

When Philippine-type voice meets Indo-European-style voice: Insights from Puyuma*

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1 Introduction

• Backdrop

- Following the Voice/*v* division (e.g. Pyllkanen 2002; Alexiadou et al. 2006; Schafer 2008; Harley 2013; Legate 2014), the active-passive voice contrast has been captured via the postulation of **different flavors of Voice⁰**:

active voice	Voice ⁰ : capable of introducing an EA & Case-licensing the IA
passive voice	defective Voice ⁰ : incapable of introducing an EA & Case-licensing the IA

- Western Austronesian languages with a four-way voice system (so-called the *Philippine-type*) have been analyzed as possessing a similar and more elaborate system. Under both traditional approaches, Philippine-type voice is **hosted within VoiceP**, similar Indo-European voice.

Approach A (Aldridge 2004 *et seq.*)

actor voice	intransitive Voice ⁰
patient voice	transitive Voice ⁰
locative voice	High Appl ⁰ (+ transitive Voice ⁰)
circumstantial voice	High Appl ⁰ (+ transitive Voice ⁰)

Approach B (Rackowski & Richards 2005)

actor voice	Agr. relation btw. Voice ⁰ & NOM DP
patient voice	Agr. relation btw. Voice ⁰ & ACC DP
locative voice	Agr. relation btw. Voice ⁰ & DAT DP (licensed by Low Appl ⁰)
circumstantial voice	Agr. relation btw. Voice ⁰ & OBL DP (licensed by High Appl ⁰)

- We present new data from Puyuma (iso 639-3), an understudied Formosan language that possesses both a **Philippine-type four-way voice system** and a

two-way voice contrast akin to the **Indo-European-style active/passive alternation**.

→ We show that these two types of voice can co-occur in a single language because **Philippine-type ‘voice’ is fundamentally different from Indo-European-style voice** – while the latter is **valency-indicating morphology** hosted within the core verbal projection (VoiceP), the former is best analyzed as **topic agreement morphology hosted in the C domain**.

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2 Two voice systems in Puyuma

- Puyuma exhibits a prototypical Philippine-type four-way voice system (1a-d), similar to Tagalog, Seediq, Malagasy, and Chamorro.

(1) a. ACTOR VOICE (AV)

S(em)elap na walak kana ramaraman i dalran dra
 sweep(av) DF.PIV child DF.ACC rubbish LOC road ID.OBL
 saselap.
 broom

‘The child swept up the rubbish on the road with a broom.’

b. PATIENT VOICE (PV)

Tu=selap-aw kana walak na ramaraman i dalran
 3.NOM=sweep-PV DF.NOM child DF.PIV rubbish LOC road
 dra saselep.
 ID.OBL broom

‘The child swept up *the rubbish* on the road with a broom.’

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c. LOCATIVE VOICE (LV)

Tu=selap-**ay** kana walak na dalran kana ramaraman
 3.NOM=sweep-LV DF.NOM child [DF.PIV road] DF.ACC rubbish
 dra saselap.
 ID.OBL broom

‘The child swept up the rubbish on *the road* with a broom.’

d. CIRCUMSTANTIAL VOICE (CV)

Tu=selap-**anay** kana walak na saselap kana ramaraman
 3.NOM=sweep-CV DF.NOM child [DF.PIV broom] DF.ACC rubbish
 i dalran.
 LOC road

‘The child swept up the rubbish on the road with *the broom*.’

Core traits of Puyuma (Philippine-type) voice

→ Voice morphology on the verb (AV/PV/LV/CV) indexes the distribution of the pivot marker (*na* for common nouns; *i* for personal names), which is unique per clause.

→ ‘**Pivot-only**’ extraction restriction: only the pivot-marked phrase can be \bar{A} extracted.

- In addition to the four-way system shown in (1), Puyuma displays a **two-way voice alternation** akin to the Indo-European-style active-passive alternation (2a-b).

(2) a. Actor Voice; active

M- \emptyset -ekan na walak kana patraka.
 [AV- \emptyset]-eat DF.PIVOT child DF.ACC meat

‘The child ate the meat.’

b. Actor Voice; *u*-marked

M-*u*-ekan la na patraka.
 [AV-*u*]-eat PRF DF.PIVOT meat

‘The meat was eaten up.’

→ When a bivalent verb bears AV morphology (2a), both the external argument (EA) and the internal argument (IA) are obligatorily present.

→ With an additional affix *u*- (2b), the EA is obligatorily absent. The IA bears **pivot-marking**, similar to unaccusative subjects (3).

(3) Actor Voice; unaccusative

M<in>atray na maitrang.
 [AV]<PRF>die DF.PIVOT old.person

‘The old person died.’

→ Note that **AV morphology** (*m*-) is present in both (2a) and (2b) as well as in (3). We will return to this in §5.

3 The *u*-construction as a rare type of detransitive

- **Claim:** The *u*-construction represents a rare type of detransitive construction distinct from all four common types of derived intransitives (passives, middles, impersonals, anticausatives).

3.1 Against a passive analysis

- Passives are derived intransitives with a syntactically active EA (logical subject), evidenced by their ability to license (i) **by-phrases** that optionally introduce an EA and (ii) **agent-oriented adverbs** (e.g. Marantz 1984; Levin & Rappaport Hovav 1995; Alexiadou et al. 2006; Legate 2014).
- **Diagnostic 1:** Unlike passives, the *u*-construction is incompatible with **by-phrases** (agent-denoting PPs) (4)-(5); on the other hand, it occasionally allows an adjunct that embeds a cause:
 - (4) M-*u*-deru na kuraw (*kandrina walak/*dra traw/√dra
 [AV-U-cook]DF.PIVOT fish (*that.OBL child/*ID.OBL someone/DF.OBL
 kadaw/√dra karayag).
 sun/ID.OBL foehn)
 ‘The fish was cooked (*by that child/*by someone/√from sunshine/√from foehn).’
 - (5) M-*u*-sabsab na palidring (*kana walak/*kan Isaw/√dra udal).
 [AV-U-wash] DF.PIVOT car (*DF.OBL child/*PN.OBL Isaw/ID.OBL rain)
 ‘The car was washed (*by the child/*by Isaw/√from the rain).’
- **Diagnostic 2:** Unlike passives (6)), the *u*-construction is incompatible with **agent-oriented adverbs**, contra its active counterpart (7)-(8):

- (6) a. The banana was eaten (*secretly*). [English]
 b. Die Banane wurde (*heimlich*) gegessen. [German]

- (7) a. *u-construction*
 (*Trakatrakaw) m-u-ekan na kuraw.
 (secretly<AV>) AV-U-eat DF.PIVOT fish
 ‘The fish was eaten (*secretly).’
- b. *Active counterpart of (7a)*
 (√Trakatrakaw) m-ekan na niyaw kana kuraw.
 (secretly<AV>) AV-eat DF.PIVOT cat DF.ACC fish
 ‘The cat ate the fish (secretly).’
- (8) a. *u-construction*
 (*Pakireb) m-u-karutr ku=arebu.
 (rigorously.AV) AV-U-comb 1s.POSS.PIVOT=hair
 ‘My hair was combed (*rigorously).’
- b. *Active counterpart of (8a)*
 (√Pakireb) garutr na maitrang kanku=arebu.
 (rigorously.AV) <AV>comb DF.PIVOT old.person 1s.POSS.ACC=hair
 ‘The old person combed my hair (rigorously).’

3.2 Against a middle analysis

- Middles encode transitive events in intransitive syntax with an understood but unexpressed agent; the construction usually lacks a specific time reference and often denote a generic interpretation (Levin 1993; see also O’Grady 1980; Croft 1991; Kemmer 1993; Kaufmann 2007).
- The *u*-construction does not fit well with a middle analysis, as it is usually episodic with a past-tense reference without perfective morphology (see, e.g., (4)-(8)).

3.3 Against an anticausative analysis

- Anticausatives are incompatible with **agent-oriented semantics**, and are restricted to verbs that involve a change of state which allow an inchoative counterpart that denotes a spontaneous event (Smith 1970; Haspelmath 1993; Levin & Rappaport Hovav 1995; Alexiadou et al. 2006).
- The *u*-construction is distinct from an anticausative, given its compatibility with a wide range of **agent-oriented verbs** that disallow an inchoative counterpart (e.g. *bury, carve, catch, cheat* (11a), *cleave, collect, comb* (8), *cook* (4), *cut, eat* (2b), *fill, fold, lock, pack, sell, take*).

3.4 Against an impersonal analysis

- Impersonals are characterized by an expletive subject and an object remaining as such (e.g. Polish impersonal with an accusative object (9a), cf. subject-marking on the IA in Polish passive (9b)) (e.g. Woolford 1993; Blevins 2003; Levine 2005; Legate 2014).

(9) *Polish*

a. *Impersonal*

Rodzono **dzieci** w domu.
 born.IMPERS **children.ACC** in home

‘(They) bore children at home.’ (Levine 2005:21)

b. *Passive*

Jan był obtabowany przez nich.
Jan.NOM was robbed.3M.SG by them

‘Jan was robbed by them.’ (Maling & Sigurjónsóttir 2002:103)

→ The *u*-construction is not an impersonal, given the mandatory subject-marking on the internal argument ((10a), cf. (10b)).

(10) a. *u-construction*

M-u-aleb **na/*kana** **aleb**an.
 AV-U-close DF.PIVOT/*DF.ACC **door**

‘The door was closed.’

b. *Unergative*

M-a-aleb **na** **walak** kana **aleb**an.
 <AV>-PROG-close DF.PIVOT **child** DF.ACC **door**

‘The child is closing the door.’

→ **Intermediate conclusion:**

The affix *u-* marks a rare type of derived intransitive which (i) does not allow an EA to be syntactically realized, (ii) is episodic, (iii) is compatible with verbs with agent-oriented semantics, and (iv) does not allow an impersonal interpretation.

4 Claim: *u-* is the morphological reflex of Voice⁰

Theoretical assumption: the functional projection of verb phrase contains at least three layers:

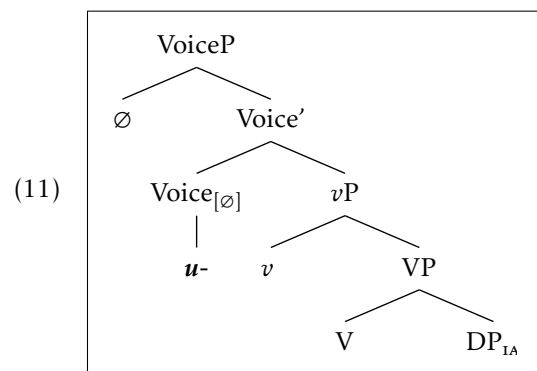
- Voice** (the locus of voice (active vs. passive)); introducing the EA; assigning accusative case
- v**: verbalizing the root; encoding event type; introducing causative semantics
- V**: introducing and theta-licensing the IA

(Pyllkanen 2002; Alexiadou et al. 2006; Schafer 2008; Harley 1995, 2013; Legate 2014)

- *The Mirror Principle* (Baker 1985)
Morphological derivations must directly reflect syntactic derivations (and vice versa).

4.1 Claim: *u-* is the spell-out of Voice⁰

- **Observation:** *u-* is a valency-decreasing affix that correlates with the presence or absence of the EA.
- **Proposal.** *u-* is the morphological reflex of a **deficient Voice⁰** above *v* (11), which is incapable of introducing an EA and Case-licensing its IA.

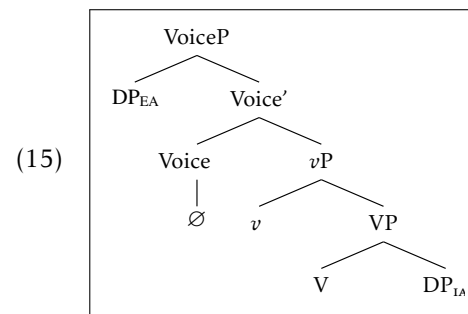


→ Consequently, the *u-* construction cannot contain an external argument and has no object case-marking available (12a); the IA checks Case with T, hence its shared case-marking with unaccusative subjects (e.g. (12b)).

- (12) a. *u*-construction
M-u-sabana la **na** **bangsaran** (*dra traw/*kandrina
 [AV-U]-cheat PRF DF.PIVOT **young.man** (*ID.OBL person/*DF.OBL.that
 bulraybulrayan).
 young.lazy
 ‘The young man was cheated (*by someone/*by that young lady).’
- b. *Unaccusative*
M-a-lradu **na** **bangsaran**.
 [AV]-STAT-slip DF.PIVOT **young.man**
 ‘The young man slipped.’

- o We assume that **the active counterpart** (e.g. (13)) of the *u*-construction (e.g. (14)) contains an unmarked active Voice⁰ (15), which is capable of introducing an EA and Case-licensing its IA.
 (→ Note: unmarked active voice is crosslinguistically common.)

- (13) **M-∅**-ekan **na** walak kana buṅa.
 [AV-ACT]-eat DF.PIVOT child DF.ACC yam
 ‘The child ate the yam.’ [Active]
- (14) **M-u**-ekan la **na** buṅa (*kandrina walak).
 [AV-U]-eat PRF DF.PIVOT yam (*DF.OBL child)
 ‘The yam was eaten up (*by that child).’ [Detransitive]



4.2 *u-* is encoded in a projection below ASPECT⁰ and above *v*

- **Prediction:** If *u-* is indeed the spell-out of Voice⁰, it should be hosted below ASPECT⁰ and above *v*.
- **Evidence for *u-* as hosted above *v***

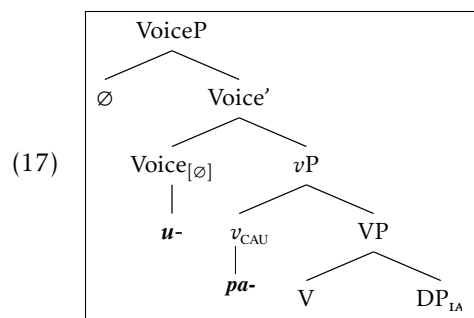
- **Argument 1:** *u-* can co-occur and surface to the left of the causative affix *pa-*, as seen in detransitivized causatives (16):

(16) *u*-marked causatives

- a. **M-u-pa**-resis na raman (*kandrina walak).
 [AV-U-CAU]-intersperse DF.PIVOT weed (*OBL.that child)
 'The weed was made interspersed (*by that child).'
- b. **M-u-pa**-depe' na tamaku (*kandrina maitrang).
 [AV-U-CAU]-inflamm DF.PIVOT cigarette (*OBL.that old.person)
 'The cigarette was made inflamed (*by that old man).'

- As predicted, the causer is obligatorily absent in (16a-b); the causee bears pivot-marking, similar to unaccusative subjects.

- The co-occurrence of *u-* (**valency-decreasing affix**) and *pa-* (**reflex of v_{caus}**) presents novel empirical evidence for **Voice and v as two distinct functional heads** (17) – the former as responsible for EA-introducing and the latter for introducing causative semantics (Pyllkanen 2002; Harley 2013; Legate 2014).



- ★ Crucially, the linear order of the two affixes (i.e. ***u-pa*-ROOT**) follows from the prediction of the **Mirror Principle** (Baker 1988; Harley 2013), in which *u-* (reflex of Voice) surfaces to the left of *pa-* (reflex of v) and the root (V).

- **Argument 2:** *u-* cannot appear inside restructuring infinitives, which can host causative morphology (*pa-*) (18):

- (18) Talam=ku *_[INF] adri (m-)u-sebana/√_[INF] pa-senay kan Isaw].
 try<AV>=1SG.PIVOT *_[INF] NEG (AV-)-U-cheat/√_[INF] CAU-sing PN.ACC Isaw]
 I tried (*not to be cheated/√to make Isaw sing).

→ Under the *vP* analysis of restructuring infinitives (Wurmbrand 2001 *et seq.*), this contrast is predicted if *u-* is the spell-out of Voice⁰.

- **Evidence for *u-* as hosted below ASPECT⁰**

- **Argument:** In Puyuma, irrealis morphology surfaces as an infix <*a*> only when attached to vowel-initial stems (Teng 2008:41) (compare (19a) (V-initial bases) with (19b) (C-initial bases), whose progressive form is formed by Ca-reduplication).

	a. V-initial stem	b. C-initial stem
(19)	u< <i>a</i> >arak 'be dancing'	sa-senay 'be singing'
	i< <i>a</i> >natray 'going to die'	da-deru 'be cooking'
	i< <i>a</i> >edreng 'be sleeping'	ka-kawang 'be walking'
	i< <i>a</i> >walak 'being pregnant'	ga-garatr 'be biting'

- That the progressive form of all *u*-marked verbs obligatorily employ the infix <*a*> (and not Ca-reduplication) even if the stem is a C-initial (20a-b) indicates that *u-* is **encoded into morphology before the insertion of aspect morphology**, hence *u*+VERB is treated as a vowel-initial stem.

	progressive form of <i>u</i> -verbs
(20)	a. m-u< <i>a</i> >disdis 'being torn'
	b. m-u< <i>a</i> >drekel 'be drinking'
	c. m-u< <i>a</i> >ekan 'being eaten'
	d. m-u< <i>a</i> >atel 'being falling'

→ Assuming that the Mirror Principle holds, this suggests that *u-* is **hosted in a projection below ASPECT⁰**.

• Summary

- Descriptively, *u-* triggers a rare type of detransitivizing process that promotes object to subject and eliminates the external argument.

- *u-* is hosted in a projection below ASPECT⁰ and above *v*.

→ *u-* is the morphological realization of defective Voice⁰ that does not introduce an external argument or case-license an internal argument.

- In what follows, we present evidence that Philippine-type AV morphology is hosted in the C domain (§5). We then discuss how this analysis contributes to our understanding of Philippine-type voice in general (§6).

5 Philippine-type ‘voice’ does *not* mark Voice⁰

→ Assuming the Mirror Principle holds, that AV morphology *m-* surfaces **to the left of the reflex of Voice (*u-*) and *v* (*pa-*)** (repeated below) suggests that it is hosted in a projection higher than Voice⁰ and outside of the core verbal projections.

- (21) **M-u-pa-depe'** na tamaku.
AV-U-CAU-inflamm DF.PIVOT cigarette
 ‘The cigarette was made inflamed.’

- **Evidence for AV morphology as hosted above ASPECT⁰**: In Puyuma, AV morphology is obligatory inserted into **progressive morphology** (*Ca*-reduplication; first syllables in (22b)); and *not* the stem (second syllables in (22b)).¹

	a. AV form	b. AV form (progressive)	
	√	Ca-√	
(22)	deru	da-deru	‘cook’
	gisgis	ga-gisgis	‘shave with a razor’
	karatr	ka-karatr	‘bite’
	sabsab	sa-sabsab	‘wash’
	tenun	ta-tenun	‘weave’

→ This suggests that AV is encoded into morphology after that of ASPECT⁰, revealing that it is hosted in a projection **higher than ASPECT⁰**.

- As Puyuma is a tenseless language, this observation suggests that AV morphology is hosted in the C domain.
- **Evidence for AV morphology as hosted at C**: In Puyuma (as well as other morphosyntactically conservative Philippine-type languages), AV morphology **inflects for mood – which is standardly assumed to be encoded in the C domain** (e.g. Rivero & Terzi 1995; Han 2001; Noonan 2007, a.o.). Consider the realis vs. irrealis alternation of *u*-verbs (23a-b):

- (23) a. *Realis AV morphology: m-*
M-u-sapana' la i Akang.
AV.REAL-U-cheat PRF PN.PIVOT Akang
 ‘Akang was cheated.’

- b. *Irrealis AV morphology: Ø-*
 Ø-u<a>sapana' i Akang.
AV.IRR-U-IMP-cheat PN.PIVOT Akang

‘Akang will be cheated (someday in the future).’

- This is in line with a family of **Ā-agreement approaches** to Philippine-type voice (e.g. Chamorro: Chung 1994, 1998; Malagasy: Pearson 2001, 2005; Tagalog: Chen 2017, 2020), according to which **Austronesian voice morphology marks topic- (or *wh*-) agreement hosted in the C domain**:

- (24) *Previous A'-approaches to AV morphology*

Chung (1994): agreement morphology between [uwh] and a NOM *wh*-word
 Pearson (2005): A'-extraction morphology of the NOM topic
 Chen (2017): the bundle of topic agreement and subject (ϕ -)agreement

- **Evidence for AV morphology as associated with topic**

- o In Puyuma question-answer sequence with a clear discourse topic that serves as the subject of the answer (25a), the subject must be pivot-marked with the sentence marked in AV morphology (25b). An answer that does *not* put the topic in pivot-marking is considered unnatural (25c), revealing a tight connection between AV morphology and *subject* (NOM) *topic*.

- (25) a. *Q: Discourse topic: Pilay*
 Makakuta i Pilay uninan?
 AV.what.happen PN.PIVOT Pilay today

‘What did *Pilay* do today?’

- b. *A1: The discourse topic (subject) is pivot-marked with AV morphology*

Deru (**pro**) dra abay.
 <AV>cook (3SG.PIVOT) ID.ACC rice.ball

‘She cooked rice balls’.

- c. *A2: The discourse topic (subject) is not pivot-marked*

*Tu=deru-aw na abay.
 3.GEN=COOK-PV DF.PIVOT rice.ball

(intended: ‘She cooked *rice balls*.’)

→ **Intermediate conclusion**: AV morphology is hosted in the C domain; its linear ordering with progressive morphology and the reflex of Voice⁰ follows consistently from the prediction of the Mirror Principle.

¹ AV morphology in Puyuma has three allomorphs: *m-* (pre-V); (pre-C_{non-bilabial}); *me-* (pre-liquid); <en> (pre-bilabial).

6 Rethinking the Voice⁰/Appl⁰ approach to Philippine-type voice

- Both traditional approaches to Philippine-type voice maintain that **Philippine-type voice is hosted within the core verbal domain associated with Voice⁰/Appl⁰**

(e.g. Aldridge 2004 et seq; Rackowski 2002; Rackowski & Richards 2005, a.o.).

- On one analysis (i.e. the ergative approach), Philippine-type AV and PV affixes are the spell-out of **different flavors of Voice⁰**; LV and CV affixes each mark an Appl⁰ that licenses an applied object (i.e. the pivot-marked phrase) as the **highest IA** (26) :

(26)	a. Actor Voice (AV)	intransitive Voice ⁰
	b. Patient Voice (PV)	transitive Voice ⁰
	c. Locative Voice (LV)	High Appl ⁰ (+ transitive Voice ⁰)
	d. Circumstantial Voice (CV)	High Appl ⁰ (+ transitive Voice ⁰)

- The case-agreement approach to Tagalog voice holds a similar assumption: Philippine-type voice is hosted within VoiceP (as the spell-out of an Agree relation between Voice⁰ and its goal, which inflects for the Case of the goal) (27) :

(27)	a. AV	Agr. relation btw. Voice & NOM DP
	b. PV	Agr. relation btw. Voice & ACC DP
	c. LV	Agr. relation btw. Voice & DAT DP (licensed by Low Appl ⁰)
	d. CV	Agr. relation btw. Voice & OBL DP (licensed by High Appl ⁰)

6.1 Against the AV/PV morphology as hosted within VoiceP

→ We have seen in §4 that **AV morphology is hosted above ASPECT⁰**.

→ Under the traditional view (26), AV-marked bivalent clauses like (28) are **antipassives** that bears an intransitive subject and an oblique object – under the assumption that AV affix is the spell-out of **intransitive Voice⁰** (26a)

(Aldridge 2004 et seq.).

(28) *AV-marked bivalent clause (the alleged antipassive)*

M-ekan na walak kana buja.
 [AV]-eat DF.PIVOT child DF.ACC yam

‘The child ate the yam.’

- **Counterargument 1:** that the alleged antipassive (28) may undergo external-argument detransitivization (e.g. (30)) casts doubt on its being an antipassive – as derived intransitives such as antipassives are incompatible with valency-decreasing operations across languages.

(29) *Detransitive version of (28)*

M-u-ekan la na buja.
 [AV-U]-eat PRF DF.PIVOT yam

‘The yam was eaten up.’

- **Counterargument 2:** AV morphology can appear on Puyuma **unaccusatives**, which in principle **does not contain a Voice⁰ layer** given that the construction **neither possesses an EA nor contains an IA in object case-marking** (30).

→ *Note:* it is implausible to assume (29) to possess a deficient Voice⁰, as such a head should be spelled out as *u-* in Puyuma.

(30) *AV-marked unaccusative*

Me-redek na walak i renarenadran.
 [AV-arrive] DF.PIVOT child LOC playground

‘The child arrived at the playground.’

- **Counterargument 3:** AV morphology may also appear on causative of unaccusative (transitive counterpart of (30)), which is incompatible with an intransitive/antipassive analysis.

(31) *AV-marked causative of unaccusative (transitive counterpart of (30))*

P<en>a-redek na walak kana ladru i renarenadran.
 [CAU<AV>arrive] DF.PIVOT child DF.ACC mango LOC playground

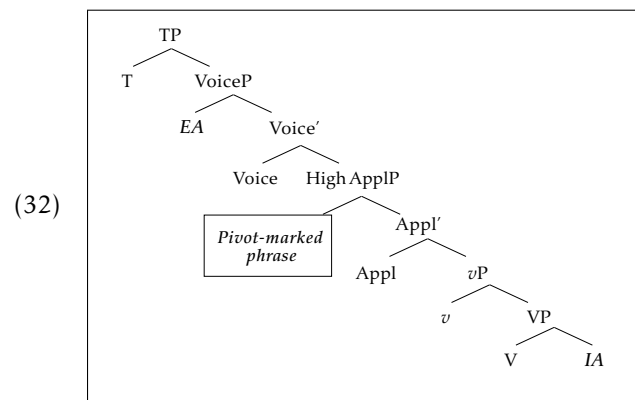
‘The child threw (*lit.* made arrive at) the mango to the playground.’

→ **Intermediate conclusion.** The compatibility of AV morphology with both intransitives and transitives indicates that Philippine-type AV and PV morphology are *not* transitivity-indicating affixes hosted in Voice⁰ (26a-b).

6.2 Against the Appl⁰ analysis of LV/CV morphology

- Consistent with the observation with AV/PV morphology, Puyuma's LV/CV morphology also behaves like **agreement morphology**, rather than **applicative markers** (i.e. reflex of Appl⁰).
- Both previous approaches to Philippine-type voice (26)-(27) rely crucially on the assumption that the pivot-marked phrase (e.g. locative, instrument) in LV/CV clauses is an applied object introduced in the **highest IA position by a High Appl⁰**, illustrated in (32).

→ The pivot phrase is then free to access the VoiceP phrase edge and raise out VoiceP due to EPP on Voice⁰ (Aldridge 2004, 2017; Rackowski & Richards 2005; Nie 2019 for Tagalog).



- **Counterargument 1 (Binding facts):** In Puyuma CV-marked ditransitives, the recipient asymmetrically bind into the pivot-marked theme (33a-b):

(33) a. *CV-ditransitive: recipient > theme*

Ku=beray-anay [tu_k=Iribun] [kan tinataw kana
1s.GEN=give-CV [3.POSS.PIVOT=wages] [ACC 3s.POSS.mother LK
kiakarun_k driya].
laborer every]

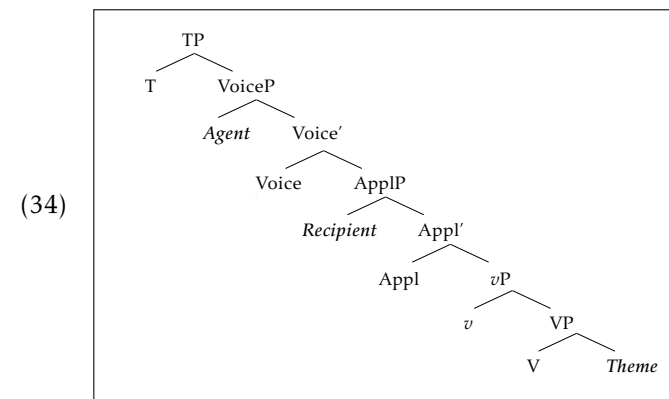
'I gave every laborer's_{<k>} mother his/her_{<j, k>} wages.' (distributed reading available)

b. *CV-ditransitive: theme > recipient*

Ku=beray-anay [kantu=walak] [tu=Iribun kana
1s.GEN-give-CV [3.POSS.ACC=child] [3.POSS.PIVOT=WAGES LK
kiabarun driya].
laborer every]

'I gave his_{<k>} child every laborer's_{<j/*k>} wages.' (distributed reading *not* available)

- This points to a DOC analysis for CV-ditransitives (34), whereby the recipient c-commands the theme and not vice versa.
- The present binding fact indicates that **the pivot is not licensed in the highest IA position in the CV-clauses (33a-b)**, but rather an internal argument c-commanded by the recipient, contra the baseline assumption of the Appl⁰ analysis for CV morphology (26)-(27).



- **Counterargument 2 (Mood inflections):** Just like AV/PV morphology, Puyuma's LV/CV morphology inflects for *mood* (35):

	AV	PV	LV	CV
realis	M-√	√-aw	√-ay	√-anay
irrealis	∅-Ca-√	Ca-√-i	Ca-√-i	Ca-√-an
imperative	∅-√	√-u	√-i	√-an
negative	M/K-√	√-i	√-i	√-an

(35)

- **Counterargument 3 (LV/CV affixes behaving like agreement morphology):** LV/CV morphology obligatorily cliticizes to the **highest predicate** of a clause, even if the highest predicate is an **adverb** ((36b), (37b)). This argues against analyzing them as applicative markers.

(36) a. *LV morphology present on the lexical verb*

Ku=beray-ay na walak kana aputr.
 1s.GEN=give-LV DF.PIVOT child DF.ACC flower

‘I gave the child the flowers.’

b. *LV morphology cliticized to an adverb*

Ku=trakatrakaw-ay beray na walak kana aputr.
 1s.GEN=secretly-LV give.DEFAULT DF.PIVOT child DF.PIVOT flower

‘I *secretly* gave the child the flowers.’

(37) a. *CV morphology present on the lexical verb*

Ku=beray-anay kana walak na aputr.
 1s.GEN=give-CV DF.ACC child DF.ACC flower

‘I gave the child the flowers.’

b. *CV morphology cliticized to an adverb*

Ku=trakatrakaw-anay beray kana walak na aputr.
 1s.GEN=secretly-CV give.DEFAULT DF.ACC child DF.PIVOT flower

‘I *secretly* gave the child the flowers.’

→ **Claim:** Neither AV/PV morphology nor LV/CV morphology realizes a functional head hosted within the core verbal domain (i.e. *voice* in the traditional sense).

→ This reinforces existing A'-agreement approaches to Philippine-type voice (Chung 1994; Pearson 2005; Chen 2017, 2020), and undermines the ergative approach, which assumes that **Austronesian-type voice is valency-rearranging morphology hosted within VoiceP**.

7 Conclusion

- ★ Philippine-type voice is fundamentally different from *voice* in the traditional sense (i.e. valency-indicating morphology hosted in the core verbal domain). While the latter is the morphological realization of **different flavors of Voice⁰**, the former is best analyzed as **\bar{A} -(topic)-agreement morphology hosted in the C domain**, hence the compatibility of these two types of “voice” in a single language.

8 Implications

1. Puyuma presents new evidence for the presence of the external argument-introducing head (i.e. Voice⁰) in derived intransitives (see Legate 2014 for a similar claim).
2. Puyuma’s typologically unusual four-way voice morphology is *not* the spell-out of functional heads (Voice⁰/Appl⁰) hosted within VoiceP. This motivates a re-examination of Austronesian-style voice systems in similar languages.
3. The Austronesian-type ‘pivot-only’ constraint in \bar{A} extraction *cannot* be treated on a par of a ‘absolutive-only’ or ‘subject-only’ condition. → A'-extraction restrictions can be independent of syntactic ergativity.
4. The presence of same detransitivizer *u-* in three other Philippine-type Austronesian languages (Bunun, Thao, Saaroa) (Chen to appear) indicates that the current conclusion is not specific to only Puyuma.
5. Austronesian/Philippine-type voice is more similar to the so-called ‘voice’ in Dinka (Nilotic) and Kilega (Bantu), which realizes **topic-agreement** hosted in the C domain (Dinka: van Urk 2015; Kilega: Miyagawa 2010, 2017; see Erlewine *et al.* 2017 for a similar claim for Dinka).

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