

Pivot ≠ Absolutive: evidence from Formosan

• **Goal**

In this talk, I examine the nature of Pivot-marking in Philippine-type languages by investigating the properties of Locative voice (LV) and Circumstantial voice (CV) in three Philippine-type Formosan languages (Puyuma, Amis, Seediq) from three different Austronesian primary branches (Blust 1999).

I. Introduction

1.1 The basic case pattern shared by Philippine-type languages

	AV (1a)	PV (1b)	LV (1c)	CV
Agent	Pivot	Y	Y	Y
Theme	X	Pivot	X	X
Locative			Pivot	—
Instrument/Benefactor		—		Pivot

- (1a) Actor voice (AV) (1b) Patient voice (PV) [Seediq]
- sebuc ø ricah ka laqi. sebet-un na laqi ka ricah.
 <AV>hit Y plum Pivot child hit-PV X child Pivot plum
 'The child hit plums.' 'The child will hit the plums'
- (1c) Locative voice (LV)
- sebet-an na laqi ø ricah ka peepah.
 hit-LV X child Y plum Pivot field
 'The child hit plums in the field.'

☞ **Question:** What are Pivot, X, and Y?

1.2 The Ergative approach (e.g. Payne 1982; Liao 2004; Aldridge 2004 *et seq.*)

- Pivot = structural case from T (Absolutive)
- X = lexical case from V (Oblique)
- Y = inherent case from transitive Voice (Ergative)
- Transitive Voice bears an EPP feature (PV/LV/CV clauses)
- LV/CV affix realizes **High applicative** head that introduces specific applied objects (AO) as the highest internal argument
 - ☞ argument structure alternation among non-Actor-voice (NAV) clauses
 - ☞ AO accesses [Absolutive] at the highest [Spec, VoiceP]

2. Theoretical issues in the Appl analysis of LV/CV affixes

- What receive Pivot-marking under what voice (in Formosan)

	LV	CV
in simple clauses	Locative (☞ High Appl)	Benefactor, Instrument (☞ High Appl)
in ditransitive	Recipient (☞ Low Appl)	Transported theme (☞ ?? No Appl)
in causative	Causee (??)	Caussum (??)

- [Problem 1] Both a Locative phrase (in LV) and an Instrument/Benefactor phrase (in CV) is argued to be a High Applicative phrase (Aldridge 2004 *et seq.* (under Pylkkänen 2002))
 ☞ What distinguishes an LV affix from a CV affix if both realize High Appl head?
- [Problem 2] In CV-ditransitive and CV-causative, Transported theme and Caussum receive Pivot-marking, respectively. However, they are improperly analyzed as High ApplP.
 ☞ How would the High Appl analysis account for causative and ditransitive data?
- [Problem 3] Proto-Austronesian LV/CV affix (LV *-an, CV *Si-/Sa-) and that in the majority of higher-level AN languages show no morphological evidence for valency-increasing. No transitivity marker (i.e. the AV/PV affix under the ergative analysis (Aldridge 2004 *et seq.*)) co-exists with LV/CV affix in LV/CV clauses (cf. (1c)).

3. Main claims

- In Puyuma, Amis, and Seediq
 - LV and CV affix ≠ high applicative head
 - Pivot-marking ≠ Absolutive
 - Nominative-Accusative in terms of Case-licensing (similar to Pearson 2005 for Malagasy)
- Specifically, I will argue that ...

- (1) In Puyuma, Amis, and Seediq, LV/CV clauses involve no voice-type-conditioned argument structure alternation (contra. Aldridge 2004 *et seq.*; Rackowski 2002 for Tagalog)
- (2) Given (1), Pivot-licensing is not subject to locality (contra. the Absolutive analysis of “Pivot”)
- (3) For these three languages, the Philippine-type “voice affixes” are better analyzed as agreement morphology that marks an obligatory A'-agree relation in each clause (similar to Pearson 2005 for Malagasy; Richards 2000; Rackowski 2002 for Tagalog)

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• **Target languages:**

- (i) primary data from Puyuma, Amis, and Seediq
 (ii) secondary data from Paiwan, Bunun, Atayal, Tsou, and Saisiyat
 ☞ evidence from 7 out of 10 Austronesian primary branches (Blust 1999)

• **Target constructions:**

- (a) Productive causative
 (b) Ditransitive
 (c) Transitive clauses with an Instrument/Locative/Benefactor phrase as Pivot

• **Formosan preliminaries (Puyuma, Amis, Seediq):**

- Philippine-type four-way voice system (AV, PV, LV, CV)
 • 4 morphologically distinct cases (reconstructable to Proto-Austronesian):
Nominative (=Pivot), *Genitive* (X), *Oblique* (Y), *Locative* (Blust 2015; Ross 2006)

4. **The competing analyses:**

[Hypothesis A]: *Pivot = structural Absolute* (the ergative approach)

- “Pivot”-licensing must respect locality
 - ☞ Pivot-marked phrase must occupy the highest internal argument (IA) position, or
 - ☞ Any IA higher than the Pivot-marked phrase must be inherently licensed
- Prediction: argument structure alternation in NAV clauses

[Hypothesis B]: *Pivot = topic/focus marker* (the present proposal)

- “Pivot”-licensing needs not respect locality
 - ☞ Argument structure alternation between different voice types is not necessary
- “Pivot”-marked phrase in LV/CV clauses may remain as adjunct PP.

(A) **Productive causative**

- The shared case pattern in Formosan causative¹

	AV-causative	PV/LV-causative	CV-causative
Causer	Pivot	ERG	ERG
Causee	OBL	Pivot	OBL
Caussum	OBL	OBL	Pivot

- Puyuma

- (2a) Ø-pa-trima=ku kana walak dra aputr.
 AV-CAU-wash=ISG.ABS DF.OBL child ID.OBL flowers
 ‘I made the child buy flowers.’ [AV-causative]
- (2b) ku=pa-trima-[aw]/[ay] na walak dra aputr.
 ISG.ERG=CAU-buy-[PV]/[LV] DF.ABS child ID.OBL flowers
 ‘I made the child buy flowers.’ [PV/LV-causative]
- (2c) ku=pa-trima-anay kana walak na aputr.
 ISG.ERG=CAU-buy-CV DF.OBL child DF.ABS flowers
 ‘I made the child buy flowers.’ [CV-causative]

² According to my fieldwork, CV-causative is seldom used in (Central) Amis, but is still an available strategy for forming productive causative. PV causative is strongly preferred over CV causative.

☞ **Question:** different case pattern = different causative structure?

• **3 possible analyses to account for the “Pivot”-marked Causee in CV-causatives:**

- (i) The Caussum is licensed by a High ApplP (the ergative approach)
 (ii) The OBL-marked Causee is inherently licensed by a *by*-phrase
 (iii) The OBL-marked Causee as inherently licensed by an ApplP

✓ (iv) Both the Causer and the Causee are structurally licensed,
 Pivot ≠ structural Absolute, thus is not subject to locality condition

• **Against (i) and (ii):**

- Prediction of (i) and (ii): The Causee is unable to bind into the Caussum
- ☞ **Observation:** in all three languages, an OBL-marked Causee can bind into a Pivot-marked Caussum in CV-causative (3a-c)

(3a) ku=pa-pukpuk-anay kana walak driya tu=suwan. [Puyuma]
 ISG.ERG=CAU-beat-CV DF.OBL child every 3.POSS.ABS=dog
 ‘I made every child<i> beat his<i> dog.’ (✓ bound variable reading)

(3b) sa-pa-pi-palu aku cingranan cingra tu. [Amis]
 CV-CAU-PI-beat ISG.ERG 3SG.OBL 3SG.ABS REF
 ‘I made him beat himself.’ (✓ reflexivization)

(3c) s-p-beebu=mu=naq knkingal bubu ka laqi=na. [Seediq]
 CV-CAU-beat=ISG.ERG=3.ABS every mother.(OBL) ABS child=3S.POSS
 ‘I made every mother<i> beat her<i>j> child.’ (✓ bound variable reading)

☞ The OBL-marked Causee is structurally *higher* than the Pivot-marked Caussum and c-commands it. This contradicts the High Appl analysis for CV affix.

• **Against (iii):**

- **Assumption:** Causatives that involve a Causee-introducing ApplP are mono-eventive rather than bi-eventive (e.g. Legate 2014)
- Prediction of (iii): the caused event is unable to license independent (a) adverb of frequency, or (b) agent-oriented adverbs, given that the structure is mono-eventive.

☞ **Observation:** in all three languages, the caused event in CV-causative can license (a)-(b), as in (4)-(6).

(4a) ku=pa-base-anay kanku=walak (masal) na kiping. [Puyuma]
 ISG.ERG=CAU-wash-CV ISG.POSS.OBL=child (again) DF.ABS clothes
 ‘I made my child wash the clothes (again).’ (my child did so again)

(4b) ku=pa-base-anay kan Sawagu (pakirep) na kiping.
 ISG.ERG=CAU-wash-CV SG.OBL S (strongly) DF.ABS clothes
 ‘I made Sawagu wash the clothes (strongly).’ (Sawagu did so strongly)

(5a) sa-pa-pi-tangtang (heca) ni Lisin ci-Sawmah-an kuna futing. [Amis]
 CV-CAU-PI-cook (again) ERG L PN-S-OBL that.ABS fish
 ‘Lisin made Sawmah cook that fish (again).’ (Sawmah did so again)

(5b) sa-pa-pi-tangtang ni Panay ci-Afan-an kuna titi (pina’un).
 CV-CAU-PI-cook ERG P PN-A-OBL that.ABS pork (carefully)
 ‘Panay made Afan cook that pork (carefully).’ (Afan did so carefully)

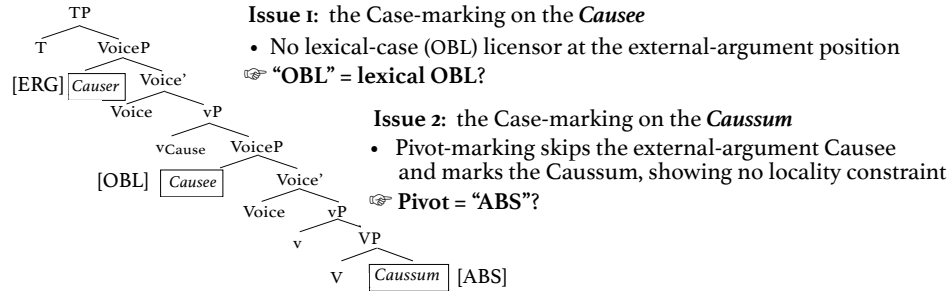
(6a) s-p-hanguc=mu Robo (tungan) ka rudux nii. [Seediq]
 CV-CAU-cook=IG.ERG R.OBL (again) ABS chicken this
 ‘I made Robo cook the chicken (again).’ (Robo did so again)

(6b) s-p-sebuc=mu Walis ka (knhenguc s<m>ebuc) laqi nii.
 CV-CAU-beat=ig.erg W.OBL ABS (strongly beat<AV>) child this
 ‘I made Walis beat this child (strongly).’ (Walis did so strongly)

Analysis: CV-causative in all three languages involves two independent VoicePs

☞ The caused event is licensed by an independent VoiceP, with the *Causee* introduced at [Spec, VoiceP] as a normal external argument.

[CV-causative] • Two issues for the ergative analysis (Aldridge 2004 et



The invariable structure of causatives unaffected by voice alternation

• **Observation:** In all three languages, productive causatives under all voice types involve the same structure, i.e. two independent VoiceP, based on the observation that as causatives under all voice types allow (i) a Causee that can bind into the Caussum, (ii) adverb of frequency or agent-oriented adverbs that modifies the caused event, as exemplified in the Puyuma data (7)-(8).

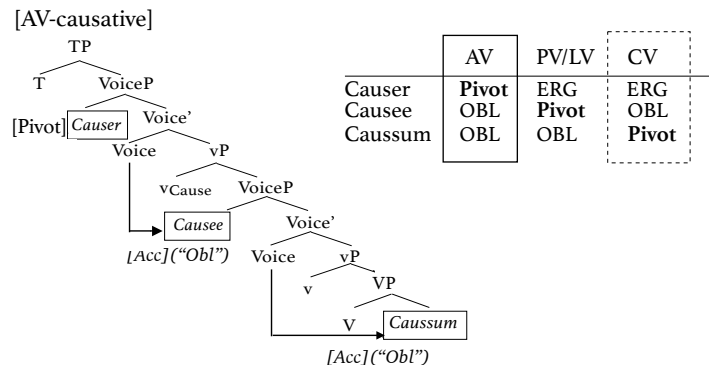
(7a) Ø-pa-base=ku kana bangsaran driya kantu=paliding. [Puyuma]
 AV-CAU-wash=ISG.ABS DF.OBL young.man every 3.OBL.POSS=car
 ‘I made every young man<i> wash his<i> car.’ (✓bound variable reading) [AV]

(7b) Ø-pa-pukpuk=ku kan Akang (masal) (pakirep) kana ngiyaw.
 AV-CAU-beat=ISG.ABS SG.OBL A (again) (strongly) DF.OBL cat
 ‘I made Akang beat the cat (strongly) (again).’

(8a) ku=pa-pukpuk-aw na taynaynayan driya kantu=walak.
 ISG.ERG=CAU-beat-PV DF.ABS mothers every 3.OBL.POSS=child
 ‘I made every mother<i> beat her<i> child.’ (✓bound variable reading) [PV]

(8b) ku=pa-pukpuk-aw i Sayki (masal) (pakirep) kana suwan.
 ISG.ERG-CAU-beat-PV SG.ABS S (again) (strongly) DF.OBL dog
 ‘I made Sayki beat the dog (strongly) (again).’

Analysis: “OBL” as a structural case & Pivot-licensing as non-local



Implication from the case patterns in AV-causative and CV-causative:

• **Claim 1:** The “OBL”-marking on the *external-argument Causee* in AV and CV causative is incompatible with a lexical-case analysis for “OBL” (Aldridge 2004 et seq.), while follows straightforwardly from a structural Accusative analysis for the Case assigned to AV-objects.

☞ Analysis: “OBL” = structural Accusative

• **Claim 2:** The observation that Pivot-marking skips the external-argument Causee and marks the Caussum in CV-causative indicates the non-local nature of Pivot-licensing.

☞ Analysis: “Pivot” ≠ structural Absolutive

(B) Ditransitive²

• The shared case pattern in Formosan ditransitive

	AV-ditransitive	PV/LV-ditransitive	CV-ditransitive
Agent	Pivot	ERG	ERG
Recipient	OBL	Pivot	OBL
Theme	OBL	OBL	Pivot

• **Question:** different case pattern = different ditransitive structure?

☞ Given the voice-conditioned case pattern alternations, we expect *argument structure alternation between PV/LV-ditransitive & CV-ditransitive*

☞ **Findings:** invariable structural relation among arguments unaffected by voice alternation in all three languages: **Agent > Recipient > Transported theme**

☞ **Observation:** Across the three languages, Recipient **asymmetrically** c-commands the Transported theme under all voice types, as exemplified in the Puyuma data (9)-(10)

Data set I: Recipient c-commands Transported theme under all voice types

(9a) Ø-beray=ku [kantu=lribun] [kana kiakarun driya]. [Puyuma]
 AV-give=ISG.ABS [3.POSS.OBL=wages] [DF.OBL labor every
 ‘I gave every labor<i> his wages<i>.’ (✓bound variable reading) [AV]

(9b) ku=beray-ay [kantu=lribun] [na kiakarun driya].
 ISG.ERG=give-LV [3.POSS.OBL=wages] [DF.ABS labor every
 ‘I gave every labor<i> his wages<i>.’ (✓bound variable reading) [LV]

(9c) ku=beray-anay [tu=lribun] [kana kiakarun driya].
 ISG.ERG=give-CV [3.POSS.ABS=wages] [DF.OBL labor every
 ‘I gave every labor<i> his wages<i>.’ (✓bound variable reading) [CV]

Data set II: Transported theme does not c-command Recipient under all voice types

(10a) Ø-beray=ku [kantu=walak] [kantu=lribun kana kiakarun driya]. [Puyuma]
 AV-give=ISG.ABS [3.POSS.OBL=child] [3.POSS.OBL=wages df.obl labor every
 ‘I gave his child<i> every labor<i>’s wages.’ (✗ bound variable reading) [AV]

(10b) ku=beray-ay [tu=walak] [kantu=lribun kana kiakarun driya].
 ISG.ERG=give-LV [3.POSS.ABS=child] [3.POSS.OBL=wages DF.OBL labor every]
 ‘I gave his child<i> every labor<i>’s wages.’ (✗ bound variable reading) [LV]

(10c) ku=beray-anay [kantu=walak] [tu=lribun kana kiakarun driya].
 ISG.ERG=give-CV [3.POSS.OBL=child] [3.POSS.OBL=wages DF.OBL labor every]
 ‘I gave his child<i> every labor<i>’s wages.’ (✗ bound variable reading) [CV]

² A detailed discussion of ditransitive constructions in Puyuma, Amis, and Seediq can be found in Kuo’s (2015) dissertation. 3/6

• **The invariable structure in ditransitive: Amis and Seediq**

☞ **Observation:** In CV-ditransitive, the Recipient asymmetrically c-commands the Theme

- (11a) sa-paefer aku [tu cimacima a wawa] [ku wuhung nangra]. [Amis]
CV-mail ISG.ERG [OBL every LK child] [ABS book 3PL.POSS]
'I sent every child<i> his<i> book.' (✓ bound variable reading)
- (11b) sa-paefer aku [tu ina nangra] [ku wuhung nu cimacima a tamdaw.
CV-mail ISG.ERG [OBL mother 3PL.POSS] [ABS book POSS every LK person]
'I sent his<i> mother every person's<*/i/j> book.' (✗ bound variable reading)

- (12a) s-paadis=mu [knkingal laqi muuyas] [ka patis=daha]. [Seediq]
CV-mail=ISG.ERG [each student.(OBL)] [ABS book=3PL.POSS]
'I sent every student<i> his<i> book.' (✓ bound variable reading)
- (12b) s-paadis=mu [laqi=daha] [ka pila na knkingal seediq].
CV-give=ISG.ERG [child=3PL.POSS.(OBL)] [ABS money POSS every person]
'I sent his<i> child every person's<*/i/j> money.' (✗ bound variable reading)

• **Analysis: the non-local nature of Pivot-licensing**

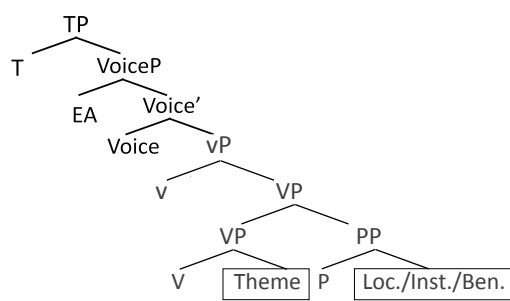
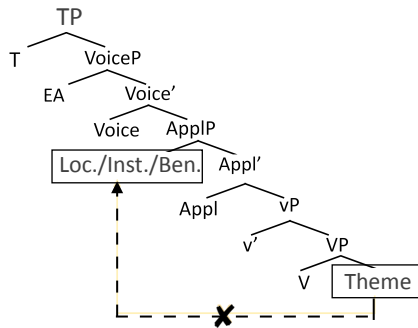
- ☞ No argument structure alternation *vs.* voice-conditioned case pattern alternation
- ☞ In ditransitives across the three languages, Pivot-licensing does not respect locality
- ☞ "Pivot" ≠ structural Absolutive

(C) **Transitive clause with a "non-core" phrase as Pivot**

• Back to the competing analyses

[Hypothesis A: Pivot = Absolutive]

[Hypothesis B: Pivot = topic/focus marker]



• Pivot-marked phrase as a High ApplP

☞ **Prediction:** Theme cannot bind into the Pivot-marked phrase, as the Theme is c-commanded (/phase-commanded) by the Pivot-marked phrase.

• Pivot-marked phrase may remain as adjunct PP

☞ **Prediction:** Theme may bind into the adjunct PP, under the assumption that it *precedes* and *phase-commands* the PP (when the PP is right-adjoined) (Bruening 2014)³.

☞ **Observation:** in all three languages, a Theme can bind into the Pivot-marked phrase in LV/CV clauses, contradicting the prediction from Hypothesis A.

³ [Bruening 2014]: A binds B iff A and B are coindexed and A precedes and phase-commands B. Phase-command: X phase-commands Y iff there is no ZP, ZP a phasal node, such that ZP dominates X but does not dominate Y. (Phasal nodes: CP, vP, NP).

• **Data set I:** A quantifier Theme can bind into a Pivot-marked pronominal Instrument in CV

- (13a) ku=deru-anay [tu siwuy] [kantu bujir kana taynaynayan driya].
ISG.ERG=cook-CV [3.POSS.ABS pot] [3.POSS.ABS taro LK mothers every]
'I cooked every mother<i>'s taro with her<i> pot.' (✓ bound variable reading) [Puyuma]
- (13b) sa-pi-tangtang aku [tu futing nu cimacima a tamdaw] [ku siwuy nangra].
CV-PI-cook ISG.ERG [OBL fish POSS every LK person] [ABS pot 3PL.POSS]
'I cooked every person<i>'s fish with his<i> pot.' (✓ bound variable reading) [Amis]
- (13c) s-beebu=mu [knkingal laqi] [ka qhuni=daha].
CV-beat=ISG.ERG [every child.(OBL)] [ABS stick=3PL.POSS]
'I beat every child<i> with his<i> stick.' (✓ bound variable reading) [Seediq]

• **Data set II:** Microvariation: A Pivot Instrument can bind into Theme in Puyuma but not in Amis

- (14a) ku=deru-anay [kantu bujir] [tu siwuy kana taynaynayan driya].
ISG.ERG=cook-CV [3.POSS.OBL taro] [3.POSS.ABS pot LK mothers every]
'I cooked her<i> taros with every mother's<i> pot.' (✓ bound variable reading) [Puyuma]
- (14b) sa-pi-pacuk aku [tu fafuy nangra] [ku funus nu cimacima a tamdaw].
CV-PI-butcher ISG.ERG [OBL pig 3PL.POSS] [ABS knife POSS every LK person]
'I butchered his<i> pig with everyone's<*/i/j> knife.' (✗ bound variable reading) [Amis]

☞ The binding results (13)-(14) are incompatible with Hypothesis A and favor Hypothesis B.⁴

5. **Proposal & remaining questions**

• The parallel case pattern between Formosan causative and ditransitive

	[Causative]			[Ditransitive]		
	AV	PV/LV	CV	AV	PV/LV	CV
Causer	Pivot	ERG	ERG	Agent	Pivot	ERG
Causee	OBL	Pivot	OBL	Recipient	OBL	Pivot
Caussum	OBL	OBL	Pivot	Theme	OBL	OBL
						Pivot

- Pivot-selection does not change the structure of the clause
- Pivot-licensing does not respect locality
- Pivot-selection shows a hierarchical order (high > low)

• **Proposal**

• The separation of Pivot-marking and Case

- X = Nominative
- Y = Accusative
- (e.g. Richards 2000, Rackowski 2002, and Rackowski & Richards 2005 for Tagalog; Pearson 2005 for Malagasy)

	AV	PV	LV	CV
Agent	Pivot	Y	Y	Y
Theme	X	Pivot	X	X
Locative			Pivot	—
Instrument/Benefactor	—			Pivot

- "Pivot" = a topic/focus marker that marks the information-structure status of a phrase and *overrides* morphological case
- PPT "voice affixes" = A'-agreement morphology that indicates the phrase under Agree relation with the Topic/Focus head.

⁴ See also Appendix II for some binding data on LV/CV clauses with an Instrument/Benefactor as Pivot.

6. Supporting evidence for the topic/focus analysis of “Pivot”

(a) “Pivot” shares the same marking with the *focused phrase* (e.g. wh-word) in cleft constructions in all three languages, as exemplified in (15a-b).

(15a) [cima]/[Sawmah] **ku** mi-'ari-ay tu kupu? [Amis]
 who/S “ABS” AV-break-AGT.NMZ OBL cup
 ‘[Who]/[Sawmah] is the one that broke the cup?’ [cleft]

(15b) ma-'ari aku **ku** kupu.
 PV-break ISG.ERG ABS cup
 ‘I broke the cup.’ [simple clause]

(b) “Pivot” shares the same marking with *hanging topic* in Puyuma and Amis, as in (16)

(16) i Siber i kilengaw=ku [kana sinpu [dra tu=pukpuk-aw i Isaw (e.c.ERG)].
 “SG.ABS”S TOP_i hear.AV=ISG.ABS [DF.OBL news [C 3.ERG=beat-PV SG.ABS I (e.c.ERG)].
 ‘As for Siber, I heard the news that he beat Isaw.’ [Puyuma]

- **Analysis:** the case pattern in causative and ditransitive

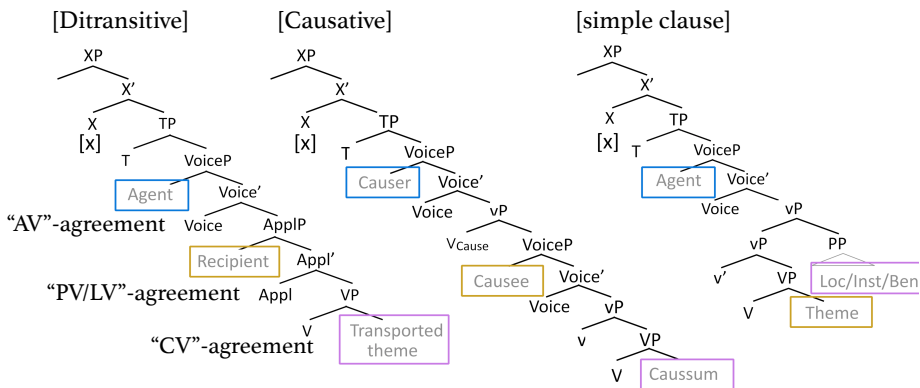
[The ergative approach]

	AV	PV/LV	CV
Causer/Agent	ABS	ERG	ERG
Causee/Recipient	OBL	ABS	OBL
Causum/Theme	OBL	OBL	ABS

[The present proposal]

	AV	PV/LV	CV
Causer/Agent	NOM [Pivot]	NOM	NOM
Causee/Recipient	ACC	ACC [Pivot]ACC	ACC
Causum/Theme	ACC	ACC	ACC [Pivot]

- **Proposal:** how does the A'-agree relation work?



- “AV” agreement: agree with Nominative-marked phrase
- “PV” agreement: agree with Accusative-marked phrase
- “LV/CV” agreement: agree with the rest: PP adjuncts or structurally lower phrase
- ☞ Any non-Pivot phrase carries overt morphological case

7. Conclusion

- Findings in Puyuma, Amis, and Seediq
 - The absence of “voice”-conditioned argument structure alternation in ditransitive & causative
 - ☞ Pivot-licensing does not respect locality
 - ☞ The High Appl analysis for LV/CV affix is incompatible with the causative and ditransitive data.

- **Implications:** Puyuma, Amis, & Seediq do not exhibit syntactic/morphological ergativity despite ✓ a Pivot-only constraint in A'-extractions ✓ a typical Philippine-type voice system

- Cross-linguistic & diachronic implications:

The same case patterns in causative and ditransitive are found in 8 Philippine-type languages that belong to 7 out of 10 Austronesian primary branches, suggesting that (i) the same analysis may apply to these languages as well, and (ii) Pivot ≠ Absolutive may be the prototype of Philippine-type voice systems.

- (a) Productive causative: Puyuma, Paiwan, Bunun, Seediq, Amis, Tsou, Saisiyat, (Tagalog)
- (b) Ditransitive: Puyuma, Paiwan, Atayal, Seediq, Amis, Tsou

(cf. Chang A. 2006 [Paiwan]; Chang Y. 2011, 2014 [Tsou]; Zeitoun 2015 [Saisiyat]; Huang 2002 [Atayal]; Kuo 2015 [Puyuma/Amis/Seediq]; Zeitoun 2000 [Bunun]; Rackowski 2002 [Tagalog])

- **Main claims:**

- (i) The Philippine-type voice system in Puyuma, Amis, and Seediq is properly analyzed as *Accusative*
- (ii) Pivot-marking in these languages should be separated from Case
- (iii) A'-extraction asymmetry can be independent of syntactic ergativity

[Appendix I]

- **Remaining question:** “LV”-agreement vs. “CV”-agreement
 - The grey area: functional overlap between Formosan PV and LV
 - lexical gap between PV and L V ⇨ LV takes PV function and agrees with ACC-marked phrase
 - co-existing PV and LV forms ⇨ both agrees with ACC-marked phrase
 - On the other hand, the target of CV-agreement is always distinct from that of PV/LV
 - CV-agreement can agree the 2nd Accusative-marked phrase (Causative, Transported theme)
 - It can also agree with adjuncts (Instrument, Benefactor), but not Locative PP
- **Question:** why the agreement with Locative PP is designed by a distinct morphological form from that with other adjuncts?
- A tentative Pivot-selection hierarchy: AV > PV > LV > CV
(cf. The Accessibility Hierarchy: Subject > Direct object > Indirect object)

[Appendix II]

- Binding relation in LV/CV clauses with a Pivot-marked Locative Benefactor phrase
 - (i) A quantifier Theme can bind into a Pivot-marked pronominal Locative in LV in Amis (17a)
 - (ii) A quantifier Theme can bind into a Pivot-marked pronominal Benefactor in CV in Puyuma (17b)
- (17a) pi-cukin-an aku [tu paysu nu cimacima a wawa] [ku ticiw nangra]. [Amis]
 TR-deposit-LV ISG.ERG [OBL money POSS every LK child] [ABS bank.book 3PL.POSS]
 ‘I deposited every<i> child’s money to his<i> account.’ (✓ bound variable reading)
- (17b) ku=ayilr-anay [i tinataw] [kana manuden driya]. [Puyuma]
 ISG.ERG=take.care.of-CV [SG.ABS 3.POSS.mother][DF.OBL infant every]
 ‘I took care of every baby<i> for his <i> mother.’ (✓ bound variable reading)

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