One language, two 'voice' systems: Insights from Puyuma

Victoria Chen and Shin Fukuda

Victoria University of Wellington, University of Hawai'i at Mānoa

1. Introduction

'Voice' has been a controversial term. For some, it refers to a small set of oppositions (e.g. active, passive, middle) concerning the encoding of the external argument. For others, it constitutes a more inclusive category that subsumes also the encodings of various arguments and adjuncts, such as causative, antipassive, reflexive, applicative and benefative (e.g. Shibatani 2006). Under Kratzer (1994, 1996), Voice is a semi-functional verbal head responsible for introducing the external argument and licensing structural case. A series of later work that builds on this approach has argued for a distinction between Voice and *v*, with the former maintaining the functions noted above and the latter encoding event types (e.g. Pyllkänen 1999, 2002; Alexiadou *et al.* 2006; Harley 2009; 2013; Legate 2014). [1]

Much recent work has linked Kratzerian Voice to a typologically unusual four-way voice system found in Western Austronesian. For these researchers, Voice, together with two flavors of applicative heads, enable a wide range of phrases to be promoted to the phase edge of VoiceP and check structural case with T, giving rise to a crosslinguistically rare four-way voice system (e.g. Maclachlan 1996; Aldridge 2004, 2012, 2017; see also Rackowski 2002, Rackowski & Richards 2005, and Erlewine & Levin to appear for a similar approach). In this view, Austronesian-type voice is essentially similar to the active/passive alternation, with *Voice* being the core semi-functional head behind both types of systems.

In this paper, we argue instead that Austronesian-type 'voice' is fundamentally different from Kratzerian Voice: while the latter is the spell-out of a functional head hosted within the core verbal domain, the former marks Ā-agreement between a functional head above Aspect and the topic. Support for this claim comes from novel data from Puyuma, a Western Austronesian language that displays not only an Austronesian-type four-way voice distinction but also a voice contrast akin to the Indo-European-style active/passive alternation. We demonstrate that these two voice types can co-occur in a single language because each is hosted in a distinct functional projection. We argue accordingly what has been termed *voice* in the literature does not form a homogeneous group.

This paper is organized as follows. In the next section, we lay out basic facts of Puyuma's two voice systems. Section 3 investigates the locus of an Indo-European-style voice affix *u-* in Puyuma. Section 4 examines the nature of Austronesian-type voice morphology, demonstrating that it is not the spell-out of Voice and is best analyzed as hosted in the C domain. Section 5 demonstrates how the current observations cast new light on a longstanding debate on the case alignment of Western Austronesian languages featured by a four-way voice system. Section 6 concludes.

[1]   List of abbreviations: CAU: causative; DF: definite; ID: indefinite; IMP: imperfective; IRR: irrealis; LOC: locative; LK: linker; OBL: oblique; PIV: pivot; PN: personal name; POSS: possessive; PRF: perfective; STAT: stative.

2. Two voice systems in Puyuma

Puyuma (ISO 639-3 *pyu*) is an endangered language spoken in southeastern Taiwan with fewer than 1,000 fluent speakers. Like many other Western Austronesian languages, it is tenseless and possesses a four-way voice system known in the literature as *Austronesian-type voice* or *Philippine-type voice*. Except where otherwise indicated, the data presented in this paper comes from primary fieldwork on Nanwang Puyuma.

Examples (1a-d) demonstrate Austronesian-type voice alternations in Puyuma. Similar to its better-known relatives such as Tagalog and Malagasy, in Puyuma, the affixal morphology on the verb indicates which phrase constitutes the sole phrase in the clause eligible for Ā extraction. This syntactically pivotal phrase is marked with a special marker (*na* for common nouns and *i* for personal names), labeled as PIV(OT) hereafter. As seen below, with voice morphology altering between *Actor Voice* (AV), *Patient Voice* (PV), *Locative Voice* (LV), and *Circumstantial Voice* (CV), the pivot marker appears on the external argument (1a), internal argument (1b), and two types of adjunct-like phrase (1c-d), respectively.

(1) *Austronesian-type voice alternation in Puyuma*

    a. S⟨**em**⟩elap na   walak kana   ramaraman i   dalran dra   saselap.
       sweep⟨**AV**⟩ DF.PIV child DF.ACC rubbish   LOC road ID.OBL broom
       '*The child* swept up the rubbish on the road with a broom.'   (ACTOR VOICE)

    b. Tu=selap-**aw**   kana   walak na   ramaraman i   dalran dra   saselep.
       3.NOM=sweep-**PV** DF.NOM child DF.PIV rubbish   LOC road ID.OBL broom
       'The child swept up *the rubbish* on the road with a broom.'   (PATIENT VOICE)

    c. Tu=selap-**ay**   kana   walak na   dalran kana   ramaraman dra   saselap.
       3.NOM=sweep-**LV** DF.NOM child DF.PIV road DF.ACC rubbish   ID.OBL broom
       'The child swept up the rubbish on *the road* with a broom.'   (LOCATIVE VOICE)

    d. Tu=selap-**anay**   kana   walak na   saselap kana   ramaraman i   dalran.
       3.NOM=sweep-**CV** DF.NOM child DF.PIV broom DF.ACC rubbish   LOC road
       'The child swept up the rubbish on the raod with *the broom*.' (CIRCUMSTANTIAL VOICE)

In addition to the four-way voice system illustrated above, Puyuma displays a voice alternation akin to the Indo-European-style active-passive alternation. As seen in (2), when a transitive verb bears AV morphology (2a), both the external and internal argument are obligatorily present. With an additional affix *u-*, however, the external argument is absent (2b); the internal argument becomes the sole argument in the clause and carries the pivot-marking, as do unaccusative subjects (2c).

(2) *Indo-European-style voice alternation in Puyuma*

    a. **M**-ekan **na**   **walak** kana   patraka.
       AV-eat **DF.PIV child** DF.ACC meat
       'The child ate the meat.'   (Actor Voice; active)

    b. **M-u**-ekan la **na**   **patraka**.
       AV-U-eat PRF **DF.PIV meat**
       'The meat was eaten up.'   (Actor Voice; *u*-marked detransitive)

    c. **M**⟨in⟩atray **na**   **ma'idrang**.
       AV⟨PRF⟩die **DF.PIV old.person**
       'The old person died.'   (Actor Voice; unaccusative)

In what follows, we first show that this *u*-marked agentless construction (*u*-construction hereafter) instantiates a detransitive construction distinct from all four common types of derived intransitive: passive, middle, impersonal, and anticausative. We then look into the nature of the detransitivizing morpheme *u-* in section 3.

Unlike passives, which allow an optional agent-denoting PP (i.e. *by*-phrase) (3) and agent-oriented adverbs (4), the *u*-construction is incompatible with neither (5)-(6a); on the other hand, it allows an

adjunct that embeds a cause (5), which is incompatible with passives (3). This indicates that the *u*-construction is not a passive.

(3) a. The window was closed (by John/*from the wind).   English

     b. Die Vase wurde (von Peter/*durch   ein Erdbeben) zerbrochen.   German
       the vase was   (by Peter/*through an earthquake) broken
       'The vase was broken (by Peter/*through an earthquake).'   (Alexiadou *et al.* 2006:184–5)

(4) a. The banana was eaten (*secretly*).   English

     b. Die Banane wurde (*heimlich*) gegessen.   German

(5) a. **M-u**-sabsab na   palridring {*kana/*dra}   traw/*kan   Isaw/✓dra   udal.
     AV-U-wash DF.PIV car   {*DF.OBL/*ID.OBL} person/*PN.OBL Isaw/ID.OBL rain

       'The car was washed *by the person/*by someone/*by Isaw/✓from the rain.'

     b. **M-u**-deru na   kuraw *kandrina traw/*dra   traw/✓dra   kadaw/✓dra karayag.
     AV-U-cook DF.PIV fish   *that.OBL person/*ID.OBL someone/ID.OBL sun/ID.OBL foehn
       'The fish was cooked (*by that person/*by someone/from sunshine/from foehn).'

(6) a. ***Tremakatrakaw m-u**-ekan na   kuraw.
     secretly.AV   AV-U-eat DF.PIV fish

       'The fish was eaten *secretly.'   (u-construction)

     b. ✓**Tremakatrakaw m**-ekan na   ngiyaw kana   kuraw.
     secretly.AV   AV-eat DF.PIV cat   DF.ACC fish

       'The cat ate the fish secretly.'   (active counterpart of (6a))

The *u*-construction is also not an anticausative. Anticausativization is known to be incompatible with agent-oriented verbs and commonly associated with verbs that involve a change of state (Haspelmath 1993; Levin & Rappaport Hovav 1995; Alexiadou et al. 2006). The *u*-construction, however, is attested with a wide range of agent-oriented verbs that typically disallow an inchoative counterpart, such as bury, carve, catch, cheat, cleave, collect, comb, cook, cut, eat, fill, fold, lock, pack, sell, take, and wash, indicating that it is distinct from anticausatives.

The *u*-construction is also distinct from impersonals, which are standardly analyzed as possessing an expletive subject and an object remaining *in-situ* (e.g. Blevins 2003; Legate 2014). That the internal argument of the *u*-construction mandatorily bears subject-marking (7) hence undermines an impersonal analysis.

(7) M-**u**-aleb **{na/*kana}   aleban**.
     AV-U-close **{DF.PIV/*DF.ACC} door**
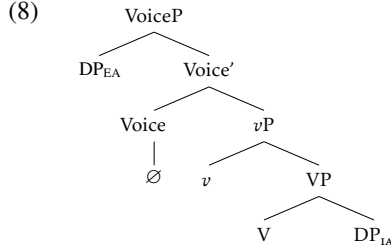   'The door was closed.'

A middle analysis does not fit well with the *u*-construction, either. Middles usually lack a specific time reference and invoke a generic interpretation (e.g. Kemmer 1993; Kaufmann 2007). The *u*-construction, howevrer, is usually episodic, denoting an event that took place before the speech time without perfective morphology, as seen in all relevant examples above ((2b), (5a-b), and (7)).

To sum up, the affix *u*- in Puyuma marks a rare type of derived intransitive that (i) does not allow an external argument to be syntactically realized, (ii) can be 'derived' from agentive transitive verbs, (iii) does not show characteristics of impersonal constructions, and (iv) is episodic. Accordingly, we assume it to instantiate a case of detransitivization whereby an intransitive clause is derived via removal of the external argument.

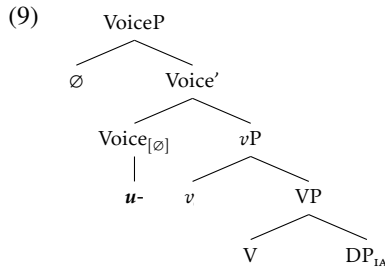## 3. *u*- as the spell-out of Voice[0]

We turn now to an examination of the locus of the detransitivizing affix *u*-. Following recent work, we assume that the functional projections of the core verbal domain contain three layers: Voice, which is

the head that introduces the external argument and assigns accusative case; *v*, which verbalizes the root and encodes event types; V, which introduces and θ-licenses the internal argument (Kratzer 1994, 1996; Pyllkänen 1999, 2002; Alexiadou et al. 2006; Harley 2009, 2013; Legate 2014); we further assume that active Voice is phonologically null, as in (8).

... accusative approach to Philippine-type languages is on the right track, an AV affix ... spell-out of nominative Case agreement whose presence indicates that the nominative DP ... is the topic of the sentence (Chung 1994, 1998; Richards 2000; Pearson 2001, 2005; ... & Richards 2005; Chen 2017). This analysis is illustrated in (71a-b), which present the ... sing pattern in a two-place AV construction and a *m-u-*marked detransitive, respectively.

... structure of AV-marked transitives and detransitives under the accusative analysis
a. *Two-place AV construction*
b. *AV-marked detransitive (the mu-construction)*

3.1. *u-* is the spell-out of Voice

As shown in §2, descriptively, *u-* is a valency-decreasing affix whose presence correlates with the absence of the external argument. Accordingly, we propose that it is the spell-out of a defective Voice head that can neither introduce an external argument nor case-license the internal argument, illustrated in (9). Consequently, the *u-*construction lacks an external argument and has no accusative case available (10a). Th... h unaccusative subjects ...

(9)

(10) a. **M-u**-sabana' la {**na/*kana**} **bangsaran**.
AV-...break BREAK **DF.PIV/*DF.ACC young.man**
'The young man straightened...' (*u*-construction)

... analysis correctly captures the availability of AV morphology in both transitives and ...ves/intransitives (see (72)), and provides a straightforward account for both the non-... y of AV objects in Philippine-type languages discussed in section 1, as well as the obser-... bi-eventive causatives in these languages possess an AV voice affix.

'The young man slipped.' (unaccusative)

M-a-abelr i Atrung dra kulrang. *[transitive]*
AV-PROG-COOK SG.PIVOT Atrung ... vegetable
'Atrung is cooking vegetables.'

M-u-trekelr la na eraw. *[detransitive]*
MU-DETR-drink PRF DF.PIVOT alcohol
'The alcohol was drunk up.'

M-uarak i Atrung i Arasip *[intransitive]*
AV-dance SG.PIVOT Atrung ... Arasip
'Atrung danced in Arasip.'

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

If *u-* is indeed the spell-out of defective Voice, it should be located immediately above *v* and below any functional projection outside of the core verbal projections—such as Aspect. This prediction is borne out with three independent observations.

Evidence for *u-* as located above *v* comes first from its relative order with causative morphology. Under the Mirror Principle (Baker 1985; Harley 2013) (11), *u-* should be incorporated into morphology after the encoding of V and *v* if it is the spell-out of Voice. This predicts the reflex of *v* to surface closer to the lexical root ... , with *u-* appearing at the left (or right) edge of the verbal complex (i.e. {Voice-*v*-V}, ...).

(11) *The Mirror Principle* (Baker 1985:375)
Morphological derivations must directly reflect syntactic derivations (and vice versa).

This prediction is borne out by detransitivized causatives. As (12) shows, *u-* obligatorily surfaces to the ...

... morphological patterning of Philippine-type Formosan languages lends novel empiri-
... rt to this analysis. According to the Mirror Principle (Baker 1985; Harley 2013), there ...
... o-one correlation between the linear ordering of verbal grammatical-function-changing
... gy, the syntactic behavior of the arguments of the resulting verb form, and the seman-
... etation of the entire structure. If this principle holds, Philippine-type AV morphology
... ed to be located farther from a root compared to valency-indicating morphology and
... oting morphology—if it is indeed A'-agreement hosted at C.

... prediction is indeed borne out. Across Seediq, Thao, and Puyuma, AV morphology con-
... surfaces to the left of aspect morphology, suggesting that it is hosted in a functional pro-

left of the reflex of v_{CAUS} (the causative affix *pa-*) and that of V (the lexical verb), following consistently from the prediction of (11).

(12) a. M-**u-pa-resis**   na   raman *kandrina walak.
          AV-U-CAU-intersperse DF.PIV weed *OBL.that child
          'The weed was made interspersed *by that child.'   (*u*-marked causative)

      b. M-**u-pa**-depe'   na   tamaku *kandrina ma'idrang.
          AV-U-CAU-inflame DF.PIV cigarette *OBL.that old.person
          'The cigarette was made inflamed *by that old man.'   (*u*-marked causative)

The second argument for *u-* as located above *v* comes from its unavailability in restructuring infinitives. As seen in (13), while causative morphology (i.e. spell-out of *v*) can freely appear inside a restructuring infinitive, *u-* cannot. Under the deficient size (bare *v*P) account of restructuring infinitives (Wurmbrand 2001 *et seq.*), this contrast is predicted if *u-* is the spell-out of Voice.

(13) T⟨em⟩alam=ku   *[$_{\text{INF}}$ adri (m-)**u**-sebana]/✓[$_{\text{INF}}$ **pa**-senay kan   Senten].
      try⟨AV⟩ =1SG.PIVOT *[$_{\text{INF}}$ NEG (AV-**U**-cheat   ]/✓[$_{\text{INF}}$ **CAU**-sing PN.ACC Senten]

      I tried (*not to be cheated)/to make Senten sing.

Finally, if *u-* is the spell-out of Voice, there should be evidence that it is located *below* Aspect. Support for this prediction comes from Puyuma's progress verb forms. In Puyuma, progressive morphology surfaces as an infix ⟨*a*⟩ only when attached to vowel-initial stems, as in (14a). When attached to consonant-initial bases, it is encoded through Ca-reduplication, i.e. iteration of the onset consonant of the base following by an epenthesized *a*, as seen in (14b) (Teng 2008:41).

	a. VOWEL-INITIAL STEMS		b. CONSONANT-INITIAL STEMS	
(14)	u⟨*a*⟩arak	'be dancing'	*sa*-senay	'be singing'
	i⟨*a*⟩natray	'going to die'	*da*-deru	'be cooking'
	i⟨*a*⟩edreng	'be sleeping'	*ka*-kawang	'be walking'
	i⟨*a*⟩walak	'being pregnant'	*ga*-garatr	'be biting'

Given (14a-b), the fact that the progressive form of all *u*-marked verbs obligatorily employs the infix ⟨*a*⟩ (15) and not Ca-reduplication even when its stem is consonant-initial (see (15a-b)) demonstrates that *u-* is encoded into morphology *before* the insertion of the progressive aspect, whereby {*u*+VERB} is treated as a vowel-initial stem, similar to the examples in (14a). Assuming that the Mirror Principle holds, this indicates that *u-* is hosted in a projection *below* Aspect[0].

	a. m-u⟨a⟩disdis	'being torn'
	b. m-u⟨a⟩drekelr	'be drinking'
(15)	c. m-u⟨a⟩ekan	'being eaten'
	d. m-u⟨a⟩atel	'being falling'

We conclude accordingly that *u-* is the morphological realization of Voice.

4. Austronesian-type 'voice' does not mark Voice[0]

Having shown that the detransitivizing affix *u-* is the reflex of *Voice*, we turn now to the core question of this paper: does Austronesian-type voice instantiate Kratzerian Voice as claimed in previous work? We argue that the answer is negative and that Austronesian-type voice is best analyzed as hosted in the C domain. Before we proceed, a discussion of the allomorphic rules of AV morphology is in order. In Puyuma, AV affix surfaces as *m-* in pre-verbal environments, *me-* in pre-liquid environments, ⟨*en*⟩ in pre-bilabial environments, and ⟨*em*⟩ in pre-C$_{\text{non-bilabial/liquid}}$ environments.

Following the Mirror Principle (11), the fact that AV morphology surfaces to the left of the reflex of Voice (*u-*) and that of *v* (*pa-*) (see (16)) suggests that it is hosted in a projection *higher* than Voice and *outside* of the core verbal projections (i.e. VoiceP).

(16) **M-u-pa**-depe' na tamaku.
AV-U-CAU-inflame DF.PIV cigarette
'The cigarette was made inflamed.'

Puyuma's progressive verb forms further reveal that AV morphology is hosted above Aspect. As seen in (17), AV morphology is obligatorily inserted into progressive morphology, and not the verb stem. For verbs containing a consonant-initial base, the AV infix ⟨*em*⟩ must be inserted into progressive morphology (i.e. C*a*-reduplication, i.e. the first syllables in the examples in (17b)), and not the verb stem (i.e. the second syllables in the examples in (17b)).

	a. AV FORM (DEFAULT)	b. AV FORM (PROGRESSIVE)	
(17)	d<em>eru	d<em>a-deru	'cook'
	g<em>isgis	g<em>a-gisgis	'shave with a razor'
	k<em>aratr	k<em>a-karatr	'bite'
	s<em>absab	s<em>a-sabsab	'wash'

Following the Mirror Principle (11), this suggests that Austronesian-type Actor Voice is encoded into morphology *after* that of Aspect, indicating that it is hosted in a projection *higher* than Aspect. As Puyuma is a tenseless language, this suggests that AV morphology is hosted in the C domain.[2]

Further evidence for this proposal lies in the design of Austronesian-type voice morphology. As in many other conservative Western Austronesian languages, AV morphology in Puyuma inflects for mood. This is seen in (18a-b), whereby AV morphology surfaces as *m-* in realis and as zero in irrealis. The detransitivizer *u-*, on the other hand, does not inflect for mood, as seen also in (18a-b).

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

  b. ∅-u⟨a⟩sabana' **i** **Akang**.
AV.IRR-U⟨IMP⟩cheat PN.PIVOT **Akang**
'Akang will be cheated (someday in the future).' (Irrealis AV morphology: zero)

Given that Mood is standardly analyzed as belonging to the C domain (e.g. Rivero & Terzi 1995; Han 2001; Noonan 2007; a.o.) , the fact that AV morphology inflects for mood but *u-* does not follows consistently from our proposal that the former is encoded high in the C domain, whereas the latter is hosted low within VoiceP. In the next section, we demonstrate how this observation contributes to a longstanding question in Austronesian syntax concerning the case alignment of Western Austronesian language with a similar voice system.

5. Against the Voice⁰/Appl⁰ analysis of Austronesian-type voice morphology

5.1. Austronesian-type voice as Ā agreement morphology

Previous accusative approaches to languages with an Austronesian-type voice system have argued that the four-way voice marks *topic agreement*, realizing an Agree relation between an Ā probe ([uTOP]) and its goal (Pearson 2001, 2005; Chen 2017, 2021; see also Chung 1994 for a similar claim). Setting aside differences in details, a consensus among these works is that AV morphology correlates with a nominative subject that agrees with an Ā probe ([uTOP] or [uRel/wh]).

This approach to AV morphology is supported by Puyuma-internal facts. In Puyuma, the use of AV morphology is tied closely to the presence of a subject topic. In question-answer sequences that contain a clear discourse topic, AV morphology is obligatorily used when the discourse topic (e.g. *Pilay* in (19)) constitutes the *subject* of the answer sentence, as in (19b). An answer not constructed with AV morphology is considered unnatural and improper, as in (19c).

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2 Like many other Western Austronesian languages, Puyuma does not have a grammatical category of tense and uses combinations of aspect and mood to establish time reference.

(19)   a.   *Q: Discourse topic: Pilay*

        Makakuda   **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*

        D⟨**em**⟩ eru **(pro)**   dra   abay.
        ⟨**AV**⟩cook   **(3SG.PIVOT)** ID.ACC rice.ball

        '*She* cooked rice balls'.

   c.   *A2: Answering with a non-AV clause with the topic not pivot-marked*

        *Tu=deru-**aw**   na   abay.
        3.NOM=cook-PV DF.PIV rice.ball

        (intended: 'She cooked *rice balls*).'

This observation lends new support to the claim that AV morphology marks topic agreement between [uTOP] and the subject (Pearson 2001, 2005; Chen 2017, 2021; see also Foley & Van Valin 1984; Shibatani 1998; Richards 2000 for a similar assumption). Crucially, it is consistent with our conclusion in section 4 that AV morphology is located above Aspect and within the C domain. The fact that it can cooccur with and surfaces to the left of the Voice-indicating affix *u-* (16) follows consistently from this analysis.

5.2. Against AV/PV morphology as the spell-out of Voice

In contrast to the analysis above, the ergative approach to Western Austronesian languages maintains that Austronesian-type voice is *valency-indicating morphology* hosted within VoiceP (e.g. Mithun 1994; Maclachlan 1996; Aldridge 2004, 2012, 2017). In this view, Austronesian-type voice is closely associated with Kratzerian Voice: AV and PV morphology is the spell-out of different flavors of Voice (intransitive vs. transitive), whereas LV and CV affixes mark an applicative head that licenses an applied object in the highest internal argument position (Maclachlan 1996; Aldridge 2004, 2012, 2017; see Rackowski & Richards 2005 and Erlewine & Levin to appear for a similar treatment of LV/CV morphology). This analysis is outlined in (20).

(20)   *The ergative approach to Austronesian-type voice*

a. ACTOR VOICE	intransitive Voice
b. PATIENT VOICE	transitive Voice
c. LOCATIVE VOICE	transitive Voice + Appl
d. CIRCUMSTANTIAL VOICE	transitive Voice + Appl (Aldridge 2004 *et seq.*)

Now, the evidence presented in §4 that AV morphology is located *above* Aspect argues against analyzing it as the reflex of Voice (20a). Its compatibility with the morphological realization of Voice (i.e. the detransitivizer *u-*) (e.g. (21a)) casts further doubt on the claim that it is the spell-out of Voice (20a). The compatibility of the detransitivizer *u-* and AV morphology, at the same time, challenges one controversial assumption under the approach outlined in (20), that bivalent AV clauses (e.g. (21b)) are antipassive constructions with an intransitive subject and a lexically case-licensed oblique object (e.g. Mithun 1994; Aldridge 2004, 2012, 2017, a.o.).

(21)   a.   **M-u**-ekan la **na**   bunga.
            AV-U-eat   PRF **DF.PIV** yam

            'The yam was eaten up.'   (detransitive version of (21a))

   b.   **M**-ekan **na**   walak kana   bunga.
            AV-eat   **DF.PIV** child "DF.OBL" yam

            'The child ate the yam.'   (bivalent AV clause (the alleged antipassive))

The fact that the alleged antipassive (e.g. (21b)) allows detransitivization (21a) undermines the antipassive view of this construction, given that antipassivization and external argument detransitivization are crosslinguistically incompatible within the same clause.

Further evidence against AV morphology as the spell-out of Voice comes from its compatibility with unaccusatives. If AV morphology is indeed the spell-out of Voice, unaccusatives such as (22) should be incompatible with an AV affix—as such clauses are best analyzed as lacking a Voice layer, given the fact that they contain neither an external argument nor the morphological reflex of defective Voice (i.e. *u-*). Such clauses' compatibility with AV morphology thus reinforces our current claim that the AV affix is *not* the reflex of Voice, and is hosted in a projection outside of the core verbal domain.

(22) **Me**-redek na   walak i   takesian.
      AV-arrive DF.PIV child LOC school
      'The child arrived at the school.'

5.3. Against LV/CV morphology as the spell-out of an applicative head

We turn now to the evidence against LV/CV morphology as the morphological realization of an applicative head within VoiceP (20c-d). To begin with, Puyuma's LV/CV morphology inflects for mood, as does AV/PV morphology (23). As mood is standardly analyzed as belonging to the C domain (e.g. Rivero & Terzi 1995; Han2001; Noonan 2007), this follows from our current proposal that Austronesian-type voice morphology is hosted in the C domain, and at the same time argues against analyzing LV/CV affixes as applicative markers.

	a. AV	b. PV	c. LV	d. CV	
REALIS	M-√	√-aw	√-ay	√-anay	(e.g. (1a-d))
IRREALIS	∅-Ca-√	Ca-√-i	Ca-√-i	Ca-√-an	(e.g. (18a-b))
IMPERATIVE	∅-√	√-u	√-i	√-an	
NEGATIVE	M/K-√	√-i	√-i	√-an	

(23)

Further evidence against the applicative approach to LV/CV morphology comes from binding facts. As seen in (20), the ergative view of Austronesian-type voice relies crucially on the assumption that the pivot-marked phrase (e.g. (1c-d)) in LV/CV clauses is an applied object introduced in the *highest* internal argument position, which undergoes object shift and raises to the outer Spec,VoiceP, rendering the highest caseless argument accessible to absolutive case from T, with the applicative head that licenses this argument spelled out as LV/CV morphology (Mithun 1994; Maclachlan 1996; Aldridge 2004, 2017). For this analysis to succeed, the pivot phrase in an LV- or CV-marked clause must be the highest argument below Voice eligible for object shift, c-commanding any non-pivot internal arguments, as in (24).
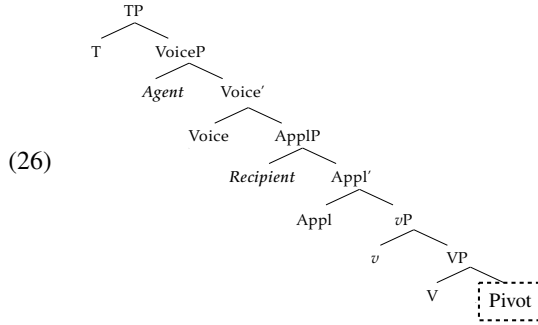
(24)
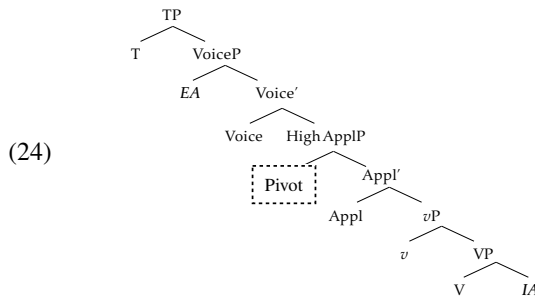
Contra this prediction, quantifier-variable binding diagnostics indicate that a pivot phrase in Puyuma's CV-marked clauses can be bound by a non-pivot internal argument and be interpreted as a bound variable of the former (25a) but not vice versa (25b).

(25) a. *CV-ditransitive:* pivot-marked theme as bound by the recipient

      Ku=beray-**anay** **[tu=lribun]**   [kan tinataw   kana kiakarun driya].
      1S.NOM=give-**CV** **[3.POSS.PIV=wages]** [ACC 3S.POSS.mother LK   laborer   every]

      'I gave every laborer's$_{\langle k \rangle}$ mother his/her$_{\langle j, k \rangle}$ wages.' (distributed reading available)

      b. *CV-ditransitive:* recipient cannot be bound by the pivot-marked theme

      Ku=beray-**anay** [kantu=walak]   [tu=lribun   kana kiabarun driya].
      1S.NOM-give-**CV** [3.POSS.ACC=child]   **[3.POSS.PIV=WAGES** LK   laborer   every]

'I gave his⟨k⟩ child every laborer's⟨j/*k⟩ wages.' (distributed reading unavailable)

The binding facts above demonstrate that the recipient in the CV-clauses (25a-b) asymmetrically c-commands the pivot-marked theme, as in (26). This indicates that the latter is *not* in the highest internal argument position eligible for object shift—contra the baseline assumption of the applicative account of CV morphology (20d) (Mithun 1994; Aldridge 2004 et seq; Rackwoski & Richards 2005, a.o.).

(26)

```
              TP
           ┌──┴──┐
           T   VoiceP
              ┌──┴───┐
           Agent    Voice′
                 ┌────┴────┐
              Voice      ApplP
                      ┌────┴────┐
                  Recipient   Appl′
                           ┌────┴────┐
                         Appl        vP
                                  ┌───┴───┐
                                  v       VP
                                       ┌──┴──┐
                                       V   ┌ Pivot ┐
```

Finally, the fact that Austronesian-type voice morphology obligatorily cliticizes to the highest predicate of a clause in Puyuma—even when that predicate is an adverb (e.g. (27b) and (28b))—follows consistently from the agreement approach to Austronesian-type voice and casts further doubt on the claim that LV/CV affixes are applicative markers.

(27) a. Ku=beray-**ay**   **na**   **walak** kana   aputr.
          1S.NOM=give-LV DF.PIV **child** DF.ACC flower
          'I gave the child the flowers.'   (LV morphology on the lexical verb)

     b. Ku=**trakatrakaw-ay** beray   **na**   **walak** kana   aputr.
          1S.NOM=**secretly-LV** give.DEFAULT **DF.PIV child** DF.PIV flower

          'I *secretly* gave the child the flowers.'   (LV morphology cliticized onto an adverb)

(28) a. Ku=beray-**anay** kana   walak **na**   **aputr**.
          1S.NOM=give-CV DF.ACC child **DF.ACC flower**

          'I gave the child the flowers.'   (CV morphology on the lexical verb)

     b. Ku=**trakatrakaw**-anay beray   kana   walak **na**   **aputr**.
          1S.NOM=**secretly-CV** give.DEFAULT DF.ACC child **DF.PIV flower**

          'I *secretly* gave the child the flowers.'   (CV morphology cliticized onto an adverb)

We conclude that neither Austronesian-type AV/PV morphology nor LV/CV morphology marks Kratzerian Voice, or realizes any functional head within VoiceP. This argues against the core assumptions of the ergative approach to Puyuma and similar languages and, at the same time, undermines the case agreement approach to Austronesian-type voice (Rackowski 2002; Rackowski & Richards 2005), which also relies crucially on the applicative analysis of LV/CV morphology.

6. Conclusion   31

In this paper, we have demonstrated what is conventionally termed 'voice' in Western Austronesian is fundamentally different from *voice* in the traditional sense. Drawing on new data from the Western Austronesian language Puyuma where Austronesian-type voice co-exists with a detransitivizing affix akin to the Indo-European-style passive, we showed that Austronesian-type voice is best analyzed as Ā-agreement morphology hosted in the C domain, rather than an external argument-introducing head hosted in VoiceP (i.e. 'voice' in the traditional sense) as previously claimed. This analysis calls for a re-examination of a typology of voice systems in Western Austronesian, as well as similar systems reported in other language families (e.g. Western Nilotic (Anderson 2015)), and indicates that what has been termed 'voice' in the literature does not form a homogeneous group. Crucially, the co-existence of both types of 'voice' in three other Western Austronesian languages (Chen 2020) indicates that the current observation is not specific only to Puyuma.

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