The syntax of Austronesian-type alignment:
Evidence from complementation and beyond

Although Philippine-type Austronesian languages display apparent hallmarks of syntactic ergativity, scrutinizing the distribution of three basic case markers reveals that their ergative characteristics are illusory. Presence of the alleged oblique case on ECM subjects and derived objects, along with its absence in restructuring infinitives, suggests that the construction traditionally analyzed as an antipassive in fact possesses an accusative object and constitutes a true transitive. Presence of the alleged inherent ergative case on unaccusative themes, along with its uniqueness per clause and sensitivity to locality, argues for an alternative nominative analysis, indicating that the extraction asymmetry found in these languages does not arise from the ban on ergative extraction. Finally, the non-local distribution of the putative absolute case reveals that it is a marker independent of case, in line with existing topic analyses of this marker. Accordingly, Philippine-type Austronesian languages are accusative languages with prominent topic-marking overriding morphological case, in line with previous accusative approaches to Tagalog (Richards 2000; Chen 2021) and Malagasy (Pearson 2001). Two major implications of this conclusion are: (i) highly constrained Ā-extraction asymmetry may be independent of syntactic ergativity, and (ii) discourse configurational languages may superficially exhibit traits of ergativity if their topic-marking is imprecisely treated as part of their case system.

Keywords: ∘ Austronesian-type alignment ∘ Philippine-type voice ∘ ergativity ∘ antipassive

Contents

1 Introduction

Despite investigations over the past five decades, the question of whether Philippine-type Austronesian languages are ergative, accusative, or typologically unique in their case alignment remains a point of contention in the literature (Blake 1906; Schachter 1976; Ramos 1974; Ramos & Bautista 1986; Gerdts 1988; Shibatani 1988; Guilfoyle, Hung & Travis 1992; Aldridge 2004; Pearson 2005; Rackowski & Richards 2005; a.o.). At the center of debate is the nature of a crosslinguistically rare four-way argument-marking alternation found in these languages, known in the literature as *Austronesian-type alignment*.

In languages of this type, a change in verbal morphology correlates with a change in the distribution of a special marker labeled as PIVOT below to remain analysis neutral.[1] As seen with the Tagalog examples (1), with verbal morphology alternating between *Actor Voice* (AV), *Patient Voice* (PV), *Locative Voice* (LV), and *Circumstantial Voice* (CV), this marker shifts among the external argument (1a), the internal argument (1b), and different types of adjunct-like phrases (1c-d), respectively.[2]

(1) Tagalog

    a. B⟨**um**⟩ili si   AJ ng   keyk mula kay   Lia para kay   Joy.
       buy⟨**AV**⟩ PN.PIVOT AJ INDF.CM$_2$ cake P$_1$ PN.CM$_2$ Lia P$_2$ PN.CM$_2$ Joy
       '*AJ* bought cake from Lia for Joy.'   (ACTOR VOICE)

    b. Bi-bilih-**in**   ni   AJ ang   keyk mula kay   Lia para kay   Joy.
       CONT-buy-**PV** PN.CM$_1$ AJ CN.PIVOT cake P$_1$ PN.CM$_2$ Lia P$_2$ PN.CM$_2$ Joy
       'AJ will buy the *cake* from Lia for Joy.'   (PATIENT VOICE)

    c. Bi-bilih-**an**   ni   AJ ng   keyk si   Lia para kay   Joy.
       CONT-buy-**LV** PN.CM$_1$ AJ INDF.CM$_2$ cake PN.PIVOT Lia P$_2$ PN.CM$_2$ Joy
       'AJ will buy cake from *Lia* for Joy.'   (LOCATIVE VOICE)

    d. **I**-bi-bili   ni   AJ ng   keyk mula kay   Lia si   Joy.
       CV-CONT-buy PN.CM$_1$ AJ INDF.CM$_2$ cake P$_1$ PN.CM$_2$ Lia PN.PIVOT Joy
       'AJ will buy cake from Lia for *Joy*.'   (CIRCUMSTANTIAL VOICE)

The pivot-marked phrase in each clause is syntactically pivotal, as Ā-operations such as relativization require the extracted phrase to be indicated as the pivot via verbal morphology. This is seen in (2), where relativization of the agent (2a), theme (2b), locative (2c), or benefactive (2d) is accompanied by the use of AV, PV, LV, or CV, respectively, analogous to the mapping between voice and pivot selection seen in (1). Mismatch between voice type and the extracted phrase results in ungrammaticality.

(2) Tagalog

    a. Actor Voice

       Sino ang   [$_{RC}$ b**⟨um⟩**ili/{***-in/*-an/*i-**} ng   keyk]?
       who PIVOT [$_{RC}$ buy**⟨AV⟩/{*PV/*LV/*CV}** INDF.CM$_2$ cake]
       '*Who* is the one that bought cake?'   (relativization of agent)

    b. Patient Voice

       Ano ang   [$_{RC}$ bi-bilih-**in/{*⟨um⟩/*-an/*i-**} ni   Aya]?
       what PIVOT [$_{RC}$ CONT-buy-**PV/{*AV/*LV/*CV}** PN.CM$_1$ Aya
       '*What* is the thing that Aya will buy?'   (relativization of theme)

    c. Locative Voice

       Nasaan ang   [$_{RC}$ bi-bilih-**an/{*⟨um⟩/*-in/*i-**} ni   Aya ng   keyk]?
       where PIVOT [$_{RC}$ CONT-buy-**LV/{*AV/*PV/*CV}** PN.CM$_1$ Aya INDF.CM$_2$ cake]
       '*Where* will be the place where Aya will buy cake?'   (relativization of locative)

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[1] List of abbreviations: AV: Actor Voice; CM: case marker; CN: common noun; CONJ: conjunction; CONT: contemplated aspect; CV: Circumstantial Voice; DEF: definite; DOM: differential object marking; INDF: indefinite; LV: Locative Voice; P: preposition; PV: Patient Voice; PN: personal name; PRF: perfective; RED: reduplication; REFL: reflexive.

[2] In Tagalog, pivot-marking further distinguishes between common nouns (*ang*) and personal names (*si*). See footnote 13 for the complete case paradigm of the language.

   d. Circumstantial Voice

Sino ang   [$_{RC}$ **i**-bi-bili/{***\<um\>/*-in/*-an**} ni   Aya ng   keyk]?
who PIVOT [$_{RC}$ **CV**-buy/{***AV/*PV/*LV**}   PN.CM$_1$ Aya INDF.CM$_2$ cake]
'*Who* is the one that Aya will buy cake *for*?'   (relativization of benefactive)

What type of case alignment does this seemingly exotic argument-marking pattern manifest? The answer lies in the nature of three basic markers present in this fluid pattern – CM$_1$, CM$_2$, and pivot-marking (3), all of which have been shown to be reconstructable to Proto-Austronesian or a stage immediately after its split (Ross 2009; Blust 2015). Their distribution in simple clauses formed with a two-place verb (e.g. (1)) is summarized below in (4).

(3)   Three basic markers that form Austronesian-type alignment[3]

    a. Pivot: the morphological marking on the sole phrase in a clause eligible for Ā-extraction

    b. CM$_1$: the morphological marking on non-pivot external arguments

    c. CM$_2$: the morphological marking on non-pivot internal arguments

(4)   Austronesian-type alignment: schematized case pattern

	a. AV	b. PV	c. LV	d. CV
external argument	**Pivot**	CM$_1$	CM$_1$	CM$_1$
internal argument	CM$_2$	**Pivot**	CM$_2$	CM$_2$
locative	P$_1$	P$_1$	**Pivot**	P$_1$
instrument/benefactor	P$_2$	P$_2$	P$_2$	**Pivot**

Under the traditional view, the voice alternation in (4) indexes argument structure alternation, which promotes phrases of different types to subject and absolutive. Accordingly, what constrains non-pivot phrases from Ā-extraction (2) is an 'absolutive-only' restriction. In this view, Philippine-type Austronesian languages manifest syntactic ergativity. The three basic case markers labeled as 'pivot,' CM$_1$, and CM$_2$ in (1)-(4) realize the absolutive, ergative, and oblique case, respectively (Payne 1982; De Guzman 1988; Gerdts 1988; Mithun 1994; Aldridge 2004 et seq.; a.o.). A key assumption of this approach (5) is therefore that Philippine-type voice alternation indexes *transitivity alternation*, which promotes phrases of different types to the absolutive. Details of this analysis are introduced in section 2.

(5)   The ergative approach to Austronesian-type alignment

	a. AV	b. PV	c. LV	d. CV
external argument	**ABS**	ERG	ERG	ERG
internal argument	OBL	**ABS**	OBL	OBL
locative	P$_1$	P$_1$	**ABS**	P$_1$
instrument/benefactor	P$_2$	P$_2$	P$_2$	**ABS**

Under another family of analyses, the four-way pattern in (4) indexes a change in topichood; 'pivot' is a topic marker that is obligatorily present in each finite clause and overrides nominative and accusative case (CM$_1$ and CM$_2$, respectively), as well as prepositions (P$_1$ and P$_2$). In this view, Philippine-type Austronesian languages are topic-prominent discourse configurational languages with an accusative case system; their verbal morphology known as a 'voice' system is topic-indicating Ā-agreement morphology hosted in the left periphery (Richards 2000; Pearson 2001, 2005; Chen 2017, 2021). This analysis is summarized in (6).[4]

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[3]Pivot-marking is also labeled as 'nominative' or 'absolutive.' Depending on the analysis/approach, previous work has glossed CM$_1$ as 'ergative' or 'genitive,' and CM$_2$ as 'accusative' or 'oblique.' The actual properties of these markers are re-examined in sections 3-5. Some Philippine-type languages employ different case forms for common nouns and personal names. See, for example, Tagalog's case paradigm in footnote 13. In some innovative languages like Malagasy, some or all of these case markers have merged with zero. There is, however, strong comparative evidence that this three-way case system with overt case-marking is the prototypical pattern inherited from the shared common ancestor of Philippine-type languages.

[4]Richards (2000) argues that Tagalog's pivot-marking (*ang/si*) is a topic marker. See also Shibatani (1988) for the same analysis for several other Philippine-type languages. Chen (2017) expands this analysis to three other Philippine-type languages and explicitly argues that this marker overrides morphological case. In line with these analyses, Pearson (2001, 2005) analyzes Malagasy's sentence-final pivots as topics, although such phrases do not carry overt pivot-marking in the language.

(6) The accusative approach to Austronesian-type alignment

	a. AV	b. PV	c. LV	d. CV
external argument	~~NOM~~ **Topic**	NOM	NOM	NOM
internal argument	ACC	~~ACC~~ **Topic**	ACC	ACC
locative	P_1	P_1	~~P_T~~ **Topic**	P_1
instrument/benefactor	P_2	P_2	P_2	~~P_2~~ **Topic**

A third approach holds that this case pattern manifests a typologically unique type of alignment (Foley 2008; Himmelmann 2005; Reisberg 2014). This system, termed 'symmetrical voice,' is proposed to be characterized by four traits, (7a-d).

(7) a. <u>Voice alternation</u>: presence of at least two voice alternations marked on the verb.

    b. <u>Lack of an unmarked verbal form</u>: none of the alternating constructions identifiably the 'basic' or 'underlying' construction.

    c. <u>Fluid subjecthood</u>: the ability of non-subcategorized participants like locatives or instrumentals to freely assume pivot or subject status via their unique voice marking affixes.

    d. <u>Pre-categorical roots</u>: dependent relationship between symmetrical voice and pre-categorical roots.

Despite much debate in the literature pertaining to the case alignment of individual languages, few studies have attempted to investigate the nature of Austronesian-type alignment through a comparative look across Austronesian languages with this four-way case pattern.

In this paper, I show that a closer look at the distribution of the three basic markers ('pivot,' CM_1, and CM_2) brings renewed interest to this debate. Drawing on new data from Tagalog, Puyuma, Amis, and Seediq as the empirical starting point, I demonstrate that the analysis in (6) is on the right track: 'pivot' is a marker of information structure status (topic), and CM_1 and CM_2 show common hallmarks of nominative and accusative case, respectively. Accordingly, Austronesian-type alignment is neither ergative nor typologically unique, but a run-of-the-mill accusative system intertwined with topic-marking that overrides morphological case.

The remainder of this paper is structured as follows. Section 2 reviews key assumptions of the three competing analyses. Sections 3 and 4 present new evidence for the nature of CM_1 and CM_2, drawing on data on previously understudied syntactic environments. Section 5 discusses the non-local distribution of pivot-marking and presents new evidence that this marker is best analyzed as a topic marker. Section 6 summarizes and concludes.

Tagalog, Puyuma, Amis, and Seediq each belongs to a distinct higher-order branch of Austronesian. Their shared syntax would therefore shed new light on the prototypical design of Austronesian-type alignment.[5] As will be shown in this paper, secondary data reveal uniformity in the distribution of the three case markers across higher-order Austronesian language branches. Except where otherwise indicated, the data presented in this paper come from primary fieldwork on Manila Tagalog, Nanwang Puyuma, Central Amis, and Tgdaya Seediq, over the period of 2015 to 2021.

2   Austronesian-type alignment: Three competing approaches

Austronesian-type alignment, also known as *Philippine-type alignment*, is found across morphosyntactically conservative Austronesian languages distributed in Taiwan, the Philippines, northern Borneo, northern Sulawesi, and Madagascar. Key traits associated with this alignment are summarized in (8).[6]

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[5]Under the most widely-adopted subgrouping (Blust 1999), each of these languages belongs to a distinct primary branch. Under Ross's (2009) subgrouping, these languages still represent two of the four Austronesian primary branches. The shared case pattern of the languages may therefore be considered prototypical and reconstructable to their shared common ancestor.

[6]This definition expands on Erlewine et al.'s (2017) and Chen & McDonnell's (2019) definitions of Philippine-type voice.

(8) Key traits of Austronesian-type alignment

    a. <u>A syntactically pivotal phrase</u>: In each finite clause, one phrase is designated the syntactic pivot and realized in a particular morphological form and/or structural position, regardless of its original grammatical function, case, or thematic role.

    b. <u>Articulated verbal morphology</u>: The four-way affixal morphology on the verb alters based on the choice of the pivot, with the option of taking certain non-core phrases as pivots.

    c. <u>One-to-many mapping between voice and pivot selection</u>: The voice-marking of a clause is not conditioned simply by the case or thematic role of the pivot but is subject to a complex mechanism reflecting both the grammatical relation and the relative structural height of the pivot (see (9)).

    d. <u>Marking of non-pivot phrases</u>: Non-pivot phrases carry a fixed case-marking depending on their grammatical relation.

    e. <u>Fluid extraction restriction</u>: Ā-extraction (relativization, including pseudo-clefting) is limited to the pivot phrase of a given clause, as seen earlier in (2).

The four voice types function generally like paraphrases. Common triggers of split alignment, such as distinctions in TAM or DP types, do not exist among the four voice types. The mapping between voice type and pivot selection is not conditioned by any single factor, such as the thematic role of the pivot. Instead, it reflects a hierarchy sensitive to both the structural height of the pivot relative to the other arguments in the clause and its thematic role (when the pivot phrase is not a core argument selected by the verb). This is seen in (10), which summarizes the mapping between voice and case in five basic constructions. As the table shows, semantically intransitive verbs are compatible with AV (10a) and not PV (10b), even if the verb is a theme-selecting unaccusative verb, (11).[7] This mismatch exemplifies the generalization above that the mapping between voice and pivot selection is not conditioned by thematic role.

(10) Mapping between voice and case in basic constructions

	a. AV					b. PV				
	unergative	unaccusative	transitive	causative	ditransitive	unergative	unaccusative	transitive	causative	ditransitive
initiator/causer	Pivot	–	Pivot	Pivot	Pivot	*	*	CM1	CM1	CM1
locative	P1	P1	P1	–	–	*	*	P1	–	–
benefactor/instrument	P2 / CM2	P2 / CM2	P2 / CM2	P2 / CM2	P2 / CM2	*	*	P2 / CM2	–	–
causee	–	–	–	CM2	–	*	*	–	–	Pivot
recipient	–	–	–	–	CM2	*	*	–	–	Pivot
theme	–	Pivot	CM2	CM2	CM2	*	*	Pivot	CM2	CM2

	c. LV					d. CV				
	unergative	unaccusative	transitive	causative	ditransitive	unergative	unaccusative	transitive	causative	ditransitive
initiator/causer	CM1	CM1	CM1	*	CM1	CM1	CM1	CM1	CM1	CM1
locative	Pivot	Pivot	Pivot	*	–	–	–	–	–	–
benefactor/instrument	–	–	–	*	–	Pivot	Pivot	Pivot	–	–
causee	–	–	–	*	–	–	–	–	CM2	–
recipient	–	–	–	*	Pivot	–	–	–	–	CM2
theme	–	–	CM2	*	CM2	–	–	CM2	Pivot	Pivot

(11) Tagalog

    a. { K⟨**um**⟩anta / d⟨**um**⟩ating } **si**   **Aya**.
       { sing⟨AV⟩   / arrive⟨AV⟩ } **PN.PIVOT Aya**
       'Aya {sang / arrived}.'   (Actor Voice)

    b. *D⟨**in**⟩ating **si**   **Aya**.
       arrive⟨**PV**⟩ **PN.PIVOT Aya**
       (intended: 'Aya arrived.')   (Patient Voice)

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[7]As the table indicates, such verbs can also be marked in LV or CV whenever the sentence contains an adjunct-like phrase, such as a locative. Consider (9).

(9) D<in>atn-**an**   ni   Aya **ang**   **eskuwelahan**.
    <PRF>arrive-LV PN CM1 Aya **CN.PIVOT school**
    'Aya arrived at the school.'   (Locative Voice)

With this background in mind, below I provide an overview of the key assumptions of the three common approaches to Austronesian-type alignment introduced in section 1.

2.1 The ergative and the split ergative approaches to Philippine-type alignment

2.1.1 The ergative approach

The ergative approach to Austronesian-type alignment draws on one central assumption: 'pivot' marks absolutive case available to four types of argument: (a) intransitive subjects, (b) transitive objects, and (c) two types of applied objects (Payne 1982; Mithun 1994; Aldridge 2011, 2012, 2016 et seq.; a.o.).[8] Under this approach, the PV construction is the basic transitive; the AV construction is an antipassive; and the LV and CV constructions are two types of applicative of transitives where an applied object functions as the primary object. This proposed case system is outlined in (12).

(12) The ergative approach to Austronesian-type alignment

	a. AV	b. PV	c. LV	d. CV
external argument	**Pivot: ABS**	ERG	ERG	ERG
internal argument	OBL	**Pivot: ABS**	CM$_2$: OBL	OBL
locative	P$_1$	P$_1$	**ABS**	P$_1$
instrument/benefactor	P$_2$	P$_2$	P$_2$	**ABS**
	intransitive / antipassive	basic transitive	transitive applicative	transitive applicative

The alleged transitivity split between AV and non-AV clauses is attributed to the flavor of Voice employed in each construction: an AV affix realizes an intransitive Voice head, which contrasts with a transitive Voice head (assumed to be realized as a PV affix) in two regards: (i) presence or absence of an EPP feature, and (ii) the ability to inherently case-license the external argument.[9] The proposed case-licensing pattern in these two constructions is schematized in (13).
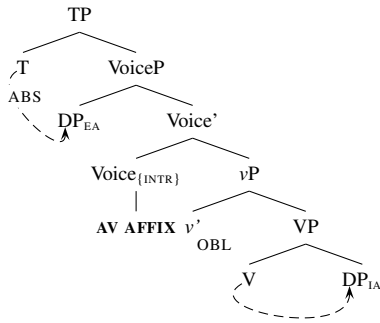
(13)   a.   Actor Voice   b.   Patient Voice
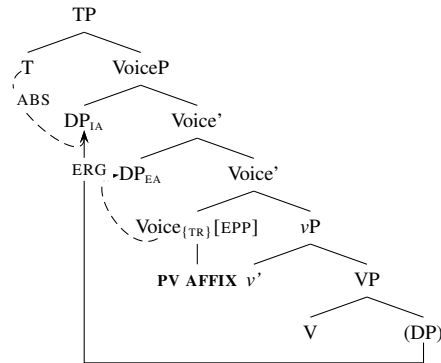
Without an EPP feature on Voice, the internal argument in AV remains within VP, licensed by oblique case from V along with θ-assignment. The external argument receives absolutive case from T, as in (13a). In PV, the internal argument undergoes object shift to the outer specifier of VoiceP, where it further moves to Spec, TP and checks absolutive case. The external argument is inherently case-licensed by transitive Voice, as in (13b).

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[8] Aldridge (2004) proposes two subtypes of ergativity within Philippine-type languages: T-type / high absolutive, where the source of pivot-marking (absolutive case) is unitarily T, and v-type / low absolutive, where the source of absolutive case splits between T and transitive Voice depending on the transitivity of the clause. This distinction was eliminated in her later works (2015, 2016, 2017, 2019) and will not be discussed in this paper.

[9] Aldridge does not distinguish between Voice and v in her series of work. I do implement this distinction (Pylkkänen 2002; Alexiadou 2006; Harley 2013) throughout this paper and adjust the terminology used by Aldridge to reflect the Voice/v distinction.

LV/CV constructions are claimed to be two types of high applicative constructions.[10] The pivot phrase is an applied object base-generated in the highest internal argument position, where it is eligible for object shift and accessible to absolutive case (14), similar to PV objects.

(14)
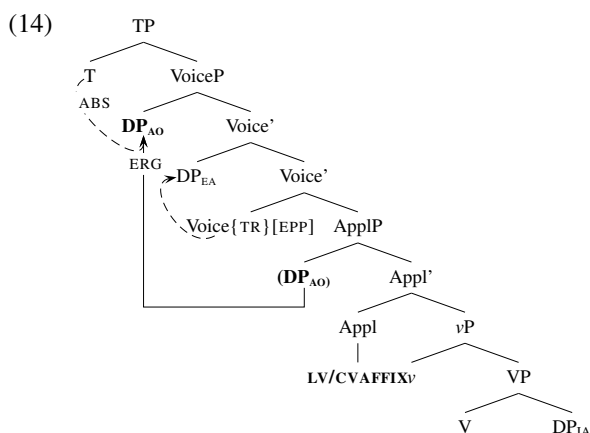
Key assumptions of this analysis are summarized in (15). An implicit assumption of this analysis is that transitive Voice head is overtly spelled out only in PV clauses and is phonologically null in LV/CV.

(15)   The ergative approach to Austronesian-type alignment

Pivot	ABS from T	AV affix	reflex of intransitive Voice^0 (with no EPP)
CM$_1$	ERG from transitive Voice	PV affix	reflex of transitive Voice (with EPP)
CM$_2$	OBL from V	LV affix	reflex high Appl^0 (with EPP on a null transitive Voice head)
		CV affix	reflex of high Appl (with EPP on a null transitive head)

2.1.2   The split ergative approach

In recent years, a subset of Philippine-type languages have been argued to possess a split ergative system, featuring an accusative-aligned AV construction and ergative-aligned non-AV constructions (PV/LV/CV). Aldridge (2008), for example, proposes that some Formosan languages have shifted from a purely ergative system to a split ergative system, which is why their AV construction allows definite objects. See also Chang (1997) and Teng (2016) for a similar proposal for specific Formosan languages.

Under this approach, CM$_2$ and 'pivot' realize two distinct cases in AV and non-AV environments. Pivot-marking marks nominative case in AV and absolutive case in non-AV constructions. CM$_2$, which consistently appears on non-pivot internal arguments, is claimed to mark accusative case in AV and oblique case in non-AV clauses. This analysis is illustrated in (16). The ban on internal argument extraction in AV clauses (2a) is assumed to be an independent constraint.

(16)   The split ergative approach to Austronesian-type alignment

	a. AV	b. PV	c. LV	d. CV
external argument	**Pivot: NOM**	CM$_1$: ERG	CM$_1$: ERG	CM$_1$: ERG
internal argument	CM$_2$: ACC	**Pivot: ABS**	CM$_2$: OBL	CM$_2$: OBL
locative	P$_1$	P$_1$	**Pivot: ABS**	P$_1$
instrument/benefactive	P$_2$	P$_2$	P$_2$	**Pivot: ABS**

2.2   The accusative approach to Austronesian-type alignment

The accusative approach to Austronesian-type alignment has a distinct view – 'pivot' is considered a marker of information structure status (topic), and the fluid extraction asymmetry does not manifest an extraction constraint, but an agreement-like mechanism that indexes the grammatical role of the Ā-extracted phrase

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[10]It is unclear in the ergative literature how these two constructions differ in nature. Both are claimed to possess a high ApplP that introduces the pivot phrase.

(Pearson 2005; Chen 2017; Erlewine et al. 2017). Despite differences in details among authors, the consensus has been that CM_1 and CM_2 realize nominative and accusative case, respectively; both cases are overridden by pivot/topic-marking, resulting in the apparently fluid case pattern observed in (3). This analysis is illustrated in (17)-(18).

(17)   The accusative approach to Austronesian-type alignment[11]

	a. AV	b. PV	c. LV	d. CV
external argument	~~NOM~~ **Topic**	NOM	NOM	NOM
internal argument	ACC	~~ACC~~ **Topic**	ACC	ACC
locative	P_1	P_1	~~P_T~~ **Topic**	P_1
instrument/benefactor	P_2	P_2	P_2	~~P_2~~ **Topic**

(18)   The accusative approach to Austronesian-type alignment

PIVOT	topic-marking	AV AFFIX	topic agreement / extraction morphology with subject
CM_1	NOM from T	PV AFFIX	topic agreement / extraction morphology with DO
CM_2	ACC from Voice	LV AFFIX	topic agreement / extraction morphology with locative phrase
		CV AFFIX	topic agreement / extraction morphology with others

2.3   The symmetrical voice approach to Austronesian-type alignment

Yet a third line of analyses maintains that Austronesian-type alignment constitutes a unique type of alignment (Foley 2008:42), allowing four different mappings between semantic roles and syntactic positions. A key assumption of this approach is that none of the four voices is the default structure. Each is a non-derived construction featuring a subject with a different thematic role. In this view, Philippine-type Austronesian languages are non-configurational languages by default, whose configurationality is determined by voice type – each of which allows a specific subject-predicate relation, in which adjunct-like phrases such as instrument and benefactor are allowed to be introduced as the subject. This analysis is summarized in (19).

(19)   The symmetrical voice approach to Austronesian-type alignment

PIVOT	subject-marking	AV AFFIX	agent subject construction
CM_1	(unaddressed)	PV AFFIX	theme subject construction
CM_2	(unaddressed)	LV AFFIX	locative subject construction
		CV AFFIX	instrumental/benefactive subject construction

Although built in a non-generative framework, this approach can be evaluated with two central predictions: if this approach is on the right track, the pivot-marked phrase should behave like a subject in various regards, and the binding relation between the pivot phrase (the alleged subject) and other phrases in the clause should differ among the four voices.

Below I evaluate the key assumptions of the three competing approaches (20), drawing on new data from Tagalog, Puyuma, Amis, and Seediq and existing descriptions from other Philippine-type languages.

(20)

	pivot marker	CM_1	CM_2
a. Ergative approach	absolutive case	ergative case	oblique case
b. Accusative approach	topic marker	nominative case	accusative case
c. Symmetrical voice approach	subject marker	(unspecified)	(unspecified)

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[11]Despite slight differences among authors, a shared view among the accusative approaches is that the so-called 'voice' morphology found in Philippine-type languages is essentially not valency-indicating morphology encoded within VoiceP, but Ā-agreement or extraction morphology hosted high in the left periphery. See Pearson (2001, 2005) and Chen (2017, 2021) for details. See also Erlewine et al. (2017) for a similar approach, and Chen & Fukuda (2021) for a specific claim for Puyuma.

3 Is Philippine-type Actor Voice an antipassive?

The status of CM_2 – the case-marking on AV objects – is crucial for clarifying the nature of Austronesian-type alignment. If the case alternation between AV and PV (21) (exemplified in (22)) indeed manifests an ergative pattern, AV clauses must be syntactically intransitive, so that the distribution of pivot-marking can be interpreted as ergative-aligned and shared between intransitive subjects (21a) and transitive objects (21b).

(21)

	a. Actor Voice	b. Patient Voice
external argument	*Pivot*	CM_1
internal argument	**CM_2**	*Pivot*

(22) Tagalog

    a. K**<um>**urot si   kyla **kay**   **juan**.
   **<AV>**pinch PN.PIVOT Kyla **PN.CM2 Juan**
       'Kyla pinched Juan.'   (Actor Voice)

    b. K**<in>**urot   ni   kyla **si**   **juan**.
       <PV.PRF>pinch PN.CM_1 Kyla **PN.PIVOT Juan**
       'Kyla pinched Juan.'   (Patient Voice)

For this analysis to go through, then, AV objects must be non-structurally case-licensed oblique phrases – precisely what is argued by the ergative approach to Austronesian-type alignment. If CM_2 marks accusative case, the intransitive/antipassive view of AV constructions will not hold; the alleged ergative patterning between antipassive subjects and transitive objects will therefore fail to maintain.

Oblique case and accusative case differ in important regards. The former is licensed by the lexical verb; the latter is assigned by the semi-functional head, Voice. In addition, oblique case is licensed in Head-Complement relation along with θ-assignment (Aldridge 2004 et seq.; Woolford 2006l Bobalijk 2008), as in (23). It is therefore available only to internal arguments that are θ-licensed locally.

(23)   Oblique case assignment
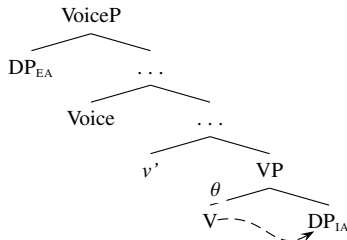
Accusative case, on the other hand, can be assigned through either the Head-Complement relation (24a) or the Head-Specifier relation across the VoiceP boundary (24b). The latter configuration is known as *Exceptional Case Marking* (ECM; Chomsky 1981, 1986). Accusative case is therefore available not only to internal arguments but also to embedded external arguments. In addition, since accusative-licensing is not tied to θ-assignment, an accusative argument need not be θ-licensed by the local verb.

(24)   Two patterns of accusative case assignment

    a. Head-Comp licensing   b. Head-Spec licensing (ECM)
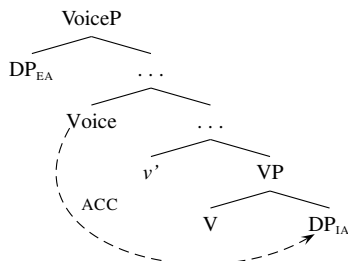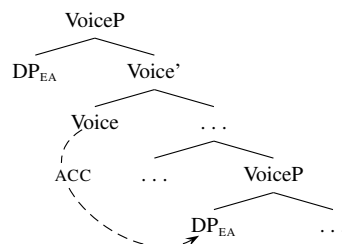
In this section, I demonstrate that CM_2 shows the hallmarks of structural accusative case upon a closer look at its distribution in ECM environments (3.1), restructuring infinitives (3.2), and non-thematic argument positions (3.3).

3.1 CM_2 on ECM subjects

The oblique case view of CM_2 predicts that this case can never appear on ECM subjects. Data from productive causatives show that this prediction is false. Across Philippine-type Austronesian languages, CM_2 consistently appears on the causee in AV-marked productive causatives, alongside its presence on AV objects in simple clauses. In this subsection, I demonstrate that such causees are located precisely in an ECM position (24b), where only structural accusative case and not lexical oblique case is available.[12]

In Tagalog, putative antipassive objects in AV-marked simple clauses (25a) share the same case-marking, *ng*/*kay*, with the causees in AV-marked productive causatives (25b) (*ng* for indefinite common nouns; *kay* for personal names). The theme of the caused event also carries the same case, as also seen in (25b).

(25) Tagalog[13]

    a. H<um>abol si   Aya { **kay**   **Maria / ng**   **pusa** }.
       AV-chase   PN.PIVOT Aya { **PN.CM$_2$ Maria / INDF.CM$_2$ cat**   }
       'Aya chased {*Maria*/a cat}.'

    b. Nag-pa-habol   si   Aya **kay**   **Maria** ng   pusa.
       AV.PRF-CAU-chase PN.PIVOT Aya **PN.CM$_2$ Maria** INDF.CM$_2$ cat
       'Aya made *Maria* chase a cat.'

The same case pattern obtains in Puyuma, Amis, and Seediq. Like in Tagalog, CM_2 consistently appears on AV objects in simple clauses, as well as on the causee and the theme in AV-marked causative of transitives, (26)-(28).[14]

(26) Puyuma[15]

    a. S<em>aletra'=ku   { **kan**   **Senten / kanku=walak**   }.
       <AV>slap=1SG.PIVOT { **SG.CM$_2$ Senten / 1SG.POSS.CM$_2$=child** }
       'I slapped {*Senten*/my child}.'

    b. ∅-pa-dirus=ku   **kan**   **Senten** kanku=walak.
       AV-CAU-bath=1SG.PIVOT **SG.CM$_2$ Senten** 1SG.POSS.CM$_2$child
       'I made *Senten* wash my child.'

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[12] Maclachlan (1996), Travis (2000), and Rackowski (2002) independently made the same observation for Tagalog causatives, but did not use it as an argument against the oblique case analysis of CM_2. See these works for details.

[13] Tagalog's full case paradigm is presented below.

	Common noun	Personal name	1SG	1PL (EXCL./INCL.)	2SG	2PL	3SG	3PL
Pivot	*ang*	*si*	=*ako*	=*kami*/=*tayo*	=*ikaw*	=*kayo*	=*siya*	=*sila*
CM$_1$	*ng*	*ni*	=*ko*	=*namin*/*natim*	=*mo*	=*ninyo*	=*niya*	=*nila*
CM$_2$	*ng* (indf.), *sa* (def.)	*kay*	*sa akin*	*sa amin*/*sa atin*	*sa iyo*	*sa inyo*	*sa kanya*	*sa kanila*

(25)

In the common noun series, the morphological distinction between CM_1 and CM_2 is partially lost (when the internal argument is marked with the indefinite marker *ng*). Nevertheless, the CM_1/CM_2 distinction remains intact in the personal name series (*ni* vs. *kay*). Some researchers gloss *sa* and *kay* as 'dative,' for the reason that they also mark locative/recipient phrases. This label is misleading as these markers are also the typical object-marking for the object of high-transitive verbs. See Schachter & Otanes (1972) for a detailed discussion.

[14] Puyuma, Amis, and Seediq all impose a specific phonotactic constraint that bans bilabial sequences. This triggers null AV morphology in causatives: *p<em>a-* (causative prefix *pa-* + AV infix *<em>*) (Blust pers. commun.). That the zero-marked causatives in (26)-(28) are AV-causatives is evidenced by their shared argument-marking pattern with the Tagalog example (25b), which bears an overt AV affix *nag-* with a non-bilabial onset.

[15] See below Puyuma's full case paradigm. All three markers (pivot, CM_1, CM_2) are further distinguished for definiteness. In both common noun and personal name series, the CM_1/CM_2 distinction is manifested by the presence or absence of the proclitic *tu=*. See Teng (2008) for details.

	Common noun	Personal name	1SG	1PL (EXCL./INCL.)	2SG	2PL	3SG	3PL
Pivot	*a* (indf.), *na* (def.)	*i*	=*ku*	=*mi*/*ta*	=*yu*	=*mu*	–	–
CM$_1$	*tu=... dra* (indf.), *tu=... kana* (def.)	*tu=... kan*	*ku=*	*niam=*/*ta=*	*nu=*	*mu=*	*tu=*	*tu=*
CM$_2$	*dra* (indf.), *kana* (def.)	*kan*	*kanku*	*kaniam*	*kanu*	*kanemu*	*kantu*	*kantu*

(26)

(27) Amis[16]

    a. Mi-lawup kaku **ci-Sawmah-an** inacila.
       AV-chase 1SG.PIVOT **PN-Sawmah-CM₂** yesterday
       'I chased *Sawmah* yesterday.'

    b. ∅-pa-pi-lawup kaku **ci-Sawmah-an** ci-Panay-an inacila.
       AV-CAU-PI-chase 1SG.PIVOT **PN-Sawmah-CM₂** PN-Panay-CM₂ yesterday
   'I made *Sawmah* chase Panay yesterday.'

(28) Seediq[17]

    a. Q<m><n>ita { ∅ **Iwan** / ∅ **roduc nii** } ka Pawan.
       <AV><PRF>see { **CM₂ Iwan / CM₂ chicken this** } PIVOT Pawan
       'Pawan saw {*Iwan*/this chicken}.'

    b. ∅-p-hanguc=ku ∅ **Iwan** ∅ roduc nii.
       AV-CAU-cook=1SG.PIVOT **CM₂ Iwan** CM₂ chicken this
       'I made *Iwan* cook this chicken.'

Presence of CM₂ on the causees casts strong doubt on the oblique case analysis of this marker. Lexical oblique case is expected to be available only to internal arguments that are θ-licensed locally. However, a causee (in any type of causative construction) is neither an internal argument, nor θ-licensed by the matrix verb. The current observation from causatives thus reveals that CM₂ in fact has a wider distribution than that expected for oblique case.

    Furthermore, three standard diagnostics confirm that the CM₂-marked causee is introduced precisely in an ECM position as an external argument of an active, independent embedded VoiceP, as in (29) (Folli & Harley 2007; Escamilla 2012; Legate 2014).[18] Availability of this case in this specific structural position thus falsifies the oblique case view of CM₂.

(29) Bi-eventive causatives

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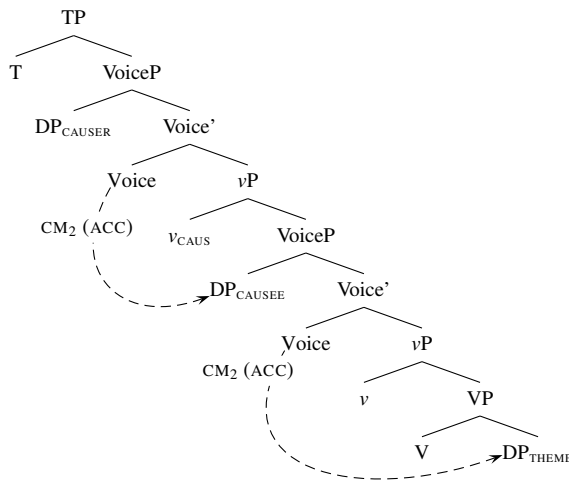
[16] See below Amis's full case paradigm. For further description of its case system, see Wu (2006).

		Common noun	Personal name	1SG	1PL (EXCL./INCL.)	2SG	2PL	3SG	3PL
(27)	Pivot	*ku*	*ci*	*kaku*	*kami/kita*	*kisu*	*kamo*	*cingra*	*caira, cangra*
	CM₁	*nu*	*ni*	*aku*	*niyam/mita*	*isu*	*namo*	*nira*	*mira*
	CM₂	*tu*	*ci-...-an,*	*takuwanan*	*kaminan/kitanan*	*tisuwanan*	*tamoanan*	*cingranan*	*cairaan, cangraan*

[17] See below Seediq's case paradigm. For further description of its case system, see Sung (2018).

		Common noun	Personal name	1SG	1PL (EXCL./INCL.)	2SG	2PL	3SG	3PL
(28)	Pivot	*ka*	*ka*	*=ku*	*=nami/=ta*	*=su*	*=namu*	–	–
	CM₁	*na*	*na*	*=mu*	*nami/ta*	*=su*	*=namu*	*=na*	*=daha*
	CM₂	∅	∅	*yaku*	*yami/ita*	*isu*	*yamu*	*heya*	*dheya*

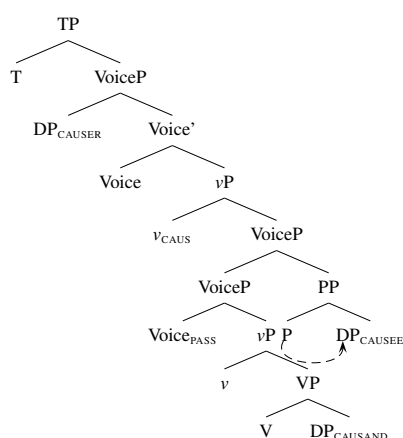[18] Productive causative constructions like this have been reported in Japanese (Kuroda 1965; Shibatani 1976; Harley 2008), Hebrew (Cole 1976), Oromo (Owens 1985), Korean (Lee 1992), Eastern Armenian (Megerdoomian 2005), Italian (Folli & Harley 2007), Hupa (Escamilla 2012), and Acehnese (Legate 2014). The same analysis has also been proposed for Tagalog causatives (Maclachlan 1996; Travis 2000; Rackowski 2002).

In the structure of (29), the causee is licensed in the embedded Spec, VoiceP – a structural position where a lexical oblique case licensor (V) is absent, while structural accusative case from the matrix Voice is available through ECM-licensing. The availability of CM_2 thus indicates that this marker realizes accusative case. This analysis provides a straightforward account for the same case-marking on the theme of the caused event: as the caused event is encoded in an active embedded VoiceP, accusative case from the embedded Voice head is predicted to be available to the internal argument through Head-Complement licensing, as in (29). The double CM_2-marking in (25)-(28) is therefore expected from an accusative case analysis of CM_2.

Three observations reveal that the causative examples in (25)-(28) indeed possess the structure in (29), and not other types of causative structures where the causee is introduced either as a *by*-phrase (30a) or as an applied object (30b) (both of which have been reported to possess a causee with a non-agentive reading; Folli & Harley 2007; Legate 2014).

(30) Two types of causatives with a non-agentive causee

    a. Causee licensed as a *by*-phrase   b. Causee licensed as an ApplP
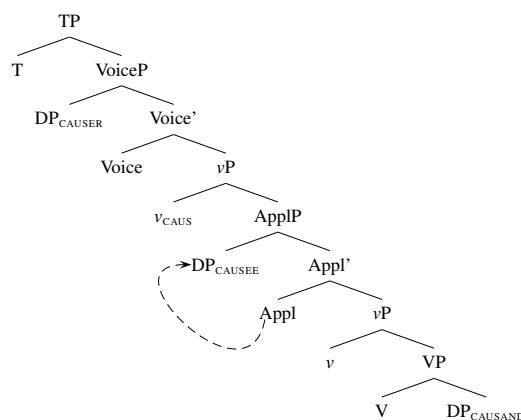
The first piece of evidence comes from binding facts. The CM_2-marked causee is free to bind a pronoun embedded inside the theme argument. Consider the quantifier-variable binding data below (31a-d), where the pronoun embedded inside the pivot theme can be interpreted as a variable of the quantificational causee. This rules out the structure in (30a), and shows that the causee is in a structural position that c-commands the theme, in line with the structure in (29).

(31) Quantifier-variable binding between causee and causand in AV-causatives

    a. Nag-pa-basa   ako   **sa**   **bawat estudyante** ng   kanyang=libro.
        AV.PRF-CAU-read 1SG.PIVOT **DEF.CM₂ every student** INDF.CM₂ 3PL.POSS=book
        'I asked every student$_{<i>}$ to read his/her$_{<i/j>}$ book.'   (Tagalog)

    b. ∅-pa-deru=ku   **kana**   **taynaynayan driya** kantu=kuraw.
        AV-CAU-cook=1SG.PIVOT **SG.CM₂ mother.PL** every 3.POSS.CM₂=fish
        'I asked every mother$_{<i>}$ to cook her$_{<i/j>}$ fish.'   (Puyuma)

    c. ∅-pa-pi-tangtang kaku   **tu cimacima a ina**   tu titi nangra.
        AV-CAU-PI-cook 1SG.PIVOT **CM₂ every** LK mother CM₂ pork 3PL.POSS
        'I will ask every mother$_{<i>}$ to cook her$_{<i/j>}$ pork.'   (Amis)

    d. ∅-p-hanguct=ku   ∅ **knkingal bubu**   ∅ sari=daha.
        AV-CAU-cook=1SG.PIVOT **CM₂ every mother** CM₂ taro=3PL.POSS
        'I asked every mother$_{<i>}$ to cook her$_{<i/j>}$ taro.'   (Seediq)

Second, the CM_2-marked causee can be modified by agent-oriented adverbs, as in (32a-d). This rules out the monoclausal structure in (30b), which has been reported to bear a non-agentive causee incompatible with agent-oriented adverbs (Legate 2014). This, along with the binding fact observed in (31), suggests that the causee is introduced as an agentive external argument c-commanding the theme, as in (29).

(32) Compatibility of agent-oriented adverbs with the causee

    a. Nag-pa-nakaw=ako   nang **palihim** kay   ivan ng   keyk.
       AV.PRF-CAU-steal=1SG.PIVOT CONJ **secretly** PN.CM$_2$ Ivan INDF.CM$_2$ cake
       'I asked Ivan to steal the cake secretly.' (Ivan did so secretly)   (Tagalog)

    b. ∅-pa-pukpuk=ku   kan   siber **pakireb** kana   suwan.
       AV-CAU-hit=1SG.PIVOT SG.CM$_2$ Siber **severely** DEF.CM$_2$ dog
       'I asked Siber to hit the dog severely.' (Siber did so severely)   (Puyuma)

    c. ∅-pa-pi-tangtang kaku   ci-panay-an   t-una   futing **pina'un**.
       AV-CAU-PI-cook   1SG.PIVOT PN.CM$_2$-Panay CM$_2$-that fish   **carefully**
       'I will ask Panay to cook the fish carefully.' (Panay did so carefully)   (Amis)

    d. ∅-p-sais=ku   ∅   akin **murux**   ∅   lukus.
       AV-CAU-sew-1SG.PIVOT CM$_2$ Akin **independently** CM$_2$ clothes
       'I asked Akin to sew the clothes independently.' (Akin did so independently)   (Seediq)

Finally, the caused event of the AV-marked causatives can be independently modified by the adverb of frequency 'again,' as in (33). This eliminates the monoclausal structure (30b), reinforcing the conclusion above that the causative construction under concern is bi-eventive with the caused event encoded in an independent VoiceP.

(33) Compatibility of the adverb of frequency 'again' with the caused event in CV-causatives

    a. I-p<in>a-sulat=ko   **ulit**   ang   liham kay Aya.
       CV-CAU<PRF>-write=1SG.CM$_1$ **again** CN.PIVOT letter   CM$_2$ Aya
       'I asked Aya to write the letter again.' (Aya did so again)   (Tagalog)

    b. Ku=pa-pukpuk-anay kan   senten **masal** na   suwan.
       1SG.CM$_1$-hit-CV   SG.CM$_2$ Senten **again** DEF.PIVOT dog
       'I asked Senten to hit the dog again.' (Senten did so again)   (Puyuma)

    c. Una maeded-ay a   wacu, sa-pa-pi-palu **heca** aku   ci-kulas-an.
       that bad-NMZ   LK dog   CV-CAU-PI-hit **again** 1SG.CM$_1$ PN-Kulas-CM2
       'That bad dog, I asked Kulas to hit (it) again.' (Kulas did so again)   (Amis)

    d. S-p-pahu=mu   ∅   dakis **dungan** ka   lukus nii.
       CV-CAU-wash=1SG.CM$_2$ CM$_2$ Dakis **again**   PIVOT clothes this
       'I asked Dakis to wash the clothes again.' (Dakis did so again)   (Seediq)

All three diagnostics indicate that the CM$_2$-marked causee is an external argument introduced in the specifier position of the embedded VoiceP: a position where only accusative case and not oblique case is available. The distribution of CM$_2$ in productive causatives thus lends novel support to the accusative analysis of CM$_2$. See also recent works (Maclachlan 1996; Travis 2000; Rackowski 2002) for the same bi-eventive analysis for Tagalog causatives, although these studies do not use this analysis to argue against the oblique case view of CM$_2$.

Importantly, presence of CM$_2$ on both the causee and the theme is not specific only to these four languages. The same case pattern is attested in 16 other Philippine-type languages under different higher-order branches of Austronesian, with no exception attested: Atayal, Bikol, Botolan Sambal, Bunun, Cebuano, Ida'an Begak, Ilocano, Kavalan, Muna, Paiwan, Saisiyat, Seediq, Tagalog, Thao, Tsou, Yami, and Itbayaten.[19]

To conclude, CM$_2$'s availability on AV objects in simple clauses as well as arguments that are clearly not introduced in the internal argument position, such as causees in causatives, suggests that CM$_2$ does not realize lexical oblique case. As this morphological marking consistently appears on causees as well as AV objects across these languages, it is therefore possible to extend this analysis to other Philippine-type languages. An important consequence of the accusative analysis for CM$_2$ is that the AV construction, which was convention-ally analyzed as an antipassive, in fact possesses structurally case-licensed accusative objects. This indicates that it constitutes a true transitive.

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[19]Sources of data: Atayal (Huang 2005), Bikol (Mintz 1971), Ida'an Begak (Goudswaard 2005), Muna (van den Berg 1989), Thao (Jian 2018), Yami (Rau & Dong 2006), Itbayaten (Yamada 2014), Botolan Sambal (Antworth 1979), Puyuma (Kuo 2015), Amis (Chen 2017), Kavalan (Don-yi Lin p.c.), Seediq (Holmer 1999), Tsou (Lin 2010), Paiwan (Chang 2006), Bunun (Zeitoun 2000), Saisiyat (Yeh 2000), Tagalog (Travis 2000; Rackowski 2002), Botolan Sambal (Antworth 1979), Ilocano (Silva-Corvalán 1978), Cebuano (Tanankingsing 2009).

3.2 CM$_2$ on derived objects

A second environment ideal for evaluating the oblique case view of CM$_2$ is the raising-to-object construction. In many Austronesian languages, complex sentences formed with a knowledge/perception verb allow an embedded phrase to optionally surface in the matrix object position, as seen with the Madurese example (34a-b). I refer to this construction as 'raising-to-object' without committing to a raising analysis.

(34) Madurese

    a. Siti ngera   [ja' dokter juwa mareksa   **Hasan**].
       Siti AV.think [C   doctor DEM AV.examine **Hasan**]
       'Siti thinks that the doctor examined *Hasan*.'

    b. Siti ngera   **Hasan** [ja' dokter juwa mareksa   *aba'eng*].
       Siti AV.think **Hasan** [C   doctor DEM AV.examine *he*   ]
       'Siti thinks about *Hasan$_i$* that the doctor examined him$_i$.' (Davies 2005:653)

In Philippine-type languages, the derived object (e.g., 'Hasan' in (34)) carries overt case-marking dependent on the matrix voice type. When the matrix verb is in AV, the derived object must be CM$_2$-marked, as must the object in two-place AV clauses. This case pattern is schematized in (35). Consider examples below from Tagalog (36), Puyuma (37), Amis (38), and Seediq (39).[20]

(35)

	internal argument in simple clause	derived object in RTO
AV	CM$_2$	CM$_2$
PV	Pivot	Pivot

(36) Tagalog

    a. **Um**-aasa ako   [na mai-pasa   **ni**   **juan** ang   exam].
       AV-hope 1SG.PIVOT [C PV.SUBJ-pass **PN.CM$_1$** **Juan** CN.PIVOT exam].
       'I hope that *Juan* will pass the exam.'

    b. **Um**-aasa ako   **kay**   **juan**$_i$ [na ma-i-pasa   niya$_i$ ang   exam].
       AV-hope 1SG.PIVOT **PN.CM$_2$** **Juan**$_i$ [C PV.SUBJ-pass 3SG.CM$_{1i}$ CN.PIVOT exam].
       'I hope that *Juan* will pass the exam.'   (CM$_2$ on derived objects)

    c. **Um**-apak si   Maria **kay**   **juan**.
       AV-step.on PN.PIVOT Maria **PN.CM$_2$** **Juan**
       'Maria stepped on *Juan*.'   (CM$_2$ on AV objects in simple clauses)

(37) Puyuma

    a. **Ma**-lradram=ku   [dra m-uka **i**   **Isaw** i   Balangaw adaman   ].
       AV-know=1SG.PIVOT [C   AV-go **SG.PIVOT Isaw**$_i$ LOC Balangaw yesterday]
       'I know that Isaw went to Balangaw yesterday.'

    b. **Ma**-lradram=ku   **kan**   **Isaw**$_i$ [dra m-uka *(e.c.)*$_i$ i   Balangaw adaman   ].
       AV-know=1SG.PIVOT **SG.CM$_2$ Isaw**$_i$ [C   AV-go *(e.c.)*$_i$ LOC Balangaw yesterday]
       'I know that *Isaw* went to Balangaw yesterday.'   (CM$_2$ on derived objects)

    c. **Ma**-ladram=ku   **kan**   **Isaw**.
       AV-know=1SG.PIVOT **SG.CM$_2$ Isaw**
       'I know Isaw.'   (CM$_2$ on AV objects in simple clauses)

(38) Amis

    a. **Ma**-fana' kaku   [∅ mi-sakilif **ci-Sawmah**   ci-Kulas-an   ].
       AV-know 1SG.PIVOT [C AV-lie   **SG.PIVOT-Sawmah** PN-Kulas-CM$_2$]
       'I know that Sawmah lied to Kulas.'

    b. **Ma**-fana' kaku   **ci-Sawmah-an**$_i$ [∅ mi-sakilif *(e.c.)*$_i$ ci-Kulas-an   ].
       AV-know 1SG.PIVOT **PN-Sawmah-CM$_2$** [C AV-lie   *(e.c.)*$_i$ PN-Kulas-CM$_2$]
       'I know that *Sawmah* lied to Kulas.'   (CM$_2$ on derived objects)

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[20]The embedded clauses in all these examples are finite CPs, evidenced by non-restricted voice-marking and aspect-marking unavailable in infinitives, as well as by an obligatory complementizer in languages like Puyuma.

c. **Ma**-fana' kaku   **ci-Sawmah-an**.
AV-know 1SG.PIVOT PN-Sawmah-CM₂
'I know Sawmah.'   (CM₂ on AV objects in simple clauses)

(39) Seediq (Truku)

    a. **Me**-'isug=ku   [∅ s\<m\>ipaq ∅   huling=mu   **ka**   **Imi**].
       AV-fear=1SG.PIVOT [C \<AV\>hit   CM₂ dog=1SG.POSS **PIVOT Imi**   ]
       'I fear that Imi will hit my dog.'

    b. **Me**-'isug=ku   ∅   **Imi**ᵢ [∅ s\<m\>ipaq ∅   huling=mu   *(e.c.)*ᵢ].
       AV-fear=1SG.PIVOT **CM₂ Imi**ᵢ [C \<AV\>hit   CM₂ dog=1SG.POSS *(e.c.)*ᵢ]
       'I fear that *Imi* will hit my dog.'   (CM₂ on derived objects)

    c. **Me**-'isug=ku   ∅   **Imi**.
       AV-fear=1SG.PIVOT **CM₂ Imi**
       'I am afraid of Imi.'   (CM₂ on AV objects in simple clauses)

CM₂'s presence on derived objects provides strong evidence against the lexical oblique case view of this marker. Since lexical oblique case is licensed along with θ-assignment, that analysis entails that the CM₂-marked derived object is θ-licensed by the matrix verb. This assumption is, however, incompatible with either a base-generated or a movement analysis of the derived object. In a raising analysis (40a), the derived object is base-generated and θ-licensed in the embedded clause. It is therefore infelicitous to assume that it is θ-licensed again by the matrix verb. In a base-generated analysis (40b), the in-situ derived object is standardly analyzed as lacking thematic identity with the matrix verb (see, e.g., Higgins 1981; Potsdam & Runner 2001; Davies 2005), as assuming it to receive a θ-role from the matrix verb will yield the infelicitous θ-grid in (41).

(40)   a. Type I RTO: the derived object undergoes (Ā) movement from the embedded clause
         C . . . V$_{\text{knowledge/perception}}$ . . . <u>derived object</u>ᵢ   [$_{CP}$ C . . . V . . . \<tᵢ\>]

   b. Type II RTO: the derived object is base-generated in its spell-out position
         C . . . V$_{\text{knowledge/perception}}$ . . . <u>derived object</u>ᵢ [$_{CP}$ C . . . V . . . pronounᵢ]

(41)   V$_{\text{knowledge/perception}}$ \<x$_{\text{agent}}$, y$_{\text{theme}}$, z$_{\text{derived object}}$\>

Theoretical issues surrounding the analysis in (41) are as follows. First, it requires an independently motivated lexical entry that licenses three θ-roles. Second, the alleged thematic role on the XP is difficult to classify. To avoid this undesirable θ-grid, it is standardly assumed in the literature that the derived object in RTO constructions of this type is a non-thematic argument (e.g., Higgins 1981; Potsdam & Runner 2001; Davies 2005; Salzmann 2017; Wurmbrand et al. 2021, a.o.).

The accusative case analysis of CM₂, on the other hand, offers a straightforward account for the shared CM₂-marking between AV objects and the derived object in RTO. Since accusative case assignment is independent of θ-licensing, an accusative analysis for CM₂ is compatible with either a base-generation or movement analysis of RTO. Presence of CM₂ in this position therefore reinforces the conclusion from 3.1 and 3.2 that it realizes structural accusative case.

According to existing descriptions, all 15 Philippine-type languages reported to have an RTO construction employ obligatory CM₂-marking for the derived object whenever the matrix verb is in AV. Given the incompatibility of oblique case with derived objects, the accusative analysis for CM₂ can therefore extend beyond Puyuma, Amis, Seediq, and Tagalog.

3.3 Absence of CM₂ in restructuring infinitives

A third environment informative for distinguishing the accusative from oblique case is in restructuring infinitives. As is well-known, accusative case is unavailable in infinitival complements where a Voice layer is absent or defective (Aissen & Perlmutter 1976, 1983; Rizzi 1978, 1982; Wurmbrand 2001 et seq.; Cinque

2004). Absence of the local accusative case licensor drives long-distance case licensing, resulting in matrix voice-dependent case-marking on the embedded object. This is exemplified with the examples below from Kannada. As (42a-b) show, changing the matrix voice from active to passive correlates with obligatory nominative-marking on the object. This indicates that the source of accusative case in (42a) is matrix Voice.

(42) Kannada

    a. Jaananu-∅ [**hosa mane-(y)annu** kaTT-al(u)] shurumaaDid-anu.
       John-NOM [**new house-ACC** build-INF] started-3SG.M
       'John started to build the house.'

    b. **Hosa mane(y)u-∅** (jaanan-inda) [__ kaTT-al(u)] shurumaaD-alpaTT-itu.
       new house-NOM (John-by) [__ build-INF] started-PASS-3SG.N
       'A house was started to be built (by John).' (Agbayani & Shekar 2007:10)

Unlike accusative case, oblique case should be consistently available in restructuring infinitives, as it is assigned by the lexical verb. Long-distance case-licensing for the embedded object should therefore not occur.

    Contra this prediction, CM_2 is unavailable in restructuring infinitives, reinforcing the conclusion from 3.1 that CM_2 shows typical traits of structural accusative case. Restructuring infinitives in Philippine-type languages are characterized by clitic climbing, absence of an embedded complementizer, and TAM-deficiency. These characteristics are exemplified with data from Puyuma. As (43a) shows, the pronominal clitic *yu* obligatorily surfaces in the matrix clause even though it is the object of the embedded verb. The embedded verb cannot take aspect or mood inflections, and the infinitive is incompatible with the complementizer *dra* obligatorily present in finite CP complements (see 3.2 for relevant examples).

(43) Puyuma[21]

    a. Tu=talam-ay=*(yu) kan senten [(*dra) s<em>abana(*=yu)].
       3.CM_1=try-LV[PV]=*(2SG.PIVOT) SG.CM_1 Senten [(*C) <AV>cheat/(=*2SG.PIVOT)]
       'Senten tried to cheat you.' (obligatory clitic climbing)

    b. T<em>alam i senten [(*dra) d<em>eru/*d<em>a-deru dra patraka].
       try<AV> SG.PIVOT Senten [(*C) <AV>cook/*<AV>RED-cook INDF.CM_2 meat]
       'Senten tried to cook/*was cooking the meat.' (TAM deficiency)

Infinitives of this type feature a special voice-marking constraint known as 'AV-only,' in which Actor Voice is the only possible voice-marking on the verb, as in (44) (TC Chen 2010; Wu 2012; Wu 2013; Kroeger 2014; Wurmbrand 2014; Chang 2017; Chen 2017).

(44) Puyuma: the 'AV-only' constraint on restructuring infinitives

    Tu$_i$=talam-ay kan senten$_i$ [$_{INF}$ s<em>abana/*tu=sabana-aw i sawagu].
    3.CM_{1i}=try-LV[PV] SG.CM_1 Senten$_i$ [$_{INF}$ <AV>cheat/*3.CM_1=cheat-PV SG.PIVOT Sawagu]
    'Senten tried to cheat Sawagu.'

    Like the Kannada examples in (42), the case-marking of the embedded object is dependent on the matrix voice type. When the matrix verb is in AV, the embedded internal argument carries CM_2; when the matrix verb is in PV, the internal argument must be pivot-marked. This is schematized in (45) and illustrated in (46).

(45)

	internal argument in simple clause	object inside a restructuring infinitive
AV	CM_2	CM_2
PV	Pivot	Pivot

---

[21] In Puyuma, a number of verbs that take a PV case frame carry LV morphology. This is known as PV-LV syncretism (Blust & Chen 2017). To avoid unnecessary confusion, such verbs are glossed as LV[PV].

(46) Absence of CM$_2$ in restructuring infinitives

a. Puyuma

Ku=talam-ay   [$_{INF}$ (*dra) s<em>abana' { **i/*kan**   } **Apeng**].
1SG.CM$_1$=try-LV[PV] [$_{INF}$ (*C) <AV>cheat   { **SG.PIVOT/*SG.CM$_2$** } **Apeng**].
'I tried to cheat Apeng.'

b. Amis

Tanam-en aku   [$_{INF}$ mi-tangtang { **k-una/*t-una**   } **titi**   ].
try-PV   1SG.CM$_1$ [$_{INF}$ AV-cook   { **PIVOT-that/*CM$_2$-that** } pork]
'I will try to cook that pork.'

c. Seediq

Ququ-un=mu   [$_{INF}$ m-imah { **ka/*∅**   } **sino**   **nii**   ].
try-PV=1SG.CM$_1$ [$_{INF}$ AV-drink { **PIVOT/*CM$_2$** } **alcohol this**]
'I will try to drink this alcohol.'

As a lexical case licensor is available inside the embedded infinitives, the fact that CM$_2$ is unavailable inside the AV-marked restructuring infinitive undermines the lexical oblique case view of this case marker. This suggests that the presence or absence of this case is dependent on that of Voice, and not V, offering direct evidence that CM$_2$ realizes accusative case.

The matrix dependent case-marking on the object in AV-marked infinitives is attested across 15 Philippine-type Austronesian languages reported to have a restructuring construction (Wurmbrand 2014).[22] The accusative case analysis for CM$_2$ can therefore extend beyond the current target languages.

3.4 Further arguments against the antipassive approach to Philippine-type Actor Voice

CM$_2$'s accusative behaviors indicate that two-place AV constructions are true transitives, and not antipassives. This offers a straightforward account for why the Philippine-type AV construction displays non-trivial differences from antipassives. In what follows, I review major discrepancies reported in the literature (see, e.g., Shibatani 1988, Foley 2008, Rackowski 2002, Paul & Travis 2006, Chen 2017, and O'Brien 2016 for language-specific discussions).

An antipassive construction is characterized by four traits (47a-d) (Dixon 1979, 1994; England 1988; Cooreman 1994; Heaton 2017; Polinsky 2017).

(47) a. The underlying transitive object is marked by a non-core case or an adposition.

    b. Explicit morphology on the semantically transitive verb indicates antipassivization.

    c. The object can be optionally omitted.

    d. The object is often indefinite/non-specific.

None of these four traits is attested with Philippine-type Actor Voice. We have seen in 3.1-3.3 that, contra (47a), the internal argument of Philippine-type Actor Voice is not marked by a non-core case or an adposition. Below I discuss how the traits listed in (47b-d) are absent in these languages.

3.4.1 Absence of antipassive morphology

As (47b) states, antipassives across languages are characterized by an overt valency-decreasing affix. Consider the examples below from Dyirbal (Pama-Nyungan) and Chukchi (Chukotko-Kamchatkan). In both languages, antipassivization is indexed as verbal morphology. Monovalent intransitives do not bear this marker.

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[22]Tagalog does not exhibit infinitives of this type. Nevertheless, its CM$_2$-marking shows accusative behaviors in other environments, as reported above in sections 3.1 and 3.2.

(48) Dyirbal

    a. Ngma   banaga-nyu.
        father.ABS return-NONFUT
        'Father returned.'   (monovalent intransitive)

    b. Nguma   bural-**nga**-nyu   (yabu-gu).
        father.ABS see-**ANTIP**-NONFUT (mother-DAT)
        'Father saw mother.' (Dixon 1994:10, 13)   (antipassive)

(49) Chukchi

    a. Nginqey pəkir-g'i.
        boy.ABS arrive-AOR.3SG
        'The boy arrived.'   (monovalent intransitive)

    b. Tumgətum (nginqey-ək) **ine**-nyegtele-g'i.
        friend.ABS (boy-LOC)   **ANTIP**-save-AOR.3SG
        'The friend saved the boy.' (Polinsky 2017:14)   (antipassive)

Antipassive marking is absent in Philippine-type Actor Voice. In these languages, monovalent intransitives and the putative antipassive share the same verbal morphology (i.e., Actor Voice affix), as seen in (50)-(51). This places the Philippine-type AV construction in a typologically unique position where antipassivization is morphologically unmarked.

(50) Tagalog

    a. S**<um>**ayaw ang   babae.
        <AV>dance CN.PIVOT woman
        'The woman danced.'   (monovalent intransitive)

    b. S**<um>**ulat ang   babae ng   liham.
        <AV>write CN.PIVOT woman INDF.CM$_2$ letter
        'The woman wrote a/the letter.'   (putative antipassive)

(51) Puyuma

    a. S**<em>**enay na   bangsaran.
        <AV>sing   DEF.PIVOT young.man
        'The young man sang.'   (monovalent intransitive)

    b. S**<em>**aletap=ku   kana   walak na matrulre'.
        <AV>slap=1SG.PIVOT DEF.CM$_2$ child REL misbehave
        'I slapped the disobedient child.' (Cauquelin 2015:399)   (putative antipassive)

3.4.2 Non-omittable objects

Contra (47c), the object in a Philippine-type AV construction cannot be left unexpressed, unless the object is a third person pronoun already indexed in the context. Without a given context, semantically two-place and three-place verbs do not allow their objects to be omitted. This is exemplified in (52). See Foley (2008), Paul & Travis (2006), Rackowski (2002), and O'Brien (2016) for the same observation.

(52) a. B<um>ili ang   babae *(ng   kendi).
         <AV>buy PIVOT woman *(INDF.CM$_2$ candy)
         'The woman bought *(candy/something).'   (Tagalog)

      b. Tr<em>ima na   babayan *(dra   patraka).
         <AV>buy   CN.PIVOT woman *(INDF.CM$_2$ meat)
         'The woman bought *(meat/something).'   (Puyuma)

      c. Mi-qaca k-una   fafahi *(tu   talacay).
         AV-buy PIVOT-that woman *(CM$_2$ pineapple)
         'That woman is buying *(pineapple/something).'   (Amis)

A recent paper argues that AV objects in Tagalog can be freely omitted. The example used to support this claim is repeated in (53) (Aldridge 2012:196).

(53)   K<um>ain=ako   (ng   isda).
<AV>eat=1SG.PIVOT (INDF.CM$_2$ fish)
'I ate (a fish).' (Aldridge 2012:196)

According to primary fieldwork, this flexibility applies only to the specific verb *kaen* 'eat' due to its valency ambiguity, and is not observed in AV clauses with non-ambiguous two-place verbs, such as that in (52a). See previous descriptions of Tagalog for a similar observation (Schachter & Otanes 1972; Kroeger 1991; Maclachlan 1996; Rackowski 2002).

3.4.3   Absence of a strict anti-definiteness constraint on AV objects

Finally, AV objects in various Philippine-type languages can be definite/specific, contra (47d) (see previous descriptions in Pearson 2001, Rackowski 2002, Paul & Travis 2006, Foley 2008, O'Brien 2016, and Chen 2017, a.o.). Although some Philippine-type languages show a tendency of favoring indefinite/non-specific AV objects, definite/specific objects are still allowed. Tagalog, for example, is commonly cited as one such language (Cooreman et al. 1984; Aldridge 2011). Consider, however, the examples below quoted from previous descriptions (Schachter & Otanes 1972; Kroeger 1991) and natural texts.

(54)   Tagalog

a.   **Nag**-mamahal   ang   nanay ni   juan **sa**   **kaniya**.
AV.IMPREF-love CN.PIVOT mother PN.POSS Juan **DEF.CM$_2$**   **3SG.CM$_2$**
'Juan's$_i$ mother loves *him$_i$*.' (Kroeger 1991:115)

b.   B**<um>**isita si   juan **sa**   **hari** nang nagiisa.
AV.PRF   PN.PIVOT Juan **DEF.CM$_2$** **king** ADV AV.IMPERF-one
'Juan visited *the king* alone.' (Kroeger 1991:41)

c.   Kami   nina charo santos and   freddie garcia ang   k**<um>**ilatis **kay**   **lloydy**.
1PL.EXCL PN   Charo Santos CONJ Freddie Garcia CN.PIVOT examine**<AV>** **PN.CM$_2$** **Lloydy**
'It was us, Charo Santos and Freddie Garcia, who scrutinized *Lloydy*.'
(retrieved from https://www.pinoyexchange.com/discussion/406975/abs-cbn-kapamilya-pextalk124-higher-higher-bringing-supreme-quality-shows-to-d-philtv/p232)

d.   Si cruz ang   h**<um>**alili **kay**   **dating Agrarian Reform Secretary John Castriciones**.
PN Cruz PIVOT replace**<AV>** **PN.CM$_2$** **former agrarian reform secretary John Castriciones**
'Cruz (was the one) who replaced *the former Agrarian Reform Secretary John Castriciones*.'
(retrieved from https://www.dar.gov.ph/about-us/secretary)

Definite/specific objects are also allowed in other Philippine-type Austronesian languages. Consider (55a-f).

(55)   a.   **Nanapahan'i** sahondra ity hazo **ity nu   antsy**.
PST.**AV**.cut   Sahondra this tree   **this DET knife**
'Sahondra cut this tree with *the knife*.' (Paul & Travis 2006:316)   (Malagasy)

b.   K**<um>**an   si   juan nog saging koyon.
<AV.IRR>eat **PN.PIVOT Juan** CM$_2$ banana DET
'Juan will eat *that banana*.' (O'Brien 2016:11)   (Subanon)

c.   K**<em>**eLem ti   palang **tjay   kalalu**.
<AV>hit   SG.PIVOT Palang **SG.CM$_2$ Kalalu**
'Palang hit *Kalalu*.' (Chang 2006:71)   (Paiwan)

d.   Karuwa b**<en>**aaw **kanta=drekal**.
can   **<AV>**save **1PL.POSS.CM$_2$=village**
'(She) was able to save *our village*.' (Teng 2008:294)   (Puyuma)

e.   **Mi**-takaw cira   **tu   payso nu   ina   nira**.
AV-steal   3SG.PIVOT **CM$_2$ money POSS mother 3SG.POSS**
'He stole *his mother's money*.' (ODFL, n.d.)   (Amis)

21

f. Huwa kesun t**<m>**inun **tokan bale nii**, tama?
how so.called weave**<AV> knit.bag authentic this** father
'How do you weave *this traditional knit bag*, father?' (ODFL, n.d.)   (Seediq)

As shown above, Philippine-type Actor Voice manifests none of the four crosslinguistically attested traits of antipassives (47a-d). The current observation that the AV construction in fact possesses a structurally case-licensed internal argument (3.1–3.3) follows from this fact.

3.5 Interim conclusion

The accusative behaviors of CM_2 show that AV constructions are true transitives, and not antipassives. An important consequence of this conclusion (56) is that the alleged ergative patterning between antipassive subjects and transitive objects cannot be maintained.

(56)

	a. Actor Voice	b. Patient Voice
external argument	Pivot	CM_1
internal argument	**CM_2: ACC**	Pivot
transitivity	transitive	transitive

The table below presents a sample list of Philippine-type languages attested with accusative behaviors of CM_2. Each of the three environments (57a-c) provides independent evidence against the lexical oblique case view of CM_2. It is therefore unnecessary for a language to exhibit all three constructions to support this conclusion.

(57)   Summary: Evidence against the antipassive view of Actor Voice[23]

	Subgrouping affiliation	Causatives	RTO	Restructuring	Overt antipassive marking	AV objects freely omittable
		a. CM_2 on ECM subjects	b. CM_2 on derived objects	c. CM_2 absent in restructuring infinitives		
Atayal	Atayalic	✓	✓	✓	NO	NO
Seediq	Atayalic	✓	✓	✓	NO	NO
Puyuma	Puyuma	✓	✓	✓	NO	NO
Amis	East Formosan	✓	✓	✓	NO	NO
Kavalan	East Formosan	✓	✓	✓	NO	NO
Tsou	Tsouic	✓	✓	n/a	NO	NO
Thao	Western Plains	✓	✓	?	NO	NO
Bunun	Bunun	✓	✓	✓	NO	NO
Saisiyat	NW Formosan	✓	✓	✓	NO	NO
Paiwan	Paiwan	✓	✓	✓	NO	NO
Tagalog	Malayo-Polynesian	✓	✓	n/a	NO	NO
Ilocano	Malayo-Polyneisan	✓	?	n/a	NO	NP
Cebuano	Malayo-Polynesian	✓	✓	n/a	NO	NO
Botolan Sambal	Malayo-Polynesian	✓	✓	n/a	NO	NO
Subanon	Malayo-Polynesian	✓	✓	n/a	NO	NO

4   Re-labeling 'ergative': Insights from causatives and unaccusatives

I turn now to CM_1, the case marker conventionally analyzed as inherent ergative case. Recall that this marker consistently appears on the external argument non-AV clauses (58b-c), and is absent in AV (58a).

(58)   Austronesian-type alignment: schematized case pattern

	a. AV	b. PV	c. LV	d. CV
external argument	Pivot	**CM_1**	**CM_1**	**CM_1**
internal argument	CM_2	Pivot	CM_2	CM_2
locative	P_1	P_1	Pivot	P_1
instrument/benefactor	P_2	P_2	P_2	Pivot

---

[23] Sources of data: Atayal (Huang 2005), Puyuma (Kuo 2015), Amis (Chen 2017), Kavalan (Don-yi Lin p.c.), Seediq (Holmer 1999), Tsou (Lin 2010), Paiwan (Chang 2006), Bunun (Zeitoun 2000), Thao (Jian 2018), Saisiyat (Yeh 2000), Tagalog (Travis 2000; Rackowski 2002), Botolan Sambal (Antworth 1979), Ilocano (Silva-Corvalán 1978), Subanon (Estioca 2020), Cebuano (Tanankingsing 2009).

If CM$_1$ indeed marks ergative case assigned by transitive Voice to its external argument (59), CM$_1$ should appear only in the external argument positions and in transitive clauses. Also, multiple CM$_1$-marking within the same CP should be possible where a CP contains multiple Voice heads, since the licensor of this case is Voice.

(59) CM$_1$-assignment under the ergative case analysis

```
                VoiceP
              /        \
        DP_EA          . . .
        ⌐CM₁          /    \
            Voice_TR       . . .
                          /      \
                        v'        VP
                                 /    \
                                V      DP_IA
```
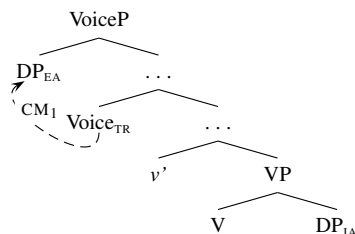
In all three regards, nominative case contrasts with inherent ergative case in behavior. The nominative as a structural case assigned by C/T is unique per CP, yet is not restricted to the external argument position or transitive clauses. The expected distribution of these two cases is outlined in (60).

(60) Distribution of CM$_1$ under two competing hypotheses

	CM$_1$ as ergative	CM$_1$ as nominative
a. CM$_1$ restricted to external arguments	Yes	No
b. CM$_1$ restricted to transitive clauses	Yes	No
c. CM$_1$ unique per clause	No	Yes
d. CM$_1$ present only on the highest caseless DP	No	Yes

In this section, I demonstrate that a closer look at the distribution of CM$_1$ in these specific environments reveals that CM$_1$ shows the hallmarks of nominative case.

4.1 CM$_1$: Locality constraints and uniqueness per CP

Ergative case across languages has been shown to be available in nonfinite embedded complements and able to appear multiple times within a single finite clause. Both traits follow from the fact that the source of this case (i.e., Voice) is not unique per CP.

Consider the examples below from three morphologically ergative languages, Trumai (isolate), Kabardian (Caucasian), and Macushi (Carib). All these languages demonstrate double ergative marking in productive causatives. This phenomenon follows from the prediction in (60c) that multiple ergative cases can co-occur within the same CP where the clause contains more than one Voice head.

(61) Ergative causee in morphologically ergative languages

    a. **Alaweru-k**   **hai-ts**   axos   disi-ka.
       Alaweru-ERG 1SG-ERG child.ABS hit-CAU
       'Alaweru made me hit the child.' (Guirardello 1999:353)   (Trumai)

    b. **L'eze-m**   **s'ala-m** d'abz-r y-r-y-ga-h-a-s.
       old.man-ERG boy-ERG girl-ABS 3SG-3SG-3SG-CAU-carry-PRET-AFF
       'The old man made the boy carry the girl.' (Matasovic 2010:50)   (Kabardian)

    c. Imakiupi kupi **jesus-ya**   emaputi yonpa-pi **makiu-ya**   teuren.
       bad   do **Jesus-ERG** CAU   try-PST **Satan-ERG** FRUST
       'Satan unsuccessfully tried to make Jesus do bad.' (Abbott 1991:40)   (Macushi)

The alleged ergative case in Philippine-type Austronesian languages, however, shows two unexpected restrictions in its distribution – it is unique per CP, and it is available only to the highest argument per clause. In productive causative constructions with an agentive causee, this case is available only to the causer, and can never appear on an agentive causee, as in (62)-(63).[24] The table below illustrates the case pattern attested in these languages.

---

[24]I do not provide examples of PV-causatives, as the unavailability of CM$_1$ in PV-causatives is due to the causee's pivot status.

(62) Case pattern in productive causatives

	a. AV	b. PV	c. CV
Causer	Pivot	**CM$_1$**	**CM$_1$**
Causee	CM$_2$/***CM$_1$**	Pivot/***CM$_1$**	CM$_2$/***CM$_1$**
Theme	CM$_2$	CM$_2$	Pivot

(63) AV-causatives: Unavailability of CM$_1$ to the causee

    a. Nag-pa-nakaw=ako   **{kay/*ni}** Juan ng   kotse.
       AV.PRF-CAU-steal=1SG.PIVOT **CM$_2$/*CM$_1$** Juan INDF.CM$_1$ car
       'I asked Juan to steal the car.'   (Tagalog)

    b. **(*Tu=)**∅-pa-karatr=ku   **kana**   **suwan** kan   Senten.
       (*3.CM$_1$)=AV-CAU-bite=1SG.PIVOT **DEF.CM$_2$ dog$_i$**   PN.CM$_2$ Senten
       'I made the dog bite Senten.'   (Puyuma)

    c. ∅-pa-pi-kalat   kaku   **{tu/*nu}**   wacu ci-Afan-an.
       AV-CAU-TR-bite 1SG.PIVOT **CM$_2$/*CM$_1$** dog   PN-Afan-CM$_2$
       'I will make the dog bite Afan.'   (Amis)

    d. ∅-p-tinun=ku   **{∅/*na}**   Robo ∅   lukus.
       AV-CAU-weave=1SG.PIVOT **CM$_2$/*CM$_1$** Robo CM$_2$ Robo
       'I asked Robo to sew the clothes.'   (Seediq)

(64) CV-causatives: Unavailability of CM$_1$ to the causee

    a. I-p\<in\>a-nakaw=ko   **{kay/*ni}**   Juan ang   kotse.
       CV-CAU\<PRF\>-steal=1SG.CM$_1$ **{PN.CM$_2$/*PN.CM$_1$}** Juan CN.PIVOT car
       'I asked Juan to steal the car.'   (Tagalog)

    b. **(*Tu=)**ku=pa-saletra'-anay **kan**   **Sawagu** i   Senten.
       (*3.CM$_1$=)1SG$_1$=CAU-slap-CV **SG.CM$_2$ Sawagu** PN.PIVOT Senten
       'I asked Sawagu to slap Senten.'   (Puyuma)

    c. Sa-pa-pi-nengneng aku   **{tu/*nu}** ising k-una   pusi.
       CV-CAU-TR-see   1SG.CM$_1$ **CM$_2$/*CM$_1$** doctor PIVOT-that cat
       'I will ask the doctor to look at the cat.'   (Amis)

    d. S-p-tinun=mu   **{∅/*na}**   robo ka   lukus.
       CV-CAU-weave=1SG.CM$_1$ **CM$_2$/*CM$_1$** Robo PIVOT clothes
       'I asked Robo to sew the clothes.'   (Seediq)

    The unavailability of CM$_1$ to the causee is unexpected, as the causative constructions above pass all three tests for a bi-eventive structure. This suggests that inherent ergative case should be available to the causee.[25] The uniqueness of this case per CP, along with its availability only to the highest DP, thus argues for a nominative case analysis for CM$_1$.

4.2   CM$_1$ on unaccusative themes

Consistent with the behavior described above, CM$_1$ shows one other hallmark of nominative case: it is available to internal arguments where an external argument is absent. Across Philippine-type languages, in LV/CV-clauses formed with a semantically intransitive verb, the sole argument of the verb is obligatorily CM$_1$-marked, regardless of the verb being unergative or unaccusative. Consider the examples below from Tagalog, Puyuma, Amis, and Seediq (65)-(68).

---

[25]There is clear evidence that the causee in CV-causatives is also an external argument (which is in principle eligible for ergative case). Like AV-marked causatives (31)-(33), CV-causatives possess the same bi-eventive structure (29). This is evidenced by the causee's ability to bind the theme, as well as its compatibility with agent-oriented adverbs and the adverb of frequency 'again.' This suggests that CV-causatives and AV-causatives possess the same structure. See section 5 for a further discussion of this claim with actual data.

(65) Tagalog

    a. K<in>urot **ni** **AJ** si Lily.
       pinch<PV.PRF> **PN.CM$_1$** **AJ** PN.PIVOT Lily
       'AJ pinched Lily'.   (CM$_1$ on initiator)

    b. I-k<in>amatay **ni** **AJ** ang sakit.
       CV-die-<PFV> **PN.CM$_1$** **AJ** CN.PIVOT sickness
       'AJ died of illness.'   (CM$_1$ on unaccusative theme)

(66) Puyuma

    a. **Tu$_i$**=trakaw-aw na paysu kan Senten$_i$.
       3.CM$_{1i}$-steal-PV DEF.PIVOT money PN.CM$_1$ Senten$_i$
       'Senten stole the money.'   (CM$_1$ on initiator)

    b. **Tu$_i$**=utrerag-ay kana ladru$_i$ ku-tranguru.
       3.CM$_{1i}$-fall.down-LV DEF.CM$_2$ mango$_i$ 1SG.POSS-head
       'The mango fell on my head.'   (CM$_1$ on unaccusative theme)

(67) Amis[26]

    a. Pi-qaca'-an **aku** tu pawli ku lumaq ni sawmah.
       buy-LV **1SG.CM$_1$** CM$_2$ banana PIVOT house POSS Sawmah
       'I bought bananas at Sawmah's house.'   (CM$_1$ on initiator)

    b. Ka-tulu'-an **aku** kuna lalan.
       slip-LV **1SG.CM$_1$** PIVOT.that road
       'I slipped on that road.'   (CM$_1$ on unaccusative theme)

(68) Seediq

    a. S-seeliq-un **na** **walis** ka babuy.
       RED-butcher-PV **CM$_1$** **Walis** PIVOT boar
       'Walis will butcher the boar.'   (CM$_1$ on initiator)

    b. S-k<n>arux **na** **Temi** ka knrudan-na.
       CV-PRV-be.sick **CM$_1$** **Temi** PIVOT age-3SG.POSS
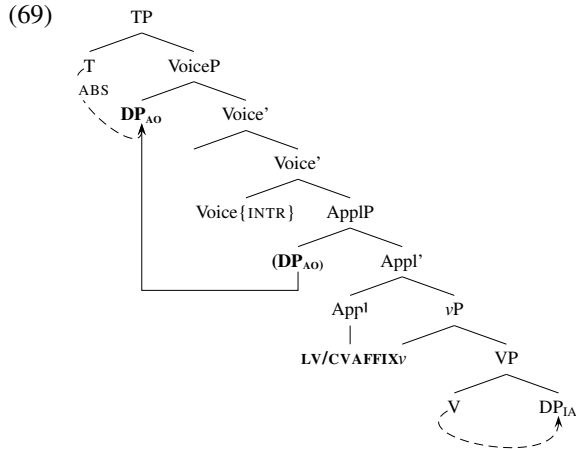   'Temi got sick because of her age.'   (CM$_1$ on unaccusative theme)

The fact that CM$_1$ is available to unaccusative themes undermines the ergative case view of CM$_1$, which wrongly predicts that this case will be available only to external arguments and in transitive clauses. For that analysis to go through, one has to argue that (i) the unaccusative verbs 'fall,' 'slip,' 'be tired,' and 'die' in the examples above possess a transitive Voice head capable of ergative case assignment, and (ii) the undergoer arguments in these examples are introduced as external arguments in Spec, VoiceP. Neither assumption is compatible with the standard assumptions of unaccusativity (Perlmutter 1978; Burzio 1986), and all four languages do show independent evidence for an unergative/unaccusative distinction.[27] Accordingly, the CM$_1$-marked themes in (65)-(68) are licensed in the internal argument position. The fact that CM$_1$ can appear in this position therefore suggests that the inherent ergative case view does not hold.

Notice, additionally, that the unaccusative construction under concern displays a case pattern difficult to explain under the ergative analysis of Austronesian-type alignment. According to that analysis, the internal argument in LV clauses should receive oblique case from the lexical verb with the pivot-marked locative introduced as an applied object above the theme, as in (69).

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[26]In Amis, LV morphology appears as a circumfix with two possible forms conditioned by the inner valency of the stem: *pi-...-an* and *ka-...-an*. See Wu (2006) for details.

[27]The evidence for an unergative/unaccusative distinction in these languages is as follows. First, in all four languages, typical unaccusative verbs take a distinct AV affix from unergative/transitive verbs. Second, in all four languages, typical unaccusative verbs contrast with unergative verbs in their compatibility with cause-denoting adjuncts, as observed also in typologically diverse languages (DeLancey 1984; Kallulli 2005; Levin & Rappaport Hovav 2005; Alexiadou et al. 2006). Third, in all four languages, canonical unergative verbs contrast with unaccusative verbs in their compatibility with cognate objects. See also Foley (2005:425) and Kaufman (2009:32) for the same assumption of an unergative/unaccusative distinction in Tagalog, and Chen & Fukuda (2017) for specific data supporting the generalizations above.

(69)

```
                    TP
           _____|_____
          T            VoiceP
        ABS      _____|_____
              DP_AO           Voice'
                        _____|_____
                     Voice'
                _____|_____
            Voice{INTR}     ApplP
                      _____|_____
                  (DP_AO)          Appl'
                            _____|_____
                        Appl'
                    _____|_____
                  Appⁱ           vP
                    |        ____|____
            LV/CVAFFIXv        VP
                          _____|_____
                         V         DP_IA
```

However, the theme in this construction cannot be CM_2-marked, and must bear CM_1-marking, (65)-(68). This reinforces the conclusion from 4.1 that the case-licensing system assumed under the ergative approach is incorrect.

4.3 Interim conclusion

Evidence from causatives and unaccusatives shows that the distribution of CM_1 not only contradicts the inherent ergative case analysis, but also points straightforwardly to a nominative case analysis. Key observations from this section are summarized in (70).

(70)

	ergative case	nominative case
a. CM_1 available to internal arguments	No	Yes
b. CM_1 available in unaccusatives	No	Yes
c. CM_1 unique per clause	No	Yes
d. CM_1 restricted to the highest DP	No	Yes

Not only do the non-ergative properties of CM_1 indicate that Austronesian-type alignment is neither ergative-aligned nor constitutes a split ergative system with ergative-aligned non-AV constructions (which would rely crucially on the ergative case view of CM_1), but they also reveal that the 'pivot-only' extraction constraint on Ā-extraction does not arise from the ban on ergative extraction, as the alleged ergative agents are in fact structurally case-licensed.

5 'Pivot' ≠ absolute: Insights from binding

I have argued that CM_1 and CM_2 realize nominative and accusative case, respectively. This analysis brings us to an important subsequent question: what is the nature of pivot-marking – a marker that shifts freely among core arguments and adjunct-like phrases depending on voice type (71)?

(71) Austronesian-type alignment: schematized case pattern

	a. AV	b. PV	c. LV	d. CV
external argument	**Pivot**	CM_1: NOM	CM_1: NOM	CM_1: NOM
internal argument	CM_2: ACC	**Pivot**	CM_2: ACC	CM_2: ACC
locative	P_1	P_1	**Pivot**	P_1
instrument/benefactor	P_2	P_2	P_2	**Pivot**

Since CM_1 marks nominative case (section 4), 'pivot' should not realize the same case (structural case from T). Its availability to adjunct-like phrases further suggests that it may be a marker independent of case. In this section, I present new evidence that 'pivot' is indeed a marker independent of case. This observation, along with the current analysis of CM_1 and CM_2, reinforces the conclusion above that Austronesian-type alignment does not manifest ergativity at either the morphological or syntactic level.

5.1 The competing analyses: Subject, topic, or both?

The claim that pivot status is associated with topichood is not new. In the 1970s, Keenan observed that pivot phrases in Malagasy are consistently associated with more 'referential prominence' than subjects in other languages (Keenan 1976). Pearson (2001) made a similar observation, reporting that pivot phrases in Malagasy function as topics. Similar proposals have been made for Tagalog. Richards (2000) and Rackowski (2002), in line with Schachter and Otanes's (1972) account of Tagalog pivots, argued explicitly that pivots in Tagalog occupy an Ā-position, parallel to topics in Icelandic and German. See also similar treatments for Atayal (Erlewine to appear), Tagalog (Schachter 1976, 1977; Foley & Van Valin 1984; Carrier-Duncan 1985; Shibatani 1988; Naylor 1995; Katagiri 2006), Cebuano (Shibatani 1988), and Malagasy (Paul & Massam 2021).

This analysis contrasts with the absolutive case analyses of pivot-marking (Payne 1982; De Guzman 1988; Maclachlan & Nakamura 1993, 1997; Mithun 1994; Gerdts 1998; Aldridge 2004, 2008, 2011, 2017; Liao 2004). Among these works, Guilfoyle, Hung, and Travis (1992) made the influential proposal that the pivot in Malagasy occupies the subject position and checks nominative case with T. This proposal was further developed by Aldridge (2004) as a core assumption of the ergative approach to Philippine-type languages, and is commonly adopted in reference grammars and descriptive works on Formosan and Philippine languages, where pivot-marked phrases are commonly glossed as 'nominative' or 'absolutive' and treated as the subject of the clause.[28]

Other than these two competing approaches, a recent study proposes that the pivot bears the status of both subject and topic (Erlewine, Levin, & van Urk 2017). Under this proposal, Philippine-type languages lack Feature Inheritance (Richards 2007; Chomsky 2008), hosting both the φ-feature and the Ā-feature on C. Therefore, Spec, CP in these languages is simultaneously an Ā- and an A-position. This analysis predicts that the pivot phrase in Philippine-type languages is simultaneously a subject and a topic, with both A- and Ā-properties.

These three competing analyses can be evaluated through binding diagnostics. The subject/absolutive analysis for pivot-marking relies crucially on the two assumptions in (72).

(72) a. A pivot is the highest DP within a TP.

     b. In LV and CV clauses, it is an applied object introduced in the highest internal argument position, where it is eligible for object shift.

Accordingly, we would expect evidence of argument structure alternation among non-AV clauses of different voice types – in PV, a theme pivot should be the highest internal argument, whereas in LV and CV clauses, the pivot-marked phrase should be the highest internal argument and c-command the theme. This prediction is schematized in (73).

(73) Argument structure alternation among non-AV clauses

a. Actor Voice   b. Patient Voice   c. Locative/Circumstantial Voice

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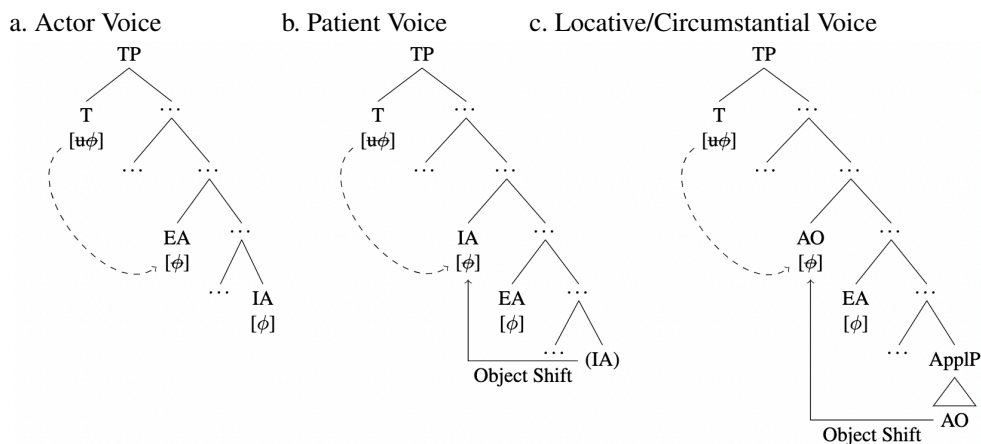
[28]See, for example, Tagalog: McKaughan 1973; Payne 1982; Starosta, Pawley, & Reid 1982; De Wolf 1988; Gerdts 1988; Malagasy: Keenan 1976; Seediq: Chang 1997; Amis: Wu 2006; Puyuma: Teng 2008; Paiwan: Chang 2006; Wu 2012; Rukai: Zeitoun 2007; Philippine-type languages in general: Ross 2002; Aldridge 2004, 2008, 2016, 2017; Liao 2004.

The proposal that the pivot is simultaneously a topic and a subject makes the same prediction: for a pivot to receive absolute case in non-AV clauses, it must be licensed as the highest internal argument through applicativization.

The topic analysis predicts instead that a pivot phrase behaves like an Ā-element. Accordingly, a pivot phrase is expected to show reconstruction effects and be interpreted in its θ-position. It may also show typical Ā-properties such as weak crossover (Postal 1993) and weakest crossover effects (Lasnik & Stowell 1991). Finally, as a topic phrase need not be a DP, a change in topic selection need not alter the argument structure of a clause. An adjunct-like pivot in LV/CV clauses may therefore remain as a true PP attached to VoiceP (as it is when it is a non-pivot phrase). Also, LV/CV clauses need not exhibit argument structure alternation with their PV counterpart. This analysis is illustrated in (74).

(74) Argument structure alternation among non-AV clauses

a. Actor Voice   b. Patient Voice   c. Locative/Circumstantial Voice
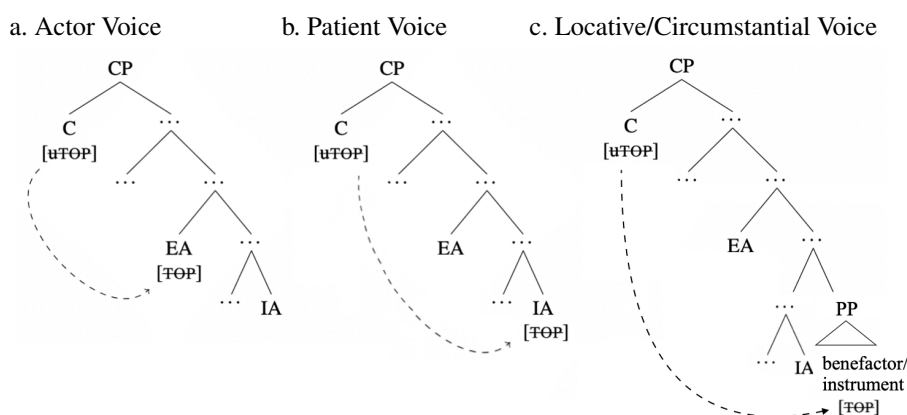
The key predictions of these three competing analyses are summarized in (75).

(75) Expected behaviors of the pivot phrase under the competing hypotheses

	'pivot' as the absolutive	'pivot' as a topic marker	'pivot' with the status of both
a. A pivot phrase must be the highest DP	Yes	No	Yes
b. A pivot in LV/CV must be an applied object	Yes	No	Yes
c. Argument structure alternation among PV/LV/CV	Yes	No	Yes
d. A separate NOM position in the system	No	Yes	No

5.2 Pivot ≠ absolutive: Insights from binding

5.2.1 Productive causatives

Productive causatives provide an ideal testing ground for examining the predictions in (75). In Philippine-type languages, any of the three arguments in a causative transitive can become the pivot with the use of appropriate voice morphology. This pattern is schematized in (76) and illustrated with the Seediq examples in (77).

(76) Productive causatives: mapping between voice and case

	a. AV	b. PV	c. CV
Causer	**Pivot**	CM_1	CM_1
Causee	CM_2	**Pivot**	CM_2
Theme	CM_2	CM_2	**Pivot**

(77) Seediq

   a. Wada=**ku**   ∅-paadis ∅   dakis ∅   tigami.
         PRF=**1SG.PIVOT** <u>AV</u>-send CM_2 Dakis CM_2 letter
         '*I* sent Dakis a/the letter.'   (Actor Voice)

b. Wada=mu pdes-<u>un</u> ∅ tigami **ka** **dakis**.
PRF=1SG.CM$_1$ send-<u>PV</u> CM$_2$ letter **PIVOT Dakis**
'I sent *Dakis* a/the letter.'   (Patient Voice)

c. Wada=mu <u>s</u>-paadis ∅ dakis **ka** **tigami**.
PRF=1SG.CM$_2$ <u>CV</u>-send CM$_2$ Dakis **PIVOT letter**
'I sent Dakis *a/the letter*.'   (Circumstantial Voice)

The case pattern in CV-causatives (76c) is of particular theoretical interest, where pivot-marking skips the causer and the causee and falls on the theme, (76c). If the absolutive case analysis for pivot-marking is correct, the CV affix is the morphological reflex of a high applicative head, which introduces the pivot theme as an applied object above the causee. This argument then undergoes object shift and raises across the causer to the phase edge of VoiceP, as in (78).

(78) Purported causative structure with an applicativized theme
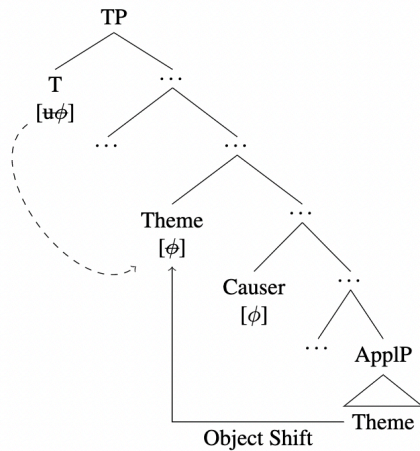
This hypothetical structure, to the best of my knowledge, has not been reported in the literature for any natural language. If it indeed exists in Austronesian, we should see evidence that the pivot-marked theme asymmetrically binds the causee.

  Binding diagnostics show that this prediction is false. Across Tagalog, Puyuma, Amis, and Seediq, the pivot-marked theme in a CV-causative is c-commanded by the causee, evidenced by the reflexive binding facts exemplified in (79a-d). For the sake of clarity, the pivot is boldfaced and italicized in the translation. A quantifier-variable binding test shows the same result. Due to space limitations, I do not provide the data here.

(79) CV causatives: Causee binds theme pivot
  a. Tagalog
   <u>I</u>-p<in>a-li-linis=ko   kay juan **ang** **kanya-ng sarili**.
   <u>CV</u>-CAU<PRF>RED-clean=1SG.CM$_1$ PN.CM$_2$ Juan **CN.PIVOT 3SG-POSS REFL**
   'I asked Juan$_i$ to clean *himself$_i$*.'

  b. Puyuma
   Ku=pa-saletra'-<u>anay</u> kan sawagu **tayta'aw**.
   1SG.CM$_1$=CAU-slap-<u>CV</u> SG.CM$_2$ Sawagu **3SG.REFL.PIVOT**
   'I asked Sawagu$_i$ to slap *himself$_i$*.'

  c. Amis
   <u>Sa</u>-pa-pi-nengneng aku ci-afan-an **cingra** **tu** i dadingu.
   <u>CV</u>-CAU-TR-see 1SG.CM$_1$ PN-Afan-CM$_2$ **3SG.PIVOT REFL** LOC mirror
   'I asked Afan$_i$ to look at *herself$_i$* in the mirror.'

  d. Seediq
   <u>S</u>-p-tabak=mu   ∅ heya **ka** **heya nanaq**.
   <u>CV</u>-CAU-slap=1SG.CM$_1$ CM$_2$ 3SG **PIVOT 3SG REFL**

'I asked him/her$_i$ to slap *himself/herself$_i$*.'

The same observation has been reported in previous work. Rackowski (2002) noted that a theme pivot in Tagalog can be bound by a non-pivot causee in CV-causatives. Her example is shown in (81), where the reflexive *kanyang sarili* is bound by the non-pivot causee 'Carlos'.[29]

(81) Tagalog: causee binds theme pivot in CV-causatives

I-p<in>a-ayos=ko   kay   carlos **ang**   **kanyang sarili-ng kotse**.
CV-CAU<PRF>-repair=1SG.CM$_1$ PN.CM$_2$ Carlos **CN.PIVOT 3SG.POSS self-LK car**
'I asked Carlos to repair *his own car (lit. the car of himself)*.' (Rackowski 2002:67–68)

The binding facts above suggest that CV-causatives possess a run-of-the-mill bi-eventive structure in which the causee c-commands the theme pivot, contradicting the purported structure (79). One might argue that absolutive case may still be available to the theme as long as the CM$_2$-marked causee is inherently case-licensed, allowing for absolutive case to be assigned to a lower argument. This explanation cannot be maintained for two reasons. First, it relies on an independent assumption that the CM$_1$-marked causer in a CV-causative like (81) is also inherently case-licensed, so that absolutive case is available to the lowest argument among the three. However, as shown in section 4, CM$_1$ does not behave like an inherent case. This suggests that the causer should have priority to access absolutive case over the causee and the theme. Second, there is clear evidence that the CM$_2$-marked causee is an agentive argument licensed in the embedded Spec, VoiceP, a position where only accusative case and no nonstructural case is available. Similar to that in AV causatives (section 3.1), the caused event in CV causatives can be modified by agent-oriented adverbs as well as the adverb of frequency 'again.' Consider (82)-(83).

(82) Compatibility of the causee with agent-oriented adverb

     a. Tagalog

         I-p<in>a-ayos=ko   nang **palihim** kay   ivan ang   kotse.
         CV-CAU<PRF>-repair=1SG.CM$_1$ CONJ **secretly** PN.CM$_2$ Ivan PN.PIVOT car
         'I asked Ivan to repair the car secretly.' (Ivan did so secretly)

     b. Puyuma

         Ku=pa-pukpuk-anay kan   sawagu **pakirep** na   suwan.
         1SG.CM$_1$=CAU-hit-CV SG.CM$_2$ Sawagu **severely** DEF.PIVOT dog
         'I asked Sawagu to hit the dog severely.' (Sawagu did so severely)

     c. Amis

         Sa-pa-pi-tangtang aku   cingranan k-una   futing **pina'un**.
         CV-CAU-PI-cook   1SG.CM$_1$ 3SG.CM$_2$ PIVOT-that fish   **carefully**
         'I asked her to cook the fish carefully.' (She did so carefully)

     d. Seediq

         S-p-sais=mu   ∅   temi **murux** ka   lukus.
         CV-CAU-sew=1SG.CM$_1$ CM$_2$ Temi **alone**   PIVOT clothes
         'I asked Temi to sew the clothes independently.' (Temi did so without help)

(83) Compatibility of the causee with the adverb of frequency 'again'

     a. Tagalog

         I-p<in>a-sulat=ko   **ulit** ang   liham kay   aya.
         CV-CAU<PRF>-write=1SG.CM$_1$ **again** CN.PIVOT letter PN.CM$_2$ Aya

---

[29]The phrase *kanyang sarili-ng kotse* in (81) behaves like a picture NP, in which the embedded reflexive must be bound by an antecedent in the same clause. Lack of an antecedent results in ungrammaticality, as seen in (80).

(80)   *P<um>atay kay   Juan **ang**   **sarili niya-ng**   anak.
        <AV>kill   PN.ACG Juan CN.PIVOT self 3S.POSS-POSS child
        (intended: 'The child of himself killed Juan)

'I asked Aya to write the letter again.' (Aya did so again)

b. Puyuma

Ku=pa-pukpuk-<u>anay</u>　　kan　　　senten **masal** na　　　　suwan.
1SG.CM$_1$=CAU-<u>hit-CV</u>　SG.CM$_2$ Senten **again** DEF.PIVOT dog
'I asked Senten to hit the dog again.' (Senten did so again)

c. Amis

Una maeded-ay a　wacu, <u>sa</u>-pa-pi-palu **heca** aku　　　ci-kulas-an.
that bad-NMZ　LK dog　<u>CV</u>-CAU-PI-hit **again** 1SG.CM$_2$ PN-Kulas-CM$_2$
'That bad dog, I asked Kulas to hit (it) again.' (Kulas did so again)

d. Seediq

<u>S</u>-p-pahu=mu　　　　∅　dakis **dungan** ka　　lukus　nii.
<u>CV</u>-CAu-wash=1SG.CM$_1$ CM$_2$ Dakis **again**　PIVOT clothes this
'I asked Dakis to wash the clothes again.' (Dakis did so again)

This observation, along with the binding facts shown in (79), suggests that CV-causatives are bi-eventive causatives with an active, independent embedded VoiceP, where the causee c-commands the theme, as in (84).

(84)　Bi-eventive structure of CV causatives
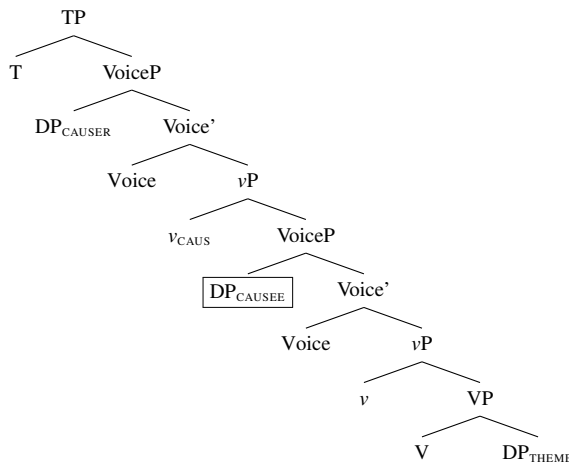
As the causee in (84) is an external argument intervening between T and the theme, it should have priority over the theme to access absolutive case. The fact that pivot-marking can skip this argument and appear on the theme therefore suggests that the licensing of this marker does not respect locality. This nonlocal distribution suggests that 'pivot' does not mark absolutive case.

Binding diagnostics on PV causatives reinforce this conclusion. PV causatives, although displaying a different case pattern, exhibit the same binding pattern with CV causatives in which the causee c-commands the theme, (85).

(85)　PV causatives: causee binds theme

a. Tagalog

P<u><in></u>a-pa-ligo=ko　　　　　　**si**　　　**ivan** ng　sarili niya.
CAU<u><PV.PRF></u>-RED-bathe=1SG.CM$_1$ **PN.PIVOT** Ivan CM$_2$ REFL 3SG
'I am making *Ivan* bathe himself.'

b. Puyuma

Ku=pa-saletra'-<u>aw</u>　　　**i**　　　**sawagu** kanta'aw.
1SG.CM$_1$=CAU-slap-<u>PV</u> **SG.PIVOT** Sawagu 3SG.REFL.CM$_2$
'I asked *Sawagu* to slap himself.'

c. Amis

Pa-pi-nengneng-<u>en</u> aku **ci-afan** cingran-an tu i dadingu.
CAU-TR-see-PV 1SG.CM₁ **PN.PIVOT-Afan** 3SG.CM₂ REFL LOC mirror
'I made *Afan* look at herself in the mirror.'

d. Seediq

Wada=mu p-tabak-<u>un</u> ∅ heya nanaq **ka heya**.
PRF=1SG.CM₁ CAU-slap-**PV** CM₂ 3SG REFL **PIVOT 3SG**
'I made *him/her* slap himself/herself.'

Further diagnostics show that PV-causatives also possess a canonical productive causative structure. The causee behaves like an agentive external argument, which, similar to that in AV- and CV-causatives, can be modified by agent-oriented adverbs and the adverb of frequency 'again,' (86)-(87). This reveals that causative constructions across Tagalog, Puyuma, Amis, and Seediq bear the same structure: the causee is consistently introduced as an external argument that c-commands the theme regardless of voice alternation.

(86) PV-causatives: causee compatible with the adverb of frequency 'again'

   a. Tagalog

   P<**in**>a-pa-kanta=ko si maria **ulit** sa kanta.
   CAU<**PRF.PV**>-RED-sing=1SG.CM₁ PN.PIVOT Maria **again** DEF.CM₂ song
   'I asked Maria to sing the song again.' (Maria did so again)

   b. Puyuma

   Ku=pa-base-**aw** ku=walak **masal** kana kiping.
   1SG.CM₁=CAU-wash-**PV** 1SG.POSS.PIVOT=child **again** DEF.CM₂ clothes
   'I asked my child to wash the clothes again.' (My child did so again)

   c. Amis

   Pa-pi-tangtang-**en** ni lisin **heca** ci-sawmah t-una titi.
   CAU-PI-cook-**PV** CM₁ Lisin **again** PN.PIVOT-Sawmah CM₂-that pork
   'Lisin will ask Sawmah to cook that pork again.' (Sawmah will do so again)

   d. Seediq

   Wada=mu p-hanguc-**un** ∅ sari nii dungan ka iwan.
   PRF=1SG.CM₁ CAU-cook-**PV** CM₂ taro this again PIVOT Iwan
   'I asked Iwan to cook this taro again.'(Iwan did so again)

(87) PV-causatives: causee compatible with agent-oriented adverbs

   a. Tagalog

   P<**in**>a-luto=ko **nang maayos** si ivan ng babuy.
   CAU<**PV.PRF**>-cook=1SG.CM₁ **CONJ carefully** PN.PIVOT Ivan PIVOT pork
   'I asked Ivan to cook the pork carefully.' (Ivan did so carefully)

   b. Puyuma

   Ku=pa-base-**aw** i sawagu **pakirep** na kiping.
   1SG.CM₁=CAU-wash-**PV** SG.PIVOT Sawagu **vigorously** DEF.PIVOT clothes
   'I asked Sawagu to wash the clothes vigorously.' (Sawagu did so vigorously)

   c. Amis

   Pa-pi-tangtang-**en** ni panay ci-afan t-una futing **pina'un**.
   CAU-PI-cook-**PV** CM₁ Panay PN.PIVOT-Afan CM₂-that fish **carefully**
   'Panay will ask Afan to cook that fish carefully.' (Afan will do so carefully)

   d. Seediq

   Wada=mu p-sais-**un** ∅ lukus **murux** ka robo.
   PRF=1SG.CM₁ CAU-sew-**PV** CM₂ clothes **independently** PIVOT clothes
   'I asked Robo to sew the clothes independently.' (Robo did so independently)

The invariable causative structure observed above highlights the fact that pivot designation has no impact on the structure of a given clause. The nonlocal distribution of pivot-marking observed in causatives therefore suggests that 'pivot' does not realize absolutive case, but is a marker independent of case. This observation, at the same time, shows that the traditional view that a CV affix realizes a high applicative head that licenses argument structure alternation cannot be maintained.

5.2.2 Ditransitives

Ditransitives provide further evidence against the absolutive case view of pivot-marking. Like in causatives, voice alternation allows all three arguments to be the recipient of pivot-marking. The table below summarizes the shared case pattern across Philippine-type languages (88).[30] The examples in (89) illustrate this pattern.

(88) Ditransitives: mapping between voice and case

	a. AV	b. PV/LV	c. CV
Agent	**Pivot**	CM_1	CM_1
Recipient	CM_2	**Pivot**	CM_2
Theme	CM_2	CM_2	**Pivot**

(89) Amis

    a. ∅-pafeli **kaku**   t-una   wawa t-una   paysu.
        AV-give **1SG.PIVOT** CM_2-that child CM_2-that money
        'I gave the child that money.'

    b. Pafeli-en aku   **k-una**   **wawa** t-una paysu.
        give-PV $1SG.CM_1$ **pivot-that child** CM_2 money
        'I gave the child that money.'

    c. Sa-pi-pafeli aku   t-una   wawa **k-una**   **paysu**.
        CV-PI-give $1SG.CM_1$ CM_2-that child **PIVOT-that money**
        'I gave the child that money.'

As observed with causatives, binding diagnostics reveal that voice alternation with ditransitives has no impact on the binding relations among arguments. Across Puyuma, Amis, and Seediq, the recipient asymmetrically binds the theme regardless of the voice type of a ditransitive. Consider (90)-(94).

(90) Amis: R binds T regardless of voice type

    a. **Actor Voice:** *Recipient > Theme*

        ∅-paefer kaku   [ci-ina-an   nu   cimacima a   wawa] [tu   wuhung nira].
        AV-send   1SG.PIVOT [PN-mother-CM_2 POSS every   LK child] [CM_2 book   3PL.POSS]
        'I sent every child's$_{<i>}$ mother his/her$_{<i/j>}$ book.'

    b. **Patient Voice:** *Recipient > Theme*

        paefer-**en** aku   [ci-ina   nu   cimacima a   wawa] [tu   wuhung nira].
        send-**PV** $1SG.CM_1$ [PN.PIVOT-mother POSS every   LK child] [CM_2 book   3SG.POSS]
        'I will send every child's mother$_{<i>}$ his/her$_{<i/j>}$ book.'

    c. **Circumstantial Voice:** *Recipient > Theme*

        Sa-paefer aku   [ci-ina-an   nu   cimacima a   wawa] [ku   wuhung nira].
        CV-send $1SG.CM_1$ [PN-mother-CM_2 POSS every   LK child] [PIVOT book   3SG.POSS]
        'I sent every child's mother$_{<i>}$ his/her$_{<i/j>}$ book.'

---

[30]Philippine-type languages vary in the corresponding voice-marking for ditransitives with a pivot-marked recipient. Some employ PV morphology and others adopt LV morphology. This variation does not affect the main argument here.

(91) Amis: T fails to bind R regardless of voice type

    a. **Actor Voice:** *Theme ≯ Recipient*

      ∅-pafeli kaku   [tu wawa nira]   [tu paysu nu cimacima a tamdaw].
      AV-give 1SG.PIVOT [CM$_2$ child 3SG.POSS] [CM$_2$ money POSS every   LK person]
      'I gave his$_{<i>}$ child every person's$_{<j/*i>}$ money.' (bound variable reading unavailable)

    b. **Patient Voice:** *Theme ≯ Recipient*

      Pafeli-**en** aku   [ku   wawa nira]   [tu paysu nu cimacima a tamdaw].
      give-**PV** 1SG.CM$_1$ [PIVOT child 3SG.POSS] [CM$_2$ money POSS every   LK person]
      'I will give his/her$_{<i>}$ child every person's$_{<j/*i>}$ money.' (bound variable reading unavailable)

    c. **Circumstantial Voice:** *Theme ≯ Recipient*

      Sa-pafeli aku   [tu wawa nira]   [ku   paysu nu cimacima a tamdaw].
      CV-give 1SG.CM$_1$ [CM$_2$ child 3SG.POSS] [PIVOT money POSS every   LK person]
      'I gave his/her$_{<i>}$ child every person's$_{<j/*i>}$ money.' (bound variable reading unavailable)

(92) Seediq: R binds T regardless of voice type

    a. **Actor Voice:** *Recipient > Theme*

      Wada=ku   ∅-paadis [∅   bubu=na   knkingal laqi] [∅   patis=daha].
      PRF=1SG.PIVOT AV-send [CM$_2$ mother=3SG.POSS every   child] [CM$_2$ book=3PL.POSS]
      'I sent every child's mother$_{<i>}$ his/her$_{<i/j>}$ book.'

    b. **Patient Voice:** *Recipient > Theme*

      Wada=mu   pdes-**un** [∅   patis=daha]   [ka   bubu=na   knkingal laqi].
      PRF=1SG.CM$_1$ send-**PV** [CM$_2$ book=3PL.POSS] [PIVOT mother=3SG.POSS every   child]
      'I sent every child's$_{<i>}$ mother his/her$_{<i/j>}$ book.'

    c. **Circumstantial Voice:** *Recipient > Theme*

      Wada=mu   **s**-paadis [∅   bubu=na   knkingal laqi] [ka   patis=daha].
      PRF=1SG.CM$_1$ **CV**-send [CM$_2$ mother=3SG.POSS every   child] [PIVOT book=3PL.POSS]
      'I sent every child's mother$_{<i>}$ his/her$_{<i/j>}$ book.'

(93) Seediq: T fails to bind R regardless of voice type

    a. **Actor Voice:** *Theme ≯ Recipient*

      ∅-pafeli kaku   [tu wawa nira]   [tu paysu nu cimacima a tamdaw].
      AV-give 1SG.PIVOT [CM$_2$ child 3SG.POSS] [CM$_2$ money POSS every   LK person]
      'I gave his$_{<j>}$ child every person's$_{<k/*j>}$ money.'

    b. **Patient Voice:** *Theme ≯ Recipient*

      Pafeli-**en** aku   [ku   wawa nira]   [tu paysu nu cimacima a tamdaw].
      give-**PV** 1SG.CM$_1$ [PIVOT child 3SG.POSS] [CM$_2$ money POSS every   LK person]
      'I will give his/her$_{<j>}$ child every person's$_{<k/*j>}$ money.'

    c. **Circumstantial Voice:** *Theme ≯ Recipient*

      Sa-pafeli aku   [tu wawa nira]   [ku   paysu nu cimacima a tamdaw].
      CV-give 1SG.CM$_1$ [CM$_2$ child 3SG.POSS] [PIVOT money POSS every   LK person]
      'I gave his/her$_{<j>}$ child every person's$_{<k/*j>}$ money.'

(94) Seediq: T fails to bind R regardless of voice type[31]

    a. **Actor Voice:** *Theme ≯ Recipient*

      Wada=ku   ∅-paadis [∅ bubu=daha]   [∅   patis knkingal laqi].
      PRF=1SG.PIVOT AV-send [Y mother=3PL.POSS] [CM$_2$ book every   child]

---

[31] My Seediq consultants reported that a bound variable reading between the quantificational theme 'every laborer's wages' and the recipient 'his child' is marginally available. This interpretation is not always available in CV ditransitives. Changing the verb or the event participants affects the availability of this reading. I assume that this potential reading manifests the weakest crossover effect (Lasnik & Stowell 1991).

'I sent his/her$_{<j>}$ mother every child's$_{<k/*j>}$ book.'

    b. **Patient Voice:** *Theme ≯ Recipient*

Wada=mu   pdes-**un** [∅   patis knkingal laqi] [ka   bubu=daha].
PRF=1SG.CM$_1$ send-**PV** [CM$_2$ book every   child] [PIVOT mother=3PL.POSS]
'I sent his/her$_{<j>}$ mother every child's$_{<k/*j>}$ book.'

    c. **Circumstantial Voice:** *Theme ≯ Recipient*

Wada=mu   **s**-paadis [∅   bubu=daha]   [ka   patis knkingal laqi].
PRF=1SG.CM$_1$ **CV**-send [CM$_2$ mother=3PL.POSS] [PIVOT book every   child]
'I sent his/her$_{<j>}$ mother every child's$_{<k/?j>}$ book.' (bound variable reading marginal)

The Puyuma data below deserves a special note. As the language allows flexible word order among nominals, it is possible to eliminate linear order as a potential factor for the binding interpretation. All ditransitive sentences in (95)-(96) allow the pronoun to precede its antecedent. Nevertheless, a bound variable reading invariably obtains when the pronoun is embedded in the theme (95), whereas the same reading is unavailable when the pronoun is embedded in the recipient. This shows a clear asymmetry with the reverse scenario (96). This suggests that Puyuma speakers' interpretation of binding is not affected by the linear ordering between the quantifier and the pronoun. These ditransitive data thus present a particularly strong case against the hypothesized argument structure alternation between PV- and CV-marked clauses.

(95)   Puyuma: R binds T regardless of voice type

    a. **Actor Voice:** *Recipient > Theme*

∅-beray=ku   [kantu=lribun]   [kan   tinataw   kana kiakarun driya].
AV-give=1SG.PIVOT [3.POSS.CM$_2$=wages] [SG.CM$_2$ 3S.POSS.mother LK   laborer   every]
'I gave every laborer's$_{<i>}$ mother his$_{<i/*j>}$ wages.'

    b. **Patient Voice:** *Recipient > Theme*

ku=beray-**ay**   [kantu=lribun]   [i   tinataw   kana kiakarun driya].
1SG.CM$_1$=give-**LV** [3.POSS.CM$_2$=wages] [SG.PIVOT 3S.POSS.mother LK   laborer   every]
'I gave every laborer's$_{<i>}$ mother his$_{<i/*j>}$ wages.'

    c. **Circumstantial Voice:** *Recipient > Theme*

Ku=beray-**anay**   [tu=lribun]   [kan   tinataw   kana kiakarun driya].
1SG.CM$_1$=give-**CV** [3.POSS.PIVOT=wages] [SG.CM$_2$ 3S.POSS.mother LK   laborer   every]
'I gave every laborer's$_{<i>}$ mother his$_{<i/*j>}$ wages.'

(96)   Puyuma: T fails to bind R regardless of voice type

    a. **Actor Voice:** *Theme ≯ Recipient*

∅-beray=ku   [kantu=walak]   [kantu=lribun   kana kiakarun driya].
AV-give=1SG.PIVOT [3.POSS.CM$_2$=child] [3.POSS.CM$_2$=wages LK   laborer   every]
'I gave his$_{<i>}$ child every laborer's$_{<j/*i>}$ wages.'

    b. **Patient Voice:** *Theme ≯ Recipient*

Ku=beray-**ay**   [tu=walak]   [kantu=lribun   kana kiakarun driya].
1SG.CM$_1$=give-**LV** [3.POSS.PIVOT=child] [3.POSS.CM$_2$=wages LK   laborer   every]
'I gave his$_{<i>}$ child every laborer's$_{<j/*i>}$ wages.'

    c. **Circumstantial Voice:** *Theme ≯ Recipient*

Ku=beray-anay   [kantu=walak]   [tu=lribun   kana kiakarun driya].
1SG.CM$_1$=give-**CV** [3.POSS.CM$_2$=child] [3.POSS.PIVOT=wages LK   laborer   every]
'I gave his$_{<i>}$ child every laborer's$_{<j/*i>}$ wages.'

Tagalog ditransitives also display an invariable binding pattern immune to voice alternation. Different from the binding pattern observed in Puyuma, Amis, and Seediq, the recipient and the theme can mutually bind each other in Tagalog ditransitives, no matter whether the sentence is marked as AV, LV, or CV, (97)-(98).

(97) Tagalog: R binds T regardless of voice type

    a. **Actor Voice (AV):** *Recipient > Theme*

        Nag-bigay si   Joy kay   Lia **ng**   **sarili niyang larawan**.
        AV.PRF-give PN.PIVOT Joy PN.CM$_2$ Lia **ID.CM$_2$ self   3S.POSS picture**
        '*Joy$_{<k>}$* gave *Lia$_{<j>}$* a picture of *herself$_{<k/j>}$*.'

    b. **Patient Voice (PV);** *Recipient > Theme*

        B<in>igy-**an** ni   Joy si   Lia **ng**   **sarili niyang larawan**.
        give-PRF-**LV** PN.CM$_1$ Joy PN.PIVOT Lia **ID.CM$_2$ self   3S.POSS picture**
        '*Joy$_{<k>}$* gave *Lia$_{<j>}$* a picture of *herself$_{<k/j>}$*.'

    c. **Circumstantial Voice (CV):** *Recipient > Theme*

        I-b-in-igay ni   Joy kay   Lia **ang**   **sarili niyang larawan**.
        CV-give-PRF PN.CM$_1$ Joy PN.CM$_2$ Lia **PIVOT self   3S.POSS picture**
        '*Joy$_{<k>}$* gave *Lia$_{<j>}$* a picture of *herself$_{<k/j>}$*.'

(98) Tagalog: T binds R regardless of voice type[32]

    a. **Actor Voice (AV):** *Theme > Recipient*

        Nag-bigay=ako   [sa   kanilang nanay] [ng   sweldo ng   bawat
        AV.PRF-give=1SG.PIVOT [DEF.CM$_2$ 3PL.POSS mother] [INDF.CM$_2$ wages POSS every
        manggagawa].
        laborer]
        'I gave their$_{<j>}$ mother every laborer's$_{<j/k>}$ wages.' (bound variable reading available)

    b. **Locative Voice (LV):** *Theme > Recipient*

        B<in>igy-**an**=ko   [ang   kanilang nanay] [ng   sweldo ng   bawat
        give-PRF-**LV**=1SG.CM$_1$ [CN.PIVOT 3PL.POSS mother] [INDF.CM$_2$ wages POSS every
        manggagawa].
        laborer]
        'I gave their$_{<j>}$ mother every laborer's$_{<j/k>}$ wages.' (bound variable reading available)

    c. **Circumstantial Voice (CV):** *Theme > Recipient*

        I-b-in-igay=ko   [sa   kanilang nanay] [ang   sweldo ng   bawat manggagawa].
        CV-give-PRF=1SG.CM$_1$ [DEF.CM$_2$ 3PL.POSS mother] [PIVOT wages POSS every laborer]
        'I gave their$_{<j>}$ mother every laborer's$_{<j/k>}$ wages.' (bound variable reading available)

The same observation was made by Andrews (1985), who reported that a pivot theme can be bound by a non-pivot recipient in CV ditransitives (99). This observation, along with the binding data above, reinforces the evidence against the applicative approach to CV constructions.

(99) **I**-ni-abot   niya   sa   bata ang   kaniya-ng sarili-ng larawan.
     CV-PFV-hand 3SG.CM$_1$ DEF.DOM.CM$_2$ child PIVOT 3SG-LK   self-POSS picture
     'He$_{<i>}$ handed the child$_{<j>}$ a picture of himself$_{<i/j>}$.' (Andrews 1985:143)

The invariable binding pattern observed here strengthens the generalization that pivot designation does not impact the structural relation of a given clause. The non-local licensing of pivot-marking indicates that it does not realize absolutive case, and is likely to be a marker of information structure status.

5.2.3   Three-place constructions with an adjunct-like pivot

The observation above leads us to expect that an adjunct-like pivot in simple LV/CV clauses such as (100a-b) may well not be an applied object (101a) (as argued by the traditional analysis), but instead be an adjunct adjoined to VoiceP. This proposal is schematized in (101b).

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[32]In Tagalog, a non-pivot recipient/causee is obligatorily marked by *sa* (*ng* is not a possible option). This is an instance of differential object marking, and has no direct correlation with the argument here. See Latrouite (2018) for a dedicated discussion of differential object marking in Tagalog.

(100) Puyuma

    a. Ku=retra-ay **na** **etu** dra paysu.
       1SG.CM$_1$=put-LV **DEF.PIVOT desk** INDF.CM$_2$ money
       'I put some money on the desk.'

    b. Ku=deru-anay **na** **si'uy** dra patraka.
       1SG.CM$_1$=cook-CV **DEF.PIVOT pot** INDF.CM$_2$ meat
       'I cooked meat with the pot.'

(101)   a. LV/CV pivot as an applied object   b. LV/CV pivot as an adjunct
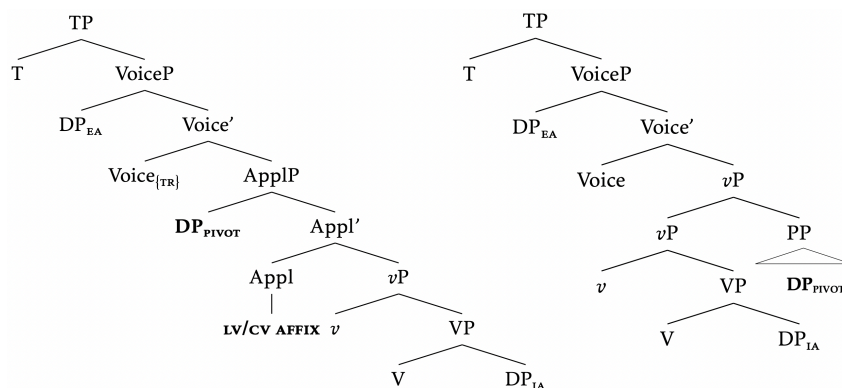
If this analysis is correct, the pivot-marked adjunct and the theme are in sisterhood within the same phase (VoiceP), and are expected to mutually bind each other under Bruening's (2014) theory of precede-and-command. If, however, the applicative analysis is correct, the theme should never be able to bind the pivot, as it is asymmetrically c-commanded by the (pivot-marked) applied object, (101a).

Binding tests show that the applicative analysis is untenable. Across Puyuma, Amis, Seediq, and Tagalog, a quantificational theme can bind a pronominal pivot in LV/CV constructions, with the latter interpreted as a bound variable, (102)-(103). This suggests that the pivot is not base-generated in the highest internal argument position (101a), and may instead remain as an adjunct adjoined to VoiceP (101b).

(102)   LV: Locative pivot binds theme

    a. Tagalog

       Ni-lutu-**an**=ko   [ng   isda ng   bawat babae] [ang   kanyang kawali].
       PRF-cook-**LV**=1SG.CM$_1$ [INDF.ACC fish POSS woman every] [PIVOT 3PL.POSS pot]
       'I cook every woman's$_{<i>}$ fish in her$_{<i/j>}$ pot.'   (bound variable reading available)

    b. Puyuma

       Ku=retra-**ay**   [tu=etu]   [kantu=paysu   kana trawtrawtraw driya].
       1SG.CM$_1$=put-**LV** [3.POSS.PIVOT=desk] [3.POSS=money POSS person   every]
       'I put every person's$_{<i>}$ money on their$_{<i/j>}$ desk.'   (bound variable reading available)

    c. Amis[33]

       Pi-teli-**an** aku   [tu   syasing nu cimacima a wawa] [i   cukuwi nangra].
       put-**LV**   1SG.CM$_1$ [CM.$_2$ picture POSS every   LK child] [PIVOT desk   3PL.POSS]
       'I put every child's$_{<i>}$ picture on their$_{<i/j>}$ desk.'   (bound variable reading available)

    d. Seediq

       Wada=mu   phuma-**an** [∅   sari na knkingal rodan] [ka   neepah=daha].
       PRF=1SG.CM$_1$ grow-**LV** [ACC taro POSS every   old.man] [PIVOT field=3PL.POSS]
       'I grew every old man's$_{<i>}$ taro on his$_{<i/j>}$ field.' (bound variable reading available)

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[33]In Amis, CV morphology appears as a circumfix with two possible forms conditioned by the inner valency of the stem: *sa-pi-* and *sa-ka-*. See Wu (2006) for details.

(103)   CV: Instrumental pivot binds theme

    a. Tagalog

        I-p<in>ampalo=ko [ang   kanyang pamalo] [ng   bawat bata].
        CV-hit=1SG.CM$_1$ [PIVOT 3SG.POSS stick]   [INDF.CM$_2$ every child]
        'I hit every child$_{<i>}$ with their$_{<i/j>}$ stick.'   (bound variable reading available)

    b. Puyuma

        Ku=deru-**anay**   [tu=si'uy]   [kantu=buir kana taynaynayan driya].
        1SG.CM$_1$=cook-**CV** [3.POSS.PIVOT=pot] [3.POSS=taro LK   mother   every]
        'I cooked every mother's$_{<i>}$ taro with her$_{<i/j>}$ pot.'   (bound variable reading available)

    c. Amis

        Sa-pi-tangtang aku   [tu   futing nu   cimacima a tamdaw] [ku   si'uy nangra].
        CV-cook   1SG.CM$_1$ [CM$_2$ fish   POSS every   LK person] [PIVOT pot   3PL.POSS]
        'I cooked every person's$_{<i>}$ fish with their$_{<i/j>}$ pot.'   (bound variable reading available)

    d. Seediq

        S-beebu=mu   [∅   knkingal laqi] [ka   qreti=daha].
        CV-hit=1SG.CM$_1$ [CM$_2$ every   child] [PIVOT stick=3PL.POSS]
        'I hit every child$_{<i>}$ with their$_{<i/j>}$ stick.'   (bound variable reading available)

The results of the binding tests above show that the alleged applicativization of the pivot in LV/CV clauses contradicts the empirical facts. This observation reinforces the conclusion from sections 5.1-5.2 that it does not mark absolutive case.

5.3   'Pivot' as a topic marker independent of case: Further evidence

To conclude: the binding facts observed above show that a change in pivot designation is not accompanied by argument structure alternation. This suggests that 'pivot' is a marker independent of case. Following an old insight of Bowen's (1965) and subsequent observations in the literature that pivot phrases in Tagalog and many other Philippine-type languages show topic properties in being obligatorily definite/specific and 'old information' (see, e.g., Schachter & Otanes 1972; Shibatani 1988; Richards 2000; Pearson 2001, 2005; Paul & Massam 2021), I argue that pivot is a topic marker obligatorily present in all finite clauses. This marker overrides morphological cases and prepositions, giving rise to an ergative-like case pattern. This analysis is illustrated in (104).

(104)   The accusative approach to Austronesian-type alignment

	a. AV	b. PV	c. LV	d. CV
external argument	~~NOM~~ **Topic**	NOM	NOM	NOM
internal argument	ACC	~~ACC~~ **Topic**	ACC	ACC
locative	P$_1$	P$_1$	~~P$_T$~~ **Topic**	P$_1$
instrument/benefactor	P$_2$	P$_2$	P$_2$	~~P$_Z$~~ **Topic**

Topicality has been shown to be difficult to define in a simple way, with observed variation in the syntactic, pragmatic, and semantic properties of topics across languages. It is therefore important to acknowledge that the topic analysis for 'pivot-marking' should only be viewed as an approximate analysis. Below I discuss three shared characteristics of Philippine-type syntax that lend potential further support to the topic analysis.

5.3.1   'Pivot' marks discourse topics

Elicited question-answer sequences with a clear discourse topic reveal a tight connection between pivot status and topichood: without further backgrounding context, the discourse topic must be indicated as the pivot in the answer sentence. Where the discourse topic is the theme in the answer (e.g., 'Kulas hit <u>her</u>'), the sentence must be marked in PV, with the topic having pivot status, as in (105b). A parallel sentence that does not place the topic as the pivot is considered infelicitous as a response, (105c).

(105) Amis

    a. Q: Na ma-maan **ci**   **sawmah**?
          PST PV-what **PN.PIVOT Sawmah**
          'What happened to Sawmah?'   (Context: seeing Sawmah crying)

    b. A1: Ma-palu ni   kulas **cingra**.
           PV-hit   PN.CM$_1$ Kulas **3SG.PIVOT**
           'Kulas hit her.'

    c. A2: *Mi-palu=tu ci-kulas   **cangran-an.**
           AV-hit=PRF PN-Kulas.PIVOT **3SG-CM$_2$**
            (Intended: 'Kulas hit her.')

Further observations confirm that the unacceptability of A2 is due to the mismatch between the pivot designation and the discourse topic. Where the discourse topic is the agent in the answer (e.g. 'She is cooking pork' (106)), the response sentence must be framed in AV to sound natural, with the agent topic marked as the pivot (106b). Question-answer sequences from Seediq, Puyuma, and Tagalog demonstrate the same pattern. Due to space limitations, I do not include data here.

(106) Amis

    a. Q: Mi-maan **ci**   **sawmah**?
          AV-what **PN.PIVOT Sawmah**
          'What is Sawmah doing?'   (Context: asking on the phone)

    b. A1: Mi-tangtang **cingra**   tu   titi.
           AV-cook   **3SG.PIVOT** CM$_2$ pork
           'She is cooking pork.'

    c. A2: *Mi-tangtang-an **nira**   ku   titi.
           PV.hit=PFV   **3SG.CM$_1$** PIVOT pork
           (Intended: 'She is cooking pork.')

This generalization is further supported by the following Tagalog data. In response to the question 'Where is Ivan's spoon?', a consultant provided four possible answers (A1)-(A4).

(107) Tagalog

    a. Q: Na saan **ang**   **kutsara ni**   **Maria**?
          NA where **CN.PIVOT spoon**   **PN.POSS Maria**
          'Where is *Maria's spoon*?'

    b. A1: Gamit ni   Maria **(ang**   **kutsara)**.
           use.PV PN.CM$_1$ Maria **(CN.PIVOT spoon)**
           'Maria is using *(it/the spoon)*.'

    c. A2: I-p\<in>ang-ka-kain   ni   AJ **(ang**   **kutsara)**.
           CV-PANG\<PRF>-RED-eat PN.CM$_1$ AJ **(CN.PIVOT spoon)**
           'AJ is eating with *(it/the spoon)*.'

    d. A3: Na-kita=ko=[ng   k\<in>uha   ni   Lia **(ang**   **kutsara)**].
           PRF.PV-see=1SG.CM$_1$=[LK steal\<PV.PRF> PN.CM$_1$ Lia **(CN.PIVOT spoon)**]
           'I saw that Lia stole *(it/the spoon)*.'

    e. A4: Na kay Peter **(ang**   **kutsara)**.
          NA with Peter **(CN.PIVOT spoon)**
          '*The spoon* is with Peter.'

As seen above, these four answers differ in voice-marking and sentence structure, but all of the four place the discourse topic 'Ivan's spoon' as the pivot. This reinforces the proposal above that pivothood is tightly associated with topichood in Philippine-type languages.

5.3.2 Pivot phrases share the same marker with hanging topics

A second piece of evidence for the topic approach to pivot-marking comes from hanging topic constructions. In the majority of Philippine-type languages, hanging topics consistently bear the same morphological marking as the pivot phrase. Consider the data below from three languages under distinct Austronesian primary branches. Despite the form of pivot-marking differing across these languages, their hanging topics consistently share the same marking with the pivot phrase.

(108)   Puyuma

    a. Adri sagar i   siber kan   akang.
        NEG like.AV SG.PIVOT Siber SG.CM$_2$ Akang
        'Siber dislikes Akang.'

    b. {**I**/*kan}   **akang** i,   adri sagar **i**   **siber**.
        {**SG.PIVOT**/*SG.CM$_2$} **Akang** PART NEG like.AV **SG.PIVOT Siber**
        'Akang, Siber dislikes (her).'

(109)   Paiwan

    a. D\<in>ukuL ti   kui ni   zepul.
        hit\<PV.PRF> SG.PIVOT Kui PN.CM$_1$ Zepul
        'Zepul has hit Kui.'

    b. {**Ti**/*ni}   **zepul** d\<in>ukuL **ti**   **kui**.
        {**SG.PIVOT**/*SG.CM$_1$} **Zepul** hit\<PV.PRF> **SG.PIVOT Kui**
        'Zepul, (she) has hit Kui.' (Chang 2006:417-18)

(110)   Cebuano

    a. Gi-higugma ni juan si   maria.
        PV-love   PN.$_1$ Juan PN.PIVOT Maria
        'Juan loves Maria.'

    b. {**Si**/*ni}   **juan** gi-higugma (niya) **si**   **maria**.
        {**PN.PIVOT**/*PN.CM$_1$} **Juan** PV-love   (3SG.CM$_1$) **PN.PIVOT Maria**
        'Juan, (he) loves Maria.' (Shibatani 1988:131)

5.3.3 'Pivot' marks presupposed information in pseudo-clefts

The placement of pivot-marking in pseudo-clefts also lends independent support to the topic analysis. Pseudo-clefts in Philippine-type languages are formed by a sentence-initial predicate and a presupposed clause that follows it. New information (focus) is usually introduced as the predicate, with given information placed in the presupposed clause. The predicate and the presupposed clause are connected by a marker, which is consistently in pivot form across Philippine-type languages. Consider the examples below in (112).

(111)   <u>Focus</u>   **pivot-marking**   { <u>presupposed clause</u> }
      new information   *old information*

(112)   Pseudo clefts

    a. Tagalog

        Si ivan **ang** [b\<um>ili ng   kendi], hindi si   aya.
        pn ivan **PIVOT** [buy\<AV> INDF.CM$_2$ candy] NEG PN.PIVOT Aya
        'It is Ivan who bought candy, not Aya.'

    b. Puyuma

        I   senten **na** [tr\<em>ima dra   ruma] ameli i   sayki.
        PN.PIVOT Senten **PIVOT** [buy\<AV> INDF.CM$_2$ house], NEG.COP PN.PIVOT Sayki
        'It is Senten who bought a house, not Sayki.'

c. Amis

ci   kulas **ku**   [mi-palu-ay tisuwanan], anu ci   panay?
pn.pivot Kulas **PIVOT** [AV-hit-NMZ 2SG.CM$_2$] or   PN.PIVOT Panay
'Is it Kulas who hit you, or is it Panay?'

d. Seediq

ye walis **ka**   [b\<n\>eebu   ∅   isu], ye watan?
part Walis **PIVOT** [\<PV.PRF\>hit CM$_1$ 2SG] Q Watan?
'Is it Walis who hit you, or is it Watan?'

I propose that this construction can be viewed as a topic-comment structure, in which the presupposed clause is the topic, marked with pivot-marking, with the predicate denoting the focus of the construction, as in (113).

(113)   <u>Focus</u>   <u>pivot-marking</u>   { presupposed clause }
        Comment   topic-marking   *Topic*

Elicited question-answer sequences from Tagalog, Puyuma, Amis, and Seediq confirm that the focus (i.e., new information) is consistently placed in the predicate of the cleft, with the given information placed consistently in the presupposed clause and marked by pivot-marking, (114)-(117).

(114)   Tagalog

a. Q: Sino **ang**   **babae=[ng naglakad   kasama ni   ivan]**?
       [who] **CN.PIVOT woman=[LK AV.PRF-walk with   PN.CM$_2$ Ivan]**
       'Who is the woman who walked with Ivan?'   (Context: saw Ivan outside)

b. A: [nanay niya]   **ang   babae=ng iyon**.
      [mother 3SG.POSS] **PIVOT woman=LK that**
      'That woman is his mother.'

(115)   Puyuma

a. Q: [Isuwa] **na   suwan**?
       [where] **PIVOT dog**
       'Where is the dog?'   (Context: asking a family member about the family dog)

b. A: [Ulaya i   sawka] **na   suwan**.
      [EXI   LOC kitchen] **PIVOT dog**
      'The dog is in the kitchen.'

(116)   Amis

a. Q: [Cima] **ci   Kulas**?
       [who] **PN.PIVOT Kulas**
       'Who is Kulas?'   (Context: overheard people talking about a man named Kulas)

b. A: [U   mitililday aku]   **ci   Kulas**.
      [DET student   1SG.POSS] **PN.PIVOT Kulas**
      'Kulas is my student.'

(117)   Seediq

a. Q: [Ima] **ka   heya**?
       [who] **PIVOT 3SG**
       'Who is he?'   (Context: overheard people talking about a man named Kulas)

b. A: [Tangi=mu]   **ka   heya**.
      [friend=1SG.POSS] **PIVOT 3SG**
      'He is my friend.'

That old information is consistently marked by pivot-marking across these languages suggests that this marker may constitute a general topic marker used for both hanging topics and internal topics, as well as in topic-comment constructions like the above. The nonlocal distribution of pivot-marking observed in 5.1-5.3 follows from this analysis.

Given the observations above, the topic approach may be an appropriate approximate analysis for pivot-marking. A better understanding of its nature awaits future investigation. It is, however, non-controversial to conclude that it is a marker of information structure status independent of the case system of Philippine-type languages.[34]

6   Conclusion

At first glance, Philippine-type Austronesian languages exhibit apparent hallmarks of ergativity. However, a closer look at the distribution of the so-called oblique, ergative, and absolutive reveals that they are best analyzed as accusative, nominative, and a topic marker independent of case, respectively. This observation suggests that Philippine-type languages possess a run-of-the-mill accusative case system intertwined with prominent topic-marking that overrides case, rather than an ergative or split ergative case system. Nor do they possess a typologically unique type of alignment system, as proposed by a number of researchers who have

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[34]A remaining question concerns the nature of the highly constrained Ā-extraction asymmetry found in these languages (see (2)). A recent analysis of a typologically similar language offers insights on the nature of this constraint. Dinka (Nilotic) possesses a Philippine-style voice system (van Urk 2015), where the grammatical role of the topic in a given (finite) clause is indexed by voice morphology on the verb. As seen below, in Dinka, the topic surfaces in the sentence-initial position, whose grammatical role is indexed by tonal morphology on the verb.

(118) Dinka

    a. Àyén à-càm   cuɨ̈in nè pǎal.
        Ayen 3s-eat.SV food P̈ knife
        '*Ayen* is eating food with a knife.'   (Subject Voice)

    b. Cuɨ̈in à-cɛ́ɛm   Áyèn   nè̤ pǎal.
        food 3s.eat-OV Ayen.GEN P knife
        'Ayen is eating *the food* with a knife.'   (Object Voice)

    c. Pǎal à-cɛ́ɛmè̤   Áyèn   cuɨ̈in
        knife 3s-eat.OBLV Ayen.GEN food
        'Ayen is eating food with *a knife*.' (van Urk 2015:61)   (Oblique Voice)

A 'pivot-only'-style constraint is also observed in Dinka. In instances of relativization and *wh*-extraction, the tonal morphology on the verb must indicate the extracted phrase as the pivot/topic, as in (119).

(119) Dinka

    a. Yè ngà cɛ́   cuɨ̈in câam?
        be who PRF.SV food eat.NF
        '*Who* has eaten the food?'   (Subject *wh*-question)

    b. tíŋ   [CP   cɛ́ Bòl   tḭ̈iŋ]
        woman.CS PERF.SV Bol see.NF
        '*the woman* that has seen Bol'   (Subject relativization)

    c. Yè ŋó̤ cɨ́i   Bôl   câam?
        be   what PRF.OV Bol.GEN eat.GEN
        '*What* has Bol eaten?'   (Object *wh*-question)

    d. tíŋ   [CP   cɨ̀i   Bôl   tḭ̈iŋ]
        woman.CS PERF.OV Bol.GEN see.NF
        '*the woman* that Bol has seen'   (Object relativization)

Dinka has been analyzed as a topic-prominent accusative language featuring obligatory topic agreement on the verb (van Urk 2015). Along the lines of this analysis, its 'pivot-only' constraint is proposed to be driven by a flat Ā-probe, which can be satisfied either by Agree with a phrase bearing either a [TOP] or [REL]-feature. Accordingly, 'pivot-only' is essentially not an extraction restriction, but extraction/agreement morphology. See similar proposals in Miyagawa (2010), Aravind (2018), and Baier (2018). I propose, building on this line of analyses, that topicalization and relativization in Philippine-type Austronesian languages are driven by the same Ā-probe, which is why both operations trigger the same set of verbal agreement morphology. See also Pearson (2001, 2005) and Erlewine et al. (2017) for two alternative accounts for the 'pivot-only' constraint under a non-ergative view of Philippine-type languages.

proposed a third category – symmetrical voice – independent of ergativity and accusativity (Himmelmann 2002, 2004; Riesbery 2014, a.o.).

Key evidence against the ergative approach to 'Austronesian-type alignment' is summarized below. The ergative and the split ergative views of Austronesian-type alignment (120) draw on the four assumptions outlined in (121), none of which holds upon a closer examination of the distribution of these markers.

(120)   Austronesian-type alignment: schematized case pattern

	a. AV	b. PV	c. LV	d. CV
external argument	**Pivot**	CM_1	CM_1	CM_1
internal argument	CM_2	**Pivot**	CM_2	CM_2
locative	P_1	P_1	**Pivot**	P_1
instrument/benefactor	P_2	P_2	P_2	**Pivot**

(121)   a. CM_2 realizes a type of nonstructural case, hence the external argument in AV is an intransitive subject (S), which patterns with transitive objects (O) in morphological marking.

b. CM_1 marks inherent ergative case, hence its availability only in transitive clauses and to external arguments.

c. 'Pivot' marks absolute case from T.

d. LV/CV constructions contain an applied object base-generated as the highest internal argument, hence this object is accessible to absolutive case.

The accusative behaviors discussed in section 3 demonstrate that the non-structural case view of CM_2 does not hold. This indicates that two-place AV constructions are true transitives, and therefore that the alleged transitivity split between the AV and the non-AV constructions cannot be maintained. Accordingly, the ergative-like patterning between AV subjects and PV objects is illusory.

CM_1's uniqueness per clause, sensitivity to locality, and availability to unaccusative themes further reveal that this case does not mark inherent ergative case, and is best analyzed as a nominative marker (section 4). This shows that non-AV constructions in these languages are also not ergative aligned, undermining a split ergative approach to Austronesian-type alignment.

Finally, binding diagnostics on three-place constructions (sections 5.1-5.3) suggested non-locality in pivot-licensing, indicating that pivot-marking does not mark absolutive case. This conclusion follows from the analysis in section 4 that CM_1 realizes structural case assigned by T, as well as previous topic analyses for pivot-marking in individual languages. Accordingly, Philippine-type Austronesian languages are topic-prominent accusative languages with topic marking overriding morphological case.

This current conclusion suggests that a highly constrained Ā-extraction asymmetry may be independent of syntactic ergativity. It also reveals that discourse configurational languages may exhibit superficial traits of ergativity if their topic-marking is imprecisely treated as part of their case system. The illusory ergativity found in Austronesian thus reinforces the importance of approaching conventional glosses with caution and the need to reexamine existing analyses with new data.

References

Abbott, Miriam. 1991. Macushi. In D. Derbyshire and G. Pullum (eds.), *Handbook of Amazonian Languages Vol. 2*, 23–160. Berlin/New York: Mouton de Gruyter.

Agbayani, Brian and Chandra Shekar. 2007. Restructuring and clausal architecture. In S. Karimi et al. (eds.), *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation: in Honor of Joseph E. Emonds*, 8–24.

Aissen, Judith and David Perlmutter. 1976. Clause reduction in Spanish. In H. Thompson et al (eds.), *Proceedings of the Second Annual Meeting of the Berkeley Linguistics* (BLS2), 1–30.

Aissen, Judith and David Perlmutter. 1983. Clause reduction in Spanish. In D. Perlmutter (eds.), *Studies in Relational Grammar*, 360–403. University of Chicago Press.

Aldridge, Edith. 2004. Ergativity and Word Order in Austronesian Languages. Ph.D. dissertation, Cornell University.

Aldridge, Edith. 2008. Generative approaches to ergativity. *Language and Linguistics Compass: Syntax and Morphology* 2(5):966–995.

Aldridge, Edith. 2011. Antipassive in Austronesian alignment change. In Dianne Jonas, John Whitman, and Andrew Garrett (eds.), *Grammatical Change: Origins, Nature, Outcomes*, 332–346. Oxford University Press.

Aldridge, Edith. 2012. Antipassive and ergativity in Tagalog. *Lingua* 122(3): 192–203.

Aldridge, Edith. 2016. Ergativity from subjunctive in Austronesian languages. *Language and Linguistics* 17(1):27–62.

Aldridge, Edith. 2017. Phi-Feature Competition: A unified approach to the Austronesian extraction restriction. In J. Kantarovich, T. Truong & O. Xherija (eds.), *Proceedings of the 52nd Meeting of the Chicago Linguistic Society (CLS 52)*.

Aldridge, Edith. 2021. Syntactic conditions on accusative to ergative alignment change in Austronesian languages. *Journal of Historical Linguistics* 11(2): 214–247.

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schafer. 2006. The properties of anticausatives crosslinguistically. In Mara Frascarelli (ed.), *Phases of Interpretation*, 175–199. Berlin: Mouton.

Andrews, Avery. 1985. The major functions of the noun phrase. In T. Shopen (ed.), *Language typology and syntactic description*, vol I: *Clause structure*, 62–154. Cambridge University Press.

Antworth, Evan. 1979. *Grammatical sketch of Botolan Sambal*. Manila: Linguistic Society of the Philippines. ă

Aravind, Athulya. 2018. Licensing long-distance wh-in-situ in Malayalam some padding here. *Natural Language & Linguistic Theory* 36:1–43.ă

Baier, Nicholas. 2018. Anti-Agreement. Ph.D. dissertation: UC Berkeley.

Blust, Robert. 1999. Subgrouping, circularity and extinction: some issues in Austronesian comparative linguistics. In E. Zeitoun & P. Li (eds.), *Selected Papers from the Eighth International Conference on Austronesian Linguistics*, 31–94. Taipei: Institute of Linguistics, Academia Sinica.

Blust, Robert. 2015. The case markers of Proto-Austronesian. *Oceanic Linguistics* 54(2):436–91.

Blust, Robert and Victoria Chen. 2017. The pitfalls of negative evidence: 'Ergative Austronesian', 'Nuclear Austronesian' and their progeny. *Language and Linguistics* 18(4):577–621.

Bobaljik, Jonathan. 2008. Where's phi? Agreement as a post-syntactic operation. In D. Harbour et al. (eds.), *Phi Theory: phi-features across interfaces and modules*, 295–328. Oxford: Oxford University Press.

Bowen, Donald. 1965. *Beginning Tagalog: A course for speakers of English*. University of California Press.

Bruening, Benjamin. 2014. Precede-and-command revisited. *Language* 90:342–388.

Burzio, Luigi. 1986. *Italian syntax: A Government-Binding approach*. Dordrecht: Reidel.

Carrier-Duncan, Jill. 1985. Linking of Thematic Roles in Derivational Word Formation. *Linguistic Inquiry* 16(1):1–34.

Cauquelin, Josianne. 2015. *Nanwang Puyuma-English dictionary*. Language and Linguistics Monograph Series 56. Taipei: Institute of Linguistics, Academia Sinica.

Chang, Anna Hsiou-chuan. 2006. A reference grammar of Paiwan. PhD dissertation, Australian National University.

Chang, Henry Yung-Li. 1997. Voice, case, and agreement in Seediq and Kavalan. Ph.D. dissertation: National Tsing Hua University.

Chang, Henry Yung-li. 2011. Triadic Encoding in Tsou. *Language and Linguistics* 12.4:799–843.

Chen, Ting-chun. 2010. Restructuring in Mayrinax Atayal. BA Honors thesis: McGill University.

Chen, Victoria. 2017. A re-examination of the Philippine-type voice system and its implications for Austronesian primary-level subgrouping. Ph.D. dissertation, University of Hawai'i at Mānoa.

Chen, Victoria. 2021. Tagalog voice as four bundles of Agree relations: Insights from binding. In *Proceedings of the 38th West Coast Conference on Formal Linguistics* (WCCFL 38), 94–104. Somerville, MA: Cascadilla Proceedings Project.

Chen, Victoria and Bradley McDonnell. 2019. Western Austronesian voice. *Annual Review of Linguistics* (5), 173–195.

2021. Chen, Victoria and Shin Fukuda. One language, two voice systems: Insights from Puyuma. In *Proceedings of the 38th West Coast Conference on Formal Linguistics* (WCCFL 38), 105–115. Somerville, MA: Cascadilla Proceedings Project.

Chen, Victoria and Shin Fukuda. 2017. Re-labeling 'Ergative': Evidence from Formosan. *Proceedings of the 23rd Austronesian Formal Linguistic Association* (AFLA 23), 50–65. Canberra: Asia-Pacific Linguistics.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris Publications.

Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2008. On phases. In R. Freidin et al. (eds.), *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, 133–66. Cambridge, MA: MIT Press.

Cinque, Guglielmo. 2004. *Restructuring and functional structure.* Structures and beyond: The cartography of syntactic structures 3: 132–191.

Cole, Peter. 1976, A Causative Construction in Modern Hebrew: Theoretical Implications. In P. Cole (ed.), *Studies in Modern Hebrew Syntax and Semantics*, 99–126, North Holland Publishing Co., Amsterdam.

Cooreman, Ann. 1994. A functional typology of antipassives. In B. Fox & P. Hopperoice (eds.), *Form and Function*, 49–88. Amsterdam: John Benjamins.

Cooreman, Ann, Barbara Fox and Talmy Givon. 1984. The discourse definition of ergativity. *Studies in Language* 8:1–34.

Davies, William. 2005. Madurese prolepsis and its implications for a typology of raising. *Language* 81:645–65.

De Guzman, Videa. 1988. Ergative analysis for Philippine languages: an analysis. In R. McGinn (ed.), *Studies in Austronesian linguistics*, 323–345. Athens: Ohio University Press.

DeLancey, Scott. 1984. Notes on agentivity and causation. *Studies in Language* 8: 181–213.

De Wolf, Charles. 1988. Voice in Austronesian languages of Philippine type: passive, ergative, or neither? In M. Shibatani (ed.), *Passive and Voice*, 143–193. Amsterdam and Philadelphia: John Benjamins.

Dixon, Robert. 1979. Ergativity. *Language* 55:59–138.

Dixon, Robert. 1994. *Ergativity*. Cambridge: Cambridge University Press.

England, Nora. 1988. Mam Voice. In M. Shibatani (ed.), *Passive and Voice*, 525–545. Amsterdam: John Benjamins.

Erlewine, Michael. To appear. Subject marking on non-subjects in Squliq Atayal. *Proceedings of the 20th Austronesian Formal Linguistics Association* (AFLA 20).

Erlewine, Michael, Theodore Levin, and Coppe van Urk. 2017. Ergativity and Austronesian-type voice systems. In J. Coon et al. (eds.), *Oxford Handbook of Ergativity*. Oxford University Press.

Escamilla, Ramón. 2012. The Syntactic Causative Construction in Hupa (California Athabaskan). *Rice Working Papers in Linguistics 3*.

Estioca, Sharon. 2020. A Grammar of Western Subanon. PhD dissertation, University of Hawai'i.

Foley, William. 2005. Semantic parameters and the unaccusative split in the Austronesian language family. *Studies in Language* 29(2):385–430.

Foley, William. 2008. The place of Philippine languages in a typology of voice systems. In P. Austin & S. Musgrave (eds.), *Voice and grammatical relations in Austronesian languages*, 22–44. Stanford: CSLI Publications.

Foley, William and Robert Van Valin. 1984. *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.

Folli, Raffaella and Heidi Harley. 2007. Causation, obligation, and argument structure: on the nature of little v. *Linguistic Inquiry* 38(2):197–238.

Gerdts, Donna. 1988. Antipassives and causatives in Ilokano: evidence for an ergative analysis. In R. McGinn (ed.), *Studies in Austronesian Linguistics*, 295–321. Athens: Ohio University Center for International Studies.

Goudswaard, Nelleke. 2005. *The Begak (Ida'an) language of Sabah*. Utrecht: LOT.

Guilfoyle, Eithne, Henrietta Hung, and Lisa Travis. 1992. Spec of IP and Spec of VP: Two subjects in Austronesian languages. *Natural Language and Linguistic Theory* 10:375–414.

Guirardello, Raquel. 1999. Trumai. In R. Dixon & A. Aikhenvold (eds), *The Amazonian languages*, 351–353. Cambridge: Cambridge University Press.

Harley, Heidi. 2008. On the causative construction. In S. Miyagawa & M. Saito (eds.), *Handbook of Japanese Linguistics*, 20–53, Oxford: OUP.

Harley, Heidi. 2013. External arguments and the mirror principle: on the distinctness of Voice and v. *Lingua* 125:34–57.

Heaton, Raina. 2017. A typology of antipassives, with special reference to Mayan. Ph.D. dissertation, University of Hawai'i at Mānoa.

Higgins, Roger. 1981. Proleptic objects and verbs of perception in Zacapoaxtla Nahuat. *Texas Linguistic Forum* 18, 69–88.

Himmelmann, Nikolaus. 2005. The Austronesian languages of Asia and Madagascar: Typological characteristics. In A. Adelaar & N. Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, 110–81. Routledge: Language Family Series, vol. 7. New York: Routledge..

Holmer, Arthur. 1999. Structural implications of the function of Instrument Focus in Seediq. In P. Li & E. Zeitoun (eds.), *Selected papers from ICAL-8*, 423–454. Taipei: Institute of Linguistics, Academia Sinica.

Huang, Shuan-fan. 2005. Split O in Formosan languages – a localist interpretation. *Language and Linguistics* 6:783–806.

Jian, Shi-lang. 2018. *A grammar of Thao*. New Taipei: Council of Indigenous Peoples.

Katagiri, Masumi. 2006. Topichood of the Philippine topic: Revisited from a cross-linguistic perspective. Paper presented at the 10th ICAL. January 1720.

Kaufman, Daniel. 2009. Austronesian nominalism and its consequences: A Tagalog case study. *Theoretical Linguistics* 35(1):149.

Kallulli, Dalina. 2005. Unaccusatives with overt Causers and Experiencers: A Unified Account. In D. Hole, & A. Meinunger (eds.), *Datives and Similar Cases*. Amsterdam: John Benjamins.

Keenan, Edward. 1976. Remarkable subjects in Malagasy. In C. Li (ed.), *Subject and topic*, 247–301. New York: Academic Press.

Kroeger, Paul. 1991. Phrase structure and grammatical relations in Tagalog. PhD dissertation: Standford University.

Kroeger, Paul. 2014. An affectedness constraint in Kimaragang restructuring. In M. Butt T. Holloway King (eds.), *Proceedings of the LFG14 Conference*, 283–303. Stanford, CA: CSLI Publications.

Kuo, Cheng-chuen. 2015. Argument alternation and argument structure in symmetrical voice languages: a case study of transfer verbs in Amis, Puyuma, and Seediq. PhD dissertation, University of Hāwai'i at Manoa.

Kuroda, Yuki. 1965. Generative Grammatical Studies in the Japanese Language. PhD Dissertation: MIT.

Lasnik, Howard and Tim Stowell. 1991 Weakest crossover. *Linguistic Inquiry* 22(4):687–720.

Latrouite, Anja. 2018. Differential object marking in Tagalog. In L. Clemens et al. (eds.), *Proceedings of the Eighteenth Meeting of the Austronesian Formal Linguistics Association* (AFLA 18), 94–109.

Lee, J.-H. 1992. *Hyentaykwuke mwunpeplon* [Modern Korean grammar]. Seoul: Korean Textbooks Company.

Legate, Julie. 2014. *Voice and little v: lessons from Acehnese*. Cambridge: MIT Press.

Levin, Beth and Malka Rappaport Hovav. 2005. *Argument realization*. New York: Cambridge University Press.

Liao, Hsiu-chuan. 2004. Transitivity and Ergativity in Formosan and Philippine Languages. PhD dissertation, University of Hawai'i at Mānoa.

Lin, Gu-jing. 2010. Argument Structure of Tsou: Simplex and Complex Predicates. PhD dissertation, Rice University.

Maclachlan, Anna. 1996. Aspects of Ergativity in Tagalog. PhD dissertation, McGill University.

Maclachlan, Anna and Masanori Nakamura. 1993. An economy account of wh-extraction in Tagalog. In *Proceedings of the 12th Meeting of the West Coast Conference of Linguistics* (WCCFL 12). Stanford: CSLI.

Maclachlan, Anna and Masanori Nakamura. 1997. Case-checking and Specificity in Tagalog. *The Linguistic Review* 14: 307–33.

Matasovic, Ranko. 2010. *A short grammar of East Circassian (Kabardian)*. Zagrebd.

McKaughan, Howard. 1973. Subject versus topic. In A. Gonzalez (ed.), *Parangal kay Cecilio Lopez: Essays in honor of Cecilio Lopez on his seventy-fifth birthday. Philippine Journal of Linguistics Special Issue*. Linguistic Society of the Philippines.

Megerdoomian, Karine. 2005. Transitivity alternation verbs and causative constructions in Eastern Armenian. *Proceedings of Annual Meeting of Armenian Linguistics* 24, 13–33.

Mintz, Malcolm. 1971. *Bikol grammar notes.* Honolulu: University of Hawaii Press.

Mithun, Marianne. 1994. The implications of ergativity for a Philippine voice system. In B. Fox & P. Hopper (eds.), *Voice: Form and Function*, 247–277. Amsterdam: John Benjamins.

Miyagawa, Shigeru. 2010. *Why Agree? Why Move?* Cambridge, MA: MIT Press.

Naylor, Paz. 1995. Subject, topic and Tagalog syntax. In D. Bennett et al. (eds.), *Subject, voice and ergativity: Selected essays*, 161–201. London: School of Oriental and African Studies, University of London.

O'Brien, Colleen. 2016. Are Philippine Languages Ergative? Evidence from Western Subanon. *Working Papers in Linguistics* 47(2), University of Hawai'i at Mānoa.

Online Dictionary of Formosan languages (ODFL, n.d.). http://e-dictionary.apc.gov.tw

Owens, Jonathan. 1985. *A Grammar of Harar Oromo (Northeastern Ethiopia)*. Hamburg: Buske.

Paul, Ileana and Lisa Travis. 2006. Ergativity in Austronesian languages: What it can do, what it cant do, but not why. In A. Johns, D. Massam, & J. Ndayiragije (eds.), *Ergativity: emerging issues*, 315–336. Springer.

Paul, Ileana and Diane Massam. 2021. Licensing null arguments in recipes across languages. *Journal of Linguistics* 57(4): 815–839.

Payne, Thomas. 1982. Role and reference related subject properties and ergativity in Yup'ik Eskimo and Tagalog. *Studies in Language* 6:75–106.

Pearson, Matthew. 2001. The clause structure of Malagasy: A minimalist approach. PhD dissertation, UCLA.

Pearson, Matthew. 2005. The Malagasy subject/topic as an Ā-element. *Natural Language & Linguistic Theory 23*:381–457.

Perlmutter, David. 1978. Impersonal Passives and the Unaccusative Hypothesis. In Farrell, A. and J. Jaeger (eds.), *Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society* (BLS 4), 157–189.

Polinsky, Maria. 2017. Antipassive. In J. Coon, D. Massam, and L. Travis (eds.), *The Oxford Handbook of Ergativity*. Oxford: Oxford University Press.

Potsdam, Eric and Jeffrey Runner. 2001. Richard returns: Copy Raising and its implications. In M. Andronis, C. Ball, H. Elston, & S. Neuvel (eds.), *CLS 37: The Main Session* vol. 1:453–68. Chicago, IL: Chicago Linguistic Society.

Postal, Paul. 1993. Remarks on weak crossover effects. *Linguistic Inquiry* 24(3), 539–556.

Pylkkänen, Liina. 2002. Introducing arguments. PhD dissertation, MIT.

Rackowski, Andrea. 2002. The Structure of Tagalog: Specificity, Voice, and the Distribution of Arguments. PhD dissertation, MIT.

Rackowski, Andrea and Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36(4):565–599.

Ramos, Teresita. 1974. *The case system of Tagalog verbs*. Pacific Linguistics B27. Canberra: The Australian National University.

Ramos, Teresita and Maria Bautista. 1986. *Handbook of Tagalog Verbs: Inflections, Modes, and Aspects*. Honolulu: University of Hāwaiʻi Press.

Riesberg, Sonja. 2014. *Symmetrical voice and linking in western Austronesian languages*. Berlin: De Gruyter Mouton.

Richards, Norvin. 2000. Another look at Tagalog subjects. In I. Paul, V. Phillips, & L. Travis (eds.), *Formal issues in Austronesian linguistics*, 105–116. Dordrecht: Kluwer Academic Publishers.

Richards, Marc. 2007. On feature inheritance: An argument from the Phase Impenetrability Condition. *Linguistic inquiry* 38(3):563–572.

Rizzi, Luigi. 1978. A Restructuring Rule in Italian Syntax. In S. Keyser (ed.), *Recent Transformational Studies in European Languages*, 113–158. Cambridge: MIT Press.

Rizzi, Luigi. 1982. A restructuring rule. In Rizzi, L. (eds.), *Issues in Italian syntax*, 1–76. Dordrecht: Foris.

Ross, Malcolm. 2002. The history and transitivity of Western Austronesian voice and voice-marking. In F. Wouk & M. Ross (eds.), *The history and typology of Western Austronesian voice systems*, 17–62. Canberra: Pacific Linguistics.

Ross, Malcolm. 2009. Proto Austronesian verbal morphology: a reappraisal. In A. Adelaar & A. Pawley (eds.), *Austronesian historical linguistics and culture history: A Festschrift for Robert Blust*, 295–326. Canberra: Pacific Linguistics.

Rau, Victoria and Maa-neu Dong. 2006. *Yami Texts with reference grammar and dictionary*. Institute of Linguistics, Academia Sinica.

Salzmann, Martin. 2017. Prolepsis. *The Wiley Blackwell Companion to Syntax*, 1–42.

Schachter, Paul. 1976. The subject in Philippine languages: Topic, actor, actor-topic, or none of the above? In C. Li (eds.), *Subject and topic*, 491–518.

Schachter, Paul. 1977. Reference-related and role-related properties of subjects. In P. Cole & J Saddock (eds.), *Grammatical Relations*, 279–306. New York: Academic Press.

Schachter, Paul and Fe Otanes. 1972. *Tagalog reference grammar*. Berkeley: University of California Press.

Shibatani, Masayoshi. 1976. On Japanese Causative: Review of Shibatani's Notion of Causative. *Syntax and semantics* 6, 1–42. New York: Academic Press.

Shibatani, Masayoshi. 1988. Voice in Philippine languages. In M. Shibatani (ed.), *Passive and Voice*, 85–142. Amsterdam: John Benjamins.

Silva-Corvalán, Carmen. 1978. The Ilokano Causative in Universal Grammar. In J. Jaeger et al. (eds.), *Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society (BLS 4)*, 223–238.

Sung, Li-May. 2018. *A grammar of Seediq*. New Taipei: Council of Indigenous Peoples.

Wurmbrand, Susi, Iva Kovac, and Magdalena Lohninger. 2021. From Prolepsis to Hyperraising. *Abralin talk*.

Tanankingsing, Michael. 2009. A Functional reference Grammar on Cebuano. PhD dissertation, National Taiwan University.

Teng, Stacy Fang-ching. 2008. *A grammar of Puyuma, an Austronesian language of Taiwan*. Canberra: Australian National University.

Teng, Stacy Fang-ching. 2016. Aspectual split ergative pattern in Puyuma: synchronic and diachronic. *Proceedings of the 11th International Symposium on Taiwanese languages and Teaching*, 353–375.

Travis, Lisa. 2000. The 1-syntax, s-syntax boundary: evidence from Austronesian. In I. Paul at al. (eds.), *Formal Issues in Austronesian Linguistics*, 167–194. Dordrecht: Kluwer Academic Publishers.

Van den Berg, René. *A grammar of the Muna language*. Vol. 139. Dordrecht: Foris Publications, 1989.

van Urk, Coppe. 2015. A uniform syntax for phrasal movement: A case study of Dinka Bor. PhD dissertation, MIT.

Woolford, Ellen. 2006. Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37:111–130.

Wu, Chun-ming. 2012. The Syntax of Linking Constructions in Mayrinax Atayal and Sinvaudjan Paiwan. PhD dissertation, National Tsing-hua University.

Wu, Jing-lan. 2006. Verb classification, case marking, and grammatical relations in Amis. PhD dissertation, State University of New York at Buffalo.

Wurmbrand, Susi. 2001. *Infinitives: Restructuring and Clause Structure*. New York: Mouton de Gruyter.

Wurmbrand, Susi. 2014. Restructuring across the world. In L. Veselovská & M. Janebová (eds.): Complex Visibles Out There. *Proceedings of the Olomouc Linguistics Colloquium 2014: Language Use and Linguistic Structure*, 275–94. Olomouc: Palacký University.

Yamada, Yukihiro. 2014. *A grammar of the Itbayat language of the Philippines.* Himeji, Japan.

Yeh, Mei-li. 2000. *A reference grammar of Saisiyat* [in Chinese]. Taipei: Yuanliu.

Zeitoun, Elizabeth. 2000. *A Reference Grammar of Bunun* [in Chinese]. Taipei: Yuanliu.

Zeitoun, Elizabeth. 2007. *A Grammar of Mantauran (Rukai)*. Taipei: Institute of Linguistics, Academia Sinica.