysynthetic languages have many of the same pieces; they simply show up to different degrees. This seems to be case: Complex verbs abound--- light verbs, semi-auxiliaries, restructuring, serial verbs, and auxiliaries. Main verbs decompose to reflect event structure and argument structure. Linear templatic rules govern clitic placement. Indefinites have often been argued to lack operator determiners, instead being bound by something higher in the clause. Seemingly free adverbials and adjectives compose in strict templatic order, some of which is derived semantically. This constellation of coincidences becomes a coherent picture if the components of polysynthesis are present.

Put another way: Polysynthesis has fascinated linguists ever since the days of missionaries and gentleman-scholars, because it was so *different*. However, it is likely that every language actually has what it takes to become polysynthetic. Some languages' verbs simply outsource more of the work. This reinforces the generative finding that the fundamental building blocks of language differ little if at all across languages, and does so without hinting that polysynthesis deviates from an analytic norm.

Resolving an unexpected split ergative pattern in North Baffin Inuktitut

Julien Carrier

Person-based split ergative systems are claimed to exhibit a universally fixed directionality, whereby the ergative-absolutive patterning may surface only with third-person subjects whereas the nominative-accusative one with first- and second-person subjects (see Silverstein 1976; Dixon 1979, 1994). In order to account for this type of split ergativity, many syntactic analyses posit a structural distinction between third and local person subjects, arguing that the latter must have its local person feature licensed by a functional projection in the clause (e.g., ParticipantP), which creates a configuration in which local person subjects can only get the nominative case (e.g., Coon & Preminger 2012, 2017; Deal 2016). The properties of an emerging split ergative pattern in North Baffin Inuktitut, however, pose an interesting problem, since the ergative-absolutive patterning is falling out of use only with third-person subjects (cf. Spreng 2005; Carrier 2021), in conflict with the expected directionality of such splits. In this talk, I show that the opposite direction of this split is due to the loss of “rich” ergative agreement forms encoding third-person subjects and the fact that North Baffin Inuktitut has remained a consistent pro-drop language (see Holmberg 2005, 2010; Roberts 2014). Such a configuration causes a failure of ergative agreement to license null third-person subjects (see Müller 2005) and forces the use of another construction as a repair strategy (see Bobaljik & Branigan 2006; Béjar & Rezac 2009). The reversed directionality of the split is thus explained with the formal features on the licensor rather than ones on the licensee.

References

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Excorporation through feature deletion in Algonquian multiple head-movement

Phil Branigan — Memorial University of Newfoundland

Syntactic theory is still in the early stages in pinning down the details of the initial, pre-phonological stages of the externalisation processes (Idsardi & Raimy 2013), but head-movement must be a component. Branigan (2023) and Branigan & Welch (in prep.) show the necessity for (postsyntactic) multiple head-movement (MHM) for various languages, including Innu-aimûn (Algonquian), Ahtna (Dene) and Russian (Slavic); in each of these, T/Infl attracts intervening heads (and adjuncts) down to the verb.

(1) a. *Ni-pâ tshî nipânâ-pan.* (Innu-aimûn)
1-should can sleep-1-PST
'I should have been able to sleep.'

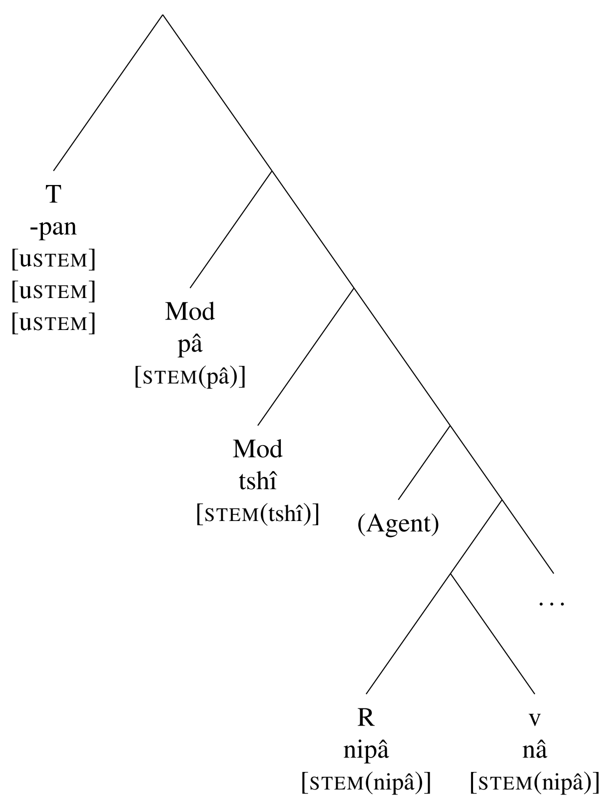
b. *ɬdzii-gh-i-tsaetl'* (Ahtna, Kari 1990)
in.half.lengthwise-CNJ-PFV-chop.PFV
'S/he split it lengthwise.'

c. *Jurij pere-pod-pisa-l pis'mo.* (Russian)
Yuri re-under-write-PST letter
'Yuri re-signed the letter.'

In all three languages, MHM gathers the verb and the preverbs/prefixes together, but in Innu-aimûn, the verb and the individual preverbs often count as separate domains for some phonological processes, while Ahtna and Russian treat the verb and the prefixes as a single domain. Innu-aimûn frequently allows parentheticals between the verbs and prefixes; these are not possible in Ahtna or Russian. The solution proposed here to characterise the difference establishes a feature deletion step in externalisation.

In this model, X^0 categorial status reflects shared [STEM] features within a constituent. A phase-leval valuation operation provides values for multiple [STEM] features on the attracting head.

(2)

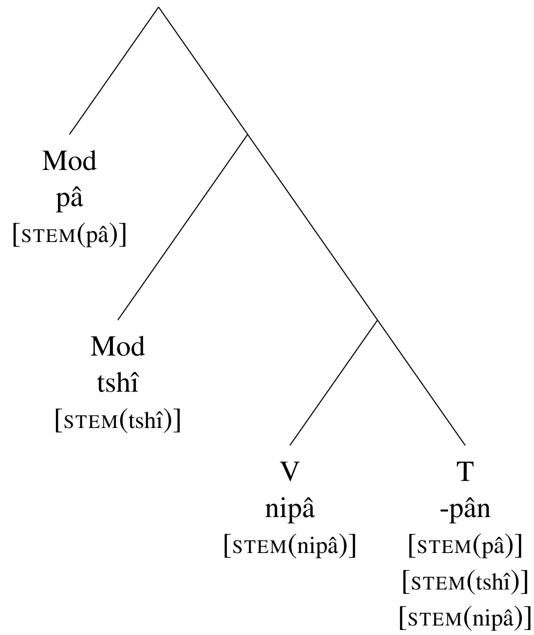


For example, in the derivation of (1a), the preterite inflection *-pan* will originate as T, with multiple [uSTEM] features. The preverbs *pâ* and *tshî* bear valued [STEM] features: [STEM(pâ)] and

[STEM(tshî)], respectively. And the verb, bears two copies of a [STEM(nipâ)] feature: one in the root and one in v. This gives us the structure (2), prior to feature valuation at the C-T phase.

Valuation of the three [USTEM] features in T will produce a series of [STEM] features within T: [STEM(pâ)], [STEM(tshî)], and [STEM(nipâ)]. And at some point, the 1st person clitic *ni* will be adjoined to T, for reasons which are not directly pertinent to the matters at hand. The result will then be the structure (3) which is then subject to externalisation processes, including Head-Movement, which applies cyclically. This produces the X^0 structure (3) from (2). (Agreement and clitics not shown.)

(3)



The externalization problem with this structure comes from the presence of two [STEM] features in the T suffix: [STEM(pâ)] and [STEM(tshî)]. It is these features which inform the morphophonology that the preverbs are to be processed as part of the same word as T and the verb stem. The right result then follows if superfluous [STEM] features can be deleted after the Head-Movement operation has done its work. In (3), deletion of [STEM(pâ)] and [STEM(tshî)] in T will remove *pâ* and *tshî* from the inflected verb for subsequent steps in the externalisation process, i.e. the morphophonology.

The same mechanism explains the different positions of large and small resultative predicates adjoined outside the verb phrase in pluractional reduplication forms: (4).

(4) *shîpeku-pâ~pesheim-ᵘ* *mitshuâp-inu*
green-PLACT~paint-3 house-OBV
'S/he painted the house green, repetitively.'

â~iâtshî-pesheimᵘ *mîtshuâp-a*
PLACT~other-paint-3 house-PL
'S/he painted the houses a different color.'

Here *shîpeku* is adjoined higher than the pluractional reduplicant so that deletion of its stem feature from T will excorporate it; *âtshî* adjoins below the reduplicant so that it may be expressed as a part of the X^0 verb.

Deletion of morphosyntactic features has been established as a *repair* strategy in other contexts. Bobaljik & Branigan (2006) show that ϕ features are deleted in Chukchi to satisfy feature hierarchy constraints. Heck & Richards (2010) propose a post-syntactic rule to delete noun class features in contexts where local person features are found in Southern Tiwa. Oxford (2017) employs a similar mechanism in treating Algonquian *inverse -kw* verb forms. The excorporation step in Innu-aimûn is similar to other feature deletion proposals as it allows features to be deleted when necessary for morphophonological convergence. But with the Algonquian preverbs, the problem which is resolved is not how to reconcile incompatible features. Instead, [STEM] feature deletion addresses the incompatibility of the instructions for locating the boundaries of a word with the types of constituents involved. Preverbs are prosodically independant constituents. They cannot be processed in a way which requires them to serve as affixes to a root. When the presence of [STEM] features would force such a result, the computation reacts by deleting the responsible features.

CP-less clauses in Passamaquoddy

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I provide novel data from Passamaquoddy (Eastern Algonquian) supporting two proposals about clausal reduction: *(i)* certain types of embedding predicates are more likely to take structurally-reduced clausal complements (Givón 1980, Wurmbrand and Lohninger 2019); and *(ii)* asymmetric coordination involves coordinating TPs rather than CPs (Bjorkman 2012, 2013). The core puzzle I tackle is the morphosyntax of the SUBORDINATIVE, a verbal inflectional paradigm in Passamaquoddy that appears in two apparently unrelated syntactic contexts: the complements of certain clause-embedding verbs and in asymmetric coordinations. I argue that subordinative clauses lack a CP layer, and that they appear in precisely those complements and coordinations that involve bare TPs. Uncited data comes from the author's ongoing Zoom elicitation (2020-2022) with four Passamaquoddy speakers.

Morphology: The subordinative is similar to the INDEPENDENT, the inflectional paradigm characteristic of matrix declaratives. A crucial difference: the subordinative lacks the agreement suffix located in C, obligatory in the independent, straightforwardly pointing to subordinative clauses lacking a CP layer:

(1) a. *pileyawi -w* **-ol** — Independent
be.new$_{II}$ -3 **-IN.PL**
'they are new'

b. *pileyawi -w* [ ] — Subordinative
be.new$_{II}$ -3 [ ]
'it/they are new'

Internal syntax: If subordinative clauses lack a CP, then syntactic processes that crucially implicate a CP should be blocked. I examine Ā movement to Spec,CP, involved in forming *wh* questions as well as in a long-distance agreement (LDA) construction (Bruening 2001). We cannot have *wh* movement to the edge of an embedded subordinative clause, either in an embedded *wh* question or in *wh*-scope marking:

(2) No subordinative questions

a. * *Piyel '-kisi= wonitahasi-n* [$_{SUB}$ ***keq*** *'t-olihtu-n*].
Peter 3-PFV= forget$_{AI}$-N **what** 3-make$_{TI}$-N
Intended: 'Peter forgot what to make.' (EM)

b. * *Piyel 'ciye-Ø Panuwapskek pihce-hs-is, on* [$_{SUB}$ ***tayuwek*** *'t-apaci-ya-n*]?
Peter go.to$_{AI}$-3 Indian.Island long.ago-DIM-DIM and **when** 3-return-go$_{AI}$-N
Intended: 'Peter went to Indian Island a while ago, and when did he come back?' (EM)

(3) No *wh*-scope marking with subordinative clauses

a. ***Keq*** *kt-itom* [$_{IND}$ ***tama*** *kt-oli= nomiy-a 'Tolitoli*]? — Independent, **yes**
what 2-say$_{AI}$ **where** 2-there= see$_{TA}$-3OBJ Tolitoli
'Where did you say you're meeting Tolitoli?' (Bruening 2001:199)

b. * ***Keq*** *pawatom-a-s-k 'Tolitoli* [$_{SUB}$ ***tama*** *kt-oli= nomiy-a-n*]? — Sub., **no**
what IC.want$_{TI}$-APPL-2OBJ-3CJ Tolitoli **where** 2-there= see$_{TA}$-3OBJ-N
Intended: 'Where does Tolitoli want you to meet her?' (Bruening 2001:251)

Additionally, Ā movement to the left edge of the subordinative clause cannot feed LDA. In the LDA construction described by Bruening (2001) and LeSourd (2019), which involves independent or conjunct (another inflectional paradigm, characteristic of embedded clauses and Ā extraction) complements, the matrix verb can agree with any argument in the embedded clause, apparently without locality constraints (data omitted for space). Bruening (2001) argues that this kind of LDA is sensitive to islands, and thus involves (potentially covert) Ā movement to the edge of the embedded clause, feeding a local Agree dependency (see also Polinsky and Potsdam 2001 on Tsez and Branigan and MacKenzie 2002 on Innu).

Subordinative clauses also allow a kind of LDA construction—however, this one is strictly local, and you only get agreement with the highest argument in the embedded clause; below, the first person subject, not the second person object (see Grishin 2022 for more details):

(4) *Sapet* ***{n,*k}-pawatom-a-ku-n*** [$_{\text{SUB}}$ *'-kinolu-l-on*].
Elizabeth **{1,*2}-want$_{\text{TI}}$-APPL-INV-N** 2-praise$_{\text{TA}}$-2OBJ-N
'Elizabeth **wants** <u>me</u> to praise you.' (RP)

If subordinative clauses lack a CP layer, then we predict that we cannot get Ā movement to CP feeding LDA. This is exactly the pattern we see borne out in the data.

Finally, if subordinative clauses did have a CP layer, then in long-distance *wh* questions we would expect the *wh* item to stop off at the edge of the embedded CP phase. If so, then we might expect that intermediate copy to be able to feed LDA, as it is now the highest potential goal in the embedded clause. Indeed, this is exactly what we see in closely-related Mi'gmaq, which similarly has a strictly-local LDA construction: long-distance *wh* movement of the embedded object feeds LDA (Hamilton 2015). Not so in Passamaquoddy, where long-distance *wh* movement doesn't feed LDA with subordinative clauses:

(5) *Weni-l* *Roger* ***pawatom-uw-{i,*a}-t*** [$_{\text{SUB}}$ *nt-olewestuwam-a-n* ~~*wenil*~~]?
who-OBV.SG Roger **IC.want$_{\text{TI}}$-APPL-{1OBJ,*3OBJ}-3CJ** 1-talk.to$_{\text{TA}}$-3OBJ-N
'Who did Roger **want** <u>me</u> to talk to?' (EM)
EM: "[*pawatomuwat*] doesn't make sense because you're talking about yourself here."

We can conclude that the *wh* item moves directly into the matrix clause here, without stopping off at the edge of the subordinative clause—indicating that there is no CP layer in the subordinative clause.

Subordinative contexts: With the CP-lessness of subordinative clauses thus demonstrated, where do they show up? I demonstrate that subordinative clauses appear as complements to Wurmbrand and Lohninger's (2019) SITUATION and EVENT complement predicates, but not in PROPOSITION complements. Situation and event complements are precisely those that they argue lack a (semantically interpreted) CP layer. Striking evidence for this distribution comes from differences in meaning when a predicate can select distinct clause types: when *unitahasin* 'forget' embeds a conjunct clause, it has the proposition complement factive reading ("forget that"), whereas when it embeds a subordinative clause, it has the event complement implicative reading ("forget to"):

(6) a. *Mehqihtuwat* <u>*Ø-unitahasi-n*</u> [$_{\text{CJ}}$ *eli* ***apenkato-k*** *utapakon*]. Conjunct, factive
red.beard <u>3-forget$_{\text{AI}}$-N</u> C **pay.for$_{\text{TI}}$-3CJ** car
'Redbeard <u>forgot</u> that he paid for the car.', #'…forgot to pay…' (RP)

b. *Mehqihtuwat* <u>*Ø-unitahasi-n*</u> [$_{\text{SUB}}$ ***'t-apenkatom-on*** *utapakon*]. Sub., implicative
red.beard <u>3-forget$_{\text{AI}}$-N</u> **3-pay.for$_{\text{TI}}$-N** car
'Redbeard <u>forgot</u> to pay for the car.', #'…forgot that he paid…' (RP)

Additionally, subordinative clauses obligatorily show up in the second conjunct of *asymmetric* coordinations, those in which the second conjunct temporally and/or causally follows from the first.

(7) Context: a long day of heavy, constant rain yesterday caused some ripe strawberries to start to rot on the bush today.

a. #*Kisi=* *wisok-olan-Ø* *wolaku* *on* [$_{\text{IND}}$ *pskihqimins-ok* ***mace=*** ***mehtolihka-Ø-k***].
PFV= very-rain$_{\text{II}}$-3 yesterday and strawberry-PROX.PL **start=** **rot$_{\text{AI}}$-3-PROX.PL**
Intended: 'It rained a lot yesterday and the strawberries have started to rot.' (EM)

b. *Kisi=* *wisok-olan-Ø* *wolaku* *on* [$_{\text{SUB}}$ *pskihqimins-ok* ***Ø-mace=*** ***mehtolihka-ni-ya***].
PFV= very-rain$_{\text{II}}$-3 yesterday and strawberry-PROX.PL **3-start=** **rot$_{\text{AI}}$-N-PL**
'It rained a lot yesterday and the strawberries have started to rot.' (EM)

Bjorkman (2012, 2013), based primarily on data from English, argues that asymmetric coordination has a syntactic signature: it involves coordinating TPs rather than CPs. Passamaquoddy thus provides further crosslinguistic support for this proposal.

In sum: treating subordinative clauses as lacking a CP layer not only explains their internal morphosyntactic properties, but also allows us to explain why subordinative clauses appear in these two specific, seemingly unrelated syntactic contexts: they are environments that involve bare TPs.

Bjorkman 2013 A syntactic answer to a pragmatic puzzle: The case of asymmetric *and*. In *Syntax and Its Limits*, 391-408. • **Bruening 2001** *Syntax at the Edge: Cross-Clausal Phenomena and the Syntax of Passamaquoddy*. MIT PhD thesis • **Wurmbrand & Lohninger 2019** An implicational universal in complementation: Theoretical insights and empirical progress. `ling.auf.net/lingbuzz/004550`

Word order gymnastics: VSVO and other orders in transitive MVCs in Hul’q’umi’num’ Salish

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This paper investigates the word order of multi-verb constructions (MVCs) in Hul’q’umi’num’, the Island dialect of Halkomelem Salish (ISO 639-3 hur) through examination of a 17,000 line text corpus and elicitation. An MVC is when several verbs combine to form a single predicate of one clause (Aikhenvald 2011: 1). Hul’q’umi’num’ allows multiple verbs to be stacked in a single clause but does not neatly fit the typological profile of most serializing languages: verb serialization tends to occur in analytic languages, and Hul’q’umi’num’ exhibits a more synthetic profile; Hul’q’umi’num’ is also predicate-initial, the word order being VSO/VOS (Gerdts 1988), while serializing languages tend to be verb-final or verb-medial (Aikhenvald 2018). As a result, there are few studies of predicate-initial serializing languages (cf. Aissen 2009). In addition, data from Salish has largely not been included in cross-linguistic literature on MVCs. The goal for this research project is to provide a sketch accounting for the extreme variability exhibited by these constructions in this language.

In Hul’q’umi’num’, two-verb MVCs may consist of two intransitive verbs (INT-INT), an intransitive and a transitive verb (INT-TR/TR-INT), or two transitive verbs (TR-TR). INT-INT MVCs are by far the most frequent (67% of MVCs), but the focus of this research is transitive constructions. In TR-TR MVCs, subject and object arguments are shared by the verb components. There are six possible word orders for TR-TR MVCs with two overt NP arguments: VSVO, VVSO, VVOS, VOVS, VOSV, and VSOV, but the alternating pattern VSVO (1) is the only corpus-attested pattern.

(1)	niʔ	θəy-t-əs	tᶿə	swiw̓ləs	yəq̓-ət-əs	tᶿə	šəptən.
	AUX.DIST	fix-TR-3SUB	DT	boy	rub-TR-3SUB	DT	knife

‘The boy fixed, sharpened the knife.’ (DL 20.04.22)

While all six patterns are grammatical for TR-TR constructions, this alternating pattern was preferred by the consultant. The non-occurrence of the other five patterns in texts of can be explained by established discourse features of Salish. In simple, single-verb clauses, Salish languages disprefer, two adjacent overt NPs (Gerdts & Hukari 2008); this at least partially explains absence of VVSO/VVOS and VOSV/VSOV in texts. In addition, topics tend to be subjects, and ongoing topics tend to be zero (Beck 2000; Davis 1994; Gerdts & Hukari 2008); this likely explains why VOVS does not occur, while VOV is attested.

For single-verb clauses, Salish languages exhibit both VOS and VSO. Salishanists (e.g., Davis 1999) have proposed two underlying structures: SVO, where *Spec vP* branches left to host the subject (Figure 1), and VOS, where *Spec vP* branches right (Figure 2). The surface orders are derived through V head raising. This means there are two possible underlying word orders for multi-verb clauses, VVOS, and SVVO. The alternating pattern VSVO, could be derived from SVVO by raising the V_1 head (Figure 1). VVSO could be derived from SVVO by VP-remnant raising (Chung 2005).

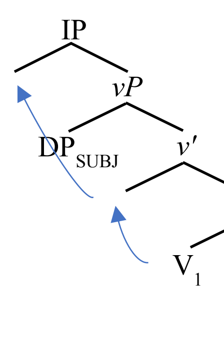

Figure 1 | VSVO

The orders VOVS, VOSV, VSOV present a complication that is most easily resolved through scrambling, e.g., a right-generated O allows for the alternating VOVS pattern to be derived from underling VVOS (Figure 2). The orders where O precedes V_2, occurng between the two verbs, are only allowable where the object is shared by both verb components.

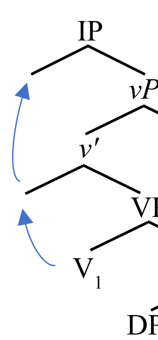

Figure 2 | VOVS

In contrast with TR-TR, mixed-transitivity constructions (INT-TR/TR-INT) involve one shared argument and one non-shared argument. The transitive component of INT-TR MVCs functions to introduce an object into the argument structure. In these constructions, only the subject is shared by both verbs. These constructions are limited to VSVO and VVOS (2) as possible orders with overt NP arguments. The other orders are disallowed because VVSO generates an ambigous reading, and VOV orders are ungrammatical because the object cannot precede the verb that introduces it.

(2) niʔ həyeʔ lem-ət-əs t$^{\theta}$ə sq^{w}əmey t$^{\theta}$ə swiw̓ləs
AUX.DIST leave see-TR-3SUB DT dog DT boy
'The boy left to look at the dog.' (DL 25.10.22)

V_1 determines the subcategorization for the construction; if V_1 is intransitive only the intransitive subject may occur between the verb components, and if V_1 is transitive, either argument shared by both verbs may occur between verb components.

The same holds for TR-INT constructions, the least common type (2% of MVCs), in that the argument between the verbs is shared. In this case, it is the object of V_1 and the subject of V_2 (marked [O_1/S_2]). In fact, V[O_1/S_2]V appears to be the only order available:

(3) a. niʔ ləm-nəx^{w}-əs t$^{\theta}$ə šəyəɬ-s ʔəmət.
AUX.DIST see-LCTR-3SUB DT elder.sib-3POS sit.down
'S/he saw her/his elder sibling sit down.'

b. niʔ ləm-nəx^{w}-əs t$^{\theta}$ə šəyəɬ-s ʔəmət θə q̓eʔmiʔ.
AUX.DIST see-LCTR-3SUB DT elder.sib-3POS sit.down DT girl
'Her elder sibling saw the girl sit down.'
*'The girl saw her elder sibling sit down.' (DL 24.11.22)

In (3a), 'the elder sibling' is both the object of V_1 and the subject of V_2. All orders with an overt NP subject for V_1 (VOVS, VVOS, VVSO) test ungrammatical for the switch-function construction. Example (3b) demonstrates that an alternating pattern with two overt arguments is analyzed as VS_1[VS_2] where intransitive VS_2 serves as the object for transitive VS_1.

Although Hul'q'umi'num' MVCs exhibit remarkably flexible word order in elicitation, many of these syntactically possible orders are blocked in texts for pragmatic reasons. For example, VVSO is technically grammatical but is often ambiguous and so orders like this one may be too difficult to parse. The alternation of Vs and NPs in MVCs thus fits in with strategies such as zero topics and use of passive voice to avoid the occurrence of two overt NPs in a row while managing the actors in the discourse. Because MVCs are an understudied feature of certain Central Salish languages, this study focuses on an important research area (cf. Montler 2008). Additionally, the fact that Hul'q'umi'num' is a synthetic, predicate-initial language, and yet exhibits non-contiguous MVCs is unexpected in light of the current generalizations made in MVC literature, and thus this investigation considerably broadens the scope of the typology.

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MATTR: Measuring Lexical Diversity in Inuktitut

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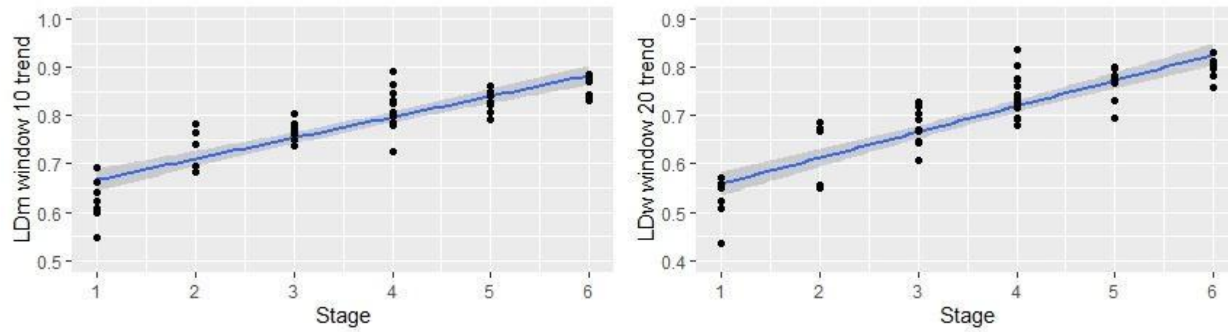
The aim of this study is to determine whether using Moving-Average Type-Token Ratio (MATTR) can serve as a method to measure lexical diversity (LD) in languages of polysynthetic agglutinative structure, such as Inuktitut. LD refers to the ratio of different words to the total number of words in a text and is often used as a measure of lexical development in children. The reliability of different ways to measure LD greatly depends on several factors, such as the type of data, the length of the text, and the structural characteristics of the language. Previous studies that compared different methods (e.g., *TTR*, *D*, *MTLD)* of measuring LD in languages of different typology (e.g., English) listed the following advantages of MATTR: it produces valid and consistent measures; it makes no statistical assumptions, it allows using all available data, and, most importantly, it has been shown not to be dependent on the text length (Covington & McFall, 2010; Fergadiotis et al., 2015). MATTR calculates type-to-token ratio (TTR) for a number of overlapping segments of the same preselected length. The number of segments depends on the text length and the window size. Finally, the estimated TTRs are averaged. However, because of the nature of the Inuktitut morphological system, application of this method might require some adaptation. Firstly, since in Inuktitut morphemes play a role similar to the role that words play in less morphologically rich languages (1), it might be more reasonable to calculate LD based on morphemes rather than words.

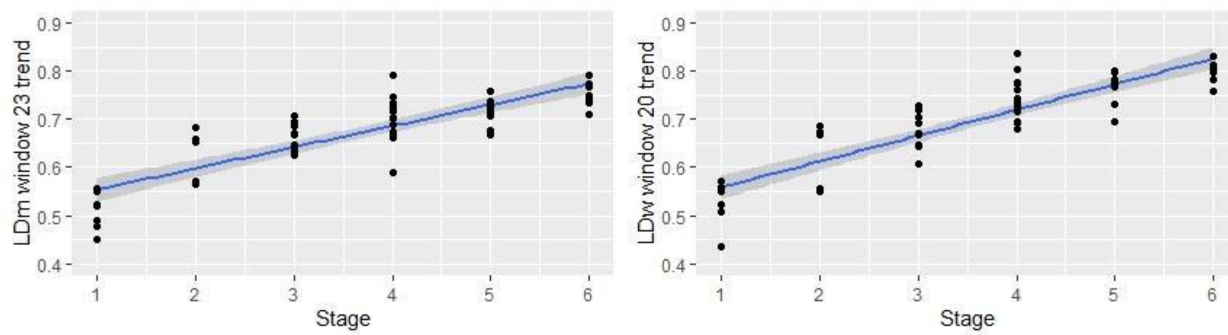
(1) *Illujaraalummuulaursimannginamalittauq*.
illu-juaq-aluk-mut-uq-lauq-sima-nngit-gama-li-ttauq
house-big-EMPH-ALL.SG-*go*-PAST-PERF-NEG-CSV.1sS-but-also
'But also, because I never went to the really big house.' (Dorais, 2011)

Secondly, since MATTR calculates LD of a segment using a moving window, the window size has to be determined. To preserve stability of repeated samples, the window sizes of at least 10 words or as large as the length of the smallest text sample were suggested (Covington, 2007). Using the spontaneous speech data from eight typically developing Inuktitut-speaking children (aged 1 to 4 years), we tested four different sets of parameters for MATTR: words vs. morphemes, and window sizes of 10 words/morphemes, 20 words, and 23 morphemes. We then used the mean length of utterance in morphemes (MLUm) – a widely accepted method for determining the children's stage of linguistic development – for comparison (Allen & Dench, 2015). The trends were tested using Pearson correlation test. The results for each set of parameters corresponded to the stages of the children's linguistic development determined by MLUm (Figures 1-2). These results show that developmental progress in Inuktitut can be reliably measured in either morphemes or words using either the smallest suggested window size (10 words/morphemes) or the window size that is equal to the size of the smallest data file/text. Our findings demonstrates that lexical diversity can be meaningfully measured in polysynthetic languages despite long and relatively unique words and that MATTR is a suitable way to measure LD in languages of that typology.



A B

Figure 1. Lexical Diversity in morphemes (panel A) and in words (panel B), by stage, window size 10.



A B

Figure 2. Lexical Diversity in morphemes, window size 23 (panel A), and in words, window size 20 (panel B), by stage.

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Stative Marking in Tlingit: Evidence for the Complexity of States

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1. Introduction. On the basis of original field data, we show that stative predicates in the Tlingit language (Na-Dene family) are morphosyntactically distinguished between so-called 'K-states' and 'D-states' (Maienborn 2005). While this proposed distinction between stative predicates – previously based solely on German and English data – remains highly controversial (Dölling 2005, Higginbotham 2005, Ramchand 2005, Rothstein 2005), we show that the behavior of stative marking in Tlingit provides independent cross-linguistic evidence for its grammatical reality. In addition, the nature of the Tlingit stative marker challenges certain syntactic and semantic assumptions regarding the nature of states, especially their structural and conceptual primacy and simplicity. Finally, this result also establishes the validity of certain semantic diagnostics for stativity and K/D-stativity in the Tlingit language and provides a crucial first step toward the exploration of this stative marker in other more complex aspectual constructions.

2. D-States *vs.* K-States. Maienborn (2005) argues that certain diagnostics divide the stative predicates of German into two distinct classes; as we will see, many of these diagnostic differences are also evident in English and other languages. To begin, states as a whole can be distinguished from events by their inability to be described as 'happenings' as illustrated by the English examples in (1) and (2).

(1) Q: What is happening? A: Dave is dancing / ?? is standing / # loves Sue.

(2) a. Dave was dancing. While that was happening, Tom slept.
b. Dave was standing. ?? While that was happening, Tom slept.
c. Dave loved Sue. # While that was happening, Tom was in Alaska.

The above data shows that there is a contrast between clearly eventive predicates (*dance*) and less dynamic predicates (*stand*, *love*), in whether they count as instances of 'happenings'. Assuming that the latter predicates are stative in this broad sense, we nevertheless find they behave differently in certain environments. For example, only statives like *stand* are able (i) to be felicitously modified by manner adverbs, or (ii) to head direct perception complements:

(3) a. Dave is standing quietly. b. ?? Dave loves Sue quietly.

(4) a. Bill saw Dave stand / standing. b. # Bill saw Dave love Sue.

Maienborn (2005) demonstrates that this distinction cannot be reduced to other distinctions between states (e.g. individual-level vs. stage-level), and so introduces the novel term 'D(avidsonian)-stative' for predicates that behave like *stand* contrasting with the term 'K(imian)-stative' for predicates that behave like *love*.

3. The I-Prefix of Tlingit: As in other Na-Dene languages, verbal stems in the Tlingit language are immediately preceded by a sequence of prefixes known collectively as the 'classifier' which encodes a complex of properties that often relate to the argument structure of the predicate. For example, the classifier prefix *s*-, highlighted in (5) below, can serve to introduce an argument ('causative' CSV).

(5) itusa.ée
i-Ø-tu-s-√.i-µµH
2SG.O-IPFV-1PL.S-CSV-√cooked-VAR
'We are cooking you.' (lit. 'We are making you become cooked.')

In certain verb forms this classifier prefix is followed by an 'I-component' or 'I-prefix', so named because its simplest surface realization is *i*- [i] as in (6b). But in verbs where the classifier position is otherwise phonologically empty this morpheme is realized as *ya*- [jà] (6a).

(6) a. x̠at yanéekw
x̠at=Ø-ya-√nikw-µµH
1SG.O=IPFV-STV-√sick-VAR
'I am sick.'

b. x̠at isinéekw
x̠at=Ø-i-s-i-√nikw-µµH
1SG.O=IPFV-2SG.S-CSV-STV-√sick-VAR
'You make me sick.'

As suggested by the difference between the verbs in (5) and (6), the presence of *i*- ~ *ya*- in an imperfective (IPFV) verb form is correlated with that verb denoting a state. Hence the combination of *i*- ~ *ya*-with an imperfective form is commonly referred to as a 'stative imperfective' in the descriptive literature on Tlingit

(Leer 1991). Later researchers have identified this prefix as a stative marker (Crippen 2019, Cable 2022), and so it is glossed here as STV 'stative'.

4. The *i- ~ ya-* Prefix and K-Stativity in Tlingit. Despite the glossing convention, we show that not all stative predicates in Tlingit bear *i- ~ ya-*in the imperfective. In particular, if we take the contrasts exhibited in (1) and (2) as a diagnostic for stativity (Maienborn 2005) then we see below that some stative predicates in Tlingit lack *i- ~ ya-* in their imperfective (7b). While (7) replicates the English diagnostic in (1), we also have data that replicate the diagnostic in (2) and so confirm that (7b) contains a stative predicate.

(7) Q: Máa sáyá at naneen? 'What is happening?'

a. Jaan al'éix̱.
Jaan a-Ø-√l'ex̱-μμH
John 3>3-IPFV-√dance-VAR
'John is dancing.'

b. ?? Jaan gukshutóot hán
Jaan gukshutóo-t Ø-√han-μH
John corner-at IPFV-√stand.SG-VAR
'John is standing in the corner.'

c. # Sóo du x̱'éi yak'éi wé kanat'á.
Sóo du x̱'é-μ Ø-ya-√k'e-μμH wé kanat'á
Sue 3HUM.POSS mouth-at IPFV-STV-√good-VAR DET blueberry
'Sue likes blueberries' (lit. 'Blueberries are good to Sue's mouth.')

Furthermore, we demonstrate that the presence/absence of *i- ~ ya-* in the imperfective more tightly correlates with Maienborn's (2005) diagnostics for K/D-stativity. For example, imperfective stative predicates <u>lacking</u> *i- ~ ya-* are <u>felicitious</u> with manner adverbs like *kalk'átl'áḵ* 'silently' in (8a).

(8) a. Jaan kalk'átl'áḵ ch'a tleix̱ gukshutóot hán
Jaan kalk'átl'áḵ ch'a tleix̱ gukshutóo-t Ø-√han-μH
John silently just always corner-at IPFV-√stand-VAR
'John was standing silently in the corner for a long time.'

b. # Sóo kalk'átl'áḵ kanat'á du x̱'éi yak'éi.
Sóo kalk'átl'áḵ kanat'á du x̱'e-μH Ø-ya-√k'e-μμH
Sue silently blueberry 3HUM.POSS mouth-at IPFV-STV-√good-VAR
\# 'Sue silently liked blueberries.'

Given contrasts such as these, we argue for the generalization in (9).

(9) *Imperfective predicates in Tlingit bear* i- ~ ya- *if and only if they denote K-states.*

5. Consequences and Further Directions. We argue that the generalization in (9) challenges certain proposals regarding the nature of stativity across languages. First, the existence of special inflectional marking for K-statives suggests a functional projection associated with K-stativity. This challenges the widespread view that stativity is an inherent property of roots or is the most basic Aktionsart class (Dowty 1979, Rothstein 2004, Kiyota 2008). Indeed, given that *i- ~ ya-* is absent from both eventives and D-statives, K-statives in Tlingit are structurally more complex than either. In light of this, we defend a particular syntactic and semantic model of *i- ~ ya-* STV, based upon Crippen's (2019) model of Tlingit verbal morphosyntax:

(10) <u>Crippen's (2019) Syntax of the Tlingit Verb</u>:
$[_{\text{AspP}}$ Asp $[_{\text{VoiceP}}$ Voice $[_{vP}$ v $[_{\varepsilon P}$ ε $[_{\text{VP}}$ √V]]]]]
(I)PFV MID CSV STV

Furthermore, we discuss how this fits with Maienborn's (2005) original semantic theory of K-states, which posits that they introduce an additional abstract 'exemplification' of a given predication:

(11) <u>Maienborn's (2005) Semantic Theory of K-States</u>: $[\![\, \textit{be tired} \,]\!] = [\ \lambda x_e : \lambda z : z$ exemplifies TIRED$(x)\ ]$

Finally, we turn to the presence of *i- ~ ya-* in certain other aspectual forms, where it is no longer correlated with the lexical stativity of the verb stem. For example, *i- ~ ya-* obligatorily appears in all perfective verb forms like (12); cf. the imperfective in (5). We discuss whether such aspectual forms are themselves derived K-states and what consequences this would have for the compositional semantics of verbs.

(12) iwtusi.ée
i-w-tu-s-i-√.i-μμH
2SG.O-PFV-1PL.S-CSV-STV-√cooked-VAR
'We (have) cooked you.' (lit. 'We have made you become cooked.')

LEXICAL ASPECT AND THE STATIVE PRESENT IN KANIEN'KÉHA

Tehokwiráthe Cross, Terrance Gatchalian, Katya Morgunova, Willie Myers and Ro'nikonhkátse Norton

Introduction. Kanien'kéha (Northern Iroquoian) lacks a dedicated form for expressing present temporal reference. A present reading can be derived using either the Habitual (1) or Stative (2) aspectual form, depending on the verb (unattributed examples come from two of the authors).

(1) T-ientho-**s**.
1SG.A-plant-HAB
'I plant.' *or* 'I am planting.'

(2) Wak-atshokw-**en**.
1SG.P-smoke-STAT
'I have smoked.' *or* 'I am smoking.'

In this presentation, we propose a unified account for the distribution of present reading of the Stative (STAT Present) in Kanien'kéha; specifically, we argue that the availability of this form-meaning pair, along with the Stative Perfect interpretation, is determined by the Aktionsart of the verb. This analysis results in two verb classes with predictable membership. We extend this proposal to capture a novel observation which ties noun incorporation to changes in verb class from HAB Present to STAT Present. As a noted area of difficulty for L2 learners, this topic is of interest for language pedagogy and theoretical accounts of temporal meaning and lexical aspect.

Background. Meaning-form pairs for the present reading are in complementary distribution in Kanien'kéha. If the Habitual form of a verb is compatible with a present reading ("HAB Present" in (1)), the Stative only has a perfect reading; if the Stative form is compatible with a present reading ("STAT Present" in (2)), the Habitual only has a habitual reading. Because habitual readings are universally available in the Habitual and perfect readings are universally available in the Stative, it is the distribution of the *additional* present reading of Stative verbs that must be accounted for.

In past work based on related Seneca and Onondaga, Chafe (1980) suggests that the relevant property determining this distribution is the "consequentiality" of the verb. According to Chafe (1980, p.44), "consequential verbs" possess meanings that involve the "potentiality of present and perceptible states, such as those that would result from pounding or planting corn, from burning, and the like." For him, consequential verbs are HAB Present, while non-consequential verbs are STAT Present.

(3) Chafe's distribution of the progressive

	HABITUAL	STATIVE
consequential	habitual or **present**	perfect
non-consequential	habitual	perfect or **present**

Later work by Baker and Travis (1998) builds on this description, classifying STAT Present verbs as "atelic" instead of "non-consequential". However, neither account offers a complete analysis of the phenomenon.

Proposal. In our proposal, we formalize the notions of "consequentiality" and "telicity" by representing these properties in the event structure of the verb. Namely, we suggest that the difference between HAB Present and STAT Present verbs lies in the presence or absence of a transition into a resultant eventuality within the verb's event structure. When a transition into a result is in the event structure of the verb, as with accomplishments and achievements (as defined in Vendler 1957), the Stative can only provide a perfect reading. When it does not, as with activities and states, both perfect and present readings are available.

(4) Proposed verb classes

	STATIVE	event structure	Vendler class
HAB Present	perfect	$e \to e'$	accomplishments & achievements
STAT Present	perfect or present	e	activities & states

Within this framework, the STAT Present reading is blocked by the inclusion of a distinct resultant stage (e' in (4)) in the event structure of telic verbs. Because the verb's meaning requires a transition from the root event to a resultant eventuality, the Stative can only derive a state founded in the completion of the verbal event, deriving a perfect reading. With atelic verbs, on the other hand, the lack of a transition out of the root process allows for an ambiguity in interpretation in the Stative; the form can describe a state based on an ongoing or completed verbal event, deriving a present or perfect interpretation. Chafe's sense of "consequentiality" in the HAB Present class is a direct result of the two-part structure proposed, wherein the transition from initial process to resultant state drives a telic and perfect reading for the Stative, similar to resultative perfects in other languages (Bertrand et al., 2022).

Extending the analysis. This proposal can be extended to other types of verbs outside of Vendler's four classes, such as those proposed by Tatevosov (2002). One such class, the "strong inceptive-stative", denotes the entrance into a specific state. In Kanien'kéha, these 'change-of-state' verbs include psych verbs like 'become happy' and 'become shy' as well as clothing-related verbs like 'put on shoes'. Because these verbs denote a transition into a resultant state, we expect them to pattern like HAB Present verbs. This is indeed the case, as seen in (5); the Stative form of a change-of-state verb can only receive a Perfect interpretation.

(5) a. K-at-shenn-onni-s.
1SG.A-SREFL-happy-make-HAB
'I get happy.'

b. Wak-at-shenn-onni-∅.
1SG.P-SREFL-happy-make-STAT
'I am happy (lit: I have gotten happy).'
NOT: 'I am getting happy.'

Noun Incorporation. In the same vein, processes which remove the resultant state of a verb are predicted to make a STAT Present reading accessible. Initial investigation suggests that this is borne out by certain alternations involving noun incorporation. With predicates like 'eat' and 'make', class membership can change based on whether an object is incorporated or not. When no object appears or the object is not incorporated, as in (6-a), the verb patterns like a HAB Present verb. However, when the object is incorporated, as in (6-b), it patterns like a STAT Present verb.

(6) a. (Káhi) wak-é:-k-on.
fruit 1SG.P-EP-eat-STAT
'I have eaten (FRUIT).'

b. Wak-ahi-á:-k-on.
1SG.P-fruit-NI-eat-STAT
'I am eating fruit / I have eaten fruit.'

We propose that when an object is incorporated, a STAT Present reading is available because object incorporation alters the lexical aspect of the verb to that of an atelic verb (for the atelicizing effect of unspecified objects see Dowty 1979). This provides additional evidence for semantic effects of noun incorporation, in line with DeCaire et al. (2017) on focus and excorporation. This data also suggests that a verb's lexical aspect is not based solely on the verb root but on the composition of the larger verbal complex.

Conclusions. In this presentation, we show that in Kanien'kéha, the aspectual form which has an additional Present reading is determined by the lexical aspect of the verb. We extend our proposal to explain the variation in the availability of STAT Perfect readings with noun incorporation. As a next step, we plan to extend this proposal to other types of verbs and verbal suffixes, such as causatives and purposives. Because these suffixes introduce a resulting eventuality within the event structure of the verbal complex, access to a STAT Present reading should be barred.

In accounting for the distribution of present readings in Kanien'kéha, this proposal addresses a significant gap in the literature of Iroquoian grammar and contributes to the typology of aspect cross-linguistically (see e.g. Bar-El 2015; Bertrand et al. 2022; Tatevosov 2002). It also provides a new perspective on the tense-aspect-mood system of Kanien'kéha, which has presented considerable difficulties for terminology, pedagogy, and general syntactic theory.

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The Position and Interpretation of Neˀ-headed Nominals in Gayogo̲hóːnǫˀ (Cayuga)

This paper explores an issue that has long challenged linguists and second language learners of Haudenosaunee languages alike: the position and meaning of the determiner *neˀ*. The pattern [*neˀ* + NP] is obligatory for anaphoric definites in postverbal position, but excluded from sentence-initial focus position. Our data are from published oral texts as well as the native speaker judgments of the second author. Although our focus is Gayogo̲hoːnǫˀ, we believe that our findings are relevant for other Five Nations languages as well. An advance in the understanding of *neˀ* is the suggestion of Barrie, Chung and Deer (2014) that *neˀ* is "related to specificity". We show that in addition to its anaphoric interpretation, *neˀ* is associated with specific (referential indefinite) and generic readings, as well as "polarity indefinite" readings in negative and perhaps interrogative sentences and de re readings in intensional contexts. What is excluded for *neˀ* are readings where an indefinite NP is interpreted as a variable in the nuclear scope, in the sense of Heim (1982). We propose that Gayogo̲hoːnǫˀ is a verbal projection fronting language. *Neˀ*-marked NPs are extracted prior to fronting of the verb or its projection, and thus escape existential closure. Focus fronting (Decaire et al 2017) applies to material in *v*P but not to *neˀ*-marked NPs in their intermediate landing site.

Background and Previous Research

Gayogo̲hoːnǫˀ is a severely endangered language with fewer than 10 first language speakers but a vibrant community of second language speakers, mainly at the Six Nations of the Grand River in Ontario. Cognates of Gayogo̲hoːnǫˀ *neˀ* are found in all of the 5N languages: Onödawa'ga (Seneca) *neʔ* <ne'>, Onoñda'gega' (Onondaga) *neʔ*, OnʌjotaʔaːKa (Oneida) *nʌ*, Kanien'kéha (Mohawk) *ne*, as well as Wendat *ne* (<de> in French colonial materials, Lukaniec 2018). The [*neˀ* NP] pattern occurs with anaphoric (1) and uniqueness (2) definites:

(1) Hehshái: a̲ˀ-hǫwa̲-hó:wih   **neˀ hnyágwaiˀ**.   (Lottie Keye, Hatcher 2022: 181)
fox   FACT-3MS>3MS-tell   NEˀ bear
'The fox told the bear.'

(2) Ę-yǫ-de-ˀsgǫ́:dęh   **neˀ etsíno̲ha̲ˀ**   neˀ ę-dwá-hǫha-k.   (Lottie Keye, Hatcher 2022: 173)
FUT-3FS.AG-SREF-roast   NEˀ 2PL>3F-mother   NE FUT-1PL.INC-meat-eat.PUNC
'Your mother will cook the meat that we will eat.'

In (1), both *hehshai:* 'fox' and *(o)hnyagwaiˀ* 'bear' have been mentioned in immediately prior discourse, but only postverbal *(o)hnyagwaiˀ* appears with *neˀ*. A first attempt to formally capture the distribution of Kanien'kéha *ne* is Postal's (1979: 413) Rule 5.3, which inserts *ne* after postverbal nouns and numerals. Postal acknowledges that "The present grammar does not account for those cases where ne- does not occur in the environment covered by 5.3." Mithun (1987: 27) shows that [*neˀ* NP] is systematically disallowed in sentence-initial focus position, as with *hehshai:* 'fox' in (1). *Neˀ* in apparent uniqueness contexts such as (2) is in fact anaphoric. Both of instances of *neˀ* in (2) involve a bridging context, where the speaker has just made a gift of a rooster for the addressees' mother to cook for Christmas dinner.

Neˀ marking wide scope indefinites

It is well known that *neˀ* occurs in contexts that do not translate naturally as the English definite article. An example is this opening line (3) in a dialogue from Mithun and Henry (1983/2015).

(3) Swa:-yęˀ   gę   neˀ gajihwaˀ? Gajihwáˀ gih̲sa:s.   (The speaker has just walked into a hardware store)
2PL.A-have Q NEˀ hammer   hammer 1SG.A-seek
'Do yous have a hammer? I am looking for a hammer' (Translation in Mithun and Henry 2015: 534)

The English translation Mithun and Henry offer for the initial question in (3) is odd: the speaker is not asking if a hammer exists in the store, or whether the store has a specific hammer. Rather, he is in the market for a hammer, any hammer: *neˀ gajihwaˀ* [*neˀ* hammer] in (3) is generic (‘Do you carry hammers?’) or perhaps a polarity indefinite (‘Do you have any hammers?’).

Examples (4-7) are modelled on Kanien’kéha sentences analyzed by Chamorro (1992). Chamorro argues is that *ne(ˀ)* adds nothing to the interpretation: it is definite (anaphoric) when a discourse antecedent is accessible, otherwise indefinite. Baker (1996) adopts this view to claim that “polysynthetic” languages lack determiners altogether. However careful examination of these examples shows that sentences with and without *neˀ* in nonanaphoric contexts are semantically distinct in a systematic way. (4) is an example of specific *neˀ*, and (5) of specific *neˀ* scoping over the subject numeral quantifier.

(4) Joe a-ha-tsę̨i:-ˀ neˀ/∅ gahę́nˀatraˀ. (cf. Chamorro 1992: 37, example (36))
Joe FCT-3SmA-find-PUNC NEˀ knife
Without *neˀ*: ‘Joe found a knife (in the woods)’
With *neˀ*: ‘Joe found a knife (that I lost)’

(5) Ahsęh nihę:nǫ: ę-ha-dó:wa:t neˀ/∅ hnyágwaiˀ. (cf. Chamorro 1992: 38, example (37))
3 males FUT-3SmA-hunt-PUNC NEˀ bear
Without *neˀ*: ‘Three males will hunt bear, be bear hunters.’
With *neˀ*: ‘There is a bear that three males will hunt.’

In (6), *neˀ* produces a *de re* interpretation: there is a specific bird such that Joe wants to grab it. Without *neˀ*, the interpretation is *de dicto*: Joe has the property of wanting to grab birds. In (7), *neˀ* produces a polarity indefinite interpretation under negation.

(6) Joe de-h-odohwę̨jo:nih a-ha-yé:na-ˀ neˀ/∅ jidę́:ˀęh. (cf. Chamorro 1992: 37, example (33))
Joe du-3SmP-want-HAB OPT-3SmA-grabPUNC NEˀ bird
Without *neˀ*: ‘Joe is a bird grabber, has bird grabbing tendencies (for example, he is cat)’
With *neˀ*: ‘Joe wants to grab a bird (the red one).’

(7) Tę̨ˀ onęh dˀe-g-oháhai-ˀ neˀ gˀadréhdaˀ. (cf. Chamorro 1992: 37, example (33))
not now NEG-1SA-wash-PUNC NEˀ car
‘I haven’t yet washed any cars’

Although these interpretations are diverse, they have one thing in common: all have been analyzed as cases where indefinites take scope in a position higher than existential closure over *v*P or VP. This includes the classical analysis of de re indefinites scoping over the intensional operator (Quine 1956) for examples like (6), and specific indefinites taking intermediate or matrix scope (Abusch 1994).

It is clear from examples like (3) that Gayogoho:nǫˀ has a process of verb fronting that is distinct from the fronting of focused nominal constituents. Fronting may also include a larger verbal projection, as in (9), where the verb and temporal adverb onęh ‘now’ are fronted to left of [*neˀ gˀadréhdaˀ*] but under negation. We hypothesize that such sentences with postverbal *neˀ* are derived by first removing [*neˀ* NP] from the verbal projection, and thus the nuclear scope, and then fronting the verbal remnant, as in (8):

(8) Tę̨ˀ [onęh dˀe-g-ohái-ˀ $t_i]_{VP}$ [neˀ gˀadréhdaˀ]$_i$ t_{VP}
not now NEG-1SA-wash-PUNC NEˀ car

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Reduced pronouns in San Juan Atitán Mam

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In this research, I present a novel empirical pattern of reduced pronouns in San Juan Atitán (SJA) Mam and argue that these phi elements are in fact pronouns, not derived through agreement, occupying argument positions. I conclude that the pattern is best captured by a morphological impoverishment rule that deletes number features on pronouns only when they have been agreed with. That the derivational history of Agree in the syntax can be read off individual phi features in the morphology is predicted given that Agree operations can involve bidirectional feature exchange (Clem 2019) and that individual phi features can participate in Agree independently (Bejar & Rezac 2003).

Syntactic position of the person enclitic. Mam makes use of a set of ergative/genitive prefixes (Set A), a set of absolutive morphemes (Set B), and additionally an enclitic (or set of enclitics) for only a subset of person values, notably distinguishing 1PL exclusive from inclusive (shown in 1 & 2) and 2sg from 3sg (shown in 3 & 4). The enclitic attaches to verbs when referencing ergative/absolutive arguments and attaches to nouns when referencing possessors.

(1) Ma qo b'et=**i**.
PROX B1PL walk=**i**
'We (excl) walked.'

(2) Ma qo b'et.
PROX B1PL walk
'We (incl) walked.'

(3) Ma tz=ul=**i.**
PROX B2/3SG=arrive=**i**
'You arrived.'

(4) Ma tz=ul Cristina.
PROX B2/3SG=arrive Cristina.
'Cristina arrived.'

Since Mam is VSO, the position of the enclitic in (1) and (3) is ambiguous between a verbal agreement morpheme and a subject pronoun. I argue for the latter, given that the enclitic and lexical subjects are in complementary distribution, as well as evidence from word order facts from focus movement and reflexives. First, when lexical subjects are moved preverbally for focus, they are not pronounced in-situ, shown in (6). The same is true for the enclitic, shown in (5). This parallelism in structure is expected if the enclitic itself is a subject pronoun. If it is instead an agreement morpheme, this must be explained with extra machinery.

(5) [A=**i** $]_{\text{FOC}}$ ma tz=ul.
[DET=**i** $]_{\text{FOC}}$ PROX B2/3SG=arrive
'It was you who arrived.'

(6) [A **Cristina** $]_{\text{FOC}}$ ma tz=ul.
[DET **Cristina** $]_{\text{FOC}}$ PROX B2/3SG=arrive
'It was Cristina who arrived.'

Further evidence that this enclitic is in argument position comes from reflexive constructions, which require VOS and VO=**i** word orders. This is also straightforwardly explained if the enclitic is in subject position. One consequence of this analysis of the position of the enclitic is that some of the features of pronouns are expressed in *agreement* position (Set A/B) and some of the features of pronouns are expressed in *argument* position (the person enclitic). An analysis of their derivation requires looking closely at which features are expressed in each position.

Featural analysis of person morphemes. Within the agreement markers, Set A and Set B morphemes in Mam only distinguish first (1) from non-first person (2/3) and singular from plural. In other words, only first person [+/–Author] and number [+/–Singular] features are expressed in agreement positions. However, a much more complicated set of features are expressed in the position of the enclitic, which I argue is a reduced pronoun. To understand what constellation of features the person enclitic is expressing in SJA Mam, we must start with the basic enclitic pattern, found in a neighboring variety of Mam (Ixtahuacán Mam; England 1983). This basic pattern, shown in Table 1, involves a single enclitic [=a] which is used together with Set A/B marking for all local participants except 1PL inclusive. The predominate analysis of this pattern is that the enclitic is realizing the class of pronoun in which the first and second person features *disagree* in value (Noyer 1992, Despic & Murray 2018). All cells with the

Table 1: Person enclitic in Ixtahuacán Mam

1sg	a	1pl ex	a
		1pl in	
2sg	a	2pl	a
3sg		3pl	

Table 2: Person enclitic in SJA Mam

1sg	i	1pl ex	i
		1pl in	
2sg	i	2pl	**q**i
3sg		3pl	**qa**

enclitic represent either [+author, –participant] or [–author, +participant], whereas the cells without the enclitic are either [+author,+part] (1pl in) or [–author,–part] (3sg/pl) (adopting Harbour's 2016 person feature ontology). I adopt the notation from Harbour (2016): $[\alpha\text{Author}, \bar{\alpha}\text{Participant}]$ to capture disagreeing person features.

SJA Mam pattern (person + number). The pattern in SJA Mam is shown in Table 2. The paradigm contains the basic pattern in Table 1, with the vowel [i] in SJA Mam instead of [a] in IXT Mam. Importantly, the morphemes in Table 2 are those found in argument position and co-occur with the agreement morphemes (Set A/B). I adopt the $[\alpha\text{Author},\bar{\alpha}\text{Participant}]$ (disagreeing features) analysis discussed above for the [i] morpheme in SJA Mam. The paradigm in SJA Mam additionally includes the number morphemes **[q]** and **[qa]**, Featurally, **[qa]** for 3pl is the generic plural marker in the language and can combine with any countable noun, and is best analyzed as [–singular] without a context. I analyze **[q]** for 2pl as [–singular] in the context of [–Author,+Part] (second person). The presence of **[q]** and **[qa]** indicates that all phi-features (singular, author, participant) are present in this position.

Agree and Impoverishment. Unlike 2nd and 3rd plural, first person enclitics do not spell out number (see Table 2). I account for this with a morphological impoverishment rule in which [+/–singular] is deleted in the context of [+author]. However, this rule does not apply to Set A/B agreement morphemes, which express [author] and [sg] features together. Likewise, this rule doesn't apply to independent pronouns, which express the full range of person/number combinations. The impoverishment of [+/–singular] only occurs for pronouns in argument position *when the feature has been agreed with* – i.e. when Set A/B morphemes are created. I argue that by copying back [+/–singular] via Agree, a probe also gives its category feature as a diacritic to the [+/–singular] feature (e.g.- [+singular]$^{\mathbf{F}}$, where F indicates any functional head). As a result, the impoverishment rule only targets the deletion of [+/–singular]$^{\mathbf{F}}$ in the context of [+author], accounting for the reduced pronoun pattern in SJA Mam.

Consequences. This work contributes empirically by presenting a new pattern of person marking in Mam from SJA Mam, which I argue is best captured by an impoverishment rule deleting number features on first person arguments only when that number feature has been agreed with. To account for this, I argue that when an Agreement probe copies back a feature (e.g. - a phi feature) it additionally gives its category feature to the phi feature as a diacritic. This results in the ability for the morphological component of the grammar to target a feature *only* when it has been copied via Agree. This provides support for bidirectional feature copying (Pesetsky & Torrego 2007, Clem 2019), and extends it to apply to copying onto individual features. This is a prediction of the theory: if a probe on a functional head can give its category feature to a DP when the probe Agrees with the DP, then we predict that a probe specified to an individual feature can do the same. The data in SJA Mam support this prediction.

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In many Mayan languages, combinations of 3rd person subjects and objects are regulated by an animacy hierarchy (a pattern Aissen (1997) influentially tied to obviation in Algonquian). Based in part on original fieldwork on such effects in Chuj, an understudied language, we offer a new approach to these patterns framed in the interaction/satisfaction model of Agree (Deal 2015, to appear).

Animacy hierarchy effects in Mayan: In many Mayan languages (Tsotsil: Aissen 1997, 1999; Ch'ol: Zavala 2007; Tojolab'al: Curiel 2007; Q'anjob'al: Pascual 2007; Tseltal: Polian 2013; Cajolá Mam: Pérez Vail 2014), combinations of 3rd person subjects/objects are restricted by (1).

(1) In an active sentence with a 3rd person subject and a 3rd person object (henceforth: a 3-on-3 active), the subject must be at least as high as the object in terms of animacy.

In Chuj, for instance, 3-on-3 actives are well-formed if the subject is at least as high as the object on the hierarchy HUMAN>ANIMATE>INANIMATE, (2)-(3). If the object outranks the subject on this hierarchy, as in (4), the sentence is ungrammatical. To convey the intended meaning, consultants systematically offer a passive sentence, as in (5).

(2) ✓ Ixsmak' te' te' waj Xun.
hit CLF tree CLF Xun
'Xun hit the tree.'

(3) ✓ Ixsmak' te' pat te' te'.
hit CLF house CLF tree
'The tree struck the house.'

(4) * Ixsmak' waj Xun te' te'.
hit CLF Xun CLF tree
Int. 'The tree struck Xun.'

(5) ✓ Ixmak'**ji** waj Xun yuj te' te'.
hit.PASS CLF Xun by CLF tree
'The tree struck Xun.'

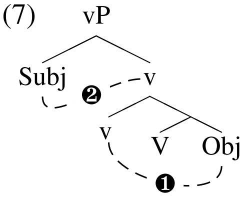
There are important points of variation within the family. **First**, the articulation of the animacy hierarchy can vary, from a two-way hierarchy in some languages (Tsotsil; ANIM>INAN), to a three-way hierarchy in others (Chuj; HUM>ANIM>INAN), up to a seven-way distinction, including local persons, in Cajolá Mam (Pérez Vail 2014). **Second**, only some Mayan languages also feature hierarchy effects in *passive* sentences, where the demoted oblique agent cannot outrank the subject (see Aissen 1997; Zavala 2007). For example, this is the case in Ch'ol (6-a), but not in Chuj (6-b):

(6) Literal translations of 'The tortilla was prepared by my aunt' in Ch'ol vs Chuj

a. * Tyi mejl-i waj [$_{\text{OBL}}$ tyi k-ña'jel].
PFV make+PASS-IV tortilla PREP A1-aunt (**Ch'ol**: Zavala 2007)

b. ✓ Ix-b'o'-j-i ixim wa'il [$_{\text{OBL}}$ yuj ix w-icham].
PFV-make-PASS-IV CLF tortilla by CLF A1S-aunt (**Chuj**; field notes)

Active syntax: Crucially, (1) encompasses both "low-abs" languages (like Ch'ol) and "high-abs" languages (like Chuj), which we take, following much previous work, to differ in the way that ABS case is assigned (Coon et al. 2014, Royer 2022). In low-abs languages, v_{ACT} Agrees with the object and assigns it ABS. In high-abs languages, the object raises over the subject and receives ABS from T/Infl. We follow Coon et al. (2021) in assuming that this raising is feature-driven; specifically, we assume that high-abs v_{ACT} probes the object and moves it to its Spec as a standard instance of intermediate A-movement (comparable to movement to the Spec of nonfinite T in English). A consequence is the cross-Mayan picture of Agree shown in (7): even when it does not assign ABS, v_{ACT} still agrees with <u>both</u> the object and the subject. We assume that object Agree happens first on grounds of cyclicity (Rezac 2003). In low-abs languages, step ❶ in (7) produces ABS morphemes; in high-abs languages, it produces object raising (where T/Infl then assigns ABS). Across Mayan, step ❷ always assigns ERG to the subject.

(7)


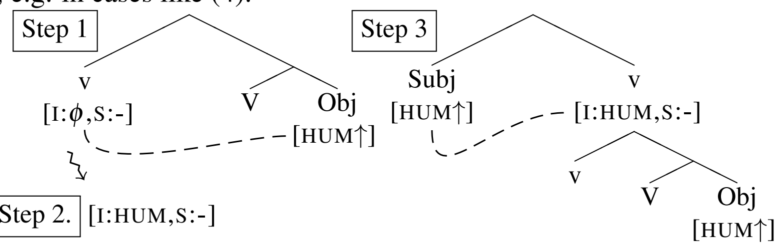
Capturing animacy restrictions in actives: Given (7), Mayan animacy restrictions fall under the larger umbrella of Agreement restrictions in a "one-probe-many-goals" context. Following Deal (to appear), Agree with a first goal (G1) can bleed Agree with a second goal (G2) in two ways: G1 either *satisfies* the probe, i.e.

causes it to halt, or else it *dynamically interacts* with it, i.e. it changes the probe to one that can no longer Agree with G2. We mark dynamic interaction features ↑. *Once a probe has Agreed with a goal with [F↑], it can only interact with (copy features from) other goals that also bear [F].* Thus, for instance, if G1 bears [ANIM↑], but G2 lacks [ANIM], the probe cannot Agree with G2.

To capture (1), we assume that the Mayan *v* ϕ-probe is insatiable ([INT:ϕ,SAT:-]) and that features such as [HUM] and [ANIM] may interact dynamically. For Chuj, we assume the feature representations of 3rd persons in (8). The derivation of a grammatical 3-on-3 active is shown in (9). First, the object interacts (Step 1). (Object = G1.) It bears [HUM↑], which changes the probe's interaction condition (Step 2). The probe then attempts to Agree with the subject (Step 3), and this is successful *only if the subject also has the feature* [HUM]. (Subject = G2.) If it lacks this feature, it cannot Agree and hence cannot receive (ergative) Case. This produces ungrammaticality, e.g. in cases like (4).

(8) 3INAN: [ϕ]
3ANIM: [ϕ,ANIM↑]
3HUM: [ϕ,HUM↑,ANIM↑]

(10) Local persons:
2P: [ϕ,PART,HUM,ANIM]
1P: [ϕ,PART,SPK,HUM,ANIM]

(9)


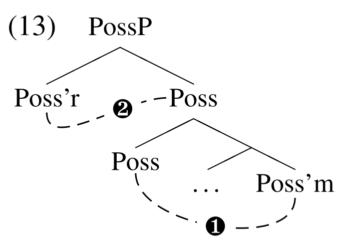
Variation in articulation of the animacy scale reflects which features interact dynamically. The three-way pattern in Chuj, for third persons only, arises with both [ANIM↑] and [HUM↑] dynamic, only on third persons. (See local person representations in (10.)) The Tsotsil two-way pattern is similar but lacks ↑ on [HUM]. The most articulated system, Cajolá Mam, uses not only [ANIM↑], [HUM↑], and additional dynamic features distinguishing e.g. adults, but also [PART↑] (also posited by Deal to appear), resulting in local persons outranking all 3rd persons. In this way, fine-grained lexical variation gives rise to different hierarchies.

Variation in passives: Since dynamic interaction features are borne on DPs, we expect the hierarchy effect to emerge *whenever one probe Agrees with multiple goals*. Mayan passives are intransitive, with ABS assigned to the subject by T/Infl. The syntax of by-phrase obliques varies across the family: Royer (2022) shows, based on binding and word order, that obliques in Chuj are merged higher than in Ch'ol. This suggests that oblique DPs fall within the search domain of the ABS probe in Ch'ol, (11), but not in Chuj, (12). Assuming the Infl probe in Ch'ol is [INT:ϕ,SAT:-] (like *v*), the hierarchy effect in Ch'ol passives follows as in (9). Now G1 is the OBL by-phrase and G2 is the ABS subject. There is no hierarchy in Chuj passives, (12), because only one goal Agrees; the oblique is too high for the probe to access it.

(11) Ch'ol: [Infl OBL Subj]
❶ ❷

(12) Chuj: [OBL] [Infl Subj]
❶

Extension to possessives: Mayan hierarchy effects also extend to possessives: the possessum cannot outrank the possessor. This is immediately captured if the possessive probe (Poss) must Agree with both the possessum (G1) and the possessor (G2), (13), Agree working as above. (Across Mayan, possessors follow possessa and Agree like ergatives. We assume ❶ in (13) drives possessum fronting, which is parallel to vP syntax in high-abs languages; ❷ produces possessive agreement.) Aissen (1997) relates this and (1) to a ban on coreference between subject possessors and objects (e.g. **Xun*$_1$*'s son helped him*$_1$), invoking obviation. We conclude with an extension to this data. Following Aissen, we assume that (i) in a 3-on-3, one argument must be [PROX], and (ii) co-referring expressions must match wrt the feature [PROX]. To this we add (iii) that [PROX] satisfies the *v* and Poss probes (i.e. they are actually [I:ϕ,S:PROX], revising the theory above for *v*). Given (iii), neither objects nor possessa can bear [PROX]; [PROX] on these G1s would bleed Agree with the respective G2s (subjects and possessors). Thus the equivalent of **Xun*$_1$*'s son helped him*$_1$ is underivable in Chuj and other Mayan languages: the object and the possessum subject cannot bear [PROX] by (iii), and *Xun* cannot bear [PROX] if the coreferential pronoun does not, by (ii). All remaining derivations violate (i).

(13)


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Feature Gluttony in the Guaraní inverse

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Background: Paraguayan Guaraní exhibits an inverse/direct pattern of agreement: the verb consistently agrees with whichever argument ranks higher on the Person Hierarchy (PH, 1>2>3). For example, if the subject is a 1st person and the object 3rd person, the verb will agree with the subejct (1a). Meanwhile if the object is 1st person the verb will agree with the 1st person object not the 3rd person subject (1b).

(1) a. che **ai**-pỹtỹvõ Tamara-pe
1.SUBJ **1.SUBJ**-help Tamara-DOM
'I helped Tamara.'

b. Tamara **che**-pỹtỹvõ (chéve)
Tamara **1.OBJ**-help me
'Tamara helped me.'

The inverse is required in monotransitives and failure to agree with the correct argument results in unacceptability (2a). 3rd person subject agreement is only possible if the object is 3rd person as well (2b).

(2) a. *Tamara **o**-pỹtỹvõ chéve
Tamara **3.SUBJ**-help me
Intended: 'Tamara helped me.'

b. Tamara **o**-pỹtỹõ Arturo-pe
Tamara **3.SUBJ**-help Arturo-DOM
'Tamara helped Arturo.'

In monotransitives, the direct/inverse never shows optionality. However, in ditransitives the appearance of the inevrse is optional (fieldwork data from Coronel Oviedo, Paraguay).

(3) a. ha'e **nde**-vendé chéve (ndéve)
3 **2.OBJ**-sell to.me to.you
'He sold you to me' 3>1>2: inverse

b. ha'e **o**-vendé chéve ndéve
3 **3.SUBJ**-sell to.me to.you
'He sold you to me' 3>1>2: direct

c. ha'e **che**-mẽ'ẽ arturo-pe (chéve)
3 **1.OBJ**-give arturo-DOM to.me
'S/he gave me to Arturo' 3>3>1: inverse

d. ha'e **o**-mẽ'ẽ arturo-pe chéve
3 **3.SUBJ**-give arturo-DOM to.me
'S/he gave me to Arturo' 3>3>1: direct

In (3a) the verb agrees with the 2nd person direct object (DO), but in (3b), it agrees with the 3rd person subject. The same holds for (3c) and (3d) with a 1st person object and 2nd person subject. Importantly, the indirect object (IO) is not considered for the inverse.

(4) a. Laure o-vendé chéve Isa-pe
Laure 3.SUBJ-sell to.me Isa-DOM
'Laure sold Isa to me.'

b. *Laure che-vendé Isa-pe
Laure 1.OBJ-sell Isa-DOM
Intended: 'Laure sold Isa to me.'

The optionality of the inverse in ditransitives is rather interesting from the perspective of common analyses of PH effects which involve interface constraints (Zubizarreta and Pancheva 2017, Z&P) or nominal licensing (NL) (Bejar and Rezac 2003, 2009). Interface constraint accounts propose a constraint on phases which requires movement of Participant DPs to their edge (Zubizarreta and Pancheva 2017). This movement in turn gives rise to the inverse. Such an account faces the challenge of explaining why interface-driven movement is required in monotransitives but not in ditransitives. Under NL accounts, certain DPs have features that require licensing through agreement which, left unlicensed, crash the derivation. The ditransitive data in (3) demonstrate that 1st and 2nd person features do not need licensing via agreement and therefore the obligatory inverse in (1) and (2) cannot be the result of the object's licensing needs.

Claim: The inverse agreement pattern, in which the verb agrees with the object instead of the subject, is the result of two things: i) a less-specified DP c-commanding a more-speicified DP and ii) a Gluttonous Probe that has interacted with both DPs (Coon and Keine 2021, Coon et al. 2021). Conversely, a structure in which a more-specified DP c-commands a less-specified DP will give rise to the "direct" pattern. The curious pattern of optional inverse agreement in ditransitives receives a similar explanation with the additional claim that ApplP is a phase and that Guaraní has optional object shift in distransitives.

Analysis: Feature Gluttony is a system of agreement in which Probes are composed of multiple segments. More specifically in Guaraní, Probes are articulated and contain the structural composition in (5).

Each segment on the Probe agrees with the closest DP that bears a matching segment and the Probe copies the entire feature set of the DP. A "Gluttonous" configuration is one in which the Probe does not have all of its segments valued by a single DP, but rather by multiple. This occurs if two segments of the Probe agree with two different DPs. As an example, consider (1b) where a 3rd person subject (which only bears a π feature) c-commands the 1st person object (which bears π, PART(icipant), and Speaker(SPKR)). The Probe's π feature is valued by the subject, but the PART and SPKR features are valued by the object. This results in the Probe carrying a set of set of features: $\{\{\pi\}, \{\pi, \text{PART, SPKR}\}\}$ which will be morphologically realized as the 1st person inverse marker *che*.

(5) $\left[\begin{array}{c} \pi \\ | \\ \text{Part} \\ | \\ \text{Spkr} \end{array}\right]$

(6) $[_{\text{XP}}\ \text{X}_{[u\pi[u\text{PART}[u\text{SPKR}]]]}\ [_{v\text{P}}\ \text{DP}_{[\pi]}\ [_{\text{VP}}\ \text{V}\ \ \text{DP}_{[\pi,\ \text{PART, SPKR}]}\ ]]] \Rightarrow \text{X: } \{\{\pi\}, \{\pi, \text{PART, SPKR}\}\} \Rightarrow$ *che*

In (1a) where a 1st person subject c-commands a 3rd person object, the Probe only agrees with the subject, resulting in a Probe with just a set of features from a single DP: $\{\pi, \text{PART, SPKR}\}$ which will be realized as the 1st person direct marker *a*.

(7) $[_{\text{XP}}\ \text{X}_{[u\pi[u\text{PART}[u\text{SPKR}]]]}\ [_{v\text{P}}\ \text{DP}_{[\pi,\ \text{PART, SPKR}]}\ [_{\text{VP}}\ \text{V}\ \ \text{DP}_{[\pi]}\ ]]] \quad \Rightarrow \text{X: } \{\pi, \text{PART, SPKR}\} \Rightarrow$ *a*

While in both (6) and (7) the Probe agrees with a 1st person, they are morphologically distinct. This is the result of Gluttony: in (6) the Probe agreed with two DPs while in (7) the Probe only agreed with one.

ApplP is a phase: To account for this optionality I propose that in Guaraní, ApplP is a phase and there are syntactic agreement consequences of its phasehood (McGinnis 2001, Pylkkänen 2002, Citko 2014). When the Probe in Guaraní searches its domain, it cannot see past the Appl phase head and thus DOs in distransitives are not visible to the Probe. Consider (8) as a representation of (3d): a 3>3>1 configuration. The Probe only agrees with the 3rd person subject, spelling out as the 3rd person subject marker *o*. Because Appl is a phase, the DO is not visible to the Probe and therefore does not give rise to gluttony.

(8) $[_{\text{XP}}\ \text{X}_{[u\pi[u\text{PART}[u\text{SPKR}]]]}[_{v\text{P}}\ \text{DP}_{[\pi]}\ [_{\text{ApplP}}\ \text{IO}_{[\pi]}\ \text{Appl}\ \Big(\ [_{\text{VP}}\ \text{V}\ \text{DO}_{[\pi,\ \text{PART, SPKR}]}\ ]]]] \Rightarrow \text{X:}\{\pi\} \Rightarrow$ *o*

In Guaraní there is optional object shift: if the DO moves over the IO, it may give rise to Gluttony because the DO becomes visible to the Probe. In (3c), a 3>3>1 confufguration, the different structure in (9) gives rise to *inverse* morphology because the Probe agrees both with the 3rd person subject and the 1st person DO resulting in a gluttonous Probe and inverse morphology. Following Coon and Keine (2021), IOs bear only a dummy π feature and thus cannot result in Gluttony as the Probe always agrees with the subject first which will always also have a π feature.

(9) $[_{\text{XP}}\ \text{X}_{[u\pi[u\text{PART}[u\text{SPKR}]]]}[_{v\text{P}}\ \text{DP}_{[\pi]}\ [_{\text{ApplP}}\ \text{DO}_{[\pi,\ \text{PART, SPKR}]}\ \text{IO}_{[\pi]}\ \text{Appl}\ \Big(\ [_{\text{VP}}\ \text{V}\ \cancel{\text{DO}}\ ]]]] \Rightarrow \text{X:}\{\{\pi\}, \{\pi, \text{PART, SPKR}\}\} \Rightarrow$ *che*

Implications: The inverse agreement pattern in Guaraní is the result of a single Probe agreeing with more than one DP in its search space which happens only if a more-specified DP is c-commanded by a less-specified DP and when there is no phase boundary between the Probe and the lowest DP. The reason that the inverse is optional in ditransitves but not in monotransitives is because ditransitives contain an ApplP which monotransitives do not. Nominal licensing plays no role in the current analysis and therefore this analysis avoids many of the critical problems that those analyses face with the ditransitive data. Finally, while Gluttony was originally proposed to explain the Person Case Constraint (PCC), the inverse/direct pattern of agreement in Guaraní receives and elegant explanation using the same tools involved in the PCC.

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Kiowa, an endangered Kiowa-Tanoan language of Oklahoma, presents three distinct surface tones, high, falling, and low, as illustrated by the minimal triples in (1):

(1)	*án* 3sgG.3plO	*hɔ́ː* 'get.imp'	*ę́ː* 'here'
	ân 'awaken.imp'	*hɔ̂ː* 'go get.imp'	*ę̂ː* 3duA.1sgG.3sgO
	àn hab	*hɔ̀ː* 'yes'	*ę̀ː* 'when.same'

Little is known of tone in Tanoan, but its grammatical role in Kiowa is uncharacteristically complex for an indigenous language of the US. For example, it derives interrogatives from indefinites (2-left), has a complex distribution across the principal parts of the verb (see falling tones in (2-right)), and encodes argument information in agreement prefixes, both via minimal triples in the prefix itself (3-left) or via high/low alternations (underlined) on the subsequent verb (3-right):

(2)	*háːtêl*	*hɔ́ndé*	*hágʸá*
	someone	something	somewhere
	hâːtêl	*hɔ̂ndé*	*hâːgʸá*
	who.q	what.q	where.q

neg	pf.mod	pf.imp	impf.imp	
ą́ː-mɔ̂ː	*ą́ː-t'ɔ́ː*	*ą́ː*	*ą́ː-yîː*	'come'
héːb-ɔ̂ː	*héːbé-tɔ̀ː*	*héːbé*	*hêːb-ìː*	'bring in'
ǫ́ː-mɔ̂ː	*ǫ́ː-tɔ̀ː*	*ǫ̂ː*	*ǫ̂ː-yìː*	'give'
sóː-yɔ̂ː	*sôː-t'ɔ̀ː*	*sôː*	*sôː-yìː*	'descend'

(3)	*gʸà*	*à*
	1sgA.3sgO	1sgS
	gʸá	*á*
	1sgA.2sgG.3sgO	3sgG.3sgO
	gʸâː	*âː*
	3empA.1sgG.3plO	3empA.1sgG.3sgO

gʸá-bǫ́ːtɔ́ː	*mén-gúːgûː*
1sgA.2sgG.3sgO-see.mod	2duA.3duO-hit.neg
gʸá-bǫ̀ːtɔ̀ː	*mén-gùːgùː*
3empA.3plO-see.mod	2duA.3invO-hit.neg

This paper presents a high-level, theory-neutral account of Kiowa tone grammar. First, I present the processes that account for the tone contours of the vast bulk of phonological words of the language, positing two underlying tone markers and two processes of tone assignment. Second, I account for systematic exceptions via operations on underlying markers triggered in specific contexts.

The correspondence between lexical items and their surface tones is not one-to-one. In isolation *áː* 'trees', *éː* 'seeds', and *íː* 'child' are all high. However, compounded with *hę́ː* 'without', three contours emerge (HL, HH, LH) (4-left). A minimal triple is given in (4-right):

(4)	*áː-hę̀ː*	*éː-hę́ː*	*ìː-hę́ː*	*kʰɔ́ː-hę̀ː*	*kʰɔ́ː-hę́ː*	*kʰɔ̀ː-hę́ː*
	treeless	seedless	childless	shoulderless	blanketless	trouserless

The rightward lowering in 'treeless' affects all tones that follow it. In (5-left), all-high *kʰóp-dɔ́ː-t'ɔ́ː* 'will have ache' becomes all low following *ɔ́lthǫ́* 'head'. Moreover, lowering can start midword (5-right).

(5)	*ɔ́ltʰǫ́-kʰòp-dɔ̀ː-t'ɔ̀ː*	*kʰóp-ɔ́mdá-dɔ̀ː-t'ɔ̀ː*	*zǫ́ː-kʰóp-ɔ́mdé-t'ɔ̀ː*
	head-ill-be-mod	ill-make.detr.nv-be-mod	tooth-ill-make.detr-mod
	'apparently have headache'	'will suffer illness'	'will have toothache'

By contrast, the lowering involved in 'childless' affects only specific lexical items and only when they are at the left edge of polysyllables: *íː* 'child' does not lower in *póː-íː-(hę́ː)* '(without) beaver kit'.

To capture these effects, I propose that the stored representation of Kiowa lexemes includes two autosegmental markers, notated ⌜ and ⌝. (One can think of these as floating tones with specific association rules, or as metrical grid brackets, or as devices from other theories.) High tone is assigned from the leftmost left mark ⌜ to the leftmost right mark ⌝ (highlighted by overlining below); low is assigned elsewhere. (For legibility, ⌜ is placed at the start of the syllable, but onsets are irrelevant to tone.)

(6) UR: *⌜kʰop-⌜dɔː-⌜t’ɔː* *⌜kʰop-⌜ɔmda⌝-⌜dɔː-⌜t’ɔː* *⌜ɔltʰǫ⌝-⌜kʰop-⌜ɔmda⌝-⌜dɔː-⌜t’ɔː* *ɔnso-⌜kʰop-⌜dɔː*
SR: *kʰóp-dɔ́ː-t’ɔ́ː* *kʰóp-ɔ́mdá-dɔ̀ː-t’ɔ̀ː* *ɔ́ltʰǫ́-kʰòp-ɔ̀mdà-dɔ̀ː-t’ɔ̀ː* *ɔ̀nsò-⌜kʰop-⌜dɔː*

Lexemes without underlying markers receive default ⌜ before the last (rightmost) syllable:

(7) UR: *iː* *mɔːsɔ* *mɔːsɔ-iː* *mɔːsɔ-iː-hęː*
Edge: *⌜iː* *mɔː⌜sɔ* *mɔːsɔ-⌜iː* *mɔːsɔ-iː-⌜hęː*
SR: *íː* *mɔ̀ːsɔ́* *mɔ̀ːsɔ̀-íː* *mɔ̀ːsɔ̀-ìː-hę́ː* [crow-child-PRIV]

This set up immediately derives high tone spreading from “nonlowering highs” (⌜*x*) to lexemes like (7). (8) shows that *tʰǫ́ː* ‘water’ is a nonlowering high (it does not lower *hęː* ‘without’) and that it spreads high tone onto the underlying lows of (7). (Right edge marking omitted, as it is redundant.)

(8) UR: *⌜tʰǫː-⌜hęː* *⌜tʰǫː-mɔːsɔ* *⌜tʰǫː-mɔːsɔ-iː* *⌜tʰǫː-mɔːsɔ-iː-hęː*
SR: *tʰǫ́ː-hę́ː* *tʰǫ́ː-mɔ́ːsɔ́* *tʰǫ́ː-mɔ́ːsɔ́-íː* *tʰǫ́ː-mɔ́ːsɔ́-íː-hę́ː* [‘without cormorant young’]

The set up also yields a representation of falling tone—as a rhyme-internal ⌝—that correctly derives that falling has the same rightward effect as tone-lowerers like *áː* ‘trees’. Whereas *k’ɔ́ː* ‘bank’ (nonlowering high) leaves *dɔ́ːt’ɔ́ː* ‘will be’ high, *k’ɔ́ː* ‘cold’ (tone lowerer) and *k’ɔ̂ː* ‘cut’ both lower it:

(9) UR: *⌜k’ɔː-⌜dɔː-⌜t’ɔː* *⌜k’ɔː⌝-⌜dɔː-⌜t’ɔː* *⌜k’ɔ⌝ː-⌜dɔː-⌜t’ɔː*
SR: *k’ɔ́ː-dɔ́ː-t’ɔ́ː* *k’ɔ́ː-dɔ̀ː-t’ɔ̀ː* *k’ɔ̂ː-dɔ̀ː-t’ɔ̀ː*

The processes above account for the vast bulk of Kiowa words. However, exceptions are numerous —yet systematic. First, there must be a further underlying marker. Everything given so far ensures that words maximally have one peak (stretch of high tones). But (3-left) shows that interrogatives can have two. Repeat peaks are most frequent in synchronically undecomposable animal names. For current purposes, I posit ⌟, which ends a peak but, unlike ⌝, does not bring the rightwards search for other ⌜’s to a halt. Possibly reflecting diachrony, these marks are only ever lexeme internal.

(10) UR: *⌜hɔn⌜de* *⌜hɔ⌟n⌜de* *em⌜ha⌟ː⌜me⌝* *em⌜ha⌟ː⌜me⌝-⌜kʰǫːgʸa*
SR: *hɔ́ndé* *hɔ̂ndé* [something.Q] *èmhâːmé* *èmhâːmé-kʰǫ̀ːgʸà* [ant-black]

Other exceptions are modelled via deletion of ⌜ and ⌝. For instance, *pén* is a tone-lowerer (e.g., *pén-tɔ̀ː* ‘butcher-MOD’) but the imperfective evidential (amongst other morphemes) resists lowering (*pén-êː* > *pę́ːnêː*, not **pę́ːnèː*). The process can be modelled by deletion of ⌝ preceding IMPF.EVID: ⌜*pen*⌝ ↦ ⌜*pen*. This resistance does not apply falling tone (e.g., *hâː-yîː* > *hâːyìː* ‘raise-IMPF.EVID’). Negation is more resistant, though, triggering ⌜-deletion not only at the right edge, but anywhere in the preceding syllable (e.g., ⌜*ha*⌝*ː* ↦ ⌜*haː*), resulting in falling tones becoming high (e.g., *hâː-gûː* > *háːgûː*, not **hâːgùː*). A case of ⌜-deletion arises in a specific syntagmatic (rather than morphophonological) configuration: a nonlowering high is lowered when it is the middle of three syllables, the first of which is low. E.g., *ɔ́m* ‘make’ is a nonlowering high (⌜*ɔ́m-*⌜*k’íː* ‘maker’) and *tóː* ‘house’ is underlyingly low (*tòː-*⌜*hę́ː* ‘houseless’). Yet ‘housebuilder’ is not **tòː-ɔ́m-k’íː* (L⌜H⌜H), but *tòː-ɔ̀m-k’íː* (LL⌜H) with the ⌜ of *ɔm* deleted.

These examples illustrate the fascinating intricacy of Kiowa tone grammar. The full paper will also show how falling tone is distributed amongst principle parts of the verb (suggesting that ⌝ can metathesise with the final mora of the root), that tone assignment can precede suffixation or the reverse (suggesting existence of affix levels in Kiowa), and that root tone sometimes spreads onto affixes only under rather extraordinary conditions (e.g., only if the root ends and the affix begins with *k*, *p*, or *t*; hence, *k’óp-kʸá* ‘mountain-LOC’ spreads high onto *kʸa*, but *ɔ́l-kʸà* ‘hair-LOC’ does not).

Tonal upstep and downstep in San Juan Piñas Mixtec (Tò'ōn Ndā'ví)

Claudia Duarte-Bórquez, Claudia Juárez Chávez & Gabriela Caballero

Introduction. While downstep, a phenomenon where a contrastive lowering in pitch resets the register of following tones, is a widely attested phenomenon in tonal systems, tonal upstep is unusual typologically (Snider 1990). Both phenomena raise questions concerning the phonological representation of register effects, with analytical alternatives ranging from phonetic pitch-implementation rules, to floating tones, to inclusion of a separate register tier (Snider 1988, Truckenbrodt 2002, Paster & Kim 2011). Drawing on original data, in this talk we make an empirical contribution by providing the first detailed description of register effects in the tone system of San Juan Piñas Mixtec (Tò'ōn Ndā'ví; henceforth SJPM), a previously undocumented Oto-Manguean language spoken in Oaxaca and diaspora communities in Mexico and the US. SJPM provides a particularly interesting case for the typological, theoretical and areal understanding of tone systems given that its exhibits several rare properties: (i) it possesses a contrast between underlyingly specified M-toned tone-bearing units (TBUs) and underlyingly toneless /Ø/ TBUs; (ii) it exhibits upstep; and (iii) it features downstep in lexically-conditioned tone sandhi contexts that interacts with upstep. We provide an analysis of the lexical tonal system of SJPM based on Register Tier Theory (RTT) (Snider 1999), and argue that the tonal system of SJPM is best described with three underlying tonal primitives (H, L and M tones) and register features independent of tone. We compare this analysis with an alternative deriving register effects from tonal interactions.

Preliminaries. We posit the TBU in SJPM is the mora and that the minimal word/root template is bimoraic. Following the analysis of other Mixtec varieties (Ixpantepec Nieves (Carroll 2015), Ixtayutla (Penner 2019) and Alcozauca (Uchihara & Mendoza 2021)), we argue the bimoraic root template in SJPM equals a metrical foot, the domain of various phonological processes and static phonological constraints. We propose a lexical tonal inventory that includes three level specified tones (/H, M, L/), which may either surface as level tones [H, M, L] or as rising tones [LM, LH] depending on the association patterns of these tones. Other surface tonal patterns include grammatically derived contour tones, downstep, and upstep. SJPM exhibits a greater tonal density than other Mixtec varieties, with 16 lexical tone patterns in bimoraic, monomorphemic roots (whether monosyllabic or disyllabic); several representative examples are provided in (1). (In this abstract, H = ^{5}, M = ^{3}, L = ^{1}.)

(1)	a. H	ĩ^{5}ĩ^5	'hail'	d. M.H	ĩ^{3}ĩ^5	'peel'	g. LM.M	ti^{13}na^3	'dog'
	b. M	ĩ^{3}ĩ^3	'one'	e. M.LH	ĩ^{3}ĩ^{15}	'skin'	h. LM.H	ʃa^{13}ni^5	'dream'
	c. L	ĩ^{1}ĩ^1	'nine'	f. H.M	ʃi^{5}ka^3	'far'	i. H.L	^{n}di^{5}ka^1	'wide'

Metrical feet are aligned at the right edge of the prosodic word (PrWd), a constituent that may contain additional moras preceding the foot. Pronominal enclitics may adjoin to the prosodic word (PrWd$_1$), forming a recursive prosodic word (PrWd$_2$), [ki^3(ko^{1}to^1)$_{Ft}$]$_{PrWd1}$=ɲa^5]$_{PrWd2}$ 'She will visit.'

Lexically-conditioned tone sandhi. Mixtec tone systems display significant diversity and complexity, featuring elaborate tone sandhi phenomena (Pike 1944, Josserand 1983). In SJPM, some morphemes bear floating H and L tones that trigger sandhi. For instance, consider the tone patterns of M-toned roots with floating L: while not detectable in isolation, a L tone may surface on its sponsor morpheme (2a) or a following TBU (3a) when followed by an enclitic or another word. This is an instance of *lexically-conditioned tone sandhi*: presence or absence of a floating tone is not otherwise predictable.

(2) **Base**			**Sandhi context 1**			**Sandhi context 2**		
a. /M^L/	i^{3}ta^3	'flower'	M.**ML**=H	i^3**ta^{31}**=^{n}do^5	'your flower'	M.**ML** H.M	i^3**ta^{31}** ka^{5}ʔno^3	'big flower'
b. /M/	le^{3}so^3	'rabbit'	M.M=H	le^{3}so^3=^{n}do^5	'your rabbit'	M.M H.M	le^{3}so^3 ka^{5}ʔno^3	'big rabbit'

(3) **Base**					
a. /M^L/	i^{3}ta^3	'flower'	M.M=**L**	i^{3}ta^3=r**a^1**	'his flower'
b. /M/	le^{3}so^3	'rabbit'	M.M=M	le^{3}so^3=ra^3	'his rabbit'

We argue that tonal processes attested in the stem-enclitic domain (including, but not limited to, floating L tone association) provide arguments for tonal (under)specification in SJPM, showing an asymmetry between specified (=*^{n}do^5* '2pl', =*va^3* 'emphatic') and unspecified (=*ra* '3sg+m') enclitics in terms of their behavior in different sandhi contexts, (2a) vs. (2b). In the absence of a floating tone docking, we propose that underlyingly toneless TBUs are realized as [M] through a process of default M-tone insertion.

Register effects. Floating L tone may also condition downstep, e.g., M-toned stems with and without L floating tones, indistinguishable in isolation, are distinguished when attaching M-toned enclitics: floating L conditions that the enclitic M tone is realized at a lower pitch level than the stem M tone, (4b-c).

(4) a. /M/	le^{3}so^3	'rabbit'	/M=M/	[M.M=**M**]	le^{3}so^3=**va^3**	'rabbit!'
b. /M^L/	i^{3}ta^3	'flower'	/M^L=M/	[M.M=$^\downarrow$**M**]	i^{3h}ta^3=va$^{\downarrow 2}$	'flower!'
c. /M^L/	ɲa^{3}ʔmi^3	'sweet potato'	/M^L=M/	[M.M=$^\downarrow$**M**]	ɲa^{3}ʔmi^3=va$^{\downarrow 2}$	'sweet potato!'

SJPM also exhibits upstep: an extra-high tone surfaces in limited phonological contexts, namely after H tones. While its distribution is phonologically predictable, extra-high tones result in phonemically contrastive melodies, (5a) vs. (5b) and (5c) vs. (5d).

(5) a. [H.H]	ĩ^{5}ĩ^5	'hail'	b. [H.$^\uparrow$H]	le^{5}e$^{\uparrow 6}$	'baby'
c. [H.H]	ɲo^{5}tʃi^5	'beautiful'	d. [H.$^\uparrow$H]	ti^{5}ku$^{\uparrow 6}$	'needle'

As in most other languages with upstep (e.g., Krachi (Guang; Ghana)) (Snider 1990), instances of upstep in SJPM are immediately followed by a lowering of the register (downstep in the case of SJPM), (6).

(6) a. [H.$^\uparrow$H=$^\downarrow$H] le^{5}e$^{\uparrow 6}$=ɲa$^{\downarrow 4}$ 'her baby' b. [H.$^\uparrow$H=$^\downarrow$H] ti^{5}ku$^{\uparrow 6}$=ɲa$^{\downarrow 4}$ 'her needle'

Upstep in SJPM is also attested as the result of alternations: present tense is encoded by a grammatical floating H tone that docks to the first TBU of the morpheme within its (syntactic) scope, overwriting the lexical tone of that TBU (7). In the case of morphemes bearing a floating L tone, there is rightward spreading of H tone after the grammatical H tone docks, yielding the context for upstep, (7c).

(7) a. /L/	kã^{1}ʔã^1	'speak'	[**H**.L]	k**ã^5**ʔã^1	'speaking'
b. /M/	ndi^{3}ko^3	'grind'	[**H**.M]	nd**i^5**ko^3	'grinding'
c. /M^L/	ka^{3}ki^3	'put'	[**H**.$^\uparrow$H]	k**a^5**ki$^{\uparrow 6}$	'putting'

Finally, while upstep appears to be restricted to the prosodic word, evidence that downstep is unbounded comes from the fact that all following tones in the utterance are realized within a lower register, (8).

(8)	[ti^5	le^{3}so^3	ʃi^{5}n**i**$^{\uparrow 6}$=ti^4	ti^4	sa^{2}a^2]
	/ti^H	le^{M}so^M	ʃi^{H}ni^{M+L}=ti^H	ti^H	sa^{M}a^M/
	CL.3SG.ZOO	rabbit	see.PRS=3SG.ZOO	CL.3SG.ZOO	bird
	'The rabbit sees the bird'				

Analysis. Register Tier Theory (RTT) (Snider 1999, 2020) elaborates on Autosegmental Phonology by decomposing tone into two main tiers: a tonal tier (H, L), and a register tier (h, l). Register features encode that an associated TBU(s) be realized within a pitch register higher (h) or lower (l) than the preceding register setting. We propose that the SJPM tone system can be analyzed with five feature values: three tones (H, L and M) and that upstep and downstep result from two additional phonological primitives, a *h* and *l* register features. H, L and M morphemes are specified for the tonal features H, L and M, respectively, and toneless morphemes are underspecified for tone. We analyze SJPM morphemes triggering lexically-conditioned downstep as bearing a floating L tone with an associated *l* register feature. In order to account for upstep, we adopt Snider's (1988) analysis of Acatlán Mixtec, where upstep is attested when there are sequences of two TBU's, each of which is associated with separate, though identical H tones and identical *h* features, in both underlying and derived contexts. Upstep results from the second *h* register feature indicating that the register is changed to the next register higher. In contrast to Acatlán, this configuration in SJPM is only attested when the two *h*'s precede a *l* in the register tier, which we attribute to a post-lexical rule inserting a *h* register feature before a *l*. No upstep is attested in other contexts with sequences of H tones. There is no need to posit a fourth phonemic tone in SJPM.

Conclusion. The SJPM case is relevant for our understanding of the Mixtec tonal landscape: while tonal upstep is attested in other varieties of Mixtec (Acatlán (Pike & Wistrand 1947, Snider 1988), Peñoles (Daly & Hyman 2007)), upstep in these varieties is unbounded and not accompanied by downstep, in contrast to tonal upstep in SJPM. This talk concludes by discussing the implications of the description and analysis of tone in SJPM to the development of resources for language reclamation.

Headless relative clauses in Mam

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This paper provides an investigation of the morphosyntax and semantics of headless relative clauses (HRCs) in Mam (ISO: mam, Mayan; Todos Santos dialect), a VSO, ergative language of Guatemala, based on novel fieldwork. HRCs are defined as embedded clauses which contain a gap, lack an external nominal head, and share a distribution and interpretation with nominal phrases (DPs) or adpositional phrases (PPs) (Caponigro 2020, and references therein). The example in (1) shows a HRC introduced by a *wh*-expression (free relative); here *al* 'who' functions as an argument of the matrix predicate 'see'.

(1)	Ø-Ø-Ok	n-che'ya	[**al** e-Ø-tz	laq'oo-n	____t-e	k'um].
	com-b2/3s-dir	a1s-see.ds	[**who** com-b2/3s-dir	buy-ap	____a3s-prep	güicoy]

'I saw **who** bought the güicoy.'

The literature on relative clauses identifies three subtypes of free relatives (FR), those HRCs introduced by a *wh*-expression: "maximal", "existential", and "free-choice" (Caponigro 2020), all of which are attested in Mam. One that is maximal satisfies the properties of **definiteness**: it can be replaced and paraphrased by a definite DP or by a PP with a definite DP as its complement; **referentiality**: it refers to an individual; and **maximality**: it refers to the largest ('maximal') individual of a set of individuals. (1) above is an example of a maximal free relative in Mam. The typologically rarer existential free relative expresses **existential meaning**: it can be replaced/paraphrased by an existentially quantified nominal expression, and may be introduced by an **existential predicate**. For instance, in Mam, existential HRCs can follow the existential predicate *at* 'exist' (2).

(2)	At	[**ja**	k-'w-el=ix	n-muq'u-'n n-chmaan=a	___].
	exist	[where	b2/3s-dir-pot=dir	a1s-bury-ds a1s-grandfather=lp	___]

'There is a place I will bury my grandfather.' lit. 'There is **where** I will bury my grandfather.'

The final type of FR are free-choice free relatives, which have a **free-choice inference**: A sentence containing a free choice HRC obligatorily triggers an inference of ignorance or indifference, and contain a **free-choice marker**. The free-choice marker in Mam *=xa* encliticizes to the *wh*-expression introducing the relative clause (3).

(3)	K-xe'-l	w-oon=a	[**al=xa**	tz-uul	____t-i'j].
	b2/3s-dir-pot	a1s-help=lp	[**who=fc**	b3s-arrive.here	____a3s-prep]

'I will help **whoever** comes'

We outline the morphosyntax of *wh*-interrogatives, headed relative clauses, and headless relatives in Mam, focusing on the availability of *wh*-expressions to appear in these interrogative and non-interrogative contexts, and show that the the formation of FRs is especially permissive in Mam, allowing the full set of *wh*-expressions to appear in maximal FRs, with a near-complete set appearing in the remaining two kinds ('when' existential and free-choice FRs are characterized by the presence of a complementizer distinct from the interrogative *wh*-expression). We also show that all three constructions share the same extraction morphology and exhibit an ergative extraction restriction prohibiting the *wh*-movement or relativization of a transitive subject (ameliorated by antipassive morphology).

A summary table showing the distribution of *wh*-expressions across the aforementioned constructions in Mam is presented in Table 1.

Table 1: Distribution of *wh*-words across constructions in Mam

	who	what	when	where	how	why	what/ which NP	how much/ how many
Headed RCs	√	√	√	√	√	√	√	√
Maximal	√	√	√	√	√	√	√	√
Existential	√	√	#	√	√	√	√	√
Free-choice	√	√	#	√	√	√	√	√

This paper thus contributes to our understanding of free relatives and non-interrogative uses of *wh*-expressions in Mayan languages and beyond, adding to the typology of indefinite expressions (Haspelmath 1999) and *wh*-items, and building on existing description of Mam relative clauses (England 2017, Scott 2018).

Following a discussion of free relatives, we also examine so-called 'light-headed' relative clauses (Citko 2004), which are RCs introduced not by a *wh*-expression but by a determiner element. We see that light-headed RCs in Mam are obligatorily marked with the demonstrative *j*=, which distributionally serves to modify DPs. In (4) we show an example of demonstrative *j*= modifying what is unquestionably a nominal. In (5a), we show that demonstrative *j*= is also used to introduce HRCs; (5b) shows that without *j*= an HRC is still grammatical. For this latter type, we propose that there is a phonetically unpronounced head which sets off the light-headed RC.

(4) E-Ø-xi' awax qe'ya t-wi' **j**=witz lu
com-b2/3s-dir climb we.excl a3s-head **dem**=mountain here
'We climbed **this** mountain here'

(5) a. Ma Ø-txi' n-waa-'n **j=Ø$_N$** [s'-etz t-laq'o-'n Juana]
prox b2/3s-dir a1s-eat-ds dem [dist.2/3bs-dir a1s-buy-ds Juana]
'I ate what Juana bought'

b. Ø-Ø-Ok n-che'ya **Ø$_N$** [e-Ø-tz laq'oo-n t-e k'um]
com-b2/3s-dir a1s-see.ds [com-b2/3s-dir buy-ap a3s-prep güicoy]
'I saw who bought the güicoy'

In sum, this paper broadens the empirical landscape regarding HRCs and provides novel description and analysis of relative clause and free relative clause formation in Mam, an underdocumented Mayan language.

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Factivity and clausal nominalization in Karitiana

Maria del Mar Bassa Vanrell & Karin Vivanco

<u>overview</u>: Factivity of cognitive verbs is the phenomenon in which the proposition taken by the verb must be interpreted as true (see Kiparsky and Kiparsky 1971). One may assume that the factive interpretation of an item is lexically encoded in the item itself. Alternatively, it has been observed that the structure of the clausal complement may impact the interpretation of certain factive verbs, such as 'know', 'regret', 'forget.' Cross-linguistic evidence shows that embedded clauses with nominal features seem to trigger a presuppositional/factive reading of these verbs (Moulton 2009, Kastner 2015, Özyildiz 2017, Moulton and Bogal-Allbritten 2017, Bochnak and Hanink 2022). In light of this discussion, we checked whether a similar phenomenon can be found in Karitiana, a Brazilian Indigenous language. All embedded clauses in this language can be regarded as nominalized because (1) they exhibit nominal morphology, such as the locative postposition *-p*, the nominalizer *-pa*, and case-markers; and (2) they are islands for extraction as any noun phrase in the language (Vivanco 2022). Therefore, nominalization of clausal complements in Karitiana could lead to a higher number of factive interpretations of verbs. In other words, the leading question is the following: does nominalization of embedded clauses in Karitiana make the matrix cognitive verb become factive?

<u>hypothesis</u>: We propose that the structure of the clausal complement impacts the interpretation of the matrix verb (for example, as factive or non-factive) in Karitiana. Namely, the nominal status of the embedded clause gives rise to factive readings of verbs that are not usually factive in other languages, such as 'believe' or 'think.'

<u>data</u>: In order to check our hypothesis, we ran a test in which the speaker had to judge whether a sequence of two sentences was contradictory or not. The second sentence negated the truth of the proposition denoted by the embedded clause, hence yielding a contradiction in the case of factiviy:

(1) *João ∅-na-aka-t i-diwyt-∅ Luciana ombaky oky-ty. #I-oky padni Luciana ombaky*
João 3-DECL-COP-NFUT NMZ-forget-COP.AGR Luciana jaguar kill-OBL 3-kill NEG Luciana jaguar

"João forgot that Luciana killed a jaguar. #(But) Luciana didn't kill a jaguar".

We tested the following groups of verbs: (A) verbs that are usually factive across languages, and (B) verbs that are not usualy factive across languages.

(A) PUTATIVE FACTIVE	(B) PUTATIVE NON-FACTIVE
diwyt ('forget')	*kywyt* ('believe')
sondyp ('know')	*pyting* ('want')
kybawa ('doubt')	*koro'op kãra* ('think')
sikina ('remember')	*sadn* ('say')
koro'op yra ('lament')	*botyy* ('repeat')

Table 1: List of verbs tested

One Karitiana speaker was consulted in an in-person fieldwork in October, 2022. All these verbs were tested in a structure such as (1).

RESULTS: All sequences with verbs in Table 1 were judged by the speaker as contradictory. Surprisingly, even those sequences with verbs that are not usually factive in other languages (those in column B in Table 1) were also judged as contradictory, unlike their English counterparts that are perfectly acceptable:

(2) *João ∅-na-aka-t i-kywiti-t Luciana ombaky oky-ty. #I-oky padni Luciana ombaky*
João 3-DECL-NCOP-NFUT NMZ-believe-COP.AGR Luciana jaguar kill-OBL 3-kill NEG Luciana jaguar

"João believes that Luciana killed a jaguar. (But) Luciana didn't kill a jaguar."

(3) *João ∅-na-aka-t i-koro'op kãra-t Luciana ombaky oky-ty. #I-oky padni Luciana ombaky*
João 3-DECL-NCOP-NFUT NMZ-inside suspect-COP.AGR Luciana jaguar kill-OBL 3-kill NEG Luciana jaguar

"João thinks that Luciana killed a jaguar. (But) Luciana didn't kill a jaguar."

These data suggest that nominalization of embedded clauses may contribute to the factivity of cognitive verbs, thus supporting our original hypothesis.

IN SUM: Karitiana data shows that the structure of the clausal complement may influence the factive interpretation of matrix cognitive verbs: given that nominalization of the embedded clause occurs across the board, all verbs in Table 1 are understood as factive. Additional data will be elicited to investigate how non-factive interpretations of these cognitive verbs can be expressed in Karitiana.

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Different sizes of Gitksan complements

Neda Todorović

It has been argued that verbal complements are of predictably different sizes. Based on the cross-clausal temporal/syntactic dependence, Wurmbrand (2001 et seq.) classifies propositional complements (e.g., 'say') as CPs (temp./syntac. independent), future-irrealis complements (e.g. 'want') as optionally ModP/TP, and tenseless complements (e.g., 'try') as VP/vP (temp./syntac. dependent). This division has mainly been posited for Indo-European languages; the (in)dependence is immune to finiteness. This talk considers Gitksan (Tsimshianic), which has agreement, but lacks temporal morphology. I argue that Gitksan complements are also of different sizes. *Mehl* 'say'-type complements are CPs. Gitksan 'want' and 'try' each have 2 lexical items. Complements of (a) *hasak* 'want$_1$'and *bak̲* 'try$_1$' are AspP, (b) *nim* 'want$_2$'and *si'ix* 'try$_2$' are vP. The evidence includes: a complementizer, future marker, subjects.

Data. Gitksan has a VSO order. **Complementizer *wil*** only occurs under *mehl* 'say' (1), and not under *hasak* 'want$_1$' and *bak̲* 'try$_1$'(2), or under *nim* 'want$_2$' and *si'ix* 'try$_2$' (3).

1. Mehl-d-i=s Jane [**(wil=t)** gup=hl hun].
   tell-T-TR=PN J. COMP=3.I eat=CN fish
   'Jane said that she ate the salmon.'

2. **a.** Hasak̲=s Jane [**(*wil)** dim=t gup=hl hun].
   want=PN J. COMP PROSP=3.I eat=CN fish
   'Jane wanted to eat the salmon.'
   b. Bag̲-a=s J. [**(*wil)** dim=t gup=hl hun].
   try-TR=PN J. COMP PROSP=3.I eat=CN fish
   'Jane tried to eat the salmon.'

3. **a.** 'Nim [**(*wil)** gub-i=s Jane hun].
   want COMP eat-TR=PN J. fish
   'Jane wanted to eat the salmon.'
   b. Si'ix [**(*wil)** gub-i=s Jane hun].
   try COMP eat-TR= PN J. fish
   'Jane tried to eat the salmon.'

Future *dim*. Gitksan lacks temporal morphology; bare predicates get present/past reading (4a), but future reading requires *dim* (4b). (Jóhannsdóttir and Matthewson 2007 (JM)). With *mehl* 'say', *dim* occurs only with future reading (5); with *hasak* 'want$_1$' (6a) and *bak̲* 'try$_1$'(7a), it is obligatory; with *nim* 'want$_2$' (6b) and *si'ix* 'try$_2$' (7b), it is prohibited.

4. **a.** Luu am=hl g̲oot=s Dianna.
   in happy=CN heart=PN D.
   'Dianna is happy./Dianna was happy' (JM 2007:301)
   b. ***(Dim)** yookw=t James.
   PROSP eat=PN J.
   'James will eat.' (JM 2007:302)

5. [I'm looking for Colin. You asked Michael where he was. You tell me what Michael said to you.]
   Mehl-d-i=s **Michael** loo-'y [yukw **(dim)** bax̲=s Colin].
   tell-T-TR=PN M. OBL-1SG.II [PROG (PROSP) run=PN C.]
   i. w/o dim: 'Michael told me that C is running now.' **ii.** with dim: 'M. told me that C is going to run.'

6. [There's a charity run next week. Will Colin run?]
   a. Hasak̲-t [***(dim)** bax̲-t].
   want-3.II *(PROSP) run-3.II
   'He wants to run.'
   b. 'Nim [**(*dim)** bax̲-t].
   want (*PROSP) run-3.II
   'He wants to run.' (Author & 2018)

7. [We are watching the race and I spot injured Colin trying to run, limping along. I tell you:]
   a. Bag-a-t [***(dim)** bax̲-t].
   try-TR-3.II *(PROSP) run-3.II
   'He is trying to run.'
   b. Yukw si'ix [**(*dim)** bax̲-t].
   PROG try (*PROSP) run-3.II
   'He is trying to run.' (Author & 2018)

Disjoint subject reference is fine with *mehl* 'say'/ *hasak* 'want$_1$ (8,9). *Bak̲* 'try$_1$'disallows it and has an overt matrix subject (10). *Nim* 'want$_2$'/ 'si'ix' 'try$_2$' have one overt embedded subject (11).

8. **a.** Mehl-d-i=s **Jane** [wil=t gup=hl hun].
   tell-T-TR=PN J. COMP=3.I eat=CN fish
   '**Jane** said that she ate the salmon.'
   b. Mehl-d-i=s **Jane** [wil=t gup=s **Colin**=hl hun].
   tell-T-TR=PN J. COMP=3.I eat=PN C. fish
   '**Jane** said that **Colin** ate the salmon.'

9. **a.** Hasak̲=s **Jane** [dim=t gup=hl hun].
   want=PN J. PROSP=3.I eat=CN fish
   'Jane wanted to eat salmon.'
   b. Hasak=s **Jane** [dim=t gup=s **Colin**=hl hun].
   want=PN J. PROSP=3.I eat=PN C fish
   '**Jane** wanted **Colin** to eat salmon.'

10. **a.** Bag-a=s **{Jane}** [dim=t gup=hl **{*Jane}** hun].
    try-TR=PN J. PROSP=3.I eat=CN fish
    'Jane tried to eat salmon'
    b. *Bag-a=s **Jane** [dim=t gup=s **Colin**=hl hun].
    try-TR=PN J. PROSP=3.I eat=CN C. fish
    'Jane tried (to arrange) for Colin to eat salmon'

11. **a.** 'Nim **{*Jane}** [gub-i=s **{Jane}**=hl hun].
    want J. eat-TR=PN J. fish
    'Jane wanted to eat salmon.'
    b. Si'ix **{*Jane}** [gub-i=s **{Jane}**=hl hun].
    try J. eat-TR= PN J=CN fish
    'Jane tried to eat salmon.'

VERB	WIL	DIM	DISJOINT SUBJ	MATRIX/EMBEDDED DP SUBJ
mehl : 'say'	OK	optional	OK	Matrix & Embedded
hasak̲: 'want$_1$'	*	obligatory	OK	Matrix & Embedded
bak̲: 'try$_1$'	*	obligatory	*	Matrix
'nim:'want$_2$'/ *si'ix*: 'try$_2$'	*	prohibited	*	Embedded

TAM domain. JM capture present/past readings with a covert non-future Tense (12a). *Dim* is a prospective (forward-shifting) aspect (12b); it combines with a (covert) modal (Matthewson et al. 2022). Future reading is then a combination of Tense + modal + *dim*. Since T can be {present} or {past}, T + modal + *dim* is predicted to derive 'real' future and future-in-the past (cf. Abusch's (1985) T + *woll*).

12. **a.** $[\![\textbf{non-future T}]\!]^{g,C} = \lambda t : t \leq t_C . t$ **b.** $[\![\textbf{dim}]\!]^{g,C} = \lambda P_{\langle i,st\rangle}. \lambda t.\lambda w. \exists t' [t<t' \ \& \ P(t')(w)]$

Mehl*-complements**. Given that ***wil is allowed, these complements project CP. CP entails TP. The embedded T is ordered with respect to the matrix event time (ET). Nothing requires ***dim*** (5), but when it is there, it is ordered with respect to the embedded T. This also captures (a) *dim* being back-shifted from the matrix verb (due to the embedded {past})(13), (b) a range of temporal readings (to be shown). **As for subjects**, the propositional semantics allows for disjoint reference; thus, when silent, the embedded subject is *pro* (14) (there is rich verbal agreement). Forbes (2018) derives VSO through (1) tucking-in S (and O) vP-externally, (2) the vP-remnant movement. This analysis can fit into that.

13. [*We saw Colin earlier in his running gear. You're on the phone with him now. What does he say?*]

a. Mehl-d-i=s Colin [yukw **dim** bax̲-t].
say-T-TR-=PN C. [PROG PROSP run-3.II]
'C. says that he was going to run.' **b.** [TP **pres** [VP *mehl* [CP [TP **past** [MODP ∅ [ASPP **DIM** [VP]]]]]]

14. [vP **DP$_i$** [VP ***mehl*** [**CP** *wil* [TP **T** (MODP) (ASPP *dim*) [ASPP (PROG/PERF) [vP **DP$_j$** / **pro$_{i/j}$** [VP]]]]]]]

Hasak̲*-complements** have no ***wil, so, no CP. Suppose there was an embedded non-future T. If this T is {past} (back-shifted from the matrix ET), we incorrectly predict that the embedded ET can be before the matrix ET (and in the future w.r.t. some other past interval, due to *dim*) (15a,b) (cf. 13). With no embedded T, the embedded ET is correctly always future-oriented w.r.t matrix ET. Further, (a) *hasak̲* has modality like English 'want' (Author & 2018), (b) futurity comes from *dim,* so I propose that *hasak̲* directly combines with AspP hosting *dim* (15c). **As for subjects**, if 'want' relates the matrix subject and a proposition, nothing forces subject coreference; like with *mehl*-complements, there is *pro* (15d).

15. [*There was a party yesterday and there was a lot of food. There was also smoked salmon, but you didn't eat it. Today, you are thinking how you should've tried it, it looked delicious*.]

a. #Hasag-a'y [dim gup=hl hun]. **b.** [TP pres [VP *hasak̲* [TP **past** [MODP ∅ [ASPP ***dim*** [VP]]]]]]]
want-1SG.II PROSP eat=CN fish **c.** [VP *hasak* [ASPP ***dim*** [VP]]]]]]]
'I want to have eaten the salmon.' **d.** [vP **DP$_i$** [VP *hasak̲* [**ASPP$_1$** ***dim*** [AspP PF [vP **DP$_j$**/**pro$_{i/j}$** [VP]]]]]]

Bak̲*-complements** have structure similar to *hasak̲* (16). But, if trying is simultaneous with the embedded ET, ***dim should be out. Author & (2018) show that *bak̲* is unlike English 'try', and like 'want', e.g., In *John wanted/#tried to cut a tomato, but there was no tomato to cut* (Sharvit 2003), *the tomato* doesn't have to exist). *Bak̲* is more like Grano's (2011) 'try': (a) agent is presupposed, (b) the initial stage of the embedded event is the agent's mental preparation stage (not the actual event), (c) try picks this stage. In this way, (a) there is room for the delay of the embedded ET, so *dim* is fine (note: the embedded ET can only be in the near future), (b) the embedded event (a property) shares the agent with 'trying', hence **the co-reference** (see e.g., Sundaresan & McFadden (2009) for PRO in finite and smaller contexts).

16. [vP **DP$_i$** [VP *bag* [**ASPP$_1$** *dim* [AspP PF [vP **PRO$_i$** [VP]]]]]]

Si'x*-complements** have actuality entailments. This also means that there is no lag between *si'ix* and the embedded ET, ***dim is not allowed. Both properties are similar to Sharvit's modal progressive 'try', but a progressive *yukw* can precede *si'ix* (7b), and *si'ix* needs to be next to the V. I posit it in VP2, with subject in vP1 (17a). With vP-remnant movement, *si'ix* ends up next to the V. ***'Nim*-complements** have the same structure (17b). One option is that their prospective aspect is built into the vP (Travis 2010).

17. **a.** [**VP$_2$** *si'ix* [**VP$_1$** **DP** [VP]]] **b.** [**VP$_2$** *nim* [**VP$_1$** **DP** [VP]]]

Summary: Although temporally unmarked, Gitksan complements are also structurally/semantically different. The twist is the split of 'want' and 'try' complements into 2 structural/semantic categories.

Select. Refs: Jóhannsdóttir, K. & L. **Matthewson**. 2007. Zero-marked tense: The case of Gitksan. NELS 37: 299-310 • **Sharvit,** Y. 2003. Trying to be progressive: The extensionality of *try*. JofS: 403-445 • **Wurmbrand,** S. 2001. Infinitives: Restructuring and clausal Structure. Moulton de Gruyter.

A Typology of Roots in Ktunaxa

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Introduction: This presentation focuses on the properties of roots in Ktunaxa, a language isolate spoken in the Columbia River Basin in Canada and in the United States. The main contribution of this project is to provide a language-internal typology of root classes.

Based on the distribution of certain prefixes in the nominal and verbal domain, we find that Ktunaxa possesses 4 types of roots distinguished along three axes: whether they denote an eventuality, whether they carry aspectual information, and whether they are eventive. Although no single axis divides nominal from verbal roots, in concert these properties create categorizing environments such that certain roots are limited to verbal or nominal contexts, while others may appear in both contexts. One implication of this analysis is that categorization in Ktunaxa is not a lexical feature of roots (e.g. Ramchand, 2008), nor a result of dedicated categorizing heads (e.g. Harley & Noyer, 1999), but instead arises as the outcome of the semantic selectional properties of certain functional projections (e.g. Lieber, 2006). This project fills a gap in the literature on Ktunaxa morphology and root typology (Boas, 1926; Garvin, 1951; Morgan, 1991) by highlighting combinatorial patterns that have not, to our knowledge, been explicitly described and analyzed.

Empirical problem: Ktunaxa possesses bound and free roots in both the nominal and verbal domain, as shown in (1) and (2). In the verbal domain, bound roots minimally require a prefix containing aspectual information (telicity, scalarity, or number) in order to surface, while in the nominal domain, bound roots require what we tentatively label as the nominalizing prefix *ʔa·k-*.

(1) a.	**ʔik**-ni	b. *(s)-**nut**-i	(2) a.	**pałkiy**	b. *(ʔa·k)-**łik**
	eat-IND	PROG-chase-IND		woman	NMLZ-be.foot
	‘3p eats’	‘3p chases 3p’		‘woman’	‘foot’

Some bound roots occur in both the nominal and verbal domain. This is the case for *-łik* ‘be.foot’ which occurs with nominal prefix *ʔa·k-* (2b) and with verbal prefixes like *ha-* ‘have’ (3). This could be taken as evidence that the prefixes *ʔa·k-* and *ha-* are categorizers. However, despite requiring a prefix in verbal contexts, bound roots denoting motion events cannot host the nominal prefix *ʔa·k-*, as in (4), which instead suggests that such roots are intrinsically categorized. Similarly, free roots like *ʔik* ‘eat’ and *pałkiy* ‘woman,’ which never appear with such prefixes, appear to carry an intrinsic category in their respective domains.

(3) Hu	ha-**łik**-ni.	(4) *	ʔa·k-**nut**
1.SBJ	have-be.foot-IND		NMLZ-**chase**
‘I have big feet.’			Intended: ‘chase’

This raises the following questions: (i) what function do the prefixes serve; (ii) do nominal and verbal prefixes constitute a unified category; and (iii) (how) do they contribute to syntactic categorization?

Analysis: We argue that prefixes found in the nominal and verbal domain contribute different types of information: (i) *ʔa·k-* combines with roots denoting states, where it existentially binds an event variable; the resulting expressions are nominal. (ii) Aspectual prefixes combine with roots denoting eventualities lacking aspectual information; the resulting expressions are verbal.

I. FREE ROOTS like *pałkiy,* which occur exclusively in the nominal domain, are incompatible with aspectual prefixes as shown in (5). They are also incompatible with the prefix *ʔa·k-*.

(5)	*s/ha/wił-pałkiy	(6) * ʔa·k-pałkiy
	PROG/have/big-woman	NMLZ-woman
	Intended : ‘being/have/big woman’	*Intended: ‘woman’*

In contrast, bound roots like *-łik* ‘be.foot’ that can host *ʔa·k-* exhibit evidence of stativity. In the verbal domain, they can host aspectual prefixes (cf. 3), but are incompatible with the progressive prefix *s-* as shown in (7), unlike eventive roots like *-nut* ‘chase’ (Underhill, in prep).

(7)	a. *s-**łat̓**-ni	b.	s-**nut**-i
	PROG-**arm**-IND		PROG-**chase**-IND
	Intended: ‘3p is having/being an arm’		‘3p is chasing 3p’

We propose that the contrast between free and bound roots in the nominal domain corresponds to a difference in the type of expression they denote. Free roots denote individuals, and bound roots denote states. Hence, the function of *ʔa·k-* in the nominal domain is to bind the state variable of bound roots, as illustrated in the denotation in (8). This also correctly predicts that *ʔa·k-* cannot attach to bound motion roots (*-nut* 'chase'), which denote events rather than states.

(8) ⟦ʔa·k-⟧ = λP. ∃s[P(s)]

II. PREFIXES that occur in the verbal domain always carry information related to lexical aspect, including telicity (6), scalarity (7), and number (8). We take this to show that the bound roots they attach to do not carry lexical aspect meaning. Consequently, we analyze verbal prefixes as an instantiation of the functional projection which encodes inner aspect as shown in (9).

(6) Hu **wa**-x-i
1.SBJ **come.TEL**-move-IND
'I arrived.'

(7) Hun **wił**-ɬik-ni
1.SBJ **big**-be.foot-IND
'I have big feet.'

(8) **Qałsa**-q̓nuk-ni
three-be.lake-IND
'There are three lakes.'

(9) [vP [v] [InAspP [InAsp *ha-*] [VP *-ɬat̓/-(a)x*]]]

A consequence of this analysis is that free verbal roots must already carry lexical aspect information: we propose they are licensed as Inner Aspect heads, as illustrated in (10). This has the added benefit of providing a syntactic explanation for why stative free roots do not combine with *ʔa·k-*: *ʔa·k-* selects for a phrase below Inner Aspect.

(10) [vP [v] [InAspP *ʔik*]]

The structure in (10) predicts we will find evidence that free verbal roots encode lexical aspect, i.e. through their combinatorial properties with preverbal modifiers, which has yet to be tested.

Outcomes: The distribution of these two classes of prefixes (nominal and verbal) is a function of three semantic features of the roots. Table 1 below summarizes these dependencies.

	Eventuality				No eventuality
	No lexical aspectual feature			[+/- lexical aspect]	
	[-event]		[+event]		
Example root	*-ɬik* 'be.foot'		*-nut* 'chase'	*ʔik* 'eat'	*pałkiy* 'woman'
Prefix compatibility	ha-	ʔa·k-	ha-	None	None
Syntactic category	Verb	Noun	Verb	Verb	Noun

Table 1: Summary of feature dependencies for prefixation

Relative to our three questions, this analysis claims that verbal and nominal prefixes serve different purposes: while verbal prefixes provide aspectual information, the nominal prefix binds an event variable. Thus, the two classes of prefix do not constitute a unified category: although they appear in the same position relative to the root, they have different functions. Relatedly, they do not serve as syntactic categorizers. Instead, categorization in Ktunaxa derives from the interaction of three features (eventuality, lexical aspect, eventiveness), none of which independently distinguishes a nominal from a verbal category.

An intriguing outcome is that categorization need not be specified at the root level, but equally is not specified with a dedicated syntactic head (e.g. *v* or *n*). Instead, categorization arises as a function of the properties discussed above: the category free roots receive depends on their type (eventuality vs. individual), and whether they carry lexical aspect information. Bound roots are categorized as a function of their eventuality type (event vs. state). As a result, Ktunaxa has what looks like a hybrid system of categorization, where some expressions are intrinsically categorized, while other acquire their category through the course of the syntactic derivation.

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Edge Asymmetries in St’át’imcets (Lillooet Salish)

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1. Predicate-Initial Systems and the Left Edge

A leading intuition in the literature on V-initial (more properly, predicate-initial) systems is that what distinguishes them from subject-initial (in particular, SVO) systems isn’t so much the ability of predicates to occupy initial positions as the inability of subjects to precede them. In this paper I pursue this intuition for the Northern Interior Salish language St’át’imcets/Lillooet (ST). I argue that ST (and other Northern Interior and Central Salish languages) are subject to the following *Left Edge Restriction* (LER):

(1*) No phrase can occur on the left edge of any clausal projection.*

Crucially, there is no corresponding restriction on the right edge: post-predicative word order is flexible, and extraposition freely available. I argue here that the linear asymmetry between the left and right edges masks a fundamental symmetry in the clausal hierarchy.

2. The Left Edge Restriction in St’át’imcets

In ST, word order is predicate-initial (with flexible VOS~VSO ordering post-predicatively).

(2) ƛ̓ax̌il-mín-as ta=qʷíl̓qən=a ta=staníyh=a
attack-RLT=3ERG DET=wolverine=EXIS DET=moose=EXIS
‘The wolverine attacked the moose’ *or* ‘The moose attacked the wolverine.’ (Both possible, default interpretation varies by dialect, with VOS for Upper and VSO for Lower St’át’imcets: Davis 1999.)

Functional projections above the vP level (including temporal, modal, and clause-typing heads, as well as subject agreement) are realized as second position clitics, which attach in a fixed order to the highest predicative element (either the main predicate, or a pre-predicative auxiliary as in (3): Davis & Huijsmans 2021):

(3) **plan=łkaxʷ=ká=tuʔ** ʔəs-kʷíl̓ s-xiṅ-s
already=2SG.SUBJ=IRR=REM STAT-ready NMLZ-long.time-3POSS
‘You should have been ready a long time ago!’

The absence of phrasal specifiers at the left edge applies not only at the vP/TP level, but extends upwards to CP: WH-words are predicative, and as predicate heads they occupy the left edge of their phrasal projection, while in embedded contexts, they are preceded by proclitic complementizers (4):

(4) qaṅím=łkan [**ł=[stáṁ**=as [kʷu=waʔ száytən-su]]]
hear=1SG.SUBJ [**COMP[=what**=3SJV [DET=IPFV doing-2SG.POSS]]]
‘I heard what you did.’ (More literally: ‘I heard what it was that was your doing.’)

There are two sets of partial exceptions to the LER. One involves left dislocation, which shows the diagnostic properties of a sentence-external operation: it triggers an intonation break, is confined to root clauses, involves both adjuncts and arguments, is indifferent to grammatical function, leaves a resumptive pronoun, and violates island conditions. The second involves pre-predicative topics, which are permitted only in the Lower dialect of ST, where they are restricted to matrix clauses; in the Upper dialect, they are simply ungrammatical.

3. Left Edge Shielding and the LER

It might be argued that the LER is simply a statement of a typological generalization: after all, it’s not news that predicate-initial languages tend to be head-initial. However, the phenomenon of left-edge shielding argues that the LER has an active role in the grammar. As noted above, Upper ST obeys the LER exceptionlessly: but it readily tolerates pre-predicative subjects as long as a pre-predicative auxiliary is present, as shown by the Upper ST examples in (5).

(5) a. xʷuż cʔas **ta=naplít=a** n-q̓aʔ-c-xál
PROS come **DET=priest=EXIS** LOC-eat-mouth-ACT
‘The priest will come to hold communion.’

b. xʷuż **ta=naplít=a** cʔas n-q̓aʔ-c-xál
PROS **DET=priest=EXIS** come LOC-eat-mouth-ACT
(same)

This shows that there is nothing inherently ungrammatical about a subject in the left-branching specifier of a clausal projection – only when it finds itself on the left edge. It should also be emphasized that the pre-predicative DPs in (5) are not topics: they are available in both dialects, can occur freely in subordinate clauses, and are indistinguishable semantically and pragmatically from post-verbal subjects.

4. The Right Edge

In contrast to the restricted possibilities available at the left edge of the clause, word order is highly flexible at the right edge – there is no right edge restriction. Furthermore, it can be shown that irrespective of the linear order of arguments, the subject occupies a higher position than the object. Consider the following VP ellipsis data:

(6) plan qʷal̓út-s-as kʷ=s-John kʷ=s-Mary,
already speak-CAUS-3ERG DET=NMLZ-John DET=NMLZ=Mary
plan λ̓it kʷ=s-Lisa
already also [VP______] DET=NMLZ-Lisa

(i) 'Mary has already spoken to John, and Lisa has, too.' (ii) 'John has already spoken to Mary, and Lisa has, too.' (iii) *'Mary has already spoken to John, and to Lisa too.' (iv) *'John has already spoken to Mary, and to Lisa too.'

Here interpretation (i) entails VOS order in the antecedent clause to ellipsis, whereas (ii) entails VSO order. In the clause containing ellipsis, however, the subject is always outside the ellipsis site, as shown by the unavailability of interpretations (iii) and (iv).

Furthermore, VP ellipsis can elide one or more auxiliaries as well as the main predicate phrase, as long as the LER is respected:

(7) Q: wáʔ=ha kʷu=**xʷúz̓** **nas** ʔáč̓x̌-ən-as ta=sqáczaʔ-sw=a natxʷ
be=Q DET=P**ROSP** **go** see-DIR-3ERG DET=father-2SG.POSS=EXIS tomorrow
'Is anyone going to go see your father tomorrow?'
A: ʔiy, ***(xʷúz̓)** **(nas)** **kʷ=s-Bill**
yes ***(going to)** **[AUXP (go) [VP ______]]** **DET=NMLZ-Bill**
'Yes, Bill's going to (go) ~~see your father tomorrow~~.'

Here, the intermediate auxiliary *nas* 'go' can be elided (the prospective auxiliary *xʷúz̓* cannot, because it is needed to license the ellipsis site, as well as to shield the subject). This shows that the post-predicative subject must be able to raise out of Spec vP/Spec VoiceP to the *rightward* specifier of an AUXP (the exact nature of the auxiliary projection is not important to the argument). The VP ellipsis data thus show us the mirror image of the pre-predicative subjects in (5), which can occupy the specifier of any AUXP except the highest one, due to the LER.

5. Structural Symmetry and Linear Asymmetry

The picture that emerges can be characterized as follows:

(i) There is a striking linear asymmetry in ST between the left edge (highly constrained, as encoded by the LER) and the right edge (unconstrained).

(ii) However, in terms of height in the tree, the pre-predicative and post-predicative domains are symmetrical, and in fact, movement of the subject to specifier positions can proceed either up the right or the left periphery, as long as the LER is respected, suggesting that *there is no inherent directionality for specifiers*.

Adopting this viewpoint allows for a rather elegant account of all major word orders in the language. Starting from the premise that the language must distinguish a VP constituent (as evidenced above), two base orders (SVO and VOS) are possible. Choosing the SVO option violates the LER, motivating verb-raising as far as Voice (independently supported by mirror-principle ordering in the suffixal, but not the clitic domain: Davis & Huijsmans 2021). The result is either VSO order (for an SVO base) or (string-vacuously) VOS order (for a VOS base). Leftward movement of the subject yields AUX SVO order, while rightward movement (necessary in order evacuate the subject from the vP in cases of VP ellipsis) once again yields VOS order.

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Labrador Inuttitut Causatives: The view from non-transitives

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Introduction: This talk examines causative morphology **in Labrador Inuttitut**, a polysynthetic language with both null causatives (1) and an overt morphological causative -*(t)ti* (2). Focusing on causativized non-transitives, we examine the distribution of null vs. -*(t)ti* forms, which we propose to be due to structural differences that are sensitive to both agentivity and animacy. These structural differences are further argued to illuminate the availability of certain special uses of causativization: **polysemy** between direct and indirect causative interpretations and **non-valency increasing** causatives, both of which are only available with -*(t)ti* causatives.

(1) a. Kajottak siKumi-kKau-juk
cup break-RECENT.PST-PART.3SG
'The cup broke'

b. siKumi-kKau-jaga
break-R.PAST-PART.1SG/3SG
'I broke it'

(2) a. nigi-kKau-juq
eat- R.PST-PART.3SG
'He (or she) was eating.'

b. nigi-**ti**-kKau-jaga
eat-**CAUS**-PART.1SG/3SG
'I made him (or her) eat.'

Background: Causatives typically involve valency increasing structures that introduce an argument (the causer) that is not part of the initial event characterized by the predicate (Hale & Keyser 1993, Levin & Rappaport Hovav 1995, Harley 1995, Pylkkänen 2008, Ramchand 2008; see Jensen and Johns 1989, Allen 1998 for Inuktitut). It has been reported for various varieties of Inuktitut that overt causatives can be used with most verbs, if not all, while null causatives are restricted to a subset of verbs (Allen (1998:640). The nature of restrictions on null causatives have been widely studied, but not for Inuktitut, though Allen observes that null causatives can include change of state verbs, verbs of grooming, some verbs of motion, verbs of putting, verbs of emission and verbs of appearance. We aim to sharpen the characterization of this divide.

Agentivity, animacy and aspect: Looking at non-transitive initial events, we show that the distribution of null vs. overt causatives is sensitive to both agentivity and animacy of the sole argument (cf. Tollan and Massam 2022). The null causative is possible for non-agentive verbs (3) but agentive verbs require the overt causative (4). However, even non-agentive verbs must use the overt causative if the sole argument is animate (5). The form of the causative is also sensitive to aspect: the causative of punctual predicates surfaces as *-tti* (5b) while the causative of atelic predicates surfaces as *-ti* (2b,4c), but aspect does not seem to impact the distribution of the null form.

(3) a. Kajottak siKumi-kKau-juk
cup break-RECENT.PST-PART.3SG
'The cup broke'

b. siKumi-kKau-jaga
break-R.PAST-PART.1SG/3SG
'I broke it'

c. iklivik amma-juk
box open-PART.3SG
'The box is open.'

d. (iklivik) amma-jaga
box open-PART.1SG/3SG
'I opened the box/it.'

(4) a. angutik pisu-juk
man walk-PART.3SG
'The man is walking.'

c. angutik pisu-***(ti)**-jaga
man walk-CAUS-PART.1SG/3SG
'I made the man walk.'

(5) a. kata-kKau-juk
drop-R.PAST-PART.3SG
'He dropped (from the tree)'

b. kata-*(**tti**)-Kau-jaga
drop-caus-R.PAST- PART.1SG/3SG
'I made him drop (from the tree).'

Proposal: We propose that the null and overt causatives realize distinct structural positions in the extended projection of vP (6). For present purposes we label these positions $v1_{ø}$ and $v2_{\text{-}ti}$. We further propose that V1 hosts a phi-probe that searches for animate arguments. In non-transitives whose sole argument is neither agentive nor animate, the specifier of v1 (realized as ø) is available to introduce a causer (7a) resulting in a null causative. However if the sole argument is agentive, this agent is introduced in the specifier of of v1 and so v2 must be added to introduce a causer (8b), realized by -*(t)ti*.

If the sole argument is not an agent but animate it will satisfy the phi-probe and move to Spec,v1. Here, too, v2 must be added to introduce a causer (8c).

(6) v2 … v1 … v0 …
-tti -ø

(7a) [CAUSER v1 [v NP]]]
[π:_] X [...]
v1⇔ *-ø*

(7b) [CAUSER v_2 [AGENT v_1 [v_0 (...)]]]
v_2 ⇔*-tti* v_1⇔ *-ø*

(7c) [CAUSER v_2 [NP v_1 [v <NP>]]]
[π:_] [π]
v2 ⇔*-tti* v1⇔ *-ø*

States and results: The above account predicts that the overt causative will generally be attested in structures where v1 is not available to introduce a causer. We find supporting evidence for this from statives which are split with respect to they require *-(t)ti* (8),(9). We argue that statives that require *-(t)ti* are actually inchoative resultatives whose sole argument is an argument of v1 (cf. Levin & Rappaport 2010, Mateu & Acedo Matellan 2012, Cuervo 2014). Therefore a causer requires the addition of v2.

(8) a. Kausit-tuk
wet-PART.3SG
'It is wet.'

b. Kausit-**ti**-jaga
wet-**CAUS**-PART.1SG/3SG
'I made it wet.'

c. *Kausittaga/*Kausijaga
'I made it wet.'

(9) a. sâk saluma-juk
table clean- PART.3SG
'The table is clean.'

b. (sâk) saluma-jaga
table clean-PART.PART.1SG/3SG
'I cleaned the table/it.'

Further consequences: Our account has consequences that illuminate the availability of certain special uses of causativization. The first is polysemy between direct and indirect causative interpretations. In direct interpretations, the causer "makes" the caused event happen. In indirect interpretations the causer "lets" the caused event happen. We argue that the "let" interpretation can only occur when the causee is a potential actor/initiator and that actors/initiators must be introduced at least as high as v1, forcing v2 and overt *-(t)ti.* Our analysis correctly predicts that polysemy should be available with overt *-(t)ti* causatives but not with null causatives where the sole argument is introduced lower in the structure. Likewise, the analysis fits the availability of non-canonical causatives which do not add to the valency of the initial event but instead add intentionality (purposefulness) or duration of engagement (Kittillä 2009, Aikhenvald 2011). Non-canonical causatives only occur with *-(t)ti.* Following Tyler (2022), we take these structures to involve expletive occurrences of v1 (no specifier introduced), thus requiring v2 (realized as *-(t)ti*) to introduce the causer.

Conclusions: The distribution of null versus overt *-(t)ti* causatives supports the conclusion that the latter has more structure than the former, a finding in keeping with what has been said for other languages. Specifically, agentivity and animacy of the sole argument of a non-transitive predicate both independently require the projection of added structure. The added structure, in turn, correlates with the availability of "let" vs. "make" polysemy and non-valency increasing uses of the v2 causative morpheme.

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Ahtna verb formation and multiple head-movement

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One of the fundamental analytic challenges posed by Dene (Athabaskan) languages is the apparent use of discontinuous morphology to express both lexical meaning and tense-aspect nuances, a phenomenon with significant implications for theories of the mapping between structure and meaning. In this talk, we examine the situation in Ahtna, a conservative language of south-eastern Alaska.

(1) *a.* *ł-dzii-gh-i-tsaetl'*
across-dividing-CNJ-PFV-chop.PFV
'S/he split it lengthwise.'

b. *y-a-c'-∅-i-l-dets*
4-through-INDF-CNJ-PFV–twist.PFV
'S/he drilled a hole through it.'

In (1), the underlined morphemes *ł-dzii* and *a-* are *disjunct prefixes*, the presence of which alter the meaning of the root to the free translation meanings.

Rice (1993) proposes that such discontinuities reflect movement of the verb (root) from its base position within the verb phrase to a derived position at the right edge of the (IP/AgrP/TP) clause, bypassing the conjunct heads between the verb phrase and the movement target. Although insightful, this approach is technically problematic and empirically incomplete, as formulated. The verb movement itself is not consistent with well-founded theoretical premises (Head Movement Constraint). And the structures required are difficult to reconcile with phenomena like classifier selection (2a) and the customary aspect (2b).

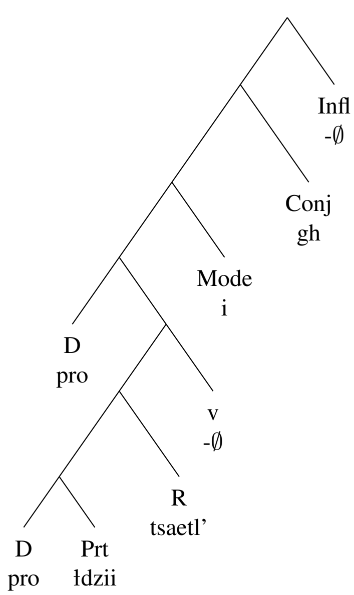
(2) *a.* *'i-∅-l-tuuts'*
TRSL-CNJ-INTR-black.PFV
'it became black.'

b. *neke-gh-i-yaax*
reverse-CNJ-PFV-walk-CUST.PFV
'S/he customarily walked down and back.'

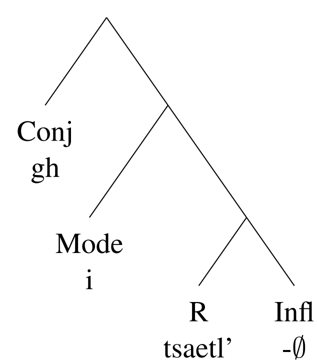
The first requires a sufficiently local relationship between the verb stem and the classifier for arbitrary lexical properties of the former to be accessible, and this does not follow naturally in Rice's model. The second requires that aspectual information be added to the verb stem before the final suffixal inflection is attached (Kari 1990). But this is impossible if the verb raises directly to I/Agr/T from its base position. Analyses based on standard head-movement fare no better, since the verb must inevitably end up too far from the final suffix for contextual allomorphy to be found.

We then show that the discontinuity seen in such forms instead results from two specific grammatical features of Ahtna grammar. First, Ahtna phrase structure is uncontroversially head-final, with SOV order, postpositions, and final complementisers.

(3) a.



b.



Second, the Infl verbal suffix triggers *multiple head-movement*, or *MHM* (Collins 2002, Branigan 2023), thereby attracting a series of conjunct prefixes up before it finally attracts the verb from v. For example, to derive the verb in (1a), MHM within the structure (3a) generates the inflected verb structure (3b).

The "prefixes" are not actually affixes in this model. As far as the morphosyntactic derivation is concerned, the only true affixes in Ahtna are the suffixes. Disjunct prefixes are adjacent to the verb simply because they are part of the adjacent verb phrase. Conjunct prefixes are a part of the verb word because of how MHM-formed structures are interpreted by the morphophonology.

This model captures Rice's insight and it avoids the technical problems. The verb root combines semantically with the disjunct prefix because the two form a syntactic constituent. Multiple head-movement does not violate the locality constraints on head-movement, because it results from a timing parameter which orders labeling operations after the head-movement triggers are determined (Branigan 2023). And the derived morphological structure (3b) has the verb directly connected to its inflectional suffix, and this is the domain within which regular stem phonology (Krauss 1964, Leer 1979, Kari 1989) is applicable. It is also the domain where idiosyncratic exponence of the inflectional suffixes are determined.

Classifier selection is unproblematic with these structures, since the Vc head combines immediately with the verb phrase. The *customary* inflection in (2b) also falls into place. Unlike the conjunct prefixes, this aspectual inflection is a true affix, which attracts the verb up from vP. MHM to Infl then displaces Conj, Mode, and the [[R+v] Cust] complex X^0 constituent up, in turn, producing the attested form.

For verbs in which a conjunct prefix contributes to the verbal lexical semantics, an additional operation must be involved. Consider the 'transitional' prefix *i* in (2a), which adds the inchoative meaning to the stative root. The prefix must here originate inside vP to be a part of the lexical semantics, in a position higher than the verb root. But if the transitional *i-* were to remain in place, it would block movement of the root to v, since the conjunct morpheme is not an actual affix. It must therefore raise out of the verb phrase and adjoin to a higher position within the clause, but below Infl. MHM then operates to bring the adjoined *i* into the verb together with the series of lower heads extending down to the verb. (MHM attracts both heads and adjuncts.) Such movements are not found in languages which do not emply MHM, because the resulting structures cannot be externalised, but they are common in Slavic and Algonquian, where they resolve comparable problems (Branigan 2023), For example, in the Innu-aimûn (4), the resultative predicate *shîpeku* 'green' has raised from inside vP to an adjoined position outside the pluractional reduplicant head, before MHM to T applies.

(4) shîpeku-pâ~peshaim^{-u}. / green-PLACT~paint-3 / 'S/he painted it green.'

This analysis of Ahtna verbal morphology extends naturally to less conservative Dene languages, such as Navajo (5a) or Tłįchǫ (5b). In these languages, the derived X^0 structures, in which the verb root is immediately attached to the suffix, provide the possibility of the more fusional stem forms found in (5), for example.

(5)	a. Ni'eeshłe (Faltz 1998)	b. Shįįtį (Jaker *et. al.* 2013)
	ni-y-sh-lé	*shè#į-tį*
	give-INDF-SRTV-IMPF.1s-do.IMPF	food#OPT.CNJ.2s-eat.IMPF
	'I'm making a series of payments.'	'You would dine.'

Finally, we show that a model of Dene verbal morphology based on MHM explains the typologically unusual combination of head-final structure with a largely prefixal verbal morphology (Vayda 2019). In our model, the conjunct "affixes" are a part of the verb simply because of the normal output of MHM derivations, and not because they are prefixes. Dene grammars are thus uniformly head-final and suffixing.

Polar questions in Sm'algyax

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Overview: This paper presents novel description and analysis of polar questions in Sm'algyax (ISO 639-3: `tsi`, Tsimshianic, British Columbia/Alaska), focusing on the characterization and linearization of a particle *ii* which appears in polar interrogatives.

Position of *ii*: Sm'algyax, an ergative VSO language (2), forms polar interrogatives by way of the interrogative enclitic *ii*, glossed as "Q". We observe that the clitic follows a lexical host (V or N) and appears in a fixed position, which is sensitive to the valency of the predicate: in intransitive sentences, *ii* encliticizes onto the predicate (3), while in transitive sentences, it appears on the transitive subject (4). Put differently, *ii* appears to the left of an absolutive argument.

(1) Dawł=a hana'a.
leave=CN woman
'The woman left.' [V S]

(2) Gab=a haas=a hoon?
eat=CN dog=CN fish
'The dog ate the fish.' [V S O]

(3) Dawł=**ii**=ł hana'a?
leave=**Q**=IRR.CN woman
'Did the woman leave?' [V=**ii** S]

(4) Gab=a haas=**ii**=ł hoon?
eat=CN dog=**Q**=IRR.CN fish
'Did the dog eat the fish?' [V S=**ii** O]

This linearization pattern is unaffected by elements which may appear preceding the predicate (such as negation or aspectual marking), or non-core arguments and adjuncts following the core arguments of the predicate.

Characterizing *ii*: This interrogative clitic is restricted to root/matrix interrogative sentences such as (3) and (4). It does not appear in questions embedded under rogative or responsive predicates (respectively, those predicates which embed only interrogative complements, such as 'ask' or 'wonder', and those which embed interrogative and declarative predicates, such as 'know' or 'tell'); embedded questions are instead obligatorily marked by the irrealis complementizer *dza* (5).

(5) Yagwa=n g̲üüdag̲-an [***(dza)** hasag̲-an(***=ii**) ła dm yeltg-n].
PROG=1SG.I ask-2SG.II [***(IRR)** want-2SG.II(***=ii**) INCEP PROSP return-2SG.II]
'I'm asking you if you want to go back.'

Furthermore, I also show that *ii* does not appear in *wh*-questions (which feature a distinct clitic *u*, which is also a root-level phenomenon), indefinite/existential quantifiers, or disjunction. Based on this distribution, I rule out an analysis of *ii* as being a so-called Q(uestion)-particle such as Japanese *ka* or Tlingit *sá* (Kuroda 1965; Hagstrom 1998; Cable 2010; Uegaki 2018:a.o.), which we would minimally expect to appear in embedded interrogative clauses.

I instead analyze *ii* (alongside the *wh*-interrogative clitic *u*) as being associated with interrogative sentential mood: a particle conventionally linked to the fundamental conversational function of "asking", and distinct from a clause-typing element, such as a $C_{[+Q]}$ (Portner 2018). More formally, I suggest that *ii* instantiates a left-peripheral Mood head (adapted from Cinque's 1999 $Mood_{SpeechAct}$ projection), which selects for an interrogative CP complement. Question embedding predicates cannot embed the MoodP headed by *ii*, but instead select for the same interrogative CP complement embedded by the Mood projection. This syntactic behaviour accounts for the presence of *ii* in root interrogatives, and its absence elsewhere, and provides support for analyses which encode the sentential force within the sentence's syntactic representation (Krifka 2001; Speas and Tenny 2003; Sauerland and Yatsushiro 2017). This root/embedded distinction is schematized in (6).

(6) a. Matrix questions: $[_{MoodP}$ =*ii* $[_{CP}$ +Q $[_{TP} \ldots]]]$
b. Embedded questions: $[_{VP}$ ASK/KNOW $[_{CP}$ +Q $[_{TP} \ldots]]]$

I provide supporting evidence for (6) from parallel distributional behaviour of the *wh*-interrogative clitic *u*, the distribution of other sentential clitics including evidential elements with which *ii* may not cooccur, scopal behaviour with other semantic operators, as well as data from coordinated questions which feature a single occurrence of the interrogative particle, which I suggest shows that a single Mood projection may scope over coordinated interrogative CPs.

Linearizing *ii*: A remaining question pertains to *how* the clitic *ii* might appear clause-internally to the left of an absolutive element. I provide a first pass at accounting for this linearization, suggesting that this left-peripheral clitic undergoes post-syntactic phonological lowering to lean on a phrasal host (data from Ā-extraction and coordinated questions rule out a syntactic raising analysis):

(7) [=*cl* [XP =*cl* YP]]

It is not immediately clear what kind of constituent the clitic leans on. Prominent analyses of verb initial languages, such as V raising (Alexiadou and Anagnostopoulou 1998, 1999) or VP raising (Massam 2001), do not yield constituents which contain the verb and subject, and exclude the object. However, so-called "high-absolutive" analyses of ergative languages (Aldridge 2004; Legate 2008; Coon et al. 2014), which assume that intransitive subjects and direct objects evacuate the VP to occupy a structurally higher position *do* allow such constituents. If we assume a phrasal syntax in which an absolutive argument moves out of the VP, and the VP undergoes phrasal movement above the absolutive argument, we have an appropriate constituent (*modulo* the ordering of V over S which may independently be explained as head movement to a Voice projection) for the clitic to lean on. This is schematized in (8) for intransitive questions such as (3) and (9) for transitive questions such as (4).

(8) [=*ii* [[V ~~S~~] =*ii* S]]

(9) [=*ii* [[V S ~~O~~] =*ii* O]]

Outlook: This paper positions *ii* among a growing typology of particles that appear in polar interrogatives, which includes (i) the aforementioned Japanese-style Q-particles which appear in root and embedded interrogatives as well as other, non-interrogative, environments; (ii) those particles which appear only in interrogative clauses, but freely embed under rogative and responsive predicates, such as Finnish *-kO* and Turkish *-mI* (Gonzalez 2021); and (iii) those particles which appear only in interrogative clauses, but may only embed under rogative predicates, such as Hindi-Urdu *kyaa* (Bhatt and Dayal 2020). Contrary to these other particles, Sm'algyax *ii* has the most restricted distribution, appearing only in root interrogative sentences.

	Polar Q?	*Wh*-Q?	Embedded Q?	Q only?
Japanese	Yes	Yes	Yes	No
Finnish/Turkish	Yes	No	Yes	Yes
Hindi-Urdu	Yes	No	Sometimes	Yes
Sm'algyax	Yes	No	No	Yes

Table 1: Characterizing interrogative particles (adapted from Gonzalez 2021)

This paper also enriches our understanding of the effects of syntactic ergativity, adding sentential-clitic linearization as a potential diagnostic supporting previous work which analyzes syntactic ergativity effects as arising due to the evacuation of an internal argument (intransitive subject or transitive object) from the verbal projection.

Selected references: R. Bhatt and V. Dayal. Polar question particles: Hindi-Urdu kya:. Natural Language and Linguistic Theory, 2020 ; **S. Cable.** The Grammar of Q: Q-Particles, Wh-Movement, and Pied-Piping. Oxford University Press, 2010 ; **A. Gonzalez.** Polar questions and interrogative particles: a crosslinguistic investigation. PhD thesis, Harvard, 2021 ; **M. Krifka.** Quantification into question acts. Natural Language Semantics, 9(1):1–40, 2001.

Three paths to portmanteau agreement

Peter Grishin and Will Oxford (MIT)

There is debate over which mechanisms derive portmanteau agreement—a single marker indexing features from multiple arguments. A core issue is whether all portmanteau agreement derives from the same mechanism (Trommer 2007, Fenger 2018), or whether there are multiple distinct mechanisms (Woolford 2016), such as contextual allomorphy (Bobaljik 2000), the spellout of a single multiply-valued head (Georgi 2013, Oxford & Xu 2020), or the result of a morphological process like Fusion applying to adjacent heads (Noyer 1992, Williams 2003). We propose that we need at least three distinct paths to portmanteau agreement—multiple valuation, local contextual allomorphy, and long-distance contextual allomorphy—examining previously unrecognized microvariation in the patterning of portmanteau agreement across Algonquian languages. We show that these differences follow naturally if the languages differ in whether the relevant portmanteaux arise from multiple valuation, local contextual allomorphy, or long-distance contextual allomorphy.

Three portmanteau patterns. Our key point is illustrated by the inflection of 1sg→3 verb forms in Nipissing Algonquin (Jones 1977), Meskwaki (Goddard 1994), and Passamaquoddy (Francis & Leavitt 2008), shown in Table 1. Each language has a portmanteau 1sg→3 suffix, shown in blue text in the table; these are distinct from the simple 1sg and 3 suffixes that occur in other forms (e.g. Passamaquoddy *-uk* '1sg:3' vs. *-an* '1sg', *-t* '3'). The patterning of the portmanteau suffixes varies across the languages in two ways:

1. Robustness. As shown in the second column of the table, negative and/or modal forms with a reflex of Proto-Algonquian *-*w* 'neg' retain the portmanteau agreement suffix in Nipissing and Meskwaki, but not in Passamaquoddy, where the portmanteau is replaced by the simple 1sg suffix *-an* in negative forms.

2. Plural supplement. Each of the languages has a supplementary 3pl suffix that occurs in certain verb forms: Nipissing *-wà*, Meskwaki *-wâ*, Passamaquoddy *-hti*. In a 1sg→3 form in which the third-person object is plural, the 1sg→3 portmanteau suffix can be accompanied by the plural supplement in Nipissing but not in Meskwaki or Passamaquoddy, as shown in the third column of the table.

Table 1. Inflection of 1sg→3 verb forms in three Algonquian languages

	1sg:3 portmanteau?		Robust with *-*w*?		Takes 3pl supplement?	
Nipissing	**yes**	-Ø **-ag** -3obj **-1sg:3**	**yes**	-à -w **-ag** -èn -3obj -w **-1sg:3** -dub	**yes**	-Ø **-ag** **-wà** -3obj **-1sg:3** **-3pl**
Meskwaki	**yes**	-Ø **-ak** -i -3obj **-1sg:3** -ci	**yes**	-â -w **-ak** -êni -3obj -w **-1sg:3** -int	**no**	-Ø **-ak** -i -3obj **-1sg:3** -ci
Passamaquoddy	**yes**	-Ø **-uk** -3obj **-1sg:3**	**no**	-a -w **-an** -3obj -w **-1sg**	**no**	-Ø **-uk** -3obj **-1sg:3**

Thus, the 1sg→3 portmanteau suffix (and other SAP→3 portmanteaux) show the following microvariation: in Nipissing, it is robust and can take a 3pl supplement; in Meskwaki, it is robust but cannot take a 3pl supplement; and in Passamaquoddy, it is not robust and cannot take a 3pl supplement.

Analysis: Three paths to portmanteau agreement. We propose that the Nipissing, Meskwaki, and Passamaquoddy patterns each reflect a different mechanism of portmanteau formation. Following existing work, we assume that the portmanteau suffixes realize Infl and that the 3pl supplement realizes 3pl features that have Fissioned off of Infl (Oxford 2019). The third-person object marker that appears to the left of the portmanteau suffix in the above forms is analyzed as realizing Voice (Coon & Bale 2014).

Nipissing *-ag* '1sg:3', which is robust with dubitative *-w* and takes a 3pl supplement, derives from *multiple valuation*: Infl agrees with both subject and object, and *-ag* spells out both of those feature bundles. Since features of both arguments are on Infl, the presence of an adjacent *-w* has no effect on their realization, and there are 3pl features on Infl available to be Fissioned off and realized as the 3pl supplement.

Meskwaki *-ak* '1sg:3', which is robust with interrogative *-w* but cannot take a 3pl supplement, derives from *long-distance contextual allomorphy*, which can occur across at least one intervening head (Božič 2017, 2018, 2019): Infl agrees only with the 1SG subject, and the portmanteau *-ak* '1SG:3' is an allomorph of 1SG subject agreement that is conditioned by the third-person object features on Voice. Since this allomorphy is long-distance, portmanteaux are preserved across interrogative *-w*. Furthermore, the fact that Infl doesn't collect features of the object means that they cannot be Fissioned off and realized as a 3PL supplement.

Passamaquoddy *-uk* '1SG:3', which is not robust with negative *-w* and cannot take a 3PL supplement, derives from *local contextual allomorphy* (Embick 2010, Bobaljik 2012), which cannot occur across an intervening head. This locality restriction results in the loss of the portmanteau when negation intervenes between Voice and Infl. (The analysis of *-uk* is otherwise the same as that given for Meskwaki *-ak*.)

A principled exception: One path to 3→SAP portmanteau agreement. The preceding analysis captures the attested microvariation in SAP→3 forms. The picture is strikingly different, however, in 3→SAP forms. With respect to **robustness**, 3→SAP portmanteaux are always robust with *-*w*, even in languages like Passamaquoddy, where *-*w* disrupts SAP→3 portmanteaux (Bondarenko 2020). With respect to **Fission**, certain 3→SAP forms allow a 3PL supplement even in languages like Meskwaki and Passamaquoddy, which never allow a 3PL supplement in SAP→3 forms. These facts indicate that 3→SAP portmanteaux result from multiple valuation in all three languages, even when SAP→3 portmanteaux do not.

Table 2. Inflection of 3→SAP verb forms in three Algonquian languages

	3:1PL portmanteau?	Robust with *-*w*?	3PL:1SG supplement?
Nipissing	**YES** -i **-yamindj** -1OBJ **-3:1PL**	**YES** -i -w **-amind** -èn -1OBJ -w **-3:1PL** -DUB	**YES** -i **-wà -dj** -1OBJ **-3PL -3**
Meskwaki	**YES** -i **-yameč** -i -1OBJ **-3:1PL** -CI	**YES** -i **-yamek** -w -êni -1OBJ **-3:1PL** -W -INT	**YES** -i **-wâ -č** -i -1OBJ **-3PL -3** -CI
Passamaquoddy	**YES** -i **-nomot** -1OBJ **-3:1PL**	**YES** -i **-nomo<h>q** -1OBJ **-<NEG>3:1PL**	**YES** -i **-hti -t** -1OBJ **-3PL -3**

In Nipissing, where multiple valuation happens in both SAP→3 and 3→SAP, we posit an insatiable probe (Deal 2015, 2021) specified [INT:φ, SAT:–]. In Meskwaki and Passamaquoddy, where multiple valuation happens in 3→SAP but not in SAP→3, the probe is still insatiable, but it dynamically interacts (Deal 2021) with [PART]. Consequently, when the subject is an SAP, the probe's interaction feature changes to [INT:PART] and it can no longer Agree with third person objects, deriving the absence of a multiple valuation path to SAP→3 portmanteaux in those languages. The dynamic interaction analysis predicts that Infl Agrees with both arguments in SAP→SAP scenarios, so both arguments' features are in principle available to be spelled out—a correct prediction, e.g. Passamaquoddy **2PL**:1SG *-i-**yeq*** '-1OBJ-**2PL**', 2:**1PL** *-i-**yek*** '-1OBJ-**1PL**'. To explain why all the languages employ the multiple valuation path in 3→SAP scenarios, we propose that only Infl can license [PART] in Algonquian (Anagnostopoulou 2005), so learners converge on a system that allows Infl to agree with the object in 3→SAP scenarios no matter what happens in SAP→3 scenarios.

Conclusion. Microvariation across Algonquian indicates that local contextual allomorphy, long-distance contextual allomorphy, and multiple valuation are all possible paths to portmanteau agreement, contra previous proposals—although the distribution of these paths is not always free, as illustrated by the principled absence of variation in 3→SAP forms. Our study of Algonquian highlights two diagnostics, robustness and Fissionability, that can be applied to determine the status of portmanteau agreement in other languages.

Abbreviations. CI conjunct indicative; DUB dubitative; INT interrogative; NEG negative; OBJ object

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On Inuktut cleft constructions: small clauses and focus fronting

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Introduction. The Inuktut demonstrative (DEM) system is renowned for its complexity both in terms of the number of attested forms and the semantic contrasts expressed (Denny 1982; Fortescue 1984; Sadock 2003). This paper focuses on enclitic DEMs (=DEM) in Inuktut (Inuit–Yupik–Unangan), which have been loosely characterised as focus markers (Fortescue 2003; Sadock 2003), and examines the syntax of cleft constructions. Existing work on the morphosyntactic reflexes of information structure centers on topicality and its effect on alignment and word order (Berge 2011; Carrier 2021)—with few (if any) reference to focus or clefting—and more recently on prosodic focus in Kalaallisut (West Greenlandic, Arnhold 2014). However, the portrait is less clear for clefting and other Inuktut dialects, the morphosyntactic status of =DEMs remaining unclear. **Claim.** We propose that (i) =DEMs are subjects of small clauses (SCs) having a relative clause (RC) as their predicate; and (ii) focus triggers fronting of a [+FOC]-bearing constituent of the RC to Spec,FocP, as was similarly proposed for cleft-like narrow focus by Frascarelli (2010). Our contribution is threefold: (i) we provide a formal analysis of Inuktut cleft focus constructions (CFC), an under-studied type of focus in Inuktut; (ii) unify the account of enclitic DEMs and Inuktut DEMs at large; (iii) contribute novel data detailing the syntax and semantics of Baffin Inuktitut CFCs.

Demonstratives in Inuktut. Inuktut DEMs form a vast closed class which share a set of deictic roots. Altogether, several hundred distinct DEM forms are possible (Denny 1982). These elements can be used as adnominal modifiers agreeing in case with the head noun (1), third person pronouns (2), adverbial modifiers (3) and presentatives (4). We take demonstratives to be morphologically complex (Leu 2015) and structurally analogous to possessed lexical nouns, as argued for personal pronouns by Compton (2022). ((1-4) Baffin Inuktitut, IUT 2018).

(1) **uuminga** uasikuar-mik
DEM.PROX.SG.MOD vest-MOD
'**this** vest' (modalis case)

(2) **ukuak** panik-ka.
DEM.PROX.DU daughter-POSS.1SG/DU
'**These two** are my daughters.'

(3) **Unuuna** ani-juq.
DEM.DOWN.SG.VIA go.out-PTCP.3SG
'He went out **down that way**'

(4) uvva!
DEM.PROX.SENT
'Here it is right here!'

Focus constructions. In CFCs, =DEMs surface on sentence-initial focused elements. While non-cleft (5) is simply a statement of H.'s role, (6) identifies a unique member of a set of alternatives matching the description. Material to the right is presupposed. CFCs are compatible with narrow informative and contrastive focus, e.g. in response to questions. Polar interrogatives also allow CFCs (7). ((5-8) Kalaallisut, Fortescue 1984).

(5) Hansi pisurta-a-vuq
Hansi leader-BE-IND.3SG
'Hansi is leader'

(6) Hansi $\boxed{\text{=una}}$ pisurtaq
Hansi=DEM.PROX.SG.ABS leader
'It's Hansi who's the leader'

(7) uatsinnun $\boxed{\text{=una}}$ Hansi pulaar-niar-tuq
2PRO.ALL=this H. visit-FUT-PTCP.3SG
'Is it us H. is going to visit?'

(8) a. [aʁna{q,ʔ}una] 'that woman'
b. [aʁnaɴ $\boxed{\text{una}}$] 'it is a woman'

Crucially, =DEMs syntax, semantics and phonology are distinct from adnominal DEMs; e.g. (7) lacks number and person agreement (cf.1), (6) doesn't mean '<u>this</u> Hans is the leader' and specific sandhi processes occur (cf.8). However, their exponents are identical to DEM.ABS occuring elsewhere, and can express distance (PROX-DIST), place (e.g. OUT) and number contrasts (not shown).

Building focus sentences. Frascarelli (2010) argues that a strategy for Focus interpretation is to use cleft-like constructions, which involve a biclausal structure. In these constructions, the focused constituent is merged as the predicate of a SC. Building on Frascarelli (2010)'s formalization, we suggest that Inuktut =DEMS are subjects of SCs (9), parallel to copular clause subjects in Inuktut. The SC predicate position is filled by a DP, as in (8.b), or by a RC, as in (6-7). The focused element, to which Case may be assigned within the RC, is fronted to Spec,FocP where [+FOC] checking occurs. (10) illustrates clefting in copular sentences as in (8.b), (11) with a relative clause as a predicate as in (6-7). This proposal is in line with work stating that focus-like interpretation involves movement to the edge of the CP phase (Rizzi 1997).

(9) $[_{SC}$ [DP.DEM$_{sbj}$][DP/RC$_{pred}$]]

(10) $[_{FocP}[_{Spec,FocP}$ DP$_{[+foc]}$] Foc$_0$$[_{SC}[_{sbj}$ DP.DEM]$[_{pred}$ $\langle$DP$_{[+foc]}\rangle$]]]

(11) $[_{FocP}[_{Spec,FocP}$ DP$_{[+foc]}$] Foc$_0$$[_{SC}[_{sbj}$ DP.DEM]$[_{RC_{pred}}[_{DP}$ THING]$[_{CP}$ … $\langle$DP$_{[+foc]}\rangle$]]]]

Implications. =DEMS always surface with unmarked case. While this form also happens to be the absolutive form, we argue that =DEMS are not true ABS=NOM in the sense of Legate (2008). It is generally argued that SCs lack TP and vP projections (Citko 2011). Since ERG and ABS case are arguably assigned by v and T respectively (Bittner and Hale 1996), SCs are devoid of case assigners, hence the default realization of =DEMS.

(12) Nanoq $\boxed{\text{=una}}$ piniart-up toquk-kaa
bear(ABS)=DEM.PROX.SG(ABS) hunter-ERG kill-PTCP.3SGS.3SGO
'It was the bear that killed the hunter.' (Kalallisut, Sadock 2003:24)

(13) Piniartu-m $\boxed{\text{=una}}$ nanoq toquk-kaa
hunter-ERG=DEM.PROX.SG(ABS) bear(ABS) kill-PTCP.3SGS.3SGO
'It was the hunter that killed the bear.' (Kalallisut, Sadock 2003:24)

While case concord occurs within extended nominal domains, as in (1), it does not between a focused element and its (potentially) coreferential =DEM (see (12-13)). This is expected under our analysis, since they do not form a syntactic constituent. Semantic number agreement between nominal element and =DEM can occur under coreference, although this appears optional (7). Framing CFCs in SCs provides a motivation for the Focus-DEM-Presup order, and accounts for the lack of personal pronouns enclitics in CFCs, the RC being headed by an abstract noun lacking person features. Thus =DEMS are not focus markers per se, but DPs as any other DEMS in the language.

Conclusion. This paper contributes to a better understanding of DEMS in Inuktut, adding formal insights to previous descriptive accounts of these constructions. We complement data from multiple Inuktut dialects in the literature with our own elicited data from Baffin Inuktitut. To our knowledge, our work constitutes the first attempt at formalization of Inuktut clefting.

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Itzaj is a *classifier-for-numerals* language

Introduction: Itzaj (Mayan) is considered a highly endangered language since intergenerational transmission is documented to be decreasing since the 1930s (Hofling 1991, 1996; Bennett et al. 2015). Itzaj is spoken by elder speakers and by a growing number of adult L2 learners. Efforts for language revitalization projects are currently in progress, which involve immersion programs, language nests and language description with the goal of better understanding the Itzaj grammar of L1 and L2 speakers. This paper emerges from efforts to describe the Itzaj grammar of L1 and L2 speakers and focuses on one aspect of the grammar of Itzaj: the distribution of numeral classifiers. We aim to provide evidence that Itzaj is a *classifier-for-numerals* language like other Mayan languages, such as Ch'ol (Bale and Coon 2014, Little, Moroney and Royer 2022).

Numeral classifiers: In Itzaj, numeral classifiers are required whenever there is a numeral construction:

(1)	ka'-tuul	aj-winik-(oo')	(2)	ka'-b'eel	taab(-oo')	
	two-CLF	MASC-man-PL		two-CLF	salt-PL	
	'two men'			'two portions of salt in diferents containers'		

In such constructions, nouns may be optionally pluralized, as illustrated in (1) and (2). The optional use of the plural morpheme in Itzaj and the pluralization of mass nouns is described in grammars of the language (Hofling 2000, Schumann 2000) and observed in the production of elder speakers of Itzaj and L2 learners alike.

In Itzaj, numeral classifiers do not occur in constructions that do not include numerals. For example, in constructions with quantifiers (3) and adjectives (4), the numeral classifier is absent.

(3)	Yan	yaab'	ix-ak-oo'	ti	yalka'	ja'.
	EXST	many	FEM-turtle-PL	in	run	water
	'There are many turtles in the river.'					
(4)	Aj-Pablo	ka'nal.				
	MASC-Pablo	tall				
	'Pablo is tall.'					

Analysis: The literature on classifiers (Bale and Coon 2014, Little et al. 2022) argues for the existence of two types of classifier languages: *classifier-for-nouns* languages (Chierchia 1998) and *classifier-for-numerals* languages (Krifka 1995). In *classifier-for-nouns* languages, the classifier is responsible for changing the denotation of the noun while in *classifier-for-numerals* languages the numerals are 'semantically dependent on the classifier.' According to Little et al. (2022), in *classifier-for-nouns* languages it is expected that: I) there will be 'idiosyncrasies in whether or not a noun requires a classifier'; II) classifiers will not be restricted to constructions with numerals. On the other hand, in *classifier-for-numerals* languages, it is expected that: III) there will be 'idiosyncrasies in whether or not a numeral requires a classifier'; IV) classifiers will occur with numerals if not combining with a noun. We show that this is indeed the case for Itzaj.

Idiosyncrasies of numerals: As predicted by (III) we observe that Itzaj numerals always occur with numeral classifiers. In Itzaj, similarly to other Mayan languages (cf. Bale and Coon 2014, Little *et al*. 2022), Spanish numerals may also be used, in which case the numeral classifier is not going to be required:

(5)	a.	*tres-tuul	aj-winik-oo'.	b.	tres	aj-winik-oo'.
		three-NCL	MASC-man-PL		three	MASC-man-PL
		Intended: 'Three man'			'Three men.'	

This has been understood as evidence that cross-linguistically, numerals may or may not have a measure function encoded in their denotation, resulting in the fact that only in some languages numerals will require numeral classifiers. Furthermore, as predicted in (IV), classifiers in Itzal will occur on numerals even in the absence of a noun (7, 8), similarly to Ch'ol (9) (Little et al. 2022):

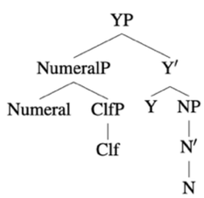
(7) Je'la' e' ox-b'eel. [Itzaj]
this is three-NCL
'This is three.'

(9) Ili jiñ ux-*(p'ej) [Ch'ol]
this DET three-NCL
'This is three.' (Little et al. 2022: 25)

(8) Ka'-pak ox-b'eel yan wak-b'eel. [Itzal]
two-CLF three-CLF EXST six-CLF
'Two times three there is six.'

The pattern observed in Itzaj can be explained by analyzing this language as a *classifier-for-numerals language* similarly to Ch'ol. Under Little et al. analysis, numeral classifiers form a constituent with the numeral rather than with the noun, as illustrated in (10); numerals would have the denotation proposed in (11a) and classifiers the denotation presented in (11b)

(10)



(11a) $[\![\text{TWO}]\!] = \lambda m_{\langle e,\, n\rangle}\, \lambda P \lambda x.[\, P(x) \,\&\, m(x) = 2]$

(11b) $[\![\text{CLF}]\!] = \mu_{\#}$

The required use of numeral classifiers in constructions such as (7) and (8) despite the absence of a noun, the absence of numeral classifiers in constructions without numerals (3-4) and idiosyncrasies in the use of numerals (5) support an analysis such as in (10)/(11) for Itzal. This analysis can also account for the co-occurrence of numeral classifiers and plural marking, since classifiers and plurals are not projected in the same position and, most importantly, given that the numeral classifier is not forming a constituent with the noun.

Conclusion: In sum, in this paper, we provided an analysis of the distribution of numeral classifiers in Itzaj in light of studies on other Mayan languages (Bale and Coon 2014, Little et al. 2022) while building on a description of a phenomenon so far undocumented for the new generation of Itzaj speakers.

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Two derivations of VO order in Mazahua: Predicate fronting and noun-incorporation
Mazahua (Oto-Manguean) is a verb-initial language that allows VOS and VSO orders. VSO allows full-DP objects but not bare objects (1a), following a common pattern cross-linguistically (Massam, 2000, 2001; Coon, 2010, among others). VOS, however, allows bare objects or full-DP (1b), deviating from other VOS languages which can only have bare NP-objects (Vargas Bernal, 2013; Victoria Sebastián, 2018). In this work I argue that there are two constructions with bare objects that surface as VO(S), each derived differently. In one construction, the object undergoes noun-incorporation (NI) and the verb complex raises through head-movement; in the other, the object stays in *v*P, which undergoes predicate fronting to a projection above VoiceP. In addition, I discuss the location in the structure of full-DP objects in VSO and VOS based on their position with respect to adverbs and locative phrases.

(1) a. ó= ndúm̥ɨ nù= ʃúβa *(jò=) tʰǒ̃: VSO
PST= plant DEF= Xuba DEM.DIST.PL= corn
'Xuba planted those corns over there' (SPP_MGRR290822_1)
b. ó= ndúm̥ɨ (jò=) tʰǒ̃: nù= ʃúβa VOS
PST= plant DEM.DIST.PL= corn DEF= Xuba
'Xuba planted those corns over there' (SPP_MGRR290822_1)

I argue for the two types of VO orders with bare objects with phonological and morphological evidence. First, (most) Mazahua roots are argued to be monosyllabic in their underlying representation, but spelled out as disyllabic to comply with a minimal word requirement when they appear in isolation (2a). (Knapp Ring, 2008). When a morpheme is suffixed to a root, the root is spelled-out as monosyllabic, followed by the suffixed morpheme (2b). This is what happens in noun-incorporation. In Mazahua, a bare object can be optionally incorporated to a verb root (3a) (in which case the verb root is spelled out as a single syllable, followed by the noun) or not (3b), in which case the verbal root is spelled out as a disyllabic word. Second, inflectional morphology and clitics attach differently in each construction. While clitics are attached to the verb+noun in NI predicates (3a), they separate the verb from the object in non-NI constructions (3b).

(2) a. /ne/ -> [neʔe] 'to want/to love'
b. /ne -zV/ -> [ne-zi] 'to love you'

(3) /ja sí ndêh hi jò kútʃi/
a. já sí-ndêhe(=hi) jò kútʃi
already drink-water=PL DEM.DIST.PL= pig
'Those pigs already drank water'
b. já síʔi(=hi) ndêhe jò kútʃi
already drink=PL water DEM.DIST.PL= pig
'Those pigs over there already drank the water'
c. *síʔi ndêhe=hi

Evidence that non-incorporated objects undergo movement is given by the position of adverbs and locative phrases. While these adjuncts can intervene between the verb and full-DP objects in VO (and in VSO), they cannot intervene between the verb and a bare object (4). I argue this is possible if the full-DP object stays within *v*P (or shifted to a low Spec) and if adverbs/locative phrases are adjoined lower than the position where subjects are merged (i.e. SpecVoiceP).

(4) já síʔi a = ɲek^{wh}a *(nù =) ndêhe
already drink LOC = here DEF = water
'He/She/They already drank the water here'

I propose that in NI contexts the object incorporates to the verb and together they undergo head-movement to a position above VoiceP (where the subject is merged) and below T (where TAM proclitics are) (e.g. FP) (5a). In non-NI constructions, the verb still undergoes head-movement to a projection below T, while the *v*P undergoes predicate fronting with the object to a position above the subject (6). Head-movement of the verb in both derivations is motivated by the position of verbal suffixes and enclitics with respect to the verbal root.

(5) [$_{\mathrm{T}}$ TAM [$_{\mathrm{FP}}$ [$_{\mathrm{F}}$ V-Obj$_j$] [$_{\mathrm{XP}}$ [$_{\mathrm{VoiceP}}$ Subj [$_{\mathrm{Voice}}$ t$_j$ [$_{v\mathrm{P}}$ t$_j$...

(6) [$_{\mathrm{T}}$ TAM [$_{\mathrm{FP}}$ [$_{\mathrm{F}}$ V$_j$] [$_{\mathrm{XP}}$ [$_{v\mathrm{P}}$ t$_j$ Obj]$_k$ [$_{\mathrm{VoiceP}}$ Subj [$_{\mathrm{Voice}}$ t$_j$ [t$_k$...

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Stem and Initial Segment Faithfulness in Kanien'kéha

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Kanien'kéha (Mohawk) is an endangered Indigenous North American language of the Northern Iroquoian family, with fewer than 700 speakers left living across eight communities in Ontario, Quebec, and upstate New York (DeCaire forthcoming). It is famous for its polysynthetic morphosyntax, which has been extensively discussed in various works (e.g. Baker 1996). Beyond its accent patterns (e.g. Michelson 1988), however, the Kanien'kéha phonological system has been largely ignored. This work contributes to filling this gap by analyzing a key aspect of Kanien'kéha phonology, specifically the distribution of the rhotic phoneme /r/, through the OT framework of *positional faithfulness* (Beckman 1998). In light of the relatively ample documentation of Kanien'kéha, all data come from a secondary source, namely the 2018 textbook by language teacher O. B. Maracle. They were checked for accuracy by a highly proficient L2 speaker.

The distribution of Kanien'kéha /r/ is marked, and interacts significantly with *stems*. I define stems (in square brackets) as morphosyntactic domains larger than monomorphemic roots (underlined), as they may contain additional elements such as reflexive prefixes, incorporated nominal roots, and derivational suffixes. There is plenty of independent evidence for the status of verbal stems as distinct morphosyntactic domains (e.g. lexicalization, idiomaticization) (Mithun 1984). Outside stems can be found productive inflectional affixes. The key data point is that, while /r/ occurs freely in stems, whether in derivational suffixes, verbal roots, or incorporated nouns, it is generally absent from inflectional affixes; and the few instances of inflectional /r/ that do exist debuccalize to /h/ when they do not form the word-initial segment. Consider the data below:

(1) The distribution of Kanien'kéha /r/ (Maracle 2018)

(a) /**r**-[at-kahtho-hse**r**ũ]-s/
3SG.M.AGT-[SRFL-look.at-DIST]-HAB
"he looks at many things"

(b) /s-**h**-[at-kahtho-hse**r**ũ]-s/
REP-3SG.M.AGT-[SRFL-look.at-DIST]-HAB
"he looks at many things again"

(c) /**r**i-[ka**r**ewaht]-ha/
1SG>3SG.M-[injure]-HAB
"I injure him"

(d) /te-**h**i-[ka**r**ewaht]-ha/
NEG-1SG>3SG.M-[injure]-HAB
"I do not injure him"

(e) /**r**oti-[ʔnikũh**r**-aksẽ̃]-Ø/
3PL.M.PAT-[mind-be.bad]-STAT
"they (M) are sad"

(f) /th-aũ-sa-**h**oti-[ʔnikũh**r**-aksẽ̃]-hake/
CNTR-OPT-REP-3PL.M.PAT-[mind-be.bad]-CONT
"they (M) would not be sad anymore"

I argue that these data call for an analysis in terms of *positional faithfulness* (Beckman 1998), whereby certain positions (e.g. stressed syllables, roots, initial syllables, etc.) are cross-linguistically more prominent, and are therefore able to support a larger number of more marked contrasts, as well as resist reduction or neutralization processes. Specifically, these data suggest that the distribution of Kanien'kéha /r/ is governed by *stem* and *initial segment* faithfulness, through two new highly-ranked constraints MAX-STEM([place]) and MAX-X$_1$([place]). These constraints punish deletions of the [place] node from the segments contained within the domains of stems and initial segments. Outside of these privileged positions, a *r markedness constraint triggers deletion of the [place] node from /r/, resulting in its debuccalization to the corresponding placeless segment [h] (which is otherwise featurally identical to /r/). Consider the tableaux below:

(2) Positional faithfulness analysis of Kanien’kéha debuccalization

	r-[at-kahtho-hserũ]-s	MAX-STEM([place])	MAX-X_1([place])	*r	MAX([place])
(a)	☞ r-[at-kahtho-hserũ]-s			**	
	h-[at-kahtho-hsehũ]-s	*!	*		**
	r-[at-kahtho-hsehũ]-s	*!		*	*
	h-[at-kahtho-hserũ]-s		*!	*	*

	s-r-[at-kahtho-hserũ]-s	MAX-STEM([place])	MAX-X_1([place])	*r	MAX([place])
(b)	s-r-[at-kahtho-hserũ]-s			**!	
	s-h-[at-kahtho-hsehũ]-s	*!			**
	s-r-[at-kahtho-hsehũ]-s	*!		*	*
	☞ s-h-[at-kahtho-hserũ]-s			*	*

The first /r/ is protected by MAX-X_1([place]) in (a), but not in (b), where [place] deletion results in debuccalization to placeless /h/. Stems are faithful throughout thanks to MAX-STEM([place]).

Although roots (e.g. Beckman 1998:191-210) and initial syllables (e.g. Becker et al. 2012:232) are often identified as privileged positions, stems and initial segments have not received the same attention, despite being also predicted to be prominent: stem faithfulness is the logical extension of root faithfulness to a complex morphological system in which roots are often derived into lexicalized polymorphemic stems; and there is a lot of processing evidence for the prominence of word-initial portions in general (i.e. not only syllables, but segments as well) (Beckman 1997:5). This study confirms these predictions: given that root and initial syllable faithfulness cannot account for the data in (1), stem and initial segment faithfulness are necessary. However, further research is needed to investigate the typological implications of these two new constraints.

This work makes a double contribution to linguistics: empirically, it documents an under-studied aspect of Kanien’kéha phonology; theoretically, it proposes two extensions to positional faithfulness. Although it remains largely academic, the implications of stem faithfulness could be positively leveraged to support revitalization efforts through community-based collaborative work. Indeed, our findings show that stems form a crucial unit in Kanien’kéha, as it is at this level that the lexicalized base onto which affixes attach coincides with a domain protected by positional faithfulness. Besides potentially enhancing our understanding of the phonology-morphosyntax interface, this suggests that stems, as the largest “fixed” domain, constitute the most acquisitionally profitable unit when trying to facilitate the teaching of Kanien’kéha verbal morphology.

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Understanding the Functions *Verbal Order* in Ojibwe Mskwaankwad Rice, University of Minnesota

A prominent aspect of Ojibwe grammar is *verbal order*, which is a classification of the systems of affixation a verb takes depending on clause type. Put simply, the *independent order* is used in main clauses, the *conjunct* in subordinate ones, and the *imperative* order is used in making commands. The conjunct has a wide range of functions and a mastery of its use is essential for L2 learners to gain native-like proficiency in Ojibwe. To compare the first two orders:[1]

(1)	Nigiigoonke.	(2)	giigoonkeyaan
	ni-giigoonke		giigoonke-yaan
	1SG.IND-is.fishing		is.fishing-1SG.CONJ
	‘I am fishing’		‘when/that I am fishing’

While a subordinating function of the conjunct is apparent, there are environments in which its use has semantic functions other than subordination and instances in which independent/conjunct selection is free or restricted. A linguistic understanding of how and why different clause types are utilized in various situations is the focus of my research as a linguist who is involved in Ojibwe reclamation.

Rice (2022) examines optativity in Ojibwe, which reveals predicates and predicative statements that vary in their availability of independent or conjunct order complements. Optative particles *begish naa* and *gesnaa* have similar functions in making wish statements though the former is restricted to taking only conjunct complements, and the latter can take ones in either order. Lexical verb constructions expressing wishes take only conjunct complements, and the lexicalized phrase *aabdek sa naa gnamaa*, translated as ‘hopefully’ takes only independent complements.

Variation in availability of verbal order in complements is also observed with various particles. *Booch* operates as a necessity modal of varying flavors depending on context, and is glossed as *it is necessary; it is certain; no matter what*.[2] Independent complements are used in denoting actual events (3) and the conjunct indicating habituality (4):

(3) Booch igo niwii-izhaa oodenaang wii-maa'ishkamaan.

booch	igo	ni-wii-izhaa	oodena-ang	wii-maa'ishkam-aan
no.matter.what	EMPH	1SG.IND-FUT-go	town-LOC	FUT-shop-1SG.CONJ

‘I'm going to town anyway to shop.’

(4) Booch igo wiisiniyaan aana-bakadesiwaan.

booch	igo	wiisini-yaan	aana-bakade-si-waan
necessarily	EMPH	eat-1SG.CONJ	despite-hungry-NEG-1SG.CONJ

‘I still eat even though I'm not hungry.’

In the Eastern Ojibwe and Odawa dialects of Ojibwe, the particle *aabidek* has a meaning similar to *booch* and is likewise subject to independent(5)/conjunct(6) optionality for the same purposes:[3]

(5) Gitziiman gii-wiijgendwaawaan aabdek, eshki-niibwiyaat.

gitziim-an	gii-wiijgendw-aawaan	aabdek,	e-shki-niibwi-yaat

[1] The imperative is not presently discussed as its function and use are relatively transparent.
[2] Ojibwe Peoples’ Dictionary https://ojibwe.lib.umn.edu/main-entry/booch-adv-man
[3] Examples taken from Nishnaabemwin Online Dictionary: https://dictionary.nishnaabemwin.atlas-ling.ca/#/help

parent-OBV	PST-live.with-3PL>>3'.IND	necessarily	IC-new-be.married-3PL.CONJ

‘They had to live with her parents when they were newly married.’

(6) Aabdek go wii-aagwitooknoweng gchi-gsinaak.

aabdek	go	wii-aagwitooknowe-ng	gchi-gsinaak
necessarily	EMPH	FUT-dress.in.layers-X.CONJ	very-cold

‘A second layer of clothing must be worn when it's really cold.’

Other particles such as *aanawi* (anyhow; although; despite; but) also take either independent or conjunct complements for similar purposes.

Additionally, main clauses are occasionally seen to be conjugated in the conjunct order. Valentine (2001) attributes this to being a function of running narrative and Fairbanks (Kishtekon) (2016) expands on that notion, demonstrating the conjunct’s function as a discourse-marking device to advance the storyline in storytelling narratives, with background information and asides marked by the independent. This phenomenon requires further syntactic exploration.

The above observations raise two important and interrelated questions: a) what determines the syntactic availability or restriction of clause type to a given predicate; and, b) what are the semantic implications of clause type selection? That certain particles are restricted to a single complement type offer clues to that particle’s syntactic position. For example, the lexicalized phrase *aabdek sa naa gnamaa* is seen to be restricted to only independent complements, suggesting that it is in fact treated syntactically as an embedded clause. Where complement clause type selection is free for either independent or conjunct, a semantic motivation is apparent though a unified theory remains elusive and cases such as the discourse function of main clause conjuncts highlights that fact.

My poster will present relevant data and theory, and offer preliminary answers to the questions posed above. I am reviewing existing literature on the subject of verbal order in Ojibwe and related Algonquian languages and investigating gaps in knowledge through original fieldwork with L1 speakers of Ojibwe. Linguistic theory will help to inform my analysis as, for example, the conjunct functions similarly to subjunctive mood in other languages. The overall investigation is important in contributing to the literature on Ojibwe grammar and to linguistic theory but more importantly, knowledge gleaned will help Ojibwe learners to understand the larger functions of verbal order and be able to model L1 speakers.

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Vowel length, epsilon and schwa in Southern Tutchone (Dene)

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Overview: The orthography of Southern Tutchone (Dene) includes both "full" and "reduced" vowels, with full <e> being described as alternating between a long and a short variant in open and closed syllables, respectively (Tlen 2016, 2022). However, the phonological underpinning of the full-reduced distinction has not been investigated, nor has the phonemic status of length alternations of <e>. I provide evidence that the full-reduced distinction primarily encodes a length contrast and that the two pronunciations of <e> represent distinct underlyingly forms: the long full vowel /eː/ and short light diphthong /jə/.

1 Background: Southern Tutchone is a critically endangered Northern Dene language spoken in the southern Yukon (Moseley 2010). Across Dene (Athabaskan) languages, there is commonly reference to a distinction between "full" vowels–described as long, tense and peripheral–and "reduced" vowels–described as short, lax and centralized (Krauss 1964). However, the reconstructed contrast in Proto-Dene between full and reduced is realized in differing ways in the daughter languages, leading to analyses involving an underlying featural distinction (e.g., Hän; Manker 2012) or length contrast (Tetsǫ́t'ıné; Jaker 2018). Previous work has not examined the phonological status of the distinction in Southern Tutchone.

2 Vowel length: Southern Tutchone has seven orthographic vowels: full <i, u, e, o, a> and reduced <ü, ä>. While the reduced vowels are both central (typically [ɨ, ə], resp.), I argue that the distinction between the two groups is underlyingly in terms of length, evidenced in the realization of nasality and rhotacization. First, coda nasals and vowel nasalization are in complementary distribution. The full vowels <i, u, a> can be nasalized (1a), but cannot have a nasal coda. In contrast, the reduced vowel <ä> cannot be nasalized but can have a nasal coda (1b). <o, ü> cannot be nasalized or have a nasal coda, and I return to <e> in §3.

(1) a. *tth'į* [tθ'ĩː] *[tθ'iːn] 'mosquito' b. *män* [mən] *[mə̃] 'lake'
shą [ʃãː] *[ʃaːn] 'rain' *shän* [ʃən] *[ʃə̃] 'I, me'

I propose that this difference is due to full vowels being underlyingly bimoraic and reduced vowels underlyingly monomoraic (2a). Nasalization thus occurs with long vowels only to avoid the possibility of a three-position (superheavy) rhyme (2b), which is crosslinguistically marked (Kaye et al. 1990). An underlying nasal that follows a reduced vowel then surfaces as a nasal coda.

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(2) a.  μ μ        μ           b.  μ μ       *μ μ μ      μ μ
         \/        |               \/\        \/  |      |  |
         a         ə               a N        a   n      ə  n
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Second, reduced vowels can be rhotacized, while full vowels cannot. Rhotacization, orthographically <Vr>, produces an R-coloured vowel that surfaces as long (3a). Rhotacized vowels then pattern with full vowels in terms of nasalization, as they can be nasalized but cannot have a following nasal coda (3b).

(3) a. *shür* [ʃɨ˞ː] 'coney, butterfish' b. *gų̈r* [kɨ̃˞ː] *[kɨ˞ːn] 'lark'
shär [ʃɚː] 'bear' *tl'ą̈r* [tɬ'ɚ̃ː] *[tɬ'ɚːn] 'horsefly'

I propose that only reduced vowels can be rhotacized as they are the only monomoraic vowels. Taking the rhotic to be a part of the rhyme (and therefore moraic), a rhotacized full vowel would result in a three-position rhyme (4a). In addition, the fact that rhotacized vowels pattern with full vowels in terms of nasalization aligns with an analysis where both are bimoraic (4b), cf. (2b).

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(4) a.  μ μ                    b.  μ μ        *μ μ μ
        | |                        | |\        \/  |
        ɨ R                        ɨ R N       i   R
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Finally, preliminary data measuring mean vowel duration provides additional evidence for a length contrast. For example, in a word pair such as *-mbat* [ᵐbaːtʰ] 'older sister', with a full vowel, and *-mbät* [ᵐbətʰ] 'front', with a reduced vowel, the vowel length ratio is 2.1:1.

3 The problem with <e>: The other possible word-final consonants <t, l> pattern differently from nasals (cf. 2b), as both can follow a full vowel (e.g., <a>) which always surfaces as long. An apparent exception to this is <e>, which has been described as surfacing as [eː] in open syllables and [ɛ] in closed syllables (Tlen 2022: 14). Examples from the Kluane dialect are shown in (5).

(5) a. *khe* [xeː] *[xɛ] 'lard' b. *khet* [xɛtʰ] *[xeːtʰ] 'scab'

This analysis faces two empirical challenges: first, syllable shape is not sufficient to predict which pronunciation is represented by <e>. Contra (5a), <e> is unexpectedly realized as [ɛ] in open syllables when a noun stem ending in <en> takes the diminutive suffix <-a> (6a). This also occurs in words such as *zenu* (5b), which are synchronically monomorphemic. The examples in (6) are also from the Kluane dialect.

(6)	a.	*dunèn*	[tuːnɛ̀nʔ]		'child'
		dunèna	[tuːnɛ̀naː]	*[tuːneːnaː]	'small child'
	b.	*zenu*	[zɛnuː]	*[zeːnuː]	'day'

Second, in some dialects (e.g., Lake Laberge) there is obligatory palatalization before <e> when realized as [ɛ], in (7a), but no dialect allows for palatalization before <e> as [eː] (7b).

(7)	a.	*dunèna*	[tuːnjɛ̀naː]	*[...nɛ̀naː]	'small child'	b.	*ke*	[kʰeː]	*[kʰjeː]	'tracks'
		łet	[ɬjɛtʰ]	*[ɬɛtʰ]	'scab'					

While palatalization before a front vowel is common across languages, the absence of palatalization before <e> as [eː] suggests that the two sounds represented by orthographic <e> have different underlying features. To probe this, we must return to orthographic schwa (<ä>).

4 Epsilon as schwa: Schwa is commonly realized as [ɛ~ɜ] in many dialects of Southern Tuchone. In Lake Laberge, schwa in both prefixes and stems is pronounced as [ɛ] (8a). To maintain contrast between stem <e> as [ɛ] and <ä> as [ɛ], the former is obligatorily marked by palatalization (8b). Therefore, the underlying representation must capture this contrast.

(8) Lake Laberge dialect

a.	*däshän* /tə- ʃən/	[tɛʃɛn]	'a stick'	b.	*łet*	/?/	[ɬjɛtʰ]	*[ɬɛtʰ]	'scab'
					łät	/ɬət/	[ɬɛtʰ]		'smoke'

Since (8b) forms a minimal pair differing only in palatalization, I propose that <e> as [jɛ] is underlyingly the light diphthong /jə/ (i.e., orthographic <yä>). As schwa is uniformly realized as [ɛ] in this dialect, the diphthong's realization as [jɛ] rather than [jə] is not surprising.

On the other hand, in Kluane, schwa in prefixes is optionally pronounced [ɛ], while in stems it is uniformly [ə] (9a). Palatalization before <e> pronounced as [ɛ] is optional, and the contrast between <ä> and <e> is marked by vowel quality rather than palatalization (9b).

(9) Kluane dialect

a.	*däshän* /tə- ʃən/	[tɛʃən] *[tɛʃɛn]	'a stick'	b.	*łet*	/ɬjət/	[ɬɛtʰ] ~ [ɬjɛtʰ]		'scab'
					łät	/ɬət/	[ɬətʰ]	*[ɬɛtʰ]	'smoke'

The lack of obligatory palatalization in Kluane at first appears to challenge the diphthong analysis. However, I propose that the general absence palatalization is due to a tradeoff between phonological contrast and articulatory effort. That is, [ɛ] requires less articulatory effort than [jə], and the sound [ɛ] (/jə/) provides adequate contrast with [ə] (/ə/) in stems without the need for palatalization (9b). The same cannot be said for Lake Laberge, where loss of palatalization would result in both /ə/ and /jə/ being realized [ɛ] (8b). In addition, numerous examples of /jə/ as [jə] suggested by the use of orthographic <yä> rather than the expected <e> are attested in previous transcriptions (e.g., YNLC 2002: 195).

5 Conclusion: The reduced-full distinction in Southern Tutchone is encoded as a length contrast, with the orthographic vowels generally consistent with their corresponding phonemes. An exception is <e> when pronounced as [ɛ], which represents the light diphthong /jə/, rather than the front vowel /eː/. Future work will examine why only underlyingly central vowels (/(j)ə, aː/) can occur in closed syllables, as well as the syllabic status of word-final consonants.

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