

# P'urhepecha Negative Shift and Cyclic Linearization\*

Erik Zyman · UC Santa Cruz  
ezyman@ucsc.edu

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## 1 Introduction

A major question of interest to syntacticians, morphologists, and phonologists:

- (1) What are the principles and constraints determining how hierarchical syntactic structures are mapped onto linear order?  
(Cf. Kayne 1994, Embick & Noyer 2001, Fox & Pesetsky 2005, Richards 2010, Abels & Neeleman 2012, a.m.o.)

Here, I explore this question by investigating the phenomenon of *negative shift* in a variety of P'urhepecha, and in particular a constituent-order paradox it gives rise to.

P'urhepecha is an isolate of Mexico spoken by >120,000 people (INEGI 2010, Vázquez Rojas Maldonado 2013:8-9), mainly in the central-western state of Michoacán. Today's data come from the variety spoken on the island of Janitzio on Lake Pátzcuaro (henceforth *Janitzio P'urhepecha*).

P'urhepecha is an exclusively suffixing, agglutinating, head- and dependent-marking language with relatively flexible constituent order.

(Foster 1969, Wares 1974, Capistrán 2002, Medina Pérez 2006, Villavicencio Zarza 2006, Chamoreau 2007, Mendoza 2007, Vázquez-Rojas Maldonado 2011, a.o.)

### 1.1 Roadmap

- §2: Negative shift: the empirical terrain
- §3: The constituenthood of the negative expressions
- §4: Janitzio P'urhepecha clause structure (brief overview)
- §5: A constituent-order paradox
- §6: Solving the paradox: cyclic linearization
- §7: Conclusion

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## 2 Negative shift: the empirical terrain

### 2.1 Negative objects in monotransitive clauses

Although Janitzio P’urhepecha is a VO language, it requires negative objects to precede the verb:<sup>1</sup>

- (2) a. Xumu ambu ambe pia-∅-∅-∅.  
 Xumu not what buy-PFV-PRS-INT  
 ‘Xumu bought nothing.’ [✓LMPQR]
- b. \*Xumu pia-∅-∅-∅ ambu ambe.  
 Xumu buy-PFV-PRS-INT not what  
 int. ‘Xumu bought nothing.’ [\*LMPQR]

I’ll call this *negative shift* (following Engels 2012 and references therein).

An attested example (from the P’urhepecha spoken in nearby Jarácuaro; adapted from Chamoreau 2003:54):

- (3) [A: Pedro broke my millstone. C: And then what happened? A:]  
 Pensári-ša-∅-ti no ampé-ni ú-ni. (*no ampéni* → *noompéni*)  
 plan-DUR-PRS-IND3 NEG thing-ACC do-INF  
 semilit. ‘He plans to do nothing.’  
 id. ‘He’s not planning to do anything about it.’

### 2.2 Negative objects in ditransitive clauses

In ditransitive clauses, the notional direct and indirect object normally both follow the verb, but may appear in either V-DO-IO or V-IO-DO order:

- (4) Pablu intsímpe-si-∅-ti Elisa-ni ma takukata Elisa-ni.  
 Paul give.as.gift-PFV-PRS-IND3 Elisa-ACC a book Elisa-ACC  
 ‘Paul gave a book to Elisa as a gift.’

But when DO is negative, it must precede the V-IO sequence:

- (5) Erandi ambu ambe intsímpe-∅-∅-∅ \*ambu ambe uatsapi-ni \*ambu ambe.  
 Erandi not what give.as.gift-PFV-PRS-INT \*not what boy-ACC \*not what  
 ‘Erandi gave nothing to the boy as a gift.’ [AJVWXY]

When IO is negative, it must precede the V-DO sequence:

- (6) Nande ambu ne-ni intsku-∅-∅-∅ \*ambu ne-ni ma ujtsikukata \*ambu ne-ni.  
 Mother no who-ACC give-PFV-PRS-INT \*no who-ACC a pastry \*no who-ACC  
 ‘Mother gave no one a pastry.’ [AGMVWZ]
- (7) Jorhentperi no-ne-ni intsímpe-si-∅-ti \*no-ne-ni ma takukata \*no-ne-ni.  
 teacher no-who-ACC give.as.gift-PFV-PRS-IND3 \*no-who-ACC a book \*no-who-ACC  
 ‘The teacher gave no one a book as a gift.’ [AJVWXY]

<sup>1</sup>**Abbreviations and symbols:** ACC = accusative, COM = comitative, DIST = distal (demonstrative), DUR = durative, FUT = future, GEN = genitive, HAB = habitual, IND = indicative, INF = infinitive, INT = interrogative/clarificational mood, LOC = locative, NEG = negative, NML = nominalizer, PFV = perfective, PRS = present, PTCP = participle, pO = plural object agreement, pS = plural subject clitic, RESP = respectful, 1/3 = first/third person, 1pS = first person plural subject clitic, 1sS = first person singular subject clitic, 2sS = second person singular subject clitic, ↓ = less acceptable than the comparison sentence.

### 2.3 Negative oblique objects

Negative shift is not limited to fully “nominal” objects. It obligatorily affects the comitative argument of the verb *uandontskuari-* ‘converse’ (here ‘talk to, talk with’):

- (8) Uitsidekua ⟨**no-ne-nguni**⟩ uandontskuari-si-∅-ka=ni ⟨?**\*no-ne-nguni**⟩.  
 yesterday ⟨no-who-COM⟩ converse-PFV-PRS-IND1=1sS ⟨?**\*no-who-COM**⟩  
 ‘Yesterday I talked to no one.’ [✓STUVW | **\*STUVW**, ↓<sub>A</sub>]

The facts are the same when this argument of *uandontskuari-* ‘converse’ is realized as a PP headed by the postposition *jingoni* ‘with’ ((9)). In other words, negative shift pied-pipes PPs.

- (9) Uitsidekua ⟨**no-ne-ni jingoni**⟩ uandontskuari-si-∅-ka=ni ⟨**\*no-ne-ni jingoni**⟩.  
 yesterday ⟨no-who-ACC with⟩ converse-PFV-PRS-IND1=1sS ⟨**\*no-who-ACC with**⟩  
 ‘Yesterday I talked to no one.’ [✓AT | **\*ASTUVW**]

### 2.4 Negative adjuncts

Comitative nominals and *jingoni* ‘with’-PPs behave identically when they are (plausibly) adjuncts rather than arguments:

- (10) Ima ⟨**no-ne-nguni**⟩ anchikuari-sin-∅-di ⟨**\*no-ne-nguni**⟩.  
 3 ⟨no-who-COM⟩ work-HAB-PRS-IND3 ⟨**\*no-who-COM**⟩  
 ‘(S)he works with no one.’ [AJVXY | **\*AJVWXY**]
- (11) Ima ⟨**no-ne-ni jingoni**⟩ anchikuari-sin-∅-di ⟨**\*no-ne-ni jingoni**⟩.  
 3 ⟨no-who-ACC with⟩ work-HAB-PRS-IND3 ⟨**\*no-who-ACC with**⟩  
 ‘(S)he works with no one.’ [AJVWXY]

Negative shift also affects the adjunct *ambu nani* ‘nowhere’:

- (12) a. Ambu nani=si meiape-a-na-∅-ki kuerepu.  
 not where=pS sell-pO-DUR-PRS-INT silverside  
 ‘They sell silversides nowhere.’
- b. **\*Meiape-a-na-∅-ki=si** ⟨**ambu nani**⟩ kuerepu ⟨**ambu nani**⟩.  
 sell-pO-DUR-PRS-INT ⟨not where⟩ silverside ⟨not where⟩  
 int. ‘They sell silversides nowhere.’ [**\*AJVWXY**]

### 2.5 Negative predicative PPs

When *ambu nani* ‘nowhere’ serves as the object of the postposition *anapu* ‘from’, and the resulting PP functions as the predicate of the clause, negative shift pied-pipes the predicative PP:

- (13) Inde ⟨**ambu nani anapu**⟩ jinde-si-∅-ti ⟨?**\*ambu nani anapu**⟩.  
 3 ⟨not where from⟩ be-PFV-PRS-IND3 ⟨?**\*not where from**⟩.  
 ‘(S)he’s from nowhere.’ [✓JVXY | **\*JVWXY**, ??<sub>A</sub>]

## 2.6 Multiple negative elements

If all negative nonsubjects obligatorily move to a preverbal position, then when a clause contains more than one such phrase, they should all shift. This is indeed possible (though I have yet to confirm that it's obligatory):

- (14) Jorhentperi no-ne-ni ambu ambe exera(-sĩ-Ø-ti).  
 teacher no-who-ACC not what show(-PFV-PRS-IND3) [ $\checkmark$ ALVWZ $\alpha$ ]  
 ‘The teacher showed no one nothing.’ (There was no one to whom the teacher showed nothing.)
- (15) Jorhentperi ambu ambe no-ne-ni exera(-sĩ-Ø-ti).  
 teacher not what no-who-ACC show(-PFV-PRS-IND3) [ $\checkmark$ ALVWZ $\alpha$ ]  
 ‘The teacher showed nothing to no one.’ (There was nothing that the teacher showed to no one.)

## 3 The negative expressions are constituents

Consider a negative expression like *ambu ambe* ‘not what’ = ‘nothing’. Is it a constituent, or a nonconstituent sequence consisting of the (clause-level) polarity particle *ambu* ‘not’ and the indefinite nominal *ambe* ‘something’ (the latter serving as the real object)?

### 3.1 The stand-alone test

One piece of evidence that it's a constituent is its ability to pass the stand-alone test:

- (16) A: ¿Ambe=ri pia-sĩ-Ø-ki?                      B: **Ambu ambe.**  
           what=2sS buy-PFV-PRS-INT                      not what  
           ‘What did you buy?’ [ $\checkmark$ AU]                      ‘Nothing.’ [ $\checkmark$ AU]

Forms of *none* ~ *nomane* ‘no one’ also pass this test:

- (17) A: ¿Ne-ni exe-sĩ-Ø-ki=ri?                      B: **No-ne-ni.** ~ **No-ma-ne-ni.**  
           who-ACC see-PFV-PRS-INT=2sS                      no-who-ACC no-one-who-ACC  
           ‘Who did you see?’ [ $\checkmark$ TVW]                      ‘No one.’ [ $\checkmark$ ASTV |  $\checkmark$ U]

### 3.2 Excursus: coordination

If a negative expression like *ambu ambe* ‘nothing’ is a constituent, it should be coordinable (e.g., with another negative expression). This expectation is borne out:

- (18) a. Ima ireta ambu ambe ka no-ma-ne-ni exe-sĩ-Ø-ka=ni.  
           that<sub>DIST</sub> town not what and no-one-who-ACC see-PFV-PRS-IND1=1sS  
           ‘In that town I saw nothing and no one.’ [ $\checkmark$ ALMPQ]
- b. Ima ireta no-ma-ne-ni ka ambu ambe exe-sĩ-Ø-ka=ni.  
           that<sub>DIST</sub> town no-one-who-ACC and not what see-PFV-PRS-IND1=1sS  
           ‘In that town I saw no one and nothing.’ [ $\checkmark$ MPR]

However, this could in principle be accounted for on a nonconstituent analysis of negative expressions like *ambu ambe* ‘nothing’ by positing that, in coordinate structures like those in (18), the verbal complex (or a phrase containing it) undergoes Right Node Raising.

Therefore, the main argument that these negative expressions are constituents comes from stand-alone data like (16-17).

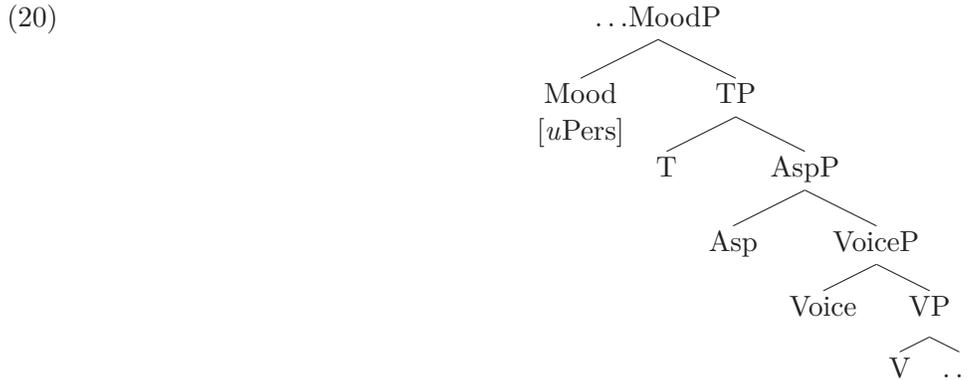
## 4 Janitzio P'urhepecha clause structure

Before we can proceed to the constituent-order paradox that negative shift gives rise to in Janitzio P'urhepecha, we need to know something about the language's clause structure. It is to this task that we now turn (briefly).<sup>2</sup>

(19) *Morphological structure of the Janitzio P'urhepecha finite verb*

$\sqrt{\text{ROOT}}$	(Derivational Suffixes)	Voice	Aspect	Tense	Mood+Person
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By the logic of the Mirror Principle (Baker 1985:375, (4)), this leads us to the following (partial) clause structure:



Cartographic investigations (Cinque 1999, Tescari Neto 2013, a.o.) lead us to expect different types of adverbials to occur at different heights.

In particular, we might expect manner adverbials such as *exeparini* ‘carefully’ to adjoin to VoiceP, *isku jauembarini* ‘suddenly’ to adjoin to AspP, and *jimamberi* ‘then’ to adjoin to TP. (The appeal to adjunction is a departure from the cartographic approach.)

If this expectation is correct, then, when a sentence contains two adverbials belonging to different classes, and both are left-adjoined, they should be rigidly ordered. The prediction is borne out:

(21) *Isku jauembarini* ‘suddenly’ (AspP) precedes *exeparini* ‘carefully’ (VoiceP)

- a. Emilia **isku jauembarini** apojsita-si-Ø-ti **exeparini** koki-ni utsakua-rhu.  
 Emily suddenly put-PFV-PRS-IND3 carefully toad-ACC grass-LOC  
 ‘Emily suddenly carefully put the toad on the grass.’
- b. ??Emilia **exeparini** apojsita-si-Ø-ti **isku jauembarini** koki-ni utsakua-rhu.  
 Emily carefully put-PFV-PRS-IND3 suddenly toad-ACC grass-LOC  
 ‘\*Emily carefully suddenly put the toad on the grass.’

(22) *Jimamberi* ‘then’ (TP) precedes *isku jauembarini* ‘suddenly’ (AspP)

- a. Elena **jimamberi** mitanta-si-Ø-ti **isku jauembarini** omutakua-ni k’umanchiku-eri.  
 Elena then open-PFV-PRS-IND3 suddenly door-ACC house-GEN  
 ‘Elena then suddenly opened the door to the house.’
- b. ?Elena **isku jauembarini** mitanta-si-Ø-ti **jimamberi** omutakua-ni k’umanchiku-eri.  
 Elena suddenly open-PFV-PRS-IND3 then door-ACC house-GEN  
 ‘\*Elena suddenly then opened the door to the house.’

<sup>2</sup>See Appendix A for some additional data. The clause structure of Janitzio P'urhepecha is investigated in greater detail in Zyman 2016 (ms, §§3-4).

Where can the verb word surface? It can appear to the right of a manner (VoiceP-) adverbial such as *ikichakueni jasi* ‘badly’, hence very low (in Voice):

- (23) Karlusi **ikichakueni jasi** atanta-si-Ø-ti tsintsikata-ni.  
 Carl badly paint-PFV-PRS-IND3 wall-ACC  
 ‘Carl painted the wall badly.’

It can also appear between VoiceP-adjoined *exeparini* ‘carefully’ and AspP-adjoined *isku jauembarini* ‘suddenly’ ((21a)), hence in Asp.

...or between AspP-adjoined *isku jauembarini* ‘suddenly’ and TP-adjoined *jimamberi* ‘then’ ((22a)), hence in T.

Finally, it can precede TP-adjoined *jimamberi* ‘then’, appearing in Mood:

- (24) [Next year we’ll live in another town.]  
Erenta-a-Ø-ka=sì **jimamberi** sanderu sesi.  
 live-FUT-PRS-IND1=1pS then more well  
 ‘Then we’ll live better.’

Polarity particles such as *ambu* ‘not’ (presumably Pol heads) must precede the verb:

- (25) Iasi **ambu** ts’irakuare-Ø-Ø-Ø / \*ts’irakuare-Ø-Ø-Ø **ambu** / \*ts’irakuare-Ø-Ø-Ø **ambu**.  
 today not be.cold-PFV-PRS-INT  
 ‘It’s not cold today.’

The adverbial *sesimindu uandantani ia* ‘honestly, frankly’ (lit.  $\approx$  ‘to inform very well’) must precede polarity particles; for concreteness, I take it to adjoin to PolP:

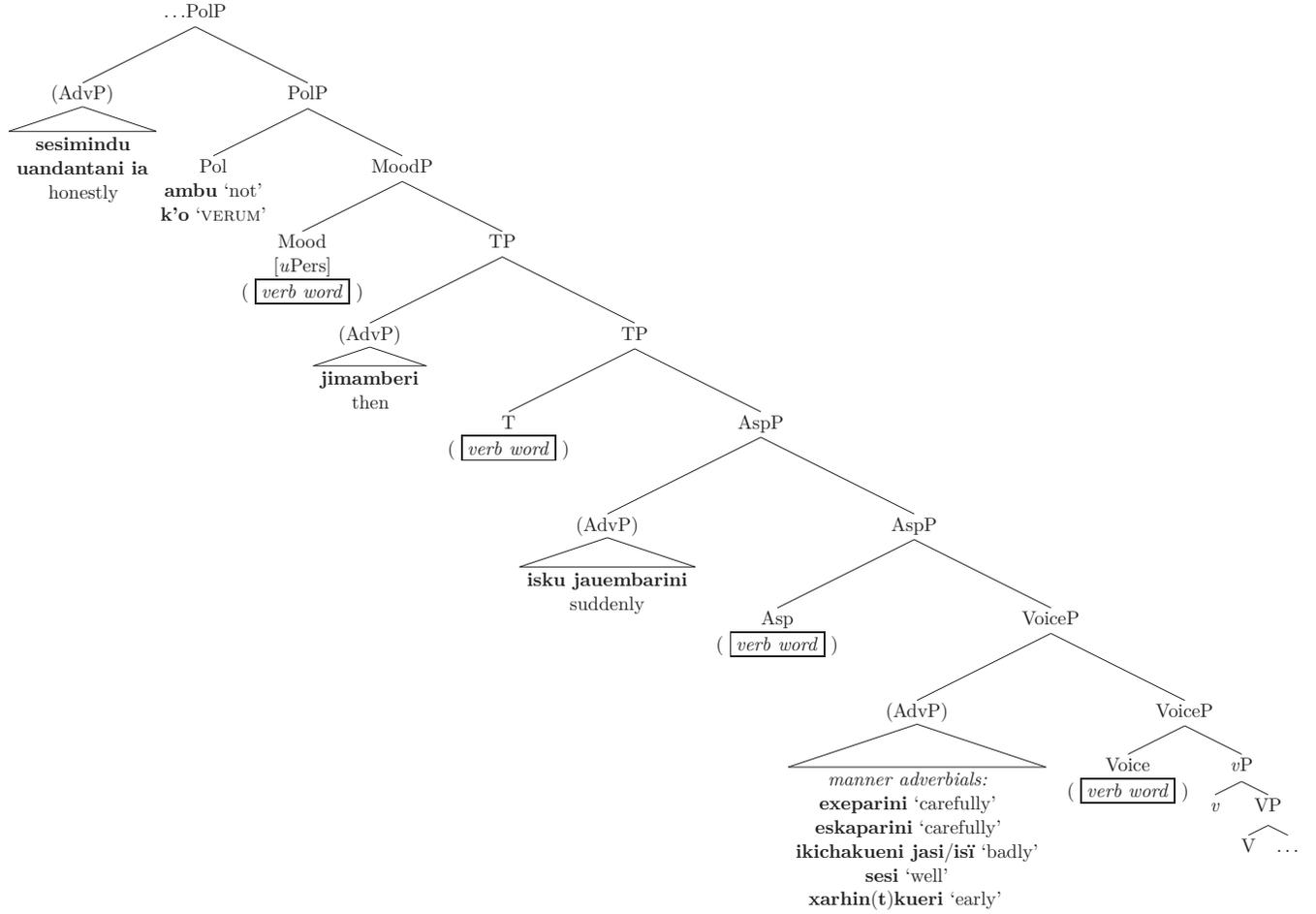
- (26) *Sesimindu uandantani ia* ‘honestly’ must precede *ambu* ‘not’
- a. **Sesi=mindu uandanta-ni ia** ambu aparekuari-na-Ø-ki.  
 well=very inform-INF already not be.hot-DUR-PRS-INT  
 ‘It’s honestly not hot [out].’
  - b. \*Ambu **sesi=mindu uandanta-ni ia** aparekuari-na-Ø-ki.  
 not well=very inform-INF already be.hot-DUR-PRS-INT  
 int. ‘It’s honestly not hot [out].’ / ‘It’s not honestly hot [out].’

Finally, when a manner adverbial is left-adjoined to VoiceP and the verb surfaces low (in Voice), an unergative subject can follow them both ((27)), suggesting that it can occupy the specifier of a projection lower than VoiceP (here dubbed *vP*):

- (27) Churiku-eri **ikichakueni isi** xosta-si-Ø-ti Axuni japonda-rhu.  
 night-GEN badly thus row-PFV-PRS-IND3 Axuni lake-LOC  
 ‘At night, Axuni rowed badly on the lake.’

Putting this all together:

(28) *Janitzio P'urhepecha clause structure (final version)*<sup>3</sup>



## 5 A constituent-order paradox

Returning to negative shift, a natural question about this operation is: Where do negative phrases shift to?

### 5.1 Negative shift obligatorily crosses VoiceP

- (29) Petu ⟨**ambu ambe**⟩ xarhinkueri ⟨*?\*ambu ambe*⟩ u-j-∅-ki.  
 Peter ⟨not what⟩ early ⟨*?\*not what*⟩ do-HAB-PRS-INT  
 ‘Peter does nothing early.’ [✓ALPQR, \*M<sup>4</sup> | \*AL, ↓MP]
- (30) Ima ⟨**ambu ambe**⟩ exeparini ⟨*↓ambu ambe*⟩ exeku-∅-∅-∅.  
 3 ⟨not what⟩ carefully ⟨*↓not what*⟩ fix-PFV-PRS-INT  
 ‘(S)he fixed nothing carefully.’ [✓AMQR | ↓ALP, ?M]
- (31) Ts’ima ⟨**ambu ambe**⟩ eskaparini ⟨*\*ambu ambe*⟩ arinta-∅-∅-∅=si.  
 they ⟨not what⟩ carefully ⟨*\*not what*⟩ read-PFV-PRS-INT=pS  
 ‘They read<sub>past</sub> nothing carefully.’ [✓LMR | \*LPQR]

<sup>3</sup>I use *AdvP* throughout as a cover term for *adverbial* phrases.

<sup>4</sup>As indicated, one of six speakers consulted about the DP<sub>NEG</sub>-Adv version of this sentence found it unacceptable. I have no explanation for this, but note that she found the Adv-DP<sub>NEG</sub> version even worse, suggesting that there is some unity behind the variation observed here.

- (32) Ima ⟨**ambu ambe**⟩ sesi ⟨**\*ambu ambe**⟩ u-j-∅-ki.  
 3 ⟨not what⟩ well ⟨\*not what⟩ do-HAB-PRS-INT  
 ‘(S)he does nothing well.’ [ALMPQR]
- (33) Ima ⟨**ambu ambe**⟩ ikichakueni jasi ⟨**↓ambu ambe**⟩ u-j-∅-ki.  
 3 ⟨not what⟩ badly ⟨↓not what⟩ do-HAB-PRS-INT  
 ‘(S)he does nothing badly.’ [✓MPQR | ↓QR, ?MP]

## 5.2 Can negative shift cross AspP?

To be determined.

## 5.3 Negative shift cannot cross TP

- (34) Juanu ⟨**?\*ambu ambe**⟩ jimamberi ⟨**ambu ambe**⟩ uanda-∅-∅-∅.  
 John ⟨?\*not what⟩ then ⟨not what⟩ say-PFV-PRS-INT  
 ‘John then said nothing.’ [\*AMP, ↓R | ✓LMPQR]

Since negative shift cannot cross TP, it certainly should not be able to cross the larger phrase PolP. This expectation is borne out:

## 5.4 Negative shift cannot cross PolP

- (35) Ji ⟨**\*ambu ambe**⟩ sesi=mindu uandanta-ni ia ⟨**ambu ambe**⟩ kara-∅-∅-∅.  
 I ⟨\*not what⟩ well=very inform-INF already ⟨not what⟩ write-PFV-PRS-INT  
 ‘I honestly wrote nothing.’ [✓AKLMNO | \*AKMN]

## 5.5 The paradox

And herein lies the paradox:

- (36) a. A negative nonsubject must precede the verb word.  
 b. The verb word can be realized very high (as high as Mood).  
 c. But a negative nonsubject *cannot* raise very high. It can’t even raise out of TP.

## 6 Solving the paradox: cyclic linearization

I suggest that we can make sense of this seemingly strange situation by appealing to *cyclic linearization* (Fox & Pesetsky 2005, Ko 2007, Engels 2012, Erlewine 2014, a.o.)...

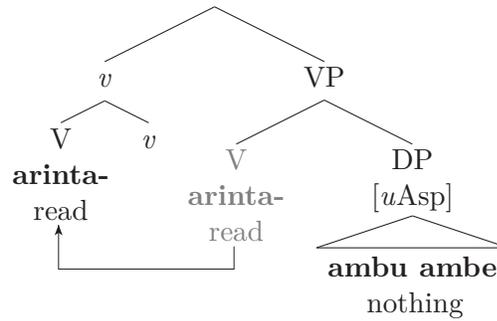
...i.e., the hypothesis that, when a chunk of syntactic structure is spelled out, the relative order of its overt subconstituents is fixed. On this hypothesis, any subsequent movement of these subconstituents must create configurations that respect (do not contradict) the ordering statements that have been generated.

Let’s flesh this proposal out by considering the derivation of (the well-formed version of) the following sentence:

- (37) Ts’ima ⟨**ambu ambe**⟩ eskaparini ⟨**\*ambu ambe**⟩ arinta-∅-∅-∅=si. (= (31))  
 they ⟨not what⟩ carefully ⟨\*not what⟩ read-PFV-PRS-INT=pS  
 ‘They read<sub>past</sub> nothing carefully.’ [✓LMR | \*LPQR]

First, the following structure is built up:

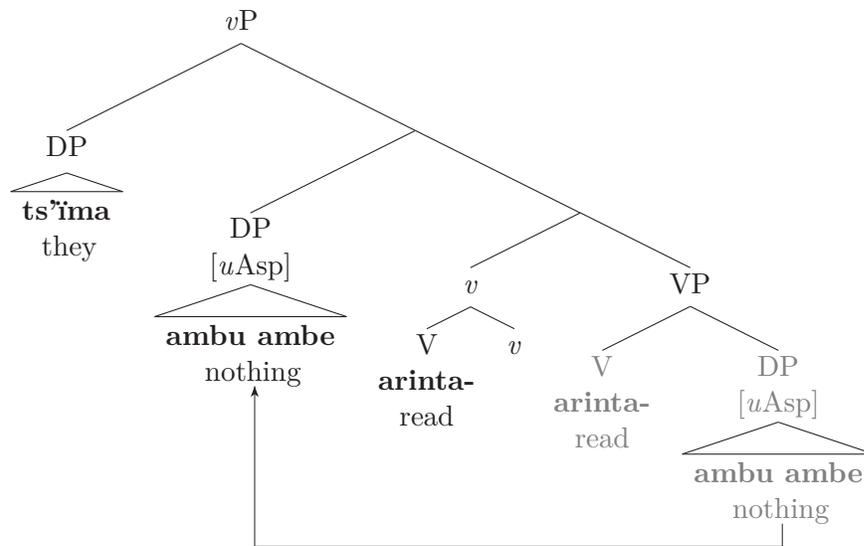
(38)



I posit that, in Janitzio P’urhepecha, a negative phrase such as *ambu ambe* ‘nothing’ bears a (Bošković 2007–style) feature  $[uAsp]$ , which must be satisfied under Agree (Chomsky 2000, 2001).

In (38), *ambu ambe* ‘nothing’ cannot satisfy its  $[uAsp]$  feature under Agree from its base position. It therefore moves, greedily,<sup>5</sup> to the edge of the  $vP$  phase, where the subject is also merged:

(39)



At this point, order is determined within the  $vP$  phase:

(40)  $vP$ : *ts’ima* ‘they’ < *ambu ambe* ‘nothing’ < *arinta-* ‘read’ (“<” = ‘precedes’)

In its new position, *ambu ambe* ‘nothing’ still cannot satisfy its  $[uAsp]$  feature under Agree, so it will be motivated to move further.

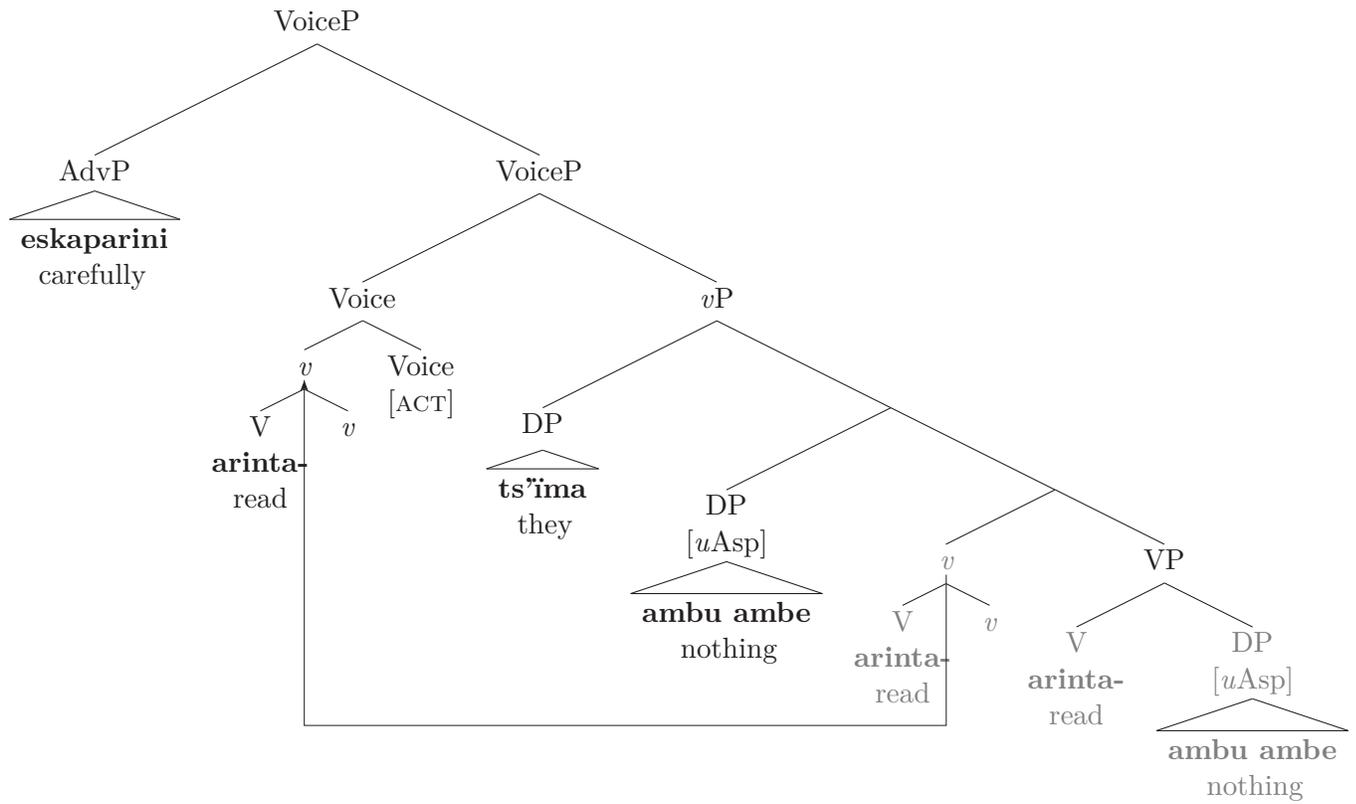
In the next phase,<sup>6</sup> the complex head  $V-v$  undergoes further head movement to Voice,<sup>7</sup> and the adverbial *eskaparini* ‘carefully’ is adjoined to VoiceP:

<sup>5</sup>On greedy movement, see Grohmann, Drury, and Castillo 2000, Bošković 1995, 2002, 2007, a.o.

<sup>6</sup>If the clause-internal phase is not  $vP$  but some larger category (e.g., VoiceP), the analysis can be adjusted accordingly.

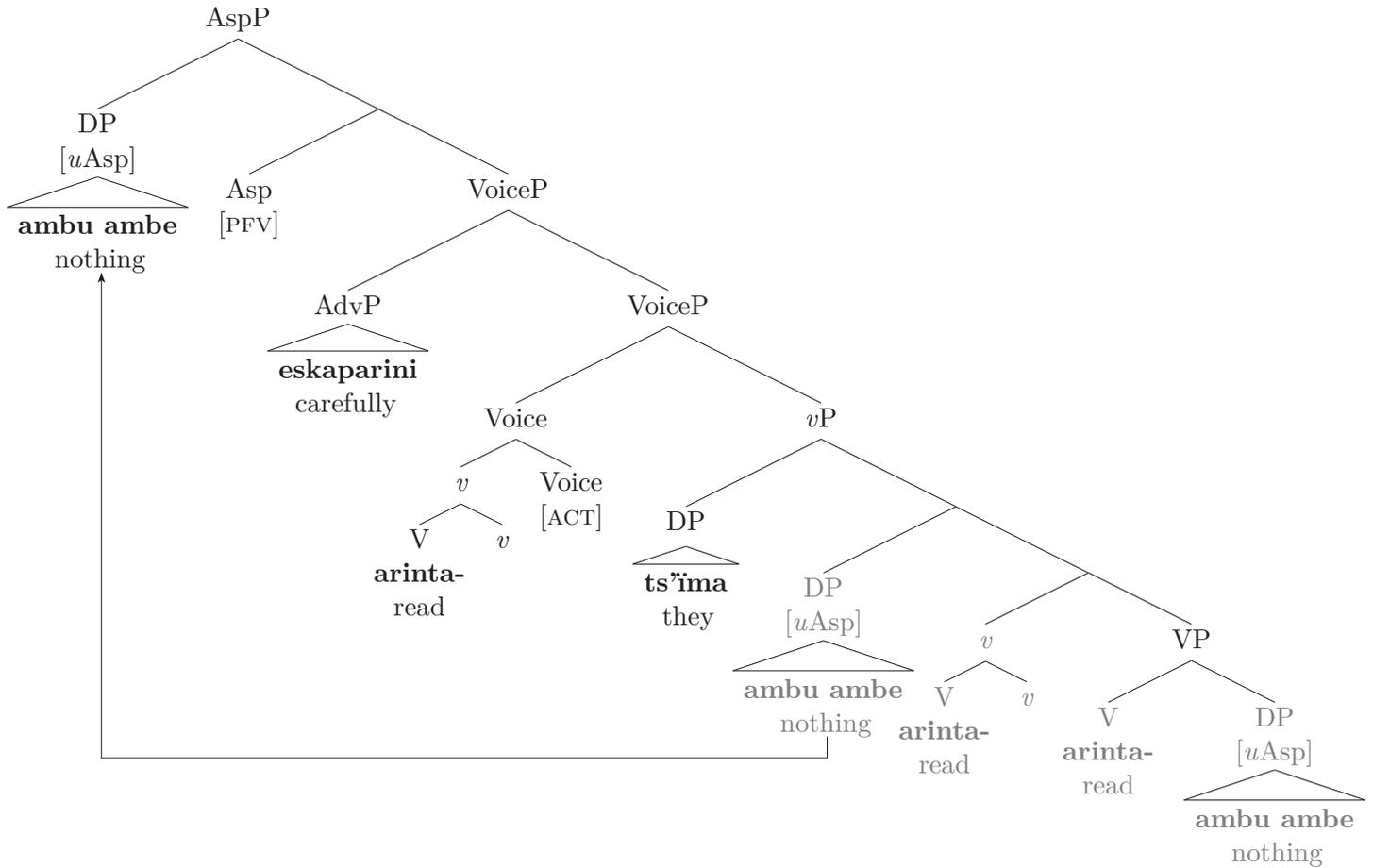
<sup>7</sup>This is independently motivated: head movement from  $V$  to  $v$  to Voice is obligatory in Janitzio P’urhepecha. Feel free to ask about this!

(41)



Then, the Asp head is merged in. *Ambu ambe* 'nothing' moves greedily again, internally merging with the projection of Asp. It thereby reaches a position ("[Spec,AspP]") from which it can satisfy its  $[uAsp]$  feature under Agree:

(42)



The subject, *ts'ima* 'they', moves from its position on the *vP* phase edge to one of the subject positions above the new position of the negative object. This could be an outer specifier of AspP, [Spec,TP], [Spec,MoodP], [Spec,PolP], or even [Spec,TopP].<sup>8</sup>

The derivation continues. Finally, order is determined within the CP phase:

- (43) a. *vP*: *ts'ima* 'they' < *ambu ambe* 'nothing' < *arinta-* 'read'  
 b. **CP**: *ts'ima* 'they' < *ambu ambe* 'nothing' < *eskaparini* 'carefully' < *arinta-* 'read'

The CP-level ordering statements are consistent with the *vP*-level ones, and the derivation of the sentence (repeated below for convenience) converges.<sup>9</sup>

- (44) Ts'ima ⟨ambu ambe⟩ eskaparini ⟨\*ambu ambe⟩ arinta-∅-∅-∅=sī. (= (31))  
 they ⟨not what⟩ carefully ⟨\*not what⟩ read-PFV-PRS-INT=pS  
 'They read<sub>past</sub> nothing carefully.' [✓LMR | \*LPQR]

<sup>8</sup>On the rich syntax of subjecthood in Janitzio P'urhepecha, see Zyman 2016 (MS, §4.1). On the left periphery in Lake Pátzcuaro P'urhepecha, of which Janitzio P'urhepecha is a variety, see Capistrán 2002.

<sup>9</sup>I set aside here the issue of the plural subject clitic =sī.

## 6.1 Taking stock and explaining the paradox

As we have seen, a negative constituent ( $XP_{\text{NEG}}$ ) generated within VP moves greedily to the edge of  $vP$ , causing an ordering statement  $\boxed{XP_{\text{NEG}} < V-v}$  to be generated when  $vP$  is spelled out.

In the higher phase, if the complex head  $V-v$ -Voice were to raise any higher than Asp, it would precede the moved negative XP in  $[\text{Spec}, \text{AspP}]$  when CP was spelled out ( $\boxed{V-v\text{-Voice} \dots < XP_{\text{NEG}}}$ ), leading to an ordering contradiction.

Therefore, although the verbal complex can normally be realized in T or even in Mood, a negative XP in  $[\text{Spec}, \text{AspP}]$  “traps” it low.

## 7 Conclusion

Today’s investigation of negative shift in Janitzio P’urhepecha led us to an apparent constituent-order paradox: a negative nonsubject must precede the verb; the verb can raise very high (to Mood); but a negative nonsubject *cannot* raise very high.

I proposed that we can make sense of this puzzling phenomenon by appealing to *cyclic linearization* (Fox & Pesetsky 2005, Ko 2007, Engels 2012, Erlewine 2014, a.o.).

If this is on the right track, we have new support for an interesting hypothesis about the mapping between hierarchical structure and linear order:

...that, at designated points in a syntactic derivation, the relative order of constituents is fixed—and subsequent movement operations can only create configurations that respect the ordering statements already generated.

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## 9 Appendix A: More clause-structure data

### 9.1 The relative order of AspP- and VoiceP-adverbials

More evidence that the AspP-adverbial *isku jauembarini* ‘suddenly’ precedes VoiceP-adjoined manner adverbials:

(45) *Isku jauembarini* ‘suddenly’ (AspP) precedes *eskaparini* ‘carefully’ (VoiceP)

- a. Berta **isku jauembarini** mikanta-si-Ø-ti **eskaparini** takukata k’eri-ni.  
 Bertha suddenly close-PFV-PRS-IND3 carefully book big-ACC  
 ‘Bertha suddenly carefully closed the big book.’
- b. ?Berta **eskaparini** mikanta-si-Ø-ti **isku jauembarini** takukata k’eri-ni.  
 Bertha carefully close-PFV-PRS-IND3 suddenly book big-ACC  
 ‘\*Bertha carefully suddenly closed the big book.’

(46) *Isku jauembarini* ‘suddenly’ (AspP) precedes *ikichakueni jasi* ‘badly’ (VoiceP)

- a. Ikinari **isku jauembarini** unta-si-Ø-ti **ikichakueni jasi** uaxantsikua-ni.  
 Ikinari suddenly fix-PFV-PRS-IND3 badly chair-ACC  
 ‘Ikinari suddenly fixed the chair badly.’
- b. ↓Ikinari **ikichakueni jasi** unta-si-Ø-ti **isku jauembarini** uaxantsikua-ni.  
 Ikinari badly fix-PFV-PRS-IND3 suddenly chair-ACC  
 ‘\*Ikinari badly suddenly fixed the chair.’

### 9.2 The distinctness of VoiceP and vP

More evidence that an unergative subject can follow a manner adverbial left-adjoined to VoiceP and the verb in Voice, suggesting that it can surface in [Spec, vP]:

(47) Uitsidekua **xarhintkueri** mitanta-si-Ø-ti=sī iamindu uariti-cha ts’im-eri meiapekue-echa-ni.  
 yesterday early open-PFV-PRS-IND3=pS all woman<sub>RESP-PL</sub> they-GEN store-PL-ACC  
 ‘Yesterday all the women opened up their stores early.’

(48) Mentku isi **sesi** pire-sin-Ø-di Maria ima-ni pirekua.  
 always thus well sing-HAB-PRS-IND3 Mary that<sub>DIST-ACC</sub> song  
 ‘Mary always sings that song well.’

### 9.3 A note on realizing the verb word in Mood

Although (24) (with the verb word to the left of TP-adjoined *jimamberi* ‘then’, hence in Mood) was judged fully acceptable, it is perhaps more typical for verb-*jimamberi* order to be judged a bit marginal compared to *jimamberi*-verb order:

(49) Uexurini jimbani erenta-a-Ø-ka=sī materu k’umanchikua-rhu. Nande {jimamberi  
 year new live-FUT-PRS-IND1=pS other house-LOC. mother {then  
 pia-a-Ø-ti / ?pia-a-Ø-ti **jimamberi**} ma kojtsitarakua k’eri.  
 buy-FUT-PRS-IND3 / ?buy-FUT-PRS-IND3 then} a table big  
 ‘In the new year we’ll live in a different house. Mom will then buy a big table.’

## 10 Appendix B: Negative shift in nonfinite clauses and nominalizations

Negative shift is also possible (and I expect it to be obligatory) in infinitival clauses (cf. (3)):

- (50) Ambu sesi ja-Ø-Ø-ki no-ne-ni ueka-ni.  
 not well be-PFV-PRS-INT no-who-ACC love-INF  
 ‘It’s not good to love no one.’ [✓AJWXY]

It’s obligatory in present participial clauses:

- (51) a. Marikua sapi nira-si-Ø-ti jorhengarikua-rhu no-ne-nguni uandontskuari-rini.  
 young.woman little go-PFV-PRS-IND3 school-LOC no-who-COM converse-PTCP.PRS  
 ‘The girl went to school talking to no one.’ [✓LVW]
- b. \*Marikua sapi nira-si-Ø-ti jorhengarikua-rhu uandontskuari-rini no-ne-nguni.  
 young.woman little go-PFV-PRS-IND3 school-LOC converse-PTCP.PRS no-who-COM  
 int. ‘The girl went to school talking to no one.’ [\*ALVWZα]

Interestingly, it also seems to be obligatory in nominalizations, an environment in which the internal argument is assigned genitive rather than accusative case (even though ordinary possessive nominals allow either N-Gen or Gen-N order):

- (52) a. Ambu sesi ja-Ø-Ø-ki no-ne-ri ueka-kua.  
 not well be-PFV-PRS-INT no-who-GEN love-NML  
 ‘Love for no one is not good.’ (= It’s not good to love no one.) [✓WY, ↑V]
- b. \*Ambu sesi ja-Ø-Ø-ki ueka-kua no-ne-ri.  
 not well be-PFV-PRS-INT love-NML no-who-GEN  
 int. ‘Love for no one is not good.’ (= It’s not good to love no one.) [\*AJ]

Curiously, if the internal argument in a nominalization is assigned accusative rather than genitive case, the result is marginal rather than fully unacceptable (for 5 out of 6 speakers consulted). But if the accusative object is negative and yet doesn’t shift, the result is completely unacceptable:

- (53) a. ?Ambu sesi ja-Ø-Ø-ki no-ne-ni ueka-kua.  
 not well be-PFV-PRS-INT no-who-ACC love-NML  
 int. ‘Love [for] no one is not good.’ (= It’s not good to love no one.) [?AJVXY, \*W]
- b. \*Ambu sesi ja-Ø-Ø-ki ueka-kua no-ne-ni.  
 not well be-PFV-PRS-INT love-NML no-who-ACC  
 int. ‘Love [for] no one is not good.’ (= It’s not good to love no one.) [\*AJVWXY]