What agrees, why and how? Austronesian-type voice and its variation beyond Austronesian[*]

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This talk . . .

– is about Austronesian-type voice (and the various debates associated with it)

– reconsiders the syntactic typology of Ā-agreement, in particular:

    ○ an understudied type of verbal morphology known as 'symmetrical voice'

– provides new evidence for the accusative view of Philippine-type languages

– reconsider the commonly assumed dichotomy of topic- vs. subject-prominence

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1 A- vs. Ā-agreement: overview

1.1 Two types of ϕ-agreement

○ As is well-known, the Agree relation between the ϕ-probe and its goal is commonly indicated by ϕ-feature agreement.

○ **Subject agreement.** Agree with the ϕ-probe on T is commonly indicated by ϕ-feature agreement with the goal. This morphology is known as *subject agreement* (Chomsky 2001; Miyagawa 2009):

(1)   a. Arabic

      Al-ʔawlaadu   qadim-**uu/*-a**.
      the-boys-3MP came-**3MP/*3MS**

      'The boys came.' (Bahloul & Harbert 1993:15)

   b. English
      John seem-**s/***$\varnothing$ to have drunk too much coffee.

○ **Object agreement.** Agree with the ϕ-probe on Voice/*v* may also trigger overt ϕ-feature agreement. This is known as *object agreement* (Chomsky 2000, 2001, Baker 2008, 2012).

○ Nahuatl (Uto-Aztecan), for example, employs ϕ-feature agreement with both subject and direct object (2):

(2)   Nahuatl

    Ni-k-te:moa   šo:čitl.
    1S.S-3S.O-seek flower

    'I seek a flower.' (Stiebels 1999:790)

⊗ But how are Ā-agree relations (i.e. Agree with an Ā-probe, such as [uTOP], [uREL], or [uFOC]) realized in narrow syntax?

○ Recent work has revealed two distinct strategies: ϕ-feature agreement (§1.1) and what is known as 'symmetrical voice' (§1.2).

1.2 Two types of Ā-agreement morphology

1.2.1 Type I morphology: ϕ-feature agreement

• Much recent work has reported that ϕ-feature agreement is not tied specifically to Agree with [uϕ]. Agree with an Ā-probe may also trigger ϕ-feature agreement (van Urk 2015; Ostrove 2018; D'Alessandro 2020; a.o.). For example:

(3) San Martin Peras Mixtec: ϕ-feature agreement indexing topic

    a. **Rà$_i$**-xá'antsya rà **Juan$_i$** chìkí.
       he-cut.PRES   he **Juan** tuna
       '*Juan* is cutting tunas.'   (subject topic)

    b. **Rì$_i$**-xá'antsya   rà Juan **chìkí**.
       it.AML-cut.PRES he Juan **tuna**
       'Juan is cutting *tunas*.' (Ostrove 2018:vii, viii)   (object topic)

(4) Gujarati: ϕ-feature agreement indexing focus

    a. **Shahrukh**   bakri   nho-**to**   laav-yo.
       Shahrukh.M.SG-NOM goat.F.SG NEG-**M.SG** bring-PFV.M.SG
       '*S*. did not bring a goat, but someone else did.'   (subject focus)

    b. Shahrukh   **bakri**-ne   nho-**ti**   laav-yo.
       Shahrukh.M.SG-NOM **goat.F.SG**-ACC NEG-**F.SG** bring-PFV.M.SG
       'S. did not bring *the goat* but something else.'   (object focus)
                                               (Joshi 2022:1)

    *Cases of ϕ-feature agreement triggered by *wh-* and REL-phrases also attested (e.g. Henderson 2006; van Urk 2015).

→ In both languages, ϕ-feature agreement targets an Ā-element, showing a key feature of *discourse configurationality* (É. Kiss 1995; see also Li & Thomspson 1976, Miyagawa 2010, 2017, and D'Alessandro 2020).

    (5) *Discourse configurational languages*

         In a topic-prominent language, the topic is, in a way, an alternative to the subject [in a subject-prominent language].   (É. Kiss. 1995:4)

This definition reflects a common assumption in the literature, that languages are either subject-prominent or topic-prominent in agreement morphology (6) (e.g. Li & Thompson 1976; É. Kiss 1995; Miyagawa 2010, 2017; D'Alessandro 2020; a.o.):

    (6) Two-way typology assumed in previous work

	Subject-prominent	Topic-prominent
Agree with [uϕ] realized in narrow syntax	✓	✗
Agree with [uTOP] realized in narrow syntax	✗	✓

○ Implicit assumption behind (7) ϕ-feature agreement in a given language is either A-oriented or Ā-oriented. This raises the underexplored question (7):

    (7) Are there languages where the Agree relations with [uϕ] and [uĀ] are both indexed in narrow syntax?

⊗ Such a design is not only logically possible but also attested in natural languages – although the type of agreement that manifests this design has received scant attention in the literature.

○ The group of languages that I argue manifests this pattern is western Austronesian languages known as the Philippine-type:

  ○ Consider the example below from Seediq (ISO 639-3 *trv*):

    (8) Seediq (Austronesian)

       Maha- ku$_k$-na$_j$ bbe-**un** [na   pawan]$_j$ [ka   yaku]$_k$.
       FUT- 1SG.TOP-3SG.SUBJ hit-**PV** [NOM Pawan] [PIVOT 1SG]
       'Pawan will hit *me*.' (Chang 1997:99)   (patient voice)

→ The affix (*-un*) on the verb – known in literature as the Patient Voice – indicates that the topic of the sentence is the direct object ('me').

→ Both the grammatical subject ('Pawan') and the object topic ('me') are cross-referenced by a person/number-indexing morpheme that matches the ϕ-features of the full DP:

     – *ku* for the first-person singular topic 'I'

     – *na* for the third-person singular subject 'Pawan'

→ Such morphemes are traditionally labeled as pronominal clitics in the literature, although their precise syntactic status has remained underexplored.

⊗ I will argue that these morphemes are agreement affixes – namely, ϕ-feature agreement with the topic and the subject.

→ Seediq demonstrates a typologically rare system where Agree with [uϕ] and [uTOP] are both spelled out as ϕ-feature agreement.

1.2.2   Type II morphology: 'symmetrical voice' tracking Ā-elements

- There's yet a second type of morphology that indexes Ā-agree relations. Descriptively, it inflects for the grammatical relations of certain Ā-elements (e.g. topic, focus, relativized phrase). In other words, it indexes the A-relation of Ā-elements.

  ▷ It is known as 'symmetrical voice' in the literature (e.g. Himmelmann 2002).

  ▷ Kurmuk and Abaza, for example, both exhibit this type of morphology
  (Anderson 2015:510; Arkadiev & Caponigro 2020:6,7):

(9)   a.   *Kurmuk (Nilotic)*

     ṭáarák ⁺bóor-**ú**   ɖɛɛl kà   ŋìir.
     person skin-PST.**SUBJ.T** goat PREP knife

     '*The man* skinned a goat with a knife.'   (subject topic)

   b.   ɖɛɛl bóor-úṭ-**ì**   ŋà   ṭáarák kà   ŋìir.
     goat skin-PST-**OBJ.T** NOM person PREP knife

     'The man skinned *the goat* with a knife.'   (object topic)

   c.   ŋìir bóor-úṭ-⁺**í**   ɖɛɛl ŋà   ṭáarák
     knife skin-PST-**OBL.T** goat NOM person

     'The man skinned a goat with *the knife*.'   (oblique topic)

(10)   *Abaza (Caucasian)*

   a.   [awaʔa **j**-ʕa-ta-χa-kʷa-z   ] abaza-kʷa
     [there   **REL.SUBJ**-CSL-LOC-remain-PL-PST.NFIN] Abaza-PL

     r-aḳʷa-ṗ
     3PL.IO-COP-NPST-DCL

     'Those who remain there are the Abaza'   (Subject RC (S))

   b.   [a-phʷəspa ĉa   lə-**z**-tə-**z**   ] a-č'ḳʷən
     [DEF-girl   apple 3SG.F.IO-**REL.NSUBJ**-give-PST.NFIN] DEF-boy

     'the boy who gave an apple to the girl'   (Non-subject RC (A))

   c.   [a-karbəʒ'-kʷa **ʔa**-də-r-baχ-wa-z   ]
     [DEF-brick-PL **REL.LOC**-3PL.ERG-CAUS-dry-IPF-PST.NFIN]

     a-baq̇
     DEF-shed

     'the shed where bricks are made'   (Locative RC)

- Shared traits of symmetrical voice (Type II morphology)

  ○ It's formally distinct from ϕ-feature agreement employed in the same language (if any) and may co-occur with it.

  ○ The exact types of grammatical relations distinguished by this morphology vary across languages.

  ○ In many languages, more than one type of Ā-operations (e.g. topicalization, relativization, *wh*-extraction) trigger this morphology.

⊗ I will argue that what is known as 'Philippine-type voice' is also an instance of Type II morphology.

   ○ For example, the Patient Voice affix (-*un*) in Seediq indicates that the grammatical relation of the topic is the direct object:

(11)   *Seediq (Austronesian)*

     Maha-ku$_k$-na$_j$ bbe-[un] [na   pawan]$_j$ [ka   yaku]$_k$.
     FUT-1SG.TOP-3SG.SUBJ hit-[PV] [NOM Pawan] [PIVOT 1SG]

     'Pawan will hit *me*.' (Chang 1997:99)   (patient voice)

⊗ A closer look at Philippine-type voice and its variation would thus enrich our understanding of the syntactic typology of Ā-agreement, in particular that of Type II morphology (symmetrical voice).

1.3   Goal of this talk

The key questions

1. What's the nature of symmetrical voice, which functions to index the A-relation of certain Ā-elements?

2. Are topic-prominence and subject-prominence a dichotomy? If not, how does symmetrical voice vary and evolve?

3. What type of case alignment is associated with the presence of symmetrical voice?

Main claims

1. Symmetrical voice is best viewed as the arbitrary spell-out of parallel chains (Chomsky 2005; Kandybowicz 2008, Kandybowicz & Torrence 2016; Aboh & Dyakonova 2009).

2. Topic- vs. subject-prominence is not a binary choice; however, the former tends to evolve into the latter over time.

3. Symmetrical voice is independent of case alignment. In the case of Philippine-type Austronesian languages, this morphology co-occurs with accusative case alignment (contra previous ergative views).

Roadmap

§2 Austronesian voice: facts and debates
§3 Two probes, one goal: AN-type voice as the spell-out of parallel chain
§4 Austronesian-type voice and its external variation
§5 Austronesian-type voice and its demise
§6 Conclusion and implication

∗   ∗   ∗   ∗   ∗   ∗   ∗   ∗

2 Austronesian-type voice: facts and debates

- Many western Austronesian languages display a typologically unusual voice system known as **Austronesian-type voice** or **Philippine-type voice**.

○ In these languages, the Ā-extraction constraint of a given clause is subject to the form of voice morphology:

(12) Tagalog relativization[1]

  a. Sino ang [_RC_ b**<um>**ili/*-in/*-an/*i- ng keyk]?
     who PIVOT [_RC_ buy**<AV>**/*PV/*LV/*CV ID.CM₂ cake]
     '*Who* is the one that bought cakes?'   (Actor Voice)

  b. Ano ang [_RC_ bi-bilih-**in**/*<um>/*-an/*i- ni AJ]?
     what PIVOT [_RC_ CONT-buy-PV/*AV/*LV/*CV PN.CM₁ AJ]
     '*What* is the thing that AJ will buy?'   (Patient Voice)

  c. Nasaan ang [_RC_ bi-bilih-**an**/*<um>/*-in/*i- ni AJ ng
     where PIVOT [_RC_ CONT-buy-LV/*AV/*PV/*C PN.CM₁ AJ ID.CM₂
     keyk]?
     cake]
     '*Where* will be the place where AJ bought cakes?' (Locative Voice)

  d. Sino ang [_RC_ **i**-bi-bili/*<um>/*-in/*-an ni AJ ng keyk]?
     who PIV [_RC_ CV-buy/*AV/*PV/*LV   PN.CM₁ AJ ID.CM₂ cake]
     '*Who* is the one that AJ will buy cakes *for*?' (Circumstantial Voice)

○ In simple transitives like (12):

  – Actor Voice (AV) is obligatory for **EA** extraction (12a).

  – Patient Voice (PV) is obligatory for **IA** extraction (12b).

  – Locative Voice (LV) is obligatory for **locative** extraction (12c).

  – Circumstantial Voice (CV) is obligatory for **benefactive** extraction.

    ▷ Extraction of other types of adjuncts (e.g. instrument, purpose) or DPs that are structurally low (e.g. theme in causatives, ditransitives, or controls) also take this affix (12d).

▷ The same set of verbal morphology is also obligatory in finite declaratives:

(13) Tagalog

  a. B**<um>**ili si AJ ng keyk mula kay Lia para
     buy**<AV>** PN.PIVOT AJ ID.CM₂ cake P₁ PN.CM₂ Lia P₂
     kay Joy.
     PN.CM₂ Joy
     '*AJ* bought cake from Lia for Joy.'   (AV)

  b. Bi-bilih-**in** ni AJ ang keyk mula kay Li para
     CONT-buy-**PV** PN.CM₁ AJ PIVOT cake P₁ PN.CM₂ Li P₂
     kay Joy.
     PN.CM₂ Joy
     'AJ will buy *cake* from Li for Joy.'   (PV)

c. Bi-bilih-an   ni   AJ ng   keyk si   Li para
CONT-buy-$\boxed{\text{LV}}$ PN.CM$_1$ AJ ID.CM1 cake PN.PIVOT Li P$_2$
kay   Joy.
PN.CM2 Joy

'AJ will buy cake from *Li* for Joy.'   (LV)

d. I-bi-bili   ni   AJ ng   keyk mula kay   Li
$\boxed{\text{CV}}$-CONT-buy PN.CM1 AJ ID.CM2 cake P$_1$ PN.CM2 Li
si   Joy.
PN.PIVOT Joy

'AJ will buy cake from Li for *Joy*.'   (CV)

▷ Analogous to the mapping seen in relativization (13),

    ▷ In **AV**, the **EA** is marked in a special marker labeled as 'pivot' (13a).

    ▷ In **PV**: the **IA** bears the marker (13b).

    ▷ In **LV**: the **locative** bears the marker (13c).

    ▷ In **CV**: the **benefactor** bears the marker (13d).

(14)   *Philippine-type alignment*

	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$_1$
benefactor	P$_2$	P$_2$	P$_2$	**Pivot**

(15)   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

    d. **P$_1$/P$_2$**: prepositions marking different types of adjuncts

(16)   *Key traits of Philippine-type voice*

    a. **Articulated verbal morphology**: Four-way affixal morphology alternates based on the choice of the pivot, including options for taking non-core phrases as pivots.

b. **A syntactically pivotal phrase**: In each finite CP, there must be one and only one phrase designated the pivot. Regardless of its grammatical relation or thematic role, the pivot bears a specific morphological marking and/or occupies a specific linear position.

c. **Status of nonpivot phrases**: Nonpivot phrases are not syntactically demoted and carry a fixed case-marking.

d. **Fluid extraction restriction**: Ā-extraction (relativization, including pseudo-clefting) is limited to the pivot phrase of a given clause.

e. **One-to-many mapping between voice and pivot selection**: the mapping between voice choice and pivot designation reflects a mechanism sensitive to both the relative structural height of the pivot compared to other DPs in the clause (see §3 for details).

- ***The well-known debate:*** How does voice alternation (14a–d) enable pivot-marking to fall on various types of core arguments and adjunct-like phrases?

⊗ The core questions

    ▷ What does pivot-marking realize?
    ▷ What's the nature of the four-way morphology (AV/PV/LV/CV)?
   ▷ What gives rise to the fluid constraint in Ā-extraction (12)?

(17)   Geographical distribution of Philippine-type voice
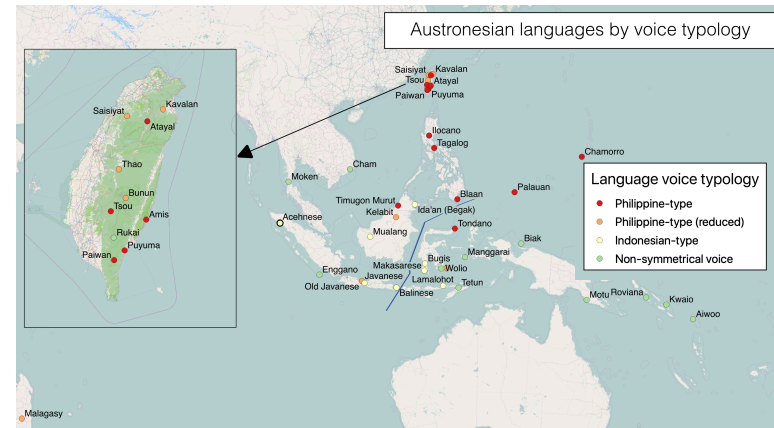
2.1 The A-approach to Philippine-type voice (ergative view)

- 'Pivot' marks absolutive case from T, available to the highest DP (Payne 1982; Mithun 1994; Aldridge 2004, 2012, 2017 et seq.)

  ○ The 'pivot-only' constraint in Ā-extraction is an absolutive-only restriction.

  ○ 'Philippine-type alignment' manifests syntactic ergativity.

  ○ Voice is valency-indicating morphology hosted within VoiceP.

    – AV affix: intransitive voice head (no EPP feature)

    – PV affix: transitive voice head with an EPP feature (driving object shift)

    – LV/CV affix: high applicative head (co-occurring with a null transitive voice head with an EPP feature)

(18) *Voice alternation as argument structure alternation*

   a. AV   b. PV   c. LV/CV
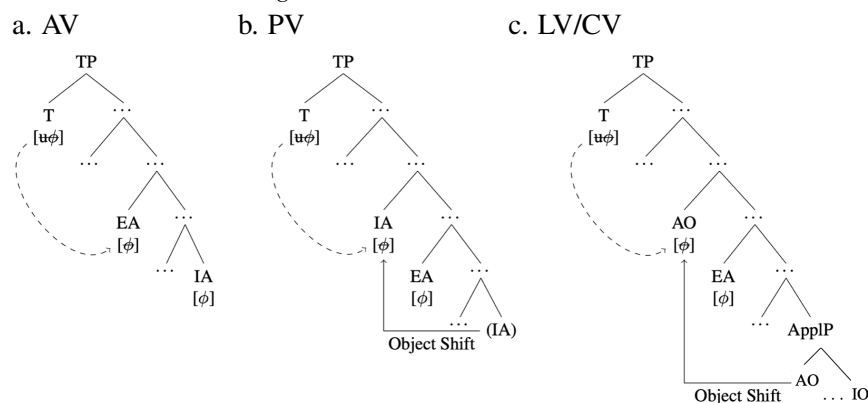
  ○ Voice indexes <u>argument structure alternation</u>, enabling different phrases to render the highest DP:

    → In AV (18a), the highest DP (often the EA) checks ABS case with T.

    → In PV (18b), the theme undergoes object shift and raises across the EA, rendering the highest DP.

    → In LV and CV (18c), an applied object (e.g. locative, locative, benefactive) undergoes object shift and renders the highest DP.

- **Claim**: All nonpivot phrases bear <u>nonstructural case</u>:

  CM$_1$: inherent ergative case from transitive Voice/v;

  CM$_2$: lexical oblique case from V (Aldridge 2004, 2012, 2017; Chang 2011, 2013)

(19) The ergative view of Philippine-type alignment

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

2.2 The Ā-approach to Philippine-type voice (accusative view)

- 'Pivot' is a topic marker that marks the internal topic (obligatory in finite clauses) in an ordinary accusative case system (Richards 2000; Pearson 2001, 2005; Rackowski 2002; Rackowski & Richards 2005; Chen 2017).

  ○ **Assumption**: This marker overrides case (20), similar to topic marking in Japanese and Korean.

(20) *The Ā-approach to Philippine-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**

⊗ Voice alternation indexes <u>topicalization</u>.

  ○ The licensing of pivot-marking is subject to *Relativized Minimality* (RM) (Rizzi 1990 et seq; Starke 2001; van Urk 2015):

   (21) A probing feature F must Agree with the closest XP that bears F.

    ▷ Namely, Agree ignores all XPs that do not carry an instance of the probing feature (Chomsky 2001).

  ○ Given RM, a topic need not render the highest DP to agree with [uTOP], and it can either be a DP or a PP.

▷ This is similar to *wh*-agreement: a *wh*-probe will target the closest XP with a *wh*-feature (which may be an adjunct), skipping all intervening DPs without a *wh*-feature.

(22)   Wh-agreement need not targets the highest DP

$$[uWh] \quad \ldots$$
$$\ldots \quad \ldots$$
$$DP_1 \quad \ldots$$
$$\ldots \quad DP_2$$
$$[Wh]$$
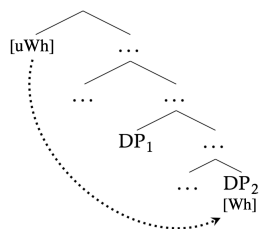
▷ **Consensus among this family of analyses**: Philippine-type voice is hosted high in the C domain, indicating the Agree relation with [uTOP].

▷ **Does voice track the case of the pivot?**: Previous topic approaches to Philippine-type languages commonly assume that voice morphology inflects for the case status of the topic (Rackowski & Richards 2005; Pearson 2005).

(23)   *Ā-approach to Malagasy voice (Pearson 2005:401)*

   a.   AV affix: realization of nominative case feature of the Op

   b.   PV affix: realization of accusative case feature of the Op

   c.   CV affix: realization of applicative morpheme that introduces an applied object

○ However, new comparative evidence indicates that Philippine-type voice does not track case.

○ A revised analysis to be presented in §3.3.

⊗ **Outstanding questions**: what does the four-way morphology realize?; how does this approach account for the 'pivot-only' constraint in relativization?

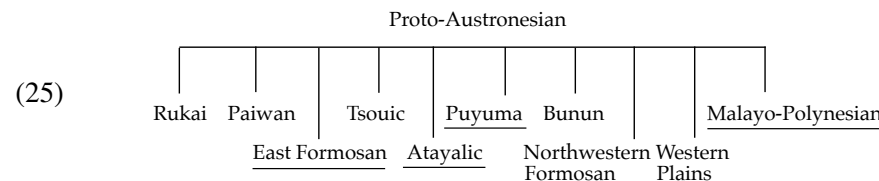*   *   *   *   *   *   *   *

3   Two probes, one goal: Austronesian-type voice as the spell-out of parallel chain in an accusative system

(24)   *The competing analyses: the A- vs. Ā-view of Philippine-type voice*

	a. A-approach to PPT voice	b. Ā-approach to voice
Case alignment	ergative-absolutive	nominative-accusative
Locus of voice	within VoiceP	C domain
Nature of voice	Voice / applicative head	Agreement morphology
Pivot-marking	absolutive case from T	topic-marking
CM$_1$	inherent ergative case from tran. Voice	nominative case from T
CM$_2$	lexical oblique case from V	accusative case from Voice
'Pivot-only' restriction	absolutive-only	topic-only

○ New data from four languages: Puyuma (*iso* 639-3 *pyu*), Amis (*iso* 639-3 *ami*), Seediq (*iso* 639-3 *trv*), Tagalog; each belongs to a distinct Austronesian higher-order branch.

(25)

Proto-Austronesian

Rukai   Paiwan   Tsouic   Puyuma   Bunun   Malayo-Polynesian

East Formosan   Atayalic   Northwestern Formosan   Western Plains

▷ An examination of the distribution of CM$_1$, CM$_2$, and pivot-marking in understudied constructions lends novel support to the accusative view.

3.1   New evidence for the Ā (accusative) approach to Philippine-type voice (and against the ergative view)

3.1.1   Evidence for CM$_2$ as accusative (and against the oblique case view)

• Philippine-type Actor Voice clauses contains a CM$_2$-marked theme.

(26)   *Amis*

Mi-lawup kaku   **ci-Sawmah-an**   inacila.
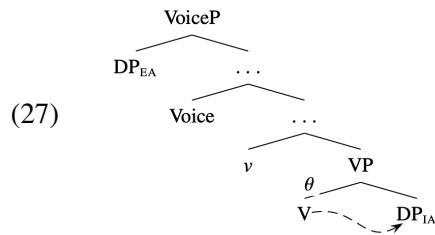AV-chase 1SG.PIVOT **PN-Sawmah-CM$_2$** yesterday

'I chased *Sawmah* yesterday.'   (Actor Voice)

▷ **Ergative approach:** this is an antipassive with a non-structurally case-licensed antipassive object ($\Rightarrow$ CM_2 = lexical oblique case from V).
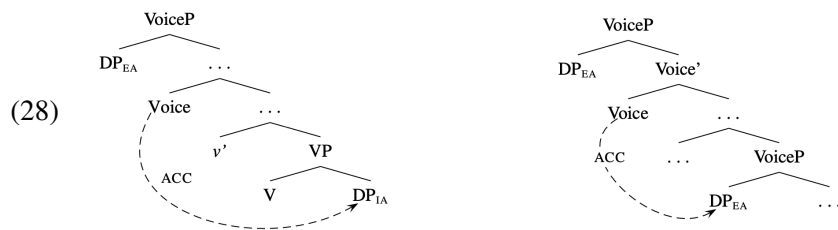
▷ **Accusative approach:** this is a true transitive with an accusative object ($\Rightarrow$ CM_2 = accusative case from Voice).

$\otimes$ Accusative and oblique case can be distinguished in three environments.

▷ Oblique case is licensed in Head-Comp relation along with θ-assignment

(27)

```
            VoiceP
           /      \
        DP_EA     . . .
                 /    \
              Voice    . . .
                      /    \
                     v      VP
                      θ    /  \
                     V - - -  DP_IA
```

▷ Accusative case may be licensed either via Head-Comp relation or via Head-Spec relation across the VoiceP boundary, i.e. ECM-licensing:

(28)

```
          VoiceP                              VoiceP
         /      \                            /      \
      DP_EA     . . .                     DP_EA    Voice'
             /    \                              /       \
          Voice    . . .                      Voice      . . .
          /       /   \                       /   \        \
       v'       VP                          ACC   . . .    VoiceP
       /        /  \                                      /      \
     ACC       V   DP_IA                               DP_EA     . . .
```

▷ **Environment 1:** CM_2 occurs on ECM subjects in productive causatives, demonstrating a case of Head-Spec licensing across VoiceP boundary:

(29) *Amis*

∅-pa-pi-lawup   kaku   **ci-Sawmah-an**   ci-Panay-an.
AV-CAUS-PI-chase 1SG.PIVOT **PN-Sawmah-CM₂**   PN-Panay-CM₂

'I made *Sawmah* chase Panay.'   (AV-marked causative)

→ The construction is a biclausal causative, containing two active, independent VoicePs.

→ The CM_2-marked causee c-commands the theme and behaves like an agentive EA.

→ The causee shows the hallmarks of an ECM subject, located in a structural position (Spec of embedded VoiceP), where only structural accusative (and not lexical oblique case) is available.

$\Rightarrow$ CM_2 shows the hallmark of structural accusative

▷ **Environment 2:** CM_2 also appears on derived objects in raising-to-object constructions, where lexical oblique case should be unavailable.

(30) *Amis*

a. **Ma**-fana' kaku   [∅ mi-sakilif **ci-Sawmah**
   AV-know 1SG.PIVOT [C AV-lie   **SG.PIVOT-Sawmah**
   ci-Kulas-an   ].
   PN-Kulas-CM₂]
   'I know that Sawmah lied to Kulas.'

b. **Ma**-fana' kaku   **ci-Sawmah-an$_i$** [∅ mi-sakilif *(e.c.)$_i$*
   AV-know 1SG.PIVOT **PN-Sawmah-CM₂** [C AV-lie   *(e.c.)$_i$*
   ci-Kulas-an   ].
   PN-Kulas-CM₂]
   'I know that *Sawmah* lied to Kulas.'   (CM₂ on derived objects)

→ Across Philippine-type Austronesian languages, 'raising' in RTO like the above is optional.

→ The dislocated phrase (XP) in this construction shows no case connectivity.

→ Matrix-dependent case marking: the XP must carry CM_2-marking when the matrix verb is in AV.

→ Infelicitous to assume the derived object in RTO (either base-generated or derived via Ā-movement) to be θ-licensed by the matrix verb.

$\Rightarrow$ CM_2 shows one other hallmark of structural accusative case

*   *   *   *   *   *   *   *

▷ **Environment 3:** CM_2 is obligatorily absent in <u>restructuring infinitives</u>

(31) *Amis*

Tanam-**en** aku   [$_{RI}$ **mi**-tangtang { **k-una** / ***t-una**   }
try-**PV**   1SG.CM_1 [$_{RI}$ **AV**-cook   { **PIVOT-that** / ***CM_2-that** }
titi   ].
pork]

'I will try to cook that pork.'

→ Within a restructuring infinitive (RI), the verb must bear AV-marking.

→ Despite the local verb in AV-marking, the embedded theme must carry pivot-marking where the matrix clause is in PV (31).

⇒ The local AV-marked verb is incapable of CM_2-licensing.

⇒ CM_2 must not be lexical oblique case, which is available in the RI

⇒ Its absence follows from the accusative case analysis.

▷ Defective Voice incapable of accusative-licensing (Wurmbrand 2001 et seq.).

▷ Same distribution of CM_2 in 19 other Philippine-type languages.

*   *   *   *   *   *   *

⊗ **Conclusion:** CM_2 marks accusative (and not oblique) case; AV clauses are true transitives.

→ The baseline assumption of the ergative view – that the AV and the PV are distinguished by transitivity – cannot be maintained.

3.1.2 Evidence for CM_1 as nominative (and against the ergative view)

- Philippine-type Patient Voice clauses contains a CM_1-marked EA:
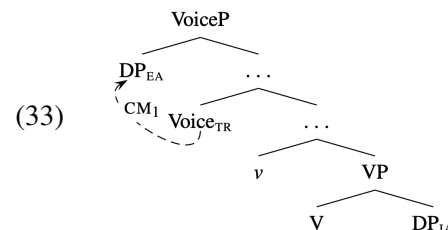
(32) *Tagalog*

K<in>urot   **ni**   **AJ** si   Lily.
pinch<PV.PRF> **PN.CM_1 AJ** PN.PIVOT Lily

'AJ pinched Lily'.   (Patient Voice)

▷ **Ergative approach:** the construction is an ergative-aligned transitive; the EA is licensed with inherent ergative case from transitive Voice (CM_1 as inherent ergative case):

(33)

▷ **Accusative approach:** this is a transitive clause with a nominative EA (CM_1 as nominative).

⊗ CM_2 shows two hallmarks of nominative case.

▷ **Trait 1:** <u>CM_1 is not restricted to EA positions</u>

○ Unaccusative themes are accessible to CM_1, as are EAs in unergatives/-transitives:

(34) *Tagalog*

a. Ni-lakar-an   **ni**   **Ivan** ang   daan.
    PRF-walk-LV **PN.CM_1 Ivan** PIVOT road
    'Ivan walked on the road.'   (CM_1 on unergative agent)

b. H<in>ulug-an **ni**   **Ivan** ang   swimming pool.
    fall<PRF>LV   **PN.CM_1 Ivan** PIVOT swimming pool
    'Ivan fell into the swimming pool.'   (CM_1 on unacc. theme)

(35) *Seediq*

a. P-puyas-an **na** **laqi** ka   sapah=mu.
    IRR-sing-LV **CM_1 child** PIVOT house-1SG.POSS
    'The children will sing in my house.'   (CM_1 on unerg. agent)

b. H-huqil-an **na**   **riso**   **nii** ka   Paran.
    IRR-die-LV **PN.CM_1 young.man this** PIVOT Paran
    'This young man will die in Paran.'   (CM_1 on unacc. theme)

▷ **Trait 2:** CM$_1$ is unique per CP and restricted to the highest DP

   ○ CM$_1$ is unique per CP and restricted to the highest DP (36); unlike ergative case in various languages, which may appear on multiple agentive arguments within the same clause (37):

(36)   *Ergative case on multiple agents within the same clause*

   a. *Trumai (Isolate)*

     Alaweru-k   hai-ts   axos-∅   disi-ka.
     Alaweru-ERG 1sg-ERG child-ABS hit-CAUS

     'Alaweru made *me* hit the child.' (Guirardello 1999:302)

   b. *Macushi (Cariban)*

     Imakuiˈpî kupî jesus-ya   emapuˈtî yonpa-ˈpî makiu-ya   teuren.
     bad   do   Jesus-ERG CAUS   try-PST   Satan-ERG frust

     'S unsuccessfully tried to make *J* do bad.' (Abbott 1991:40)

(37)   CM$_1$ *as unique per clause and restricted to the highest DP*

   a. *Amis*

     Sa-pa-pi-nengneng aku   tu/*nu   ising k-una   pusi.
     CV-CAUS-PI-see   1SG.CM$_1$ ACC/*CM$_1$ doctor PIVOT-that cat

     'I will ask *the doctor* to look at the cat.'

   b. *Seediq*

     S-p-tinun=mu   ∅/*na   robo ka   lukus.
     CV-CAUS-weave=1SG.CM$_1$ ACC/*CM$_1$ Robo PIVOT clothes

     'I asked *Robo* to sew the clothes.'

   c. *Tagalog*

     I-p<in>a-nakaw=ko   kay/*ni   AJ ang kotse.
     CV-CAU<PRF>-steal=1SG.CM$_1$ PN.ACC/*PN.CM$_1$ AJ PIV car

     'I asked *AJ* to steal the car.'

⇒ This locality-sensitive distribution argues against the inherent ergative case view of CM$_1$, but follows from a nominative analysis.

   ○ Same distribution found across Philippine-type langauges (Chen 2017).

3.1.3 'Pivot' as a marker independent of case

▷ The observation so far: CM$_1$ and CM$_2$ marks nominative and accusative case, respectively.

(38)   *Philippine-type alignment*

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

▷ Given that CM$_1$ marks the nominative, 'pivot' should not realize the same case (i.e. structural case from T or a certain head).

   ▷ This calls into question the traditional view that 'pivot' is a subject marker, realizing ABS/NOM case assigned to a derived A-position.

⊗ Productive causatives provide an ideal testing ground for examining the absolutive case view of pivot-marking.

(39)   *Productive causatives: mapping between voice and case*

	a. AV	b. PV	c. CV
Causer	**Pivot**	NOM	NOM
Causee	ACC	**Pivot**	ACC
Theme	ACC	ACC	**Pivot**

▷ The constructions are morphologically identical except voice-marking.

▷ If 'pivot' marks the absolutive, there should be <u>argument structure alternation</u> between PV- and CV-marked causatives, so that 'pivot' marking skips the causee and mark the theme (alleged applied object).

⊗ Binding facts reveal that the alleged argument structure alternation is absent.

● The causee asymmetrically binds the theme regardless of voice (40)–(41):

⇒ Theme pivot bound by an agentive, accusative-marked causee (41)

⇒ The licensing of pivot-marking does not respect locality.

(40) *Tagalog*

    a. [I]-p<in>a-li-linis=ko   kay   juan **ang**
        [CV]-CAUS<PRF>RED-clean=1SG.NOM PN.ACC Juan **CN.PIVOT**
        kanya-ng sarili.
        3SG-POSS REFL

        'I asked Juan$_i$ to clean *himself$_i$*.'

    b. P[<in>]a-pa-ligo=ko   si   AJ **ng**
        CAUS<[PV].PRF>-RED-bathe=1SG.NOM PN.PIVOT AJ **ID.ACC**
        sarili niya.
        REFL 3SG

        'I am making *AJ* bathe himself.'

(41) *Puyuma*

    a. Ku=pa-saletra'-[**anay**]   kan   sawagu **tayta'aw**.
        1SG.NOM=CAUS-slap-[**CV**] SG.ACC Sawagu **3SG.REFL.PIVOT**

        'I asked Sawagu$_i$ to slap *himself$_i$*.'

    b. Puyuma

        Ku=pa-saletra'-[**aw**]   i   sawagu **kanta'aw**.
        1SG.NOM=CAUS-slap-[**PV**] SG.PIVOT Sawagu **3SG.REFL.ACC**

        'I asked *Sawagu* to slap himself.'

→ The invariable binding pattern unaffected by voice alternation indicates that pivot is a marker independent of case.

   → 'Pivot' does not mark absolutive, and is likely to be a marker for a certain information structure status (e.g. topic).

3.2 Evidence for Philippine-type voice as topic-indicating agreement morphology hosted in the C domain

3.2.1 Voice behaves like agreement morphology

▷ Voice morphology obligatorily appears on the highest verbal head per CP.

▷ All the rest of the verbal heads carry default (DEF) voice marking.

(42) *Puyuma*

    a. Ku=beray-ay   na   walak kana   bu'ir.
        1S.NOM=[give-LV] DEF.PIVOT child DEF.ACC taro

        'I *gave* the child the taro.'

    b. Ku=talam-ay   ∅-beray na   walak kana   bu'ir.
        1S.NOM=[try-LV] [DEF]-give DEF.PIVOT child DEF.ACC taro

        'I *tried* to give the child the taro.'

    c. Ku=trakatrakaw-ay t<em>alam ∅-beray na   walak
        1S.NOM=[secretly-LV] [DEF]-try   [DEF]-give DEF.PIVOT child
        kana   bu'ir.
        DEF.ACC taro

        'I *secretly* tried to give the child the taro.'

▷ **What does this constraint tell us?**

   ▷ Austronesian-type voice is not valency-indicating affixes hosted within individual VoiceP.

3.2.2 The locus of voice is high

▷ Voice morphology is hosted *higher* than Aspect

○ Voice affixes insert into aspect morphology rather than the verbal stem:

(43) a. *Puyuma*

        D<em>a-deru   i   Atrung dra   patraka.
        [<AV>PROG]-cook PN.PIVOT Atrung ID.ACC meat

        'Atrung is cooking meat.'   (AV)

    b. *Paiwan (Chang 2006)*

        S<em>iu-siup   ti   Zepul nu   S<em>iaw.
        [<AV>HAB]-suck PN.PIVOT Zepul IRR.TEMP <AV>soup

        'Zepul sucks (it) when she eats soup.'   (AV)

○ Assuming the Mirror Principle (Baker 1985; Harley 2013) holds, this indicates Austronesian-type voice is hosted in a projection *higher* than Aspect.

▷ Since Philippine-type languages are tenseless languages, this insertion fact suggests that voice is hosted high in the left periphery.

Voice morphology inflects for mood

(44) *Puyuma*

    a. Ku=beray-ay   i   Senten dra   paysu.
      1S.NOM=give-LV.IND PN.PIVOT Senten ID.ACC money
      'I gave *Senten* money.'   (LV indicative)

    b. Beray-i   i   Senten dra   paysu!
      give=LV.IMP PN.PIVOT ID.ACC money
      '(You) give *Senten* money!'   (LV imperative)

▷ Mood is standardly assumed to be hosted in the C domain (e.g. Rivero & Terzi 1995; Han 2001; Noonan 2007), suggesting voice is hosted high.

3.2.3 Philippine-type voice as topic-indicating morphology

● Old insight in the literature: Pivots behave like *topics* (see, e.g., Shibatani (1998), Richards (2000), Pearson (2001, 2005), Rackowski (2002), Erlewine (2014), Chen (2017), Paul & Massam (2020); a.o.).

⊗ Evidence from discourse: in question-answer sequences with a clear discourse topic, the topic must be placed as pivot in the answer.

(45) *Puyuma*

    a. Makakuta   i   Pilay uninan?
      AV.what.happen PN.PIVOT Pilay today
      'What did *Pilay* do today?'   (⇒ Discourse topic: Pilay)

    b. D<em>eru (pro)   dra   abay.
      <AV>cook (3SG.PIVOT) ID.ACC rice.ball
      '*She* cooked rice balls'.   (✓ topic: pivot-marked)

    c. *Tu=deru-aw   na   abay.
      3.NOM=cook-PV DEF.PIVOT rice.ball
      (intended: 'She cooked *rice balls*).'   (7 topic: not pivot-marked)

(46) *Tagalog: four ways to answer (46a)*

    a. Na saan ang kutsara ni   Lia?
      NA where PIVOT spoon PN.POSS Lia
      'Where is *Lia's spoon*?'   (⇒ Discourse topic: Lia's spoon)

      =   =   =   =   =   =   =   =   =   =   =   =

    b. Gamit ni   Lia (ang kutsara).
      use.PV PN.NOM Lia (PIVOT spoon)
      'Lia is using *(it/the spoon)*.   (⇒ topic: theme pivot)

    c. I-p<in>ang-ka-kain   ni   AJ (ang kutsara).
      CV-PANG<PRF>-RED-eat PN.NOM AJ (PIVOT spoon)
      'AJ is eating with *(it/the spoon)*'   (⇒ topic: instrument pivot)

    d. Na-kita=ko=[ng   k<in>uha   ni   Ivan (ang
      PRF.PV-see=1SG.NOM=[LK steal<PV.PRF> PN.NOM Ivan (PIVOT
      kutsara)].
      spoon)]
      'I saw that Ivan stole *(it/the spoon)*.   (⇒ topic: embedded pivot)

    e. Na kay Peter (ang kutsara).
      NA with Peter (PIVOT spoon)
      '*The spoon* is with Peter.'   (⇒ topic: existential pivot)

      *   *   *   *   *   *   *

3.3 Proposal: symmetrical voice as the spell-out of parallel chain

(47) *Main claim: 'Philippine-type alignment' is an illusion*

    a. It is the outcome of prominent topic-marking overriding case

    b. Philippine-type voice is Type II morphology that indexes the A-relation of topics and REL-phrases.

▷ **The design of Philippine-type languages**

(a) **[uφ] on T**, probing the highest DP (i.e. subject).

(b) **[uφ] on matrix Voice**, probing the closest DP (i.e. DO).

(c) **A specific type of P** that selects only locative phrases.

(d) **[uĀ] on C**: a flat Ā-probe that can be satisfied by either [TOP] or [REL], sat on a head distinct from T, labelled as C for simplicity.

(e) **Parallel chains are spelled out**: where any of the two probes form a parallel chain, that chain is spelled out as verbal morphology.

▷ **Proposal:** Where a phrase is probed simultaneously by [uĀ] and by (a), (b), or (c), the parallel chain is spelled out as a voice affix.

(48) *Parallel chain formation*

Two chains α and β are related by parallel chain formation iff:

i. Tail (α) = Tail (β), and

ii. Head $(\alpha) \neq$ Head (β) (Kandybowicz 2008:115)

▷ Namely, when a topic/REL-phrase agrees also with [uφ] (either on T or Voice), the parallel chain is spelled out as voice morphology.

▷ Each combination below is spelled out as a specific verbal affix:

AV	spell-out of the parallel chain formed by (a) and (d)
PV	spell-out of the parallel chain formed by (b) and (d)
LV	spell-out of the parallel chain formed by (c) and (d)
CV	spell-out of the Agree relation with (d)

↪ Voice indexes the parallel chains formed by (abstract) **topic agreement** and (a) **subject agreement**, (b) **object agreement**, (c) **locative agreement**, or (d) **nothing else**, respectively.

⊗ **The big picture**
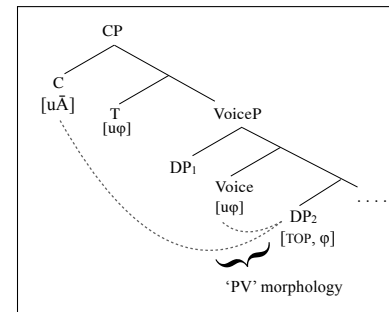
– "AV" occurs when the pivot is the highest DP per CP

– "PV" occurs when the pivot is the 2nd highest DP

– "LV" occurs when the pivot is a locative phrase

– "CV" occurs when the pivot is something else (e.g. low DPs, adjuncts)
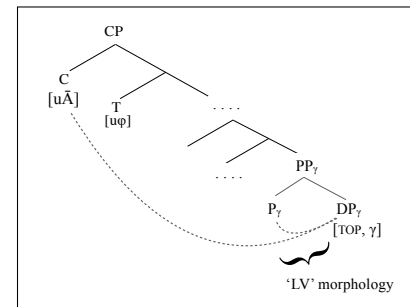
(49) *AV: When the topic is also the subject*
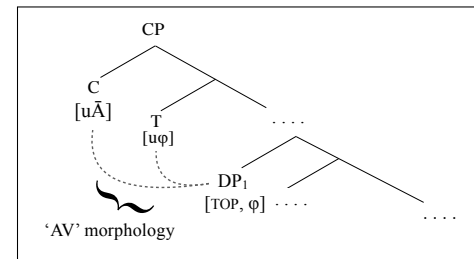
(50) *PV: When the topic is also the DO (2nd highest DP per CP)*

(51) *LV: When the topic is also the locative*

(52)   A VOICE HIERARCHY

    a. AV > PV > CV

    b. LV is thematic-role oriented (temporal/locative-specific)

(53)   Mapping between voice and pivot selection

	AV	PV	LV	CV
Unergatives	external argument	*	locative phrase	non-locative adjuncts
Unaccusatives	internal argument	*	locative phrase	non-locative adjuncts
Transitives	external argument	internal argument	locative phrase	non-locative adjuncts
Productive causatives	causer	causee	locative phrase	theme
Ditransitives	external argument	recipient	goal	theme
Control constructions	controler	controllee	n/a	theme
SVC	external argument	internal argument	locative phrase	non-locative adjunct
Generalization	pivot as subject	pivot as DO	pivot as locative	pivot as anything else

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⊗ **Key generalizations**

▷ Voice does not inflect for case (contra Rackowski & Richards 2005).

    → Accusative-marked themes may trigger either PV or CV morphology, depending on its relative structural height.

    → There's counter-evidence for triggers of LV and CV as always involving applicativization (contra Rackowski & Richards 2005).

▷ Voice-marking does *not* change the argument structure of a clause.

▷ Instead, it indicates the *relative structural height* of the pivot/topic with other phrases in the same clause.

3.3.1   Actor Voice

⊗ "AV" morphology patterns with <u>abstract subject agreement</u> in distribution

⊗ Possible triggers of AV are the highest DP per clause, including:

- EAs in unergatives, transitives, ditransitives, causatives, and controls
- IAs in unaccusatives and detransitives

(54)   *Puyuma*

    a. M-uarak na walak i arasip.
       AV-dance DEF.PIVOT child LOC Arasip
       'Atrung danced in Arasip.'   (AV unergative)

    b. M-ekan na bangsaran dra patraka.
       AV-eat DEF.PIVOT young.man ID.ACC meat
       'The young man ate some meat.'   (AV transitive)

    c. M-u-ekan na patraka.
       AV-DETR-eat DEF.PIVOT meat
       'The meat was eaten up.'   (AV detransitive)

    d. M<in>atray na bangsaran.
       AV<PRF>   DEF.PIVOT young.man
       'That young man died.'   (AV unaccusative)

⊗ **Proposal**: "AV" affix is the spell-out of the parallel chain formed by **the Agree relation with [uĀ]** and that with **[uφ] on T**

(55)   *AV: When the subject is also the topic*

▷ **Consistent with the facts above . . .**

▷ Intransitives of any type can be marked in AV.

▷ Embedded EAs (e.g. causees, controllees) cannot trigger AV agreement (as they are not the highest DP per CP) (see §3.1.3).
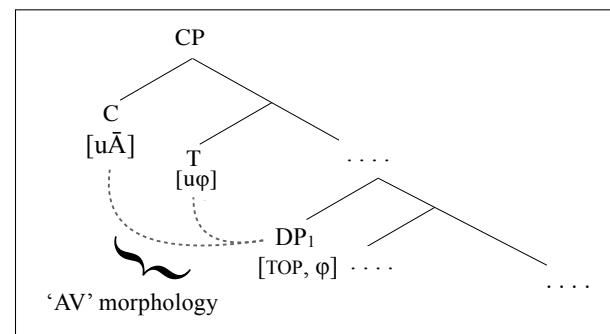
3.3.2   Patient Voice

⊗ "PV" morphology patterns with <u>abstract object agreement</u> in distribution

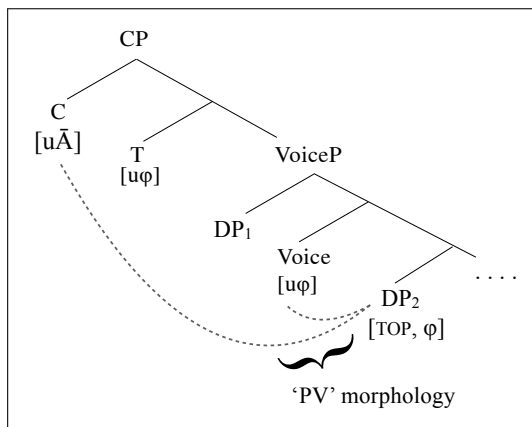⊗ Possible triggers of PV are the 2nd highest DP per clause, including:

- **IAs** in simple transitives (56a)
- **Causees** (56b), **controllee**, **recipients in DOCs** (56c)
- **But not**: themes in causatives/DOCs/controls (lower DPs)

(56)   *Amis*

    a. Tangtang-en ni   Lisin k-u   titi.
       cook-PV   PN.NOM Lisin PIVOT-that pork
       'Lisin will cook *that pork*.'   (PV transitive)

    b. Pa-pi-takaw-en   aku   k-una   wawa t-una   paysu.
       CAUS-PI-steal-PV 1SG.NOM PIVOT-that child ACC-that money
       'I will ask *that child* to steal that money.'   (PV causative)

    c. Pafeli-en aku   k-una   wawa t-una   paysu.
       give-PV 1SG.NOM PIVOT-that child ACC-that money
       'I gave *the child* that money.'   (PV ditransitive)

⊗ **Proposal:** "PV" affix is the spell-out of the parallel chain formed by **the Agree relation with [uĀ]** and that with **[uφ] on matrix Voice**

(57)   *PV: When the DO is also the topic*

3.3.3   Locative Voice

⊗ "LV" morphology is linked specifically to <u>temporal/locative pivots</u>.

⊗ Possible triggers of LV are restricted to locative phrases, including:

- Locative adjuncts in any constructions (59a–b)
- Sources/goals in prepositional datives (59d)

(59)   *Paiwan (Ferrell 1969:202; Chang 2006:195, 74)*

    a. Qalup-an nua   caucau tua   vavuy a   gadu.
       hunt-LV   NOM man   ACC pig   PIVOT mountain
       'The man hunts while pigs in *the mountains*'   (LV transitive)

▷ **Key evidence**

  ○ Intransitives cannot be marked in PV (since they have no *objects*).

  ○ (Abstract) object agreement is also assumed to be **unique per clause** and target only the **2nd highest DP** – i.e. highest DP below matrix Voice – and not any other co-occurring objects (Baker 2012; Deal 2019), e.g.:

    (58)   *Amharic object agreement*

      a. *Ditransitive*
         Ləmma l-Almaz   məs'əhaf-u-n   sət't'-at.
         Lemma DAT-Almaz book-DEF-ACC give-(3MS)-3FO
         'Lemma gave the book to *Almaz*.' (Baker 2012:258)

      b. *Productive causative*
         Aster was-a-n   as-metaitʃ-ññ.
         Aster ball-DEF.ACC CAUS-hit-3FEM.S-1SG.O
         'Aster made *me* kick the ball.' (Duncan & Aberra 2009)

→ In DOC, object agreement probes the **recipient** and not the theme.

→ In causatives, object agreement probes the **causee** and not the theme.

b. P<in>a-pana'-an a icu a i maza ni palang
CAU<PRF>-shoot-LV PIVOT this LK LOC here PN.NOM Palang

tay kui ta zua venan.
PN.ACC Kui ACC that deer

'Palang made Kui shoot that deer *here*.'   (LV causative)

c. '<in>aLap-an ti zepul ta za paysu ni lavakaw.
<PRF>take-LV PN.PIVOT Zepul ACC that money NOM Lavakaw

'Lavakaw took money from *Zepul*.'   (LV ditransitive)

⊗ **Proposal:** "LV" affix is the spell-out of the parallel chain formed by **the Agree relation with [uĀ]** and that with **P_{LOC}** (60).

    ○ **Supporting evidence**: Locative phrases in various Philippine-type languages are marked with a specific preposition *i* that does not mark other types of adjuncts.

(60)   *LV: When the locative is also the topic*
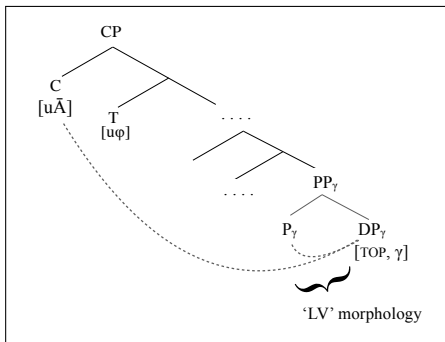
'LV' morphology

3.3.4 Circumstantial Voice

⊗ "CV" morphology does not pattern with any type of A-agreement in distribution.

⊗ Possible triggers of CV are low DP or non-locative adjuncts, including:

- DPs that are structurally low (61a–c)
- Non-locative adjuncts (61d–f)

⇒ "CV" functions like a last resort voice that shows one-to-many relation with various types of adjunct.

(61)   *Paiwan*

a. Si-qihul=si' hiya' 'i' ∅-pa-patas ku' ruas.
CV-force=2SG.NOM 3SG.ACC LK AV-CAUS-write PIVOT book

'You forced him to read *the book*.'   (CV controls)

b. Ku=s<in>i-pa-'alup tay palang a icu a
1SG.NOM=CV<PRF>-CAUS-hunt ACC Palang PIVOT this LK

vavuy.
boar

'I made Palang hunt *this wild pig*.'   (CV causatives)

c. 'u-s<in>i-vaik a q<em>aljup ta vavuy ti Kapi.
1S.NOM-CV-PRF-GO LK <AV> ACC wild.pig PIVOT Kapi

'I went hunting wild pigs with *Kapi*.'   (CV SVCs)

d. 'u-s<in>i-patagilj=anga=sun a s<em>apay ta
1SG.NOM-CV-PRF-begin=COS=2S.PIVOT LK <AV>cultivate ACC

kaitang.
field

'I have started to cultivate the field for *you*.'   (CV transitives)

⊗ **Proposal**: "CV" as the last resort voice: it's the spell-out of **the Agree relation with [uĀ]** (when the goal agrees with no other probe).

(62)   *CV: When the topic is none of the above*

'CV' morphology
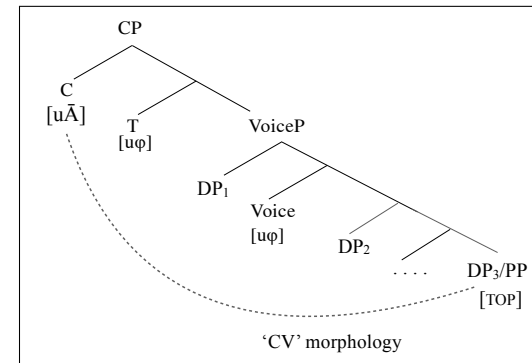
3.4 Interim conclusion

⊗ Austronesian-type voice is the spell-out of parallel chains that track the Agree relations probing topics and REL-phrases.

– "AV" best characterized as subject topic construction

– "PV" best characterized as object topic construction

– "LV" best characterized as locative topic construction

– "CV" best characterized as a last resort construction

⇒ These langauges show the hallmarks of *discourse-configurationality* in the sense of Lee & Thompson (1980), É. Kiss (1995), and Miyagawa (2009, 2017).

4 Austronesian-type voice and its variation beyond Austronesian

▷ **How unusual is this design?**

○ Similar voice systems in western Nilotic and Caucasian

  ○ Symmetrical voice is the spell-out of parallel chain

  ○ Symmetrical voice systems show various loci of variation

⊗ If symmetrical voice is indeed the spell-out of parallel chain, as in (63):

(63)

symmetrical voice morphology

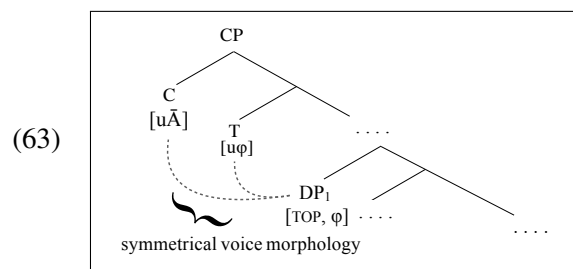*Prediction: How would voice behave . . .*

○ **Variation 1:** Which parallel chains being spelled out as voice

○ **Variation 2:** Which type of case alignment co-occurs with voice

○ **Variation 3:** Which types of Ā-operation triggers voice morphology

○ **Variation 4:** Where the probes triggering the chain are located

     *   *   *   *   *   *   *

4.1 Variations 1–3: Voice distinction, case alignment, and extraction constraints

4.1.1 Number of voice: which chains are spelled out as voice?

Symmetrical voice in Kumuk and Dinka (western Nilotic)

○ Three-way verbal morphology indexing the grammatical role of the topic: subject ‖ DO ‖ others

○ Nominative-accusative-style case alignment

○ A 'last resort'-type third voice ('oblique topic construction')

○ Voice morphology present on the highest verbal head with default marking on all lower heads (similar to Austronesian)

○ Same set of voice morphology present in several types of Ā-operations.

(64) a. *Kurmuk*

    ṭáarák ꜝbóor-**ú**   dɛ̀ɛl kà   ŋìɪr.
    person skin-PST.**SUBJ.T** goat PREP knife

    '*The man* skinned a goat with a knife.   (subject topic)

  b. dɛ̀ɛl bóor-úṭ̱-**ì**   ŋà ṭáarák kà   ŋìɪr.
    goat skin-PST-**OBJ.T** NOM person PREP knife

    'The man skinned *the goat* with a knife.'   (object topic)

  c. ŋìɪr bóor-úṭ̱-ꜝ**í**   dɛ́ɛl ŋà ṭáarák
    knife skin-PST-**OBL.T** goat NOM person

    'The man skinned a goat with *the knife*.'   (oblique topic)

                                         (Anderson 2015: 510)

▷ Verbal morphology inflects for the choice of the topic (64)–(65)

(65)   *Dinka*

    a. Àyén à-càm   cuḭ̈in nè pǎal.
        Ayen 3s-eat.SV food P knife
        '*Ayen* is eating food with a knife.'   (subject voice/topic)

    b. Cuḭ̈in à-cɛ́ɛm Áyèn   nè pǎal.
        food 3s.eat-OV Ayen.GEN P knife
        'Ayen is eating *the food* with a knife.'   (object voice/topic)

    c. Pǎal à-cɛ́ɛmè   Áyèn   cuḭ̈in
        knife 3s-eat.OBLV Ayen.GEN food
        'Ayen is eating food with *a knife*.'   (oblique voice/ (topic)
                                            (van Urk 2015: 61)

▷ Genuine voice affix shown on the highest verbal head; all the rest carry default voice (similar to Philippine-type voice)

(66)   *Dinka*

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

    b. Cuḭ̈in à-dɔ́ɔc   Bôl   câam
        food 3s-| do.quickly.OV |Bol.GEN eat.NF
        'Bol is eating *the food* quickly.'   (Object Voice)

    c. Cuḭ̈in a-cíi   Áyèn   [vP câam nè pâal].
        food 3s-| PRF.OV |Ayen.GEN   eat.NF P knife
        'Ayen has eaten *the food* with a knife.'   (Object Voice)
                                          (van Urk 2015: 61, 84, 96)

▷ Voice morphology present in two other types of Ā-operations:

(67)   *Dinka*

    a. *Subject wh-question*

        Yè ŋà **cé**   cuḭ̈in câam?
        be who PRF.**SV** food eat.NF

'*Who* has eaten the food?' (van Urk 2015:96)

    b. *Subject relativization*

        tíŋ   [CP **cé**   Bòl tî̤iŋ   ]
        woman.CS [**PERF.SV** Bol see.NF]
        '*the woman* that has seen Bol' (van Urk 2015:97)

    c. *Object wh-question*

        Yè ŋɔ́ **cíi**   Bôl   câam?
        be what **PRF.OV** Bol.GEN eat.NF
        '*What* has Bol eaten?' (van Urk 2015:98)

    d. *Object relativization*

        tíŋ   [CP **cíi**   Bôl   tî̤iŋ   ]
        woman.CS [**PERF.OV** Bol.GEN see.NF]
        '*the woman* that Bol has seen' (van Urk 2015:97)

⇒ This voice morphology shares core traits with Philippine-type voice (van Urk 2015; Erlewine et al. 2017) and may well be the spell-out of parallel chain.

○ ┌ Symmetrical voice in Abaza (Caucasian) ┐

    ○ Symmetrical voice co-occurring with **ergative case alignment**

    ○ At least five-way morphology indexing the grammatical role of *wh*-phrases: subject ‖ non-subject ‖ various types of adjuncts

    ○ Known as '*wh*-agreement' in the literature

    ○ A similar "last resort" voice: various types of non-absolutive DP sharing the same voice morphology

    ○ Relativization sharing the same set of voice morphology

(68)   *Abaza*

    a. [awaʔa j-ʕa-ta-χa-kʷa-z]
        there REL.SUBJ-CSL-LOC-remain-PL-PST.NFIN
        'those who remained there'   (Subject RC (S))

b. [a-phʷəspa j-lə-s-tə-z]
　　DEF-girl　　REL.SUBJ-3SG.F.IO-1SG.ERG-give-PST.NFIN
　　a-ĉa
　　DEF-apple
　　'the apple I gave to the girl'　　　　　　　　(Subject RC (O))

c. [a-phʷəspa ĉa　lə-z-tə-z]　　　　　　　　a-ĉ'ḳʷən
　　DEF-girl　apple 3SG.F.IO-REL.NSUBJ-give-PST.NFIN DEF-boy
　　'the boy who gave an apple to the girl'　　(Nonsubj RC (A))

d. [ĉa　z-s-tə-z]　　　　　　　　a-aphʷəspa
　　apple REL.NSUBJ-1SG.ERG-give-PST.NFIN DEF-girl
　　'the girl whom I gave an apple'　　　　　　(Nonsubj RC (IO))

e. d-hʷa
　　3SG.H.ABS-say(IMP)
　　[jəʐ-zə-b-χʷʕa-z]
　　3SG.N.ABS-REL.NSUBJ-BEN-2SG.F.ERG-buy-PST.NFIN
　　'Say whom you bought it for!'　　　　　　(Nonsubj RC (AO))

f. [a-karbəʒ'-kʷa ʔa-də-r-baχ-wa-z]
　　DEF-brick-PL　REL.LOC-3PL-ERG-CAUS-dry-IPF-PST.NFIN
　　a-baq̇
　　DEF-shed
　　'the shed where bricks are made'　　　　　　(Locative RC)

g. [l-an　　　　d-an-ʕa-j-χ]　　　　asqan
　　3SG.F.IO-mother 3SG.H.ABS-REL.TMP-CSL-go-RE DEF.time
　　'at the time when her mother came back'　　(Temporal RC)

h. [d-š-š'ṭa-z]　　　　　　a-pš-ta
　　3SG.H.ABS-REL.MNR-lie-PST.NFIN 3SG.N.IO-be.like-ADV
　　d-š'ṭalχə-n
　　3SG.H.ABS-lie.down-RE-PST.FIN
　　'He lay down like he lay before.'　　　　　(Manner RC)
　　　　　　　　　　　　　　　(Arkadiev & Caponigro 2020:6,7)

→ The same verbal morphology (*j-*) used for both S and O (i.e. subject) relativization.

→ Relativization of non-subject DPs (A/IO/AO) share a distinct affix (*z-*).

→ Extraction of different types of adjuncts employ different extraction affixes.

⇒ This morphology also shares the key traits with Philippine-type voice (Baier 2018) and may also be analyzed as the spell-out of parallel chain.

⊗ The exact parallel chains that trigger symmetrical voice morphology differ across Dinka, Abaza, and Philippine-type Austronesian languages.

(69)　*A mini typology of voice distinctions*

	Subjects	Direct objects	Lower DPs	Locatives	Other adjuncts
Austronesian	Voice 1	Voice 2	Voice 4	Voice 3	Voice 4
Dinka/Kurmuk	Voice 1	Voice 2	?		Voice 3
Abaza	Voice 1	Voice 2 (ERG and other DPs)		Voice 3	(many other Voices)

⊗ The exact types of Ā-operation that trigger symmetrical voice morphology differ across Dinka, Abaza, and Philippine-type Austronesian languages (Potsdam 2006, 2009 et seq.; van Urk 2015; Arkadiev & Caponigro 2020).

(70)

Austronesian	topicalization, relativization (including *wh*-clefts)
Dinka (Nilotic)	topicalization, relativization, *wh*-questions
Abaza (Caucasian)	relativization, *wh*-extraction

→ Abaza voice present in both *wh*-extraction and relativization:

(71)　*Abaza (Arkadiev & Caponigro 2020:70,10)*

a. j-ʕa-ḳa-ŝá-da?
　　WH.SUBJ-CISL-LOC-fall(AOR)-QH
　　'Who fell?'　　　　　(Subject *wh*-question (ABS S))

b. j-ʕá-b-g-ja?
　　WH.SUBJ-CISL-2SG.F.ERG-bring(AOR)-QN
　　'What did you bring?'　　(Subject *wh*-question (ABS O))

c. w-ʕa-z-rə-há-ja?
　　2SG.M.ABS-CISL-WH.NSUBJ-CAUS-FEAR(AOR)-QN
　　'What frightened you?'　　(Non-subj *wh*-question (ERG A))

d. ʒca z-la-r-fa-wa-ja?
　　soup WH.NSUBJ-ins-3pl.erg-eat-ipf-qn
　　'What do they eat soup with?'　　(Non-subj *wh*-question (AO))

e. h-an-ba-ta-də-r-č'a-χ-wa-š?
　1PL.ABS-WH.TMP-Q.ADV-REP-3PL.ERG-CAUS-eat.ITR-RE-IPF-FUT
　'When will they feed us again?'　　　　　　(Temporal *wh*-question)

▷ **Existing proposal**: Ā-operations in some languages may be driven by a single, flat Ā-probe – as proposed previously by for Dinka and for several Bantu languages (Kuno 1973; Miyagawa 2010; van Urk 2015).

(72)　*Ā-feature Geometry*
　　Ā-features ([WH], [REL], [FOC], [TOP]) are hierarchically arranged. Probes may be relativized to different places on this hierarchy.　　　　　(Aravind 2018; Baier 2018)

```
            [Ā]
          /     \
      [OP]       [TOP]
     /    \
  [WH]  [FOC]  [REL]
```
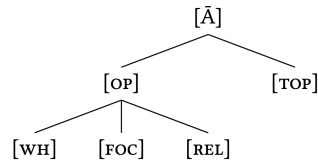
▷ That is, a probe may be satisfied by an Ā-feature (represented [uĀ]), or a feature lower down on the hierarchy, like [REL].

⊗ I argue that the apparent extraction constraint derives from topicalization and relativization as driven by a single, flat, Ā-probe (73).

(73)
```
          CP
        /    \
     C[uĀ]    TP
              /\
          ... DP ...
           [REL/TOP]
```

⇒ In this view, 'pivot-only' is essentially not an *extraction constraint*, but the same set of agreement morphology shared by topicalization and relativization.

▷ See van Urk (2015) and Miyagawa (2009) for the same solution for Dinka's and Kinande's extraction restriction.

　Prediction: how would pivots behave . . .

○ **Variation 4:** Whether pivots behave like both an Ā- and A-element

○ **Variation 5:** Whether the Agree relations involved also trigger ϕ-feature agreement

○ **Variation 6:** Whether pivot Ā-moves (as the outcome of Agree)
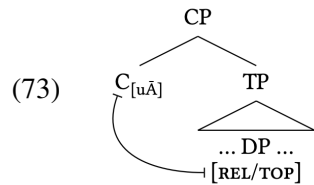
　Prediction: how would symmetrical voice evolve . . .

○ **Variation 7**: whether the grammaticalization of *topic > subject* has taken place

4.2　Variation 4: the locus of [uĀ] and [uϕ]

▷ Symmetrical voice languages vary regarding the locus of the probes that form parallel chains

(74)　*Variation in the locus of the Ā and ϕ-probe*
　　a. Dinka　　　　　　b. Philippine-type Austronesian languages

```
      C             T            C              T
  [uφ], [uĀ]                   [uĀ]          [uφ]
```
promotion-to-pivot/subject　*promotion-to-pivot*　*promotion-to-subject*
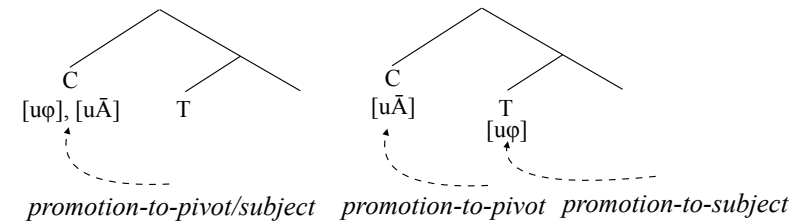
▷ Dinka has been shown to lack the A/Ā distinction, where the flat Ā-probe and the ϕ-probe are hosted on the same head.

▷ Contra Dinka, Philippine-type Austronesian languages demonstrate a clear A/Ā-distinction, where promotion-to-pivot shows Ā- and no A-properties:

(75)

	Dinka	Philippine-type AN languages
a. Reconstruction for Principle C (Ā property)	✗	✓
b. New antecedents for anaphors (A-property)	✓	✗
c. No Weak Crossover effects (A-property)	✗	✓

▷ a. Reconstruction for Principle C

(76) *Dinka: pivots do not reconstruct*

    *Rɔ̀t-dè$_i$ à-nhiɛ́ɛr   Bôl$_i$.
    self-SG.3SG 3S-love.OV Bol.GEN

    (intended: 'Bol loves *himeself*).'   (Object Voice)

(77) *Philippine-type AN languages: pivots reconstruct*

    a. *Amis*
        Ma-palu ni   Kulas cingra   tu.
        PV-beat PN.NOM Kulas 3SG.PIVOT REFL

        'Kulas hit *himself*.'   (Patient Voice)

    b. *Tagalog*
        Hindi p<in>igil   ni   Lia ang   sarili niya   (na
        NEG <PV.PRF>control PN.NOM Lia PIVOT self   3SG.POSS (LK
        k<um>ain).
        eat<AV>)

        'Lia cannot stop *herself* from eating.'   (Patient Voice)

    c. *Seediq*
        S<n>pi   na   Watan ka   heya nanaq.
        dream<PRF.PV> PN.NOM Watan PIVOT 3SG REFL

        'Watan dreamt of *himself*.'   (Patient Voice)

    d. *Puyuma*
        Tu=karatr-aw   tayta'aw   kan   Pilay.
        3.NOM=bite-PV 3SG.PIVOT.REFL DEF.NOM Pilay

        'Pilay hit *herself*.'   (Patient Voice)

▷ b. New antecedent for anaphors

(78) *Dinka: promotion to pivot creates a new binder for anaphors*

    Bòl$_i$ à-cíi   [DP thṳ̀rá è rɔ̀t-dè$_i$]   nyɔ̂ɔth [CP kɛ̀ cṳ̀ṳkṳ̀
    Bol 3S-PRF.OV   picture P self-SG.3SG show.NF   C PRF.1PL
    tḭ̀ḭŋ].
    see.NF

'*Bol*, a picture of himself has shown that we have seen.'   (Object Voice)   (van Urk 2015:111)

(79) *Philippine-type An languages: promotion-to-pivot creates no new binder for anaphors*

    a. *Amis*
        *Ma-palu nira   tu ci   kulas.
        PV-beat 3SG.NOM REFL CN.PIVOT Kulas

        (intended: *Kulas*, himself has hit.')   (Patient Voice)

    b. *Puyuma*
        *Tu=karatr-aw kantaaw   i   pilay.
        3.NOM=bite-PV 3SG.NOM.self PN.PIVOT Pilay

        (intended: 'Herself has hit *Pilay*).'   (Patient Voice)

    c. *Seediq*
        *S<n>pi   na heya nanaq ka   Watan.
        dream<PRF.PV> NOM 3SG REFL PIVOT Watan

        (intended: 'Himself dreamt of *Watan*).'   (Patient Voice)

    d. *Tagalog*
        Sa-sampal-in ng   kanyang sarili si juan.
        CONT-slap-PV ID.NOM 3SG   REFL

        (intended: Himself will slap *Juan*.')   (Patient Voice)

▷ c. Crossover effects

(80) *Dinka: promotion-to-pivot shows no Weak Crossover effects*

    Dhṳ̀k ébɛ́n$_i$ à-cíi   thɔ̭́k-dè$_i$ kâac.
    boy   every 3S-PRF.OV goat.CS-SG.3SG bite.NF

    'His$_i$ goat bit *every boy$_i$*.' (van Urk 2015:110)   (Object Voice)

○ Promotion-to-pivot in Philippine-type AN languages shows the hallmark of Ā-operations: Weak Crossover and (occasionally) marginal Weakest Crossover effects are both attested:

(81)   a.   *Puyuma*

Ku=pubibi-ay   [kantu=dawa]   [tu=uma
1SG.NOM=sow-LV [3.POSS.ACC=millet] [3.PIVOT.POSS=field
kana maydrangan driya].
LK   old.persons every]

'I sowed his/her$_{<i>}$ millet at *every old person's$_{<j/??i>}$* field.'

b.   *Amis*

Sa-pi-tangtang aku   [tu   titi nangra] [ku   siuy a
CV-PI-cook   3SG.NOM [ACC pork 3PL.POSS] [PIVOT pot LK
cimacima a   ina].
every   LK mother]

'I cooked her$_{<i>}$ pork with *every mother's$_{<j/??i>}$* pot.'   (Patient Voice)

c.   *Tagalog*

M<in>amahal ng   kanyang$_i$ ama ang   bawat anak$_i$.
love<PV.PRF> NOM his   father PIVOT every child

'His$_i$ father loves *every child$_{j/??i}$*.' (Richards 2000)   (Patient Voice)

d.   *Malagasy*

Novangian'-ny   rainy   ny mpianatra tsirairay omaly
PST.CV.visit-DET father-3 DET student   each   yesterday
'His$_i$ father visited each$_{??i}$ student yesterday.'   (Patient Voice)
                                       (Pearson 2001:107)

4.3   Variation 5: ϕ-feature agreement following Agree

▷ **Prediction**: Under the proposal in (82), the topic, subject, and/or the highest object (DO) may each trigger ϕ-feature agreement.

(82)   *The proposed design of Philippine-type Austronsian languages*
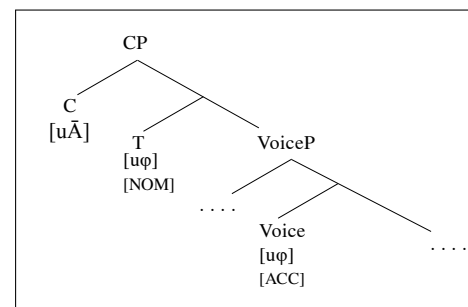
Given that . . .

○ Morphological agreement is optional following Agree

○ Agree with either an A- or Ā-probe may trigger φ-feature agreement

→ The prediction is indeed borne out:

▷ Co-occurrence of topic/pivot agreement and subject agreement[2]

(83)   *Seediq*

Wada=ku=na   bbe-un na Pawan ka   yaku.
PST=1SG.PIVOT=3SG.SUBJ hit-PV NOM Pawan PIVOT 1SG

'Pawan hit me.'   (Patient Voice)

(84)   *Puyuma*

Tu$_i$=trakaw-ay=yu   dra   paysu kan   Senten$_i$.
3.SUBJ=steal-LV=2SG.TOP ID.ACC money PN.NOM Senten

'*Senten* stole money from you.'   (LV)

(85)   *Kapampangan*

Seli=ne   nitang   tau ing   bale.
buy.PV=3SG.TOP+3SG.SUBJ that.NOM-LK man PIVOT house.

'That man bought the house.'   (Patient Voice)
                                       (Kitano 2006:90)

▷ Object agreement is also attested in some Philippine-type languages:

(86) *Bunun (Huang 1997:317,371)*

   a. M-adu'=ik=su',
      AV-like=1SG.TOP=2SG.OBJ
      'I like(d) you.'   (AV transitives)

   b. Ma-saiv=ik=su'   tasa' ahil.
      AV-give=1SG.TOP=2SG.OBJ one   book
      'I give/gave *you* a book.'   (AV ditransitives)

   c. Na=ni'=ik   ma-saiv=su'   haimangsut.
      FUT=NEG=1SG.TOP AV-give=2SG.OBJ thing
      'I will *not* give *you* anything.'   (Negated AV ditransitives)

→ Analogous to Amharic object agreement, this morphology is unique per clause; targeting recipients and not themes in ditransitives (80b).

→ Topic agreement (*ik*) 'climbs' to the nagator; object agreement (*su'*) does not.

⇒ Presence of these sets of φ-feature agreement reinforces the assumption that abstract topic agreement, subject agreement, and object agreement are presented in these languages.

*See Chen (to appear) §5.3 for specific evidence for such morphemes being agreement and not arguments (pronominal clitics).

⊗ Languages displaying φ-feature agreement of these goals can be viewed as both agreement-based and discourse configurational.

▷ Topic-driven φ-feature agreement reported in at least three other families: Romance, Mixtec, and Bantu (Ripano: D'Alessandro 2020; Kinande: Baker 2003:113; San Martin Peras Mixtec : Ostrove 2018:220).

4.4 Variation 6: Move following Agree

▷ Symmetrical voice languages also provide good evidence that Move is optional following Agree.

  ▷ In Abaza, voice morphology (e.g. *z-*) is present regardless of whether a *wh*-phrase stays in-situ or undergoes overt Ā-movement (O'Herin 1993:35).

(87) *Abaza (O'Herin 1993:45, 37)*

   a. Dizda kitab y-z-ıma-m?
      who   book 3si-NSUBJ.WH-have-NEG
      'Who doesn't have a book?'   (*Wh*-fronting)

   b. S-kitab   dızda y-na-z-axu?
      1s-book who   3si-PV-NSUBJ.WH-take
      'Who took my book?'   (*Wh*-in-situ)

▷ The optionality also attested in western Austronesian.

  ▷ Languages with Austronesian-type voice display variation regarding whether or not the topic/pivot occupies a designated linear position.

▷ **Topic-final type**

(88) *Malagasy (Pearson 2005:389–390)*

   a. Mamono ny   akoho amin'ny antsy ny   mpamboly.
      AV.kill   DET chicken with-DET knife DET farmer
      'The farmer is killing the chickens with the knife.'   (AV)

   b. Vonoin' ny   mpamboly amin'ny antsy ny   akoho.
      PV.kill DET farmer   with-DET knife DET chicken
      'The chickens, the farmer is killing with the knife.'   (PV)

   c. Amonoan' ny   mpamboly ny akoho ny   antsy.
      CV.kill   DET farmer   DET chicken DET knife
      'The knife, the farmer is killing the chickens (with it).'   (CV)

→ I assume this word order derives from topicalization followed by predicate fronting (Pearson 2001, 2018; Rackowski & Travis 2000).

▷ **Topic in-situ type**

(89)   *Paiwan (Ferrell 1979:202)*

     a.   Q<m>alup a   caucau tua vavuy i   gadu   tua vuluq.
         <AV>hunt PIVOT man   ACC pig   LOC mountain OBL spear
         'The man hunts wild pigs in the mountains with a spear.'   (AV)

     b.   Qalup-en nua caucau a   vavuy i   gadu   tua vuluq.
         hunt-PV NOM man   PIVOT pig   LOC mountain OBL spear
         'The man hunts while pigs in the mountains with a spear.'   (PV)

     c.   Qalup-an nua caucau tua vavuy a   gadu   tua vuluq.
         hunt-LV NOM man   ACC pig   PIVOT mountain OBL spear
         'The man hunts while pigs in the mountains with a spear.'   (LV)

     d.   Si-qalup nua caucau tua vavuy i   gadu   a   vuluq.
         CV-hunt NOM man   ACC pig   LOC mountain PIVOT spear
         'The man hunts while pigs in the mountains with a spear.'   (CV)

▷ **Flexible word order type**

There are also languages that display flexible word order among nominals:

(90)   *Puyuma (Teng 2008:148)*

     a.   P<en>anguter dra   dare' na   markataguin.
         <AV>grab   ID.ACC soul DEF.PIVOT couple
         'The couple grabbed some soil.'   (AV)

     b.   P<en>anguter na   markataguin dra   dare'.
         <AV>grab   DEF.PIVOT couple   ID.ACC soul
         'The couple grabbed some soil.'   (AV)

▷ All three types of languages display the same type of voice morphology and Ā-extraction restrictions in relativization.

> ⊕ **Implication**: Move is not a necessary outcome of Agree with [uTOP], analogous to the optionality observed with wh-in-situ.

5   Variation 7: Symmetrical voice and its decay

- Well-known grammaticalization pathway: *topic ≫ subject* (Li & Thompson; 1976; Givon 1979; Plank 1979; Mallinson & Blake 1981; Shibatani 1991; Heine & Kuteva 2004)

▷ **Existing claim**: Indo-European languages developed from topic-prominent langauges to subject-prominent languages (Lehmann 1976)

⊗ Further evidence from western Austronesian: symmetrical voice evolving from a topic-indexing system into a subject-indexing system

(91)   *Geographical distribution of Philippine-type and Indonesian-type voice*
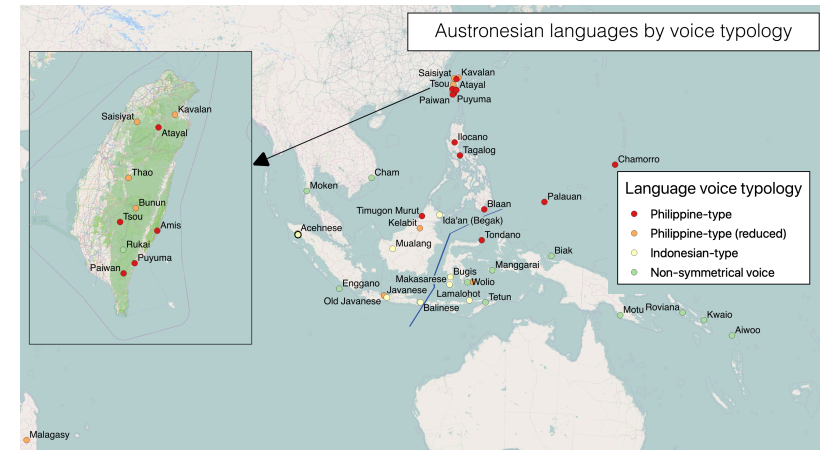
⊗ "Indonesian-type voice" is a continuum in flux in transition from a **topic-indexing** to a **subject-indexing** voice system; namely: *topic ≫ subject*.

(92)   *Four diagnostics applied (Patrianto & Chen 2023 a,b)*

A pivot phrase . . .	
a. must be definite/specific	topic property
b. can surface as a reflexive theme in NAV	topic property
c. can function as a new binder in NAV	subject property
d. can be a PP adjunct in NAV	topic property

(93) *Variation among four Indonesian-type languages*

A pivot phrase . . .	Variation among Indonesian-type voice systems			
	Javanese	Balinese	Acehnese	Indonesian
a. must be definite/specific	✓	✓	✗	✗
b. can surface as a reflexive theme in NAV	✓	✓	✗	✗
c. can function as a new binder in NAV	✗	✓	✓	✓
d. can be a PP adjunct in NAV	✓	✗	✗	✗
	pivots as topic (Ā-elements)	pivots as both topic and subject (mixed A- and Ā-properties)	pivots as subject (A-element)	
	b. Ā-approach to PPT voice	hybrid approach	A-approach to voice	

▷ **Javanese** remains underlyingly Philippine-type, where pivot phrases show typical topic behaviors.

▷ **Acehnese and Indonesian** are the most innovative, where voice alternation is encoded in A-syntax and denote argument structure alternation.

▷ **Balinese** may manifest an earlier stage of the transition, where the pivot phrases still show topic properties but also display subject properties.

6   Conclusion and implications

⊕ **Summary:** How are Philippine-type Austronesian languages discourse configurational languages?

(94) *Seediq*

Maha=ku=na   bbe-un na   Pawan ka yaku.
FUT=1SG.TOP=3SG.SUBJ hit-PV   NOM Pawan TOP 1SG

'Pawan will hit me.'   (Patient Voice)

→ Symmetrical voice morphology
→ Overt topic marker (*ka*)
→ φ-agreement with the topic (=*ku*)
→ Voice (PV) indexes the grammatical relation of the topic
→ Subjects also trigger φ-agreement (=*na*)

Take-home messages . . .

⊗ Symmetrical voice is a key trait of discourse configurationality, where the A-relation of certain Ā-elements are indexed in narrow syntax.

○ Symmetrical voice systems index parallel chain relations.

○ Symmetrical voice may co-occur with ϕ-feature agreement.

○ Symmetrical voice is independent of case alignment.

○ Symmetrical voice morphology may evolved into subject-indexing morphology over time (cases attested in western Austronesian)

⊕ **What do Austronesian languages tell us about Agree and Move?**

• How are Ā-agree relations realized in narrow syntax?

▷ Parallel chain relations may be built in as verbal morphology.

• What is the relationship between Agree and Move? Is Move necessary?

▷ Move is not a necessary outcome of Agree; the optionality is seen widely in western Austronesian.

• Is [uφ] the only type of probe that triggers φ-feature agreement?

▷ φ-feature agreement may be triggered by Agree with either an A- or Ā-probe.

▷ **Implication**: It's best viewed as a means for indexing abstract Agree relation of any type.

• Is topic- vs. subject-prominent a binary choice?

▷ No – both traits may co-occur in discourse configurational languages.

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