

A cline of Indonesian-type voice as in transition from \bar{A} - to A-syntax: Insights from four languages*

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Summary

- We report an underexplored syntactic variation among four languages that possess an Indonesian-type three-way voice system. Despite their superficial similarities, six diagnostics (a–f) indicate that their voice systems do not form a homogeneous group:

<i>A pivot phrase . . .</i>	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	✓	✗	✗	✗
e. allows pre-aux quantifier float in AV	✓	✓	✗	✗
f. allows pre-aux quantifier float in NAV	✗	✓	✗	✗
	pivots as topic (\bar{A} -elements)	pivots as both topic and subject (mixed A- and \bar{A} -properties)	pivots as subject (A-element)	
	\bar{A} -approach to voice	hybrid approach	A-approach to voice	

Main claims

- **Indonesian** exhibits a voice system that fits well with the traditional A-approach to voice (split ergative analysis) (Aldridge 2008; Cole et al. 2008; Legate 2014), where the pivot in all voices displays typical **subject properties**.
- **Acehnese** aligns with Indonesian, despite its morphological aberrancy.
- **Javanese** voice, at another extreme, clearly indexes topicalization and not promotion-to-subject, where pivots show typical **topic properties**.
- **Balinese** behaves similarly to Javanese in most but not all regards, with the pivots showing a mixture of \bar{A} - (topic) and potential A- (subject) properties.

- ⊗ **Proposal:** Indonesian-type voice is a continuum in flux in transition from **topic-prominent** to **subject-prominent**.

- Indonesian-type voice systems are at various stages of progression from \bar{A} - to A-syntax:

- ▷ **Javanese** remains underlyingly Philippine-type (as was Old Javanese), 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.

▷ *A tentative hierarchy of progression:*

Javanese \Rightarrow Balinese \Rightarrow Indonesian \Rightarrow Acehnese

- The core syntax of Indonesian-type voice systems does *not* form a homogeneous group (see McDonnell & Chen 2022 for a similar claim).

\rightarrow Surface-level typological similarities (e.g., word order pattern, number of voice distinction, form of voice morphology) are not reliable indicator of a language's core syntax.

1 The phenomenon

- Javanese (ISO 639-3 *jav*), Indonesian (ISO 639-3 *ind*), Acehnese (ISO 639-3 *ace*), and Balinese (ISO 639-3 *ban*) are conventionally described as possessing a typical Indonesian-type three-way voice system (1)–(4).

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- (1) Javanese (primary data)
- a. **Siti** wis ng-rangkul arè' iku. (AV)
Siti PERF AV-hug child DEM
 'Siti hugged that child.'
- b. **Arè' iku** wis ta'/mbo'/*di=Ø-rangkul. (OV)
child DEM PERF 1SG/2SG/*3=OV-hug
 'I/you hugged that child.'
- c. **Arè' iku** wis di-rangkul ((ambè') Ali). (Passive)
child DEM PERF PASS/3-hug ((PREP) Ali)
 'S/he/Ali hugged that child.'

- (2) Indonesian (Cole et al. 2008:1504–1509)
- a. **Tono** membeli buku di toko buku. (AV)
Tono MENG-buy book LOC store book
 'Tono bought a book at the bookstore.'
- b. **Topi ini** sudah saya beli. (OV)
hat this PERF 1SG buy
 'This hat has been bought by me.'
- c. **Kue ini** di-makan ((oleh) Arna). (Passive)
cake this PASS-eat by Arna
 'This cake was eaten (by Arna).'

- (3) Acehnese (Legate 2014:4–5)
- a. **Uleue nyan** di-kap lôn. (AV)
snake DEM 3FAM-bite 1SG
 'The snake bit me.'
- b. **Lôn** uleue nyan kap. (OV)
1SG snake DEM bite
 'I was bitten by the snake.'
- c. **Lôn** di-kap lé uleue nyan. (Passive)
1SG 3.FAM-bite by snake DEM
 'I was bitten by the snake.'

- One notable asymmetry: among the four languages, only **Acehnese** allows person-indexing on the lexical verb **in AV**.

- (4) Balinese (Arka 2008:70–71)
- a. **Ia** maang Nyoman pipis. (AV)
3 AV.give Nyoman money
 'S/he gave Nyoman money.'
- b. **Nyoman** baang=a pipis. (OV)
Nyoman OV.give=3 money
 'S/he gave Nyoman money.'
- c. **Nyoman** baang-a pipis (teken Wayan). (Passive)
Nyoman give-PASS money by Wayan
 'Nyoman was given money by Wayan.'

(5) Shared typological traits of the four voice systems

	AV	OV	Passive
voice morphology	(homorganic nasal prefix)	∅	∅ or 'passive affix'
external argument	pre-verbal/pre-aux	verbal affix (clitic)	verbal affix (clitic)
internal argument	postverbal	flexible: pre-verbal/pre-aux or postverbal	flexible: pre-verbal/pre-aux or postverbal

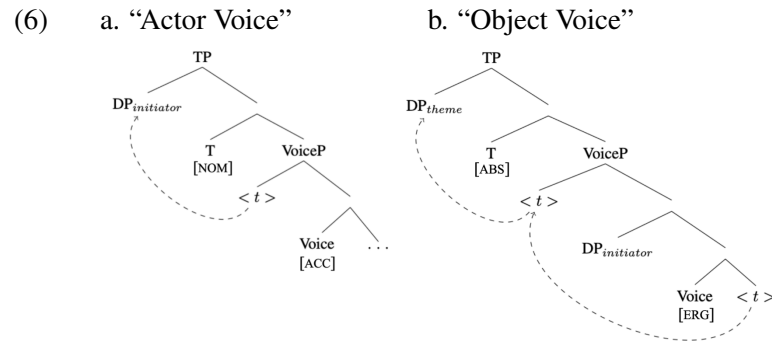
- Hereafter, we refer to the phrase eligible to surface in the preverbal field in each voice as the pivot.

Shared core traits of the four voice systems

- Actor voice:
- English-style word order: S (AUX) V O; transitive agent must be preverbal; transitive theme must stay postverbally
 - (often) marked by a homorganic nasal prefix
- Object voice:
- unmarked verb form (i.e. no overt voice morphology)
 - the agent must surface as an **immobile clitic** attached to the lexical verb
 - the theme can either stay postverbally or surface in the pre-verbal/pre-aux slot
- Passive voice:
- All three traits of OV apply, except that the agent/initiator can be indexed by an optional *by*-phrase.

- Indonesian-type voice systems like the above (1)–(4) have received two competing analyses:

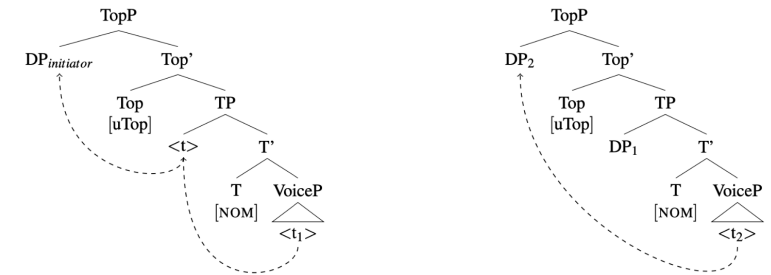
1.1 The split ergative approach to Indonesian-type voice



- The traditional view: The Indonesian-type three-way voice system involves a **split in case alignment** (e.g., Aldridge 2004, 2008 et seq.; Cole et al. 2008; Legate 2014):
 - Actor/passive voice: accusative-aligned
 - Object voice: ergative-aligned
- In all voices, the pivot phrase unitarily lands in [Spec, TP] and constitute genuine subjects (\Rightarrow pivots are A-elements)
- In AV/passive, the pivot is the nominative; in OV, the pivot is the absolutive theme
- The nonpivot agent in OV is an immobile ergative argument that remains in its θ -position (Spec VoiceP).

1.2 The topicalization approach to Indonesian-type voice

- (7) a. Subject topic construction b. Nonsubject topic construction



- The alternative: The Indonesian-type voice as indexing **topicalization** (e.g., Durie 1985; Patrianto & Chen 2022; see also Khairunnisa 2022 for a similar analysis):
 - Actor voice: accusative-aligned
 - Object voice: accusative-aligned
- In all voices, the pivot phrase unitarily lands in [Spec, TopP] and constitute the internal topic of a clause (\Rightarrow pivots are \bar{A} -elements)
- In AV, the topic is simultaneously the nominative subject; in OV, the pivot is a nonsubject phrase (DO, IO, or obliques)
- The genuine subject/binder of any voice is unitarily the nominative (structurally highest A-element per clause).
- Namely, such languages possess a clear A/ \bar{A} -distinction between subjects and topics/pivots.

1.3 Predictions of the competing analyses

The A- (split ergative) approach

- Pivots are subjects (A-elements) in [Spec, TP]
- Non-pivot external arguments are ergative DPs in [Spec, VoiceP]

The \bar{A} - (topicalization) approach to voice

- Pivots are topics (\bar{A} -elements) in [Spec, TopP]
- Non-pivot external arguments are subject DPs in [Spec, TP]

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• Speaker information

	dialect	number of speaker consulted
a. Javanese	Surabaya	5 + 1
b. Indonesian	2 varieties	monolingual (3) Semende L1 (1)
c. Acehnese	2 varieties	North Aceh (3) Great Aceh (1)
d. Balinese	Lowland	3

• Distribution of the target languages



2 Topic-oriented voice in Javanese

2.1 Quantifier floating asymmetry

- Where a clause is in actor voice (AV), a numeral quantifier (e.g., *rolas* ‘twelve’) can freely dislocate from its sentence-initial host and intervene between the host and aspectual auxiliary (e.g. *wis*):

(8) [____i Konco-ku] **rolas**_i wis m.angan tahu. (AV)
 [___ friend-1SG] **twelve** PERF AV.eat tofu
 ‘Twelve of my friends have eaten the tofu.’

- Where a clause is in object voice (OV), QF in the pre-auxiliary field becomes unacceptable.¹ As seen in (9), dislocation of the same quantifier *rolas* ‘twelve’ between the sentence-initial theme (e.g., ‘tofu’) and the auxiliary *wis* yields grammatical consequences.

(9) *[____i Tahu-né] **rolas**_i wis ta'=Ø-pangan. (OV)
 [___ tofu-DEF] **twelve** PERF 1SG=OV-eat
 (intended: ‘I have eaten twelve of the tofu.’)

- In the so-called passive voice, QF in the pre-auxiliary field is also unacceptable (10), as in OV (9).

(10) Passive

*[____i Tahu-né] **rolas**_i wis di-pangan ((ambè) konco-ku).
 [___ tofu-DEF] **twelve** PERF 3/PASS-eat ((by) friend-1SG)
 (intended: ‘Twelve of the tofu were eaten (by s/he/my friend).’)

* * * * *

- A second locus of voice-based asymmetry is found in the post-verbal position. Where a clause is in OV or passive, a numeral quantifier can freely surface postverbally, as in (11a–b).

(11) a. OV
 [____i Tahu-né] wis ta'=Ø-pangan **rolas**_i.
 [___ tofu-DEF] PERF 1SG=OV-eat **twelve**
 ‘I have eaten twelve of the tofu.’

b. Passive

[____i Tahu-né] wis di-pangan **rolas**_i ((ambè) konco-ku).
 [___ tofu-DEF] PERF 3/PASS-eat **twelve** ((by) friend-1SG)
 ‘Twelve of the tofu were eaten (by s/he/my friend).’

- Stranding in any post-verbal position, however, is impossible in AV (12).

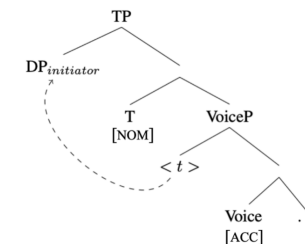
(12) AV

*[____i Konco-ku] wis m-angan **rolas**_i tahu.
 [___ friend-1SG] PERF AV-eat **twelve** tofu

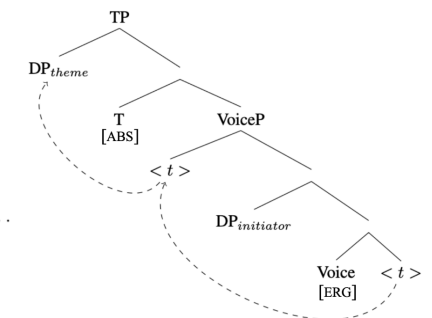
(Intended: ‘Twelve of my friends have eaten tofu.’)

- This asymmetry is left unexplained under the split ergative approach to Javanese voice (Suhandano 1994; Nurhayani 2014; Aldridge 2008; Cole et al. 2008; Legate 2014). Under that approach, the pivot phrase in all three voices invariably lands in [Spec, TP] via a single-step A-movement from the VoiceP phase edge:

(13) a. “Actor Voice”



b. “Object Voice”

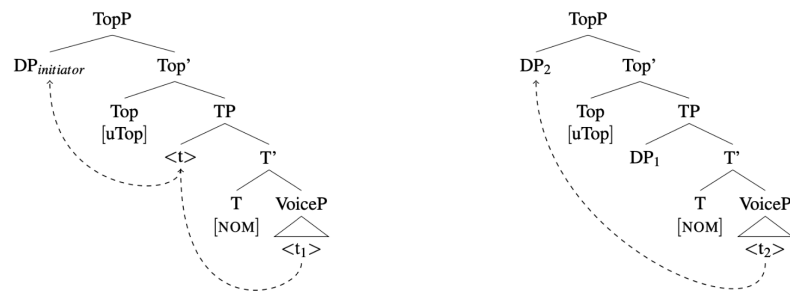


¹According to Patrianto’s native intuition and consultation with three other speakers, a dislocated numeral quantifier in Javanese OV and passive is only marginally acceptable even if pronounced with a significantly high intonation, which derives an obligatory focal/emphatic meaning ‘As for the tofu, TWELVE OF THEM, I have eaten’ (8). This differs fundamentally from pre-auxiliary quantifier float in AV – which is considered even more natural than its nonfloating counterpart and needs not be accompanied by specific intonation or emphatic reading. See section 3.5 for a further discussion.

⊗ **Our account for the voice-based QF asymmetry**

- The asymmetry features an instance of **subject-to-topic movement** that occurs only in subject topic constructions, the “AV” (14a).

(14) a. Subject topic construction b. Nonsubject topic construction



- Where a clause contains a nonsubject topic – the so-called “Object Voice” (14b) – QF in the pre-aux field is banned because the theme topic \bar{A} -moves directly from its postverbal θ -position to the left periphery.
- Stranding in the subject position ([Spec, TP]) is therefore predicted to be impossible, as borne out exactly by (9).

↔ This proposal is in line with the observation that stranded quantifiers can only be derived from \bar{A} -moved NP/DPs (e.g. Fitzpatrick’s 2006).

2.2 Definiteness/specificity constraints on pivots

- Javanese pivothood is associated with obligatory definite/specific interpretation, a typical topic property.
 - Where a phrase is the pivot, it must be interpreted as definite/specific; this constraint is absent on nonpivot phrases:

(15) **Wong**-(\acute{e}) ng-guwa’ tas-(\acute{e}). (AV: agent)
person-(DEF) AV-throw.away bag-DEF
 ‘{The/*a} man threw {a/the} bag away.’

(16) **Tas**-(\acute{e}) ta’/mbo’= \emptyset -guwa’ (tas-(\acute{e})). (OV: theme)
bag-(DEF) 1SG/2SG=OV-throw (**bag**-(DEF))
 ‘I/you have thrown away {the/*a} bag.’

(17) **Lawuh**-(\acute{e}) di-pangan (**kucing** (**iku**)). (passive: theme)
side.dish-(DEF) PASS/3-eat (**cat** (DEM))
 ‘{The/*a} sidedish was eaten by {that/a} cat.’

- Where an OV/passive clause contains two objects:
 - the definite/specific constraint applies only to one of the two;
 - only the one subject to the constraint can appear preverbally:

(18) Object voice

- a. Nang taman, **arè**’ *(**iku**) ta’/mbo’= \emptyset -kè’i
 PREP park **child** (DEM) 1SG/2SG=OV-give-APPL
 dui’-(\acute{e}).
 money-(DEF)
 ‘In the/a park, I/you gave {that/*a} child {the/some} money.’
- b. Nang taman, **dui**’-(\acute{e}) ta’/mbo’= \emptyset -kè’-no arè’
 PREP park **money**-(DEF) 1SG/2SG=OV-give-APPL child
 (iku).
 (DEM)
 ‘In the/a park, I/you gave {the/a} child {the/*some} money.’

(19) Passive voice

- a. Nang taman, **arè**’ *(**iku**) di-kè’-i dui’-(\acute{e}).
 PREP park **child** (DEM) PASS/3-give-APPL money-(DEF)
 ‘In the/a park, someone/s/he gave {that/*a} child {the/some} money.’
- b. Nang taman, **dui**’-(\acute{e}) di-kè’-no arè’ (iku).
 PREP park **money**-(DEF) PASS/3-give-APPL child (DEM)
 ‘In the/a park, someone/s/he gave {that/a} child {the/*some} money.’

→ This highlights pivothood’s correlation with **linear order** (i.e., ability to surface proverbially) and **definiteness/specificity**.

2.3 Binding facts

- In all voices, the agent can bind the theme but *not* vice versa.

- In NAV, an agent can bind a pivot theme, with the pivot surfaced as a reflexive:

(20) [Awa'-é déwé]_i di_i-{gepu'/jiwit/cèt}.
 [body-3.POSS self] PASS/3-{hit/pinch/paint}
 'Her/himself was {hit/pinched/painted} by him/her.'

- A theme pivot in NAV *cannot* bind into a *by*-phrase agent:

(21) *{AJ/dè'é}_i di_i-jiwit-i ((ambè') awa'-é déwé).
 AJ/3SG PASS/3-pinch-APPL ((by) body-3.POSS self)
 (Intended: 'AJ/he was being pinched by himself.')

- This binding pattern is identical with Philippine-type Austronesian languages (see Pearson 2001; Chen 2017).
- At the same time, it contrasts with that of canonical passives:
 → In canonical passives, the theme subject functions as a binder and may bind (into) a *by*-phrase agent:

(22) English
 Medusa_i was poisoned by herself_i.

(23) Acehnese
 Tiep-tiep aneuk geu-lindong le mak droe-jih.
 every child 3POL-protect LE mother self-3FAM
 'Every child is protected by his/her mother.' (Legate 2014:15)

- ⊗ Pivots in Javanese show *no* subject properties and display reconstruction effect – a typical sign of \bar{A} -elements (such as topics).

2.4 PP's eligibility to render the pivot

- A PP adjunct may render the pivot in Javanese OV/passive constructions.
 → this is expected under the current analysis (⇒ the OV/passive are **nonsubject topic construction**)
 → this is unexpected under the A-approach to voice (⇒ the pivots are attracted by [uD] and occupy [Spec, TP]).

→ Prediction of that approach: only **DPs** can function as pivots.

- Javanese PPs that embed an **instrument, location, reason, benefactor, or commitative DP** may render the pivot in OV/passive. Such PPs:
 - must be interpreted as definite/specific;
 - can surface either preverbally or postverbally, as do DP pivots;
 - when such a PP is present, any theme objects *must* remain postverbal and need not be definite/specific.

(24) Javanese OV/passive

- Ambè' hapé** ta'/mbo'/di=jupu' sembarang gambar.
with cellphone 1SG/2SG/3=take any picture
 'I/you/s/he took a picture with my/your/*a cellphone.'
- Nang omah** ta'/mbo'/di=kirim surat opo aé.
to house 1SG/2SG/3=send letter what AE
 'I/you/s/he sent any letter to my/your/*a house.'
- Gara-gara utang** ta'/mbo'/di=jalu'-i dui' sopo aé.
because debt 1SG/2SG/3=ask.for-APPL money who AE
 'I/you/s/he asked any person for money because of my/your/*some debt.'
- Kanggo Ed/*arè'** ta'/mbo'/di=buka'-no lawang ndi aé.
for Ed/*child 1SG/2SG/3=open-APPL door which AE
 'I/you/s/he opened any door for Ed/*a boy.'
- Ambè' Maria/*arè'** ta'/mbo'/di=resi'-i omah ndi aé.
with Maria/child 1SG/2SG/3=clean-APPL house which AE
 'I/you/s/he cleaned any house with Mary/*a boy.'

- Evidence for such PPs as true pivots (and not hanging topics):
 → A hanging topic (which can be indefinite in Javanese) must precede the preverbal PP (which must be interpreted as definite/specific):

(25) [Pirang-pirang kembang]_{HT}[nang kebun (*ndi aé)]
 [several-RED flower] [PREP garden (which AE)]
 ta'/mbo'/di=tandur.
 1SG/2SG/3=plant
 'Several flowers, in the/*any garden, I/you/she/he planted (them).'

- (26) [Pirang-pirang kembang]_{HTT}[**kanggo** **Joko**/***wong**]
 [several-RED flower] [PREP **Joko/man**
 ta’/mbo’/di=tandur.
 1SG/2SG/3=plant
 ‘Several flowers, in the/*any garden, I/you/she/he planted (them).’

- In AV, the pivot must be a DP

→ This follows from the current analysis that the AV constitutes subject topic construction (⇒ the pivot/topic must be a subject DP)

- (27) *[Joko]_{HTT}[nang omah-é] moco buku.
 Joko PREP house-DEF AV.read book
 (Intended: As for Joko, in the house (he) read a book.)

2.5 Flexibility in pivot selection

- ⊗ Promotion-to-pivot in Javanese does *not* respect locality (of [uD])
 - In ditransitives, either an adjunct PP or one of the two objects can freely surface in the pre-aux position (with no change in verbal morphology).
 - Promotion-to-pivot is *not* movement to [Spec, TP] (A-operation)
- (28) [Nang warung (iku)] **wong wèdo’** ***(iku)**
 [PREP restaurant DEM] **person female DEM**
 ta’/mbo’/di=kè’-i (wong wèdo’ ***(iku)**) [dui’] [nang
 1SG/2SG/3=give-APPL (**person female DEM**) [money] [PREP
 mèjo-(é)].
 table-DEF
 ‘In {a/the} restaurant, I/you/s/he gave {the/*a} woman {some}
 money on {her/a} table.’
- (29) [Nang warung] **nang mèjo** ***(iku)** ta’/mbo’/di=kè’-i
 [PREP restaurant] **PREP table DEM** 1SG/2SG/3=give-APPL
 dui’ (nang mèjo ***(iku)**) [pirang-pirang wong wèdo’].
 money (PREP table DEM) several-RED person female
 ‘In {a/the} restaurant, I/you/s/he gave some women {some}
 money on {that/*a} table.’

- (30) [Nang mèjo] **nang warung** ***(iku)** ta’/mbo’/di=kè’-i
 PREP table **PREP restaurant DEM** 1SG/2SG/3=give-APPL
 dui wong wèdo’ ndi aé (nang warung ***(iku)**).
 money person female which AE PREP restaurant DEM
 ‘On {her/a} table, I/you/s/he gave {the/a} woman {some}
 money in {the/*a} restaurant.’

- ⊗ Promotion-to-pivot:

→ is not subject to locality (of [uD])

→ does not involve movement to [Spec, TP] (A-operation)

2.6 Javanese person proclitics as subject agreement

- ⊗ **Claim:** The so-called person proclitics in Javanese’s NAV clauses are **subject agreement morphology** and not ergative DPs.

- (31) Javanese
- a. Siti wis ng-rangkul arè’ iku. (AV)
 Siti PERF AV-hug child DEM
 ‘Siti hugged that child.’
- b. Arè’ iku wis ta’/mbo’/di=Ø-rangkul. (OV)
 child DEM PERF 1SG/2SG/3=OV-hug
 ‘I/you/she/he hugged that child.’

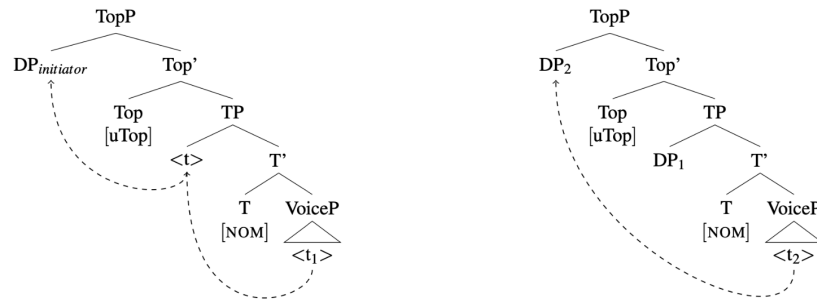
- ⊗ **Proposal:** in Javanese, the highest DP of a given clause is probed by [uD] on T and merged to [Spec, TP].

→ In subject topic construction (“AV”), this DP further moves to [Spec, TopP] and becomes the pivot (32a)

→ In nonsubject topic construction (“OV/passive”), it stays in [Spec, TP] and triggers ϕ -agreement (person) on the verb (32b).

- The so-called ergative proclitics in OV and the 3rd-person “passive prefix” *di-* is essentially subject agreement morphology.

(32) a. Subject topic construction b. Object topic construction



- Evidence for the ‘proclitics’ as subject agreement

- Unaccusative themes can surface as a proclitic, as do transitive agents:

(33) Nè' ngono **ta'/mbo'**=Ø-tibo nang jurang mau.
 if that.way **1SG/2SG**=OV-fall P ravine Past
 ‘If so, I/you should have just fallen into the ravine.’

→ The proclitic does *not* realize an ergative DP in [Spec, VoiceP], and is better analyzed as subject agreement on the verb.

- A theme-like experiencer can also surface as a proclitic in NAV:

(34) OV/passive

- Lindu sing **ta'/mbo'/di**=Ø-kuatir-no.
 earthquake REL **1SG/2SG/3**=OV-worry-APPL
 ‘The thing that worries me/you is an earthquake.’
- Udan sing **ta'/mbo'/di**=mangkel-no.
 rain REL **1SG/2SG/3**=irritate-APPL
 ‘The thing that irritates me/you/her/him is the rain.’
- Macan sing **ta'/mbo'/di**=wedè-ni, dudu' ulo.
 tiger REL **1SG/2SG/3**=afraid-APPL NEG snake
 ‘The thing that frightens me/you/her/him is a tiger, not a snake.’

- Placement of the agent-oriented adverb in (35) confirms that the theme-like proclitic is indeed an internal argument:

(35) OV/passive

- Sopo meneng-meneng sing **ta'/mbo'/di**=sedih-no?
 who secretely REL **1SG/2SG/3**=sad-APPL
 ‘Who secretly saddened me/you/him/her?’
- Sopo meneng-meneng sing **ta'/mbo'/di**=wedè-ni?
 who secretely REL **1SG/2SG/3**=afraid-APPL
 ‘Who secretly frightened me/you/him/her?’

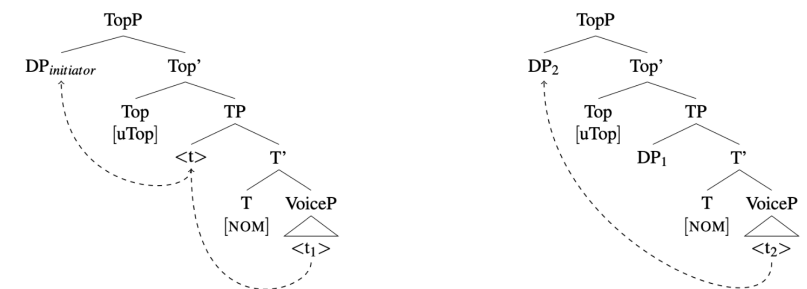
- The proclitics in OV are not ergative DPs, but show typical subject distributions.

2.7 \bar{A} -oriented voice in Javanese

⊗ Javanese voice is \bar{A} -oriented.

- **Topicalization** is obligatory in all finite clauses and indexed by voice alternation (see Khairunnisa (2022) for a similar analysis for Sasak; Pearson (2001) and Chen (2017) for Philippine-type languages).

(36) a. Subject topic construction b. Nonsubject topic construction



- Why are person proclitics (subject agreement) absent in Javanese AV clauses?

(37) Javanese

- Siti** wis ng-rangkul arè' iku. (AV)
Siti PERF AV-hug child DEM
 ‘Siti hugged that child.’

- b. **Arè' iku** wis ta'/mbo'/di=Ø-rangkul. (NAV)
child DEM PERF 1SG/2SG/3=OV-hug
 'I/you/she/he hugged that child.'

⊗ This is an instance of *anti-agreement effect*:

The phenomenon in which the morphosyntactic form of subject/verb agreement is sensitive to whether or not an agreeing subject has been locally extracted. (e.g. Chung 1982; Ouhalla 1993; Schneider-Zioga 2000; Baker 2008; Baier 2018; a.o.)

3 Subject-oriented voice in Indonesian/Acehnese

3.1 Absence of pre-auxiliary QF

- Quantifier stranding banned in all voices.

→ This suggests the absence of subject-to-topic movement (or any instance of \bar{A} -movement) in all voices.

(38) Indonesian

a. AV

*Kawan-nya **sepuluh** sudah meng-irim-i dia hadiah.
 friend-3SG **ten** PERF AV-send-APPL 3SG gift
 (Intended: 'Ten of his/her friends have sent him gifts.')

b. OV

*Kawan-nya **sepuluh** sudah aku beli-kan buku baru.
 friend-3SGPOSS **ten** PERF 1SG buy-APPL book new
 (Intended: 'I have bought ten of his/her friends new books.')

c. Passive

*Kawan-nya **sepuluh** sudah di-undang (oleh ayah).
 friend-3SGPOSS **ten** PERF PASS-invite by father
 (Intended: 'Ten of his/her friends have been invited by father.')

(39) Acehnese²

a. AV

*Ngon-jih **siblah droe** ka ji-blo honda baru.
 friend-3SG **eleven CLF** ASP 3SG-buy motorcycle new

(Intended: 'Eleven of his friends have bought new motorcycles.')

b. OV

*Jaket-jih **peut boh** ka ji-jok keu gop.
 jacket-3SG **four CLF** ASP 3SG-give to person

(Intended: 'S/he gave four of her/his jackets to someone/people.')

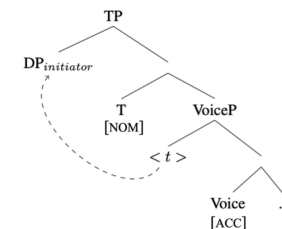
c. Passive

*Rumoh **dua boh** ka ji-publo le si Rina.
 house **two CLF** ASP 3SG-sell by ART Rina

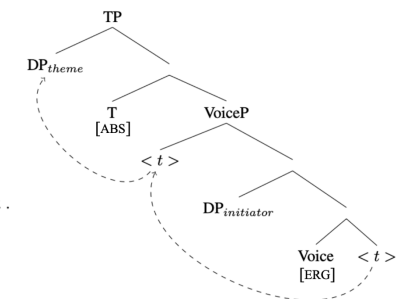
(Intended: 'Two houses have been sold by Rina.')

→ The absence of pre-aux QF lends empirical support to the traditional A- (split ergative) approach to Indonesian and Acehnese voice:

(40) a. "Actor Voice"



b. "Object Voice"



→ Pivots are **true subjects** in both languages.

²According to our Acehnese informants, a numeral quantifier may appear after the host DP (in any voice) only when they receive high intonation – in written form, the stranded numeral quantifier must follow a comma – indicating focal/emphatic meaning e.g. As for his friends, ELEVEN OF THEM, have bought new motorcycles. This is different from the nonfloating numeral quantifier.

3.2 Absence of definiteness/specificity constraints on pivots

- In both languages, the pivots need not be definite/specific.

(41) Indonesian

a. AV; agent pivot

Se-seorang/seorang pria mem.anggil Rani.
one-CLF/CLF man AV-call Rani
 ‘Someone/a man called Rani.’

b. Passive; theme pivot

Se-buah buku di-temu-kan di sampah.
one-CLF book PASS-find-APPL PREP garbage
 ‘A book was found in a rubbish bin.’

c. OV; theme pivot

Se-buah rumah sudah aku jual kemarin.
one-CLF house PERF 1SG sell yesterday
 ‘I have sold a house yesterday.’

(42) Acehnese

a. AV; agent pivot

Padum-droe aneuk mit ji-baca buku.
several/some-CLF youngster small 3SGFAM-read book
 ‘Several kids read a/some books.’

b. Passive; theme pivot

(**Sa-boh**) **komputer** geu-pakek le guree nyan.
one-CLF computer 3SGPOL-use by teacher DEM
 ‘A computer was used by the teacher.’

c. OV; theme pivot

Padum-boh poto lon cok ngen kamera.
several/some-CLF photo 1SG take with camera
 ‘I took some photos with a camera.’

→ Contra those in Javanese, pivot phrases in both languages do not show topic behaviors.

3.3 Binding facts (pivots as true subjects)

→ In Indonesian and Acehnese, a theme pivot can bind a *by*-phrase agent (contra Javanese):

(43) Indonesian

a. Dia harus di-tolong oleh diri-nya sendiri.
 3SG must PASS-help by body-DEF alone
 ‘S/he must be helped by her/himself’

b. Setiap anak di-sayang-i ibu-nya sendiri.
 every child PASS-love.APPL mother-DEF self
 ‘Every_i child is loved by their_{i/j} mother.’ (distributed reading available)

(44) Acehnese

a. Si Rina ji-poh le droekeudroe-jih.
 ART Rina 3FAM-hit by self-3FAM
 ‘Rina was hit/hurt by herself.’

b. Tiep-tiep aneuk geu-lindung le mak droe-jih.
 every child 3POL-protect LE mother self-3FAM
 ‘Every_i child is protected by their_{i/j} mother.’ (distributed reading available) (Legate 2014:15)

→ At the same time, the theme pivot shows no reconstruction effect and *cannot* be bound by the agent (contra Javanese).

(45) Indonesian

*Diri-nya_i sendiri di-sakit-i oleh-nya.
 body-3SG alone PASS-hurt-APPL by-3SG
 (Intended: ‘Herself was hurt by her.’)

(46) Acehnese

*Droe keu-droe-jih ji-poh (le jih).
 self to-self-3SGFAM 3S.FAM-hit/hurt by 3S.FAM
 (Intended: ‘Himself was hurt by him.’)

→ In both language, the pivot phrases behave like a genuine subject in binding – in line with the A-approach to Indonesian-type voice, which assumes pivots are **true subjects**.

3.4 PP adjuncts banned from pivothood

- Contra Javanese, neither Indonesian nor Acehnese allows PP adjuncts to render the pivot:

(47) Indonesian

- ***Ke rumah** kau kirim sebuah sepeda.
PREP house 2SG send a bicycle
(Intended: ‘You send a bicycle to my house.’)
- ***Karena hutang** ku-palak beberapa tetangga.
PREP debt 1SG-extort several neighbour
(Intended: ‘Because of (my) debt, I extorted some neighbours.’)
- ***Untuk Rina** kau-beli-kan sebuah sepeda motor.
PREP Rina 2SG-buy-APPL a bicycle motor
(Intended: ‘You bought a motorcycle for Rina.’)
- ***Dengan Maria** ku-bersih-kan beberapa rumah.
PREP Maria 1SG-clean-APPL several house
‘I cleaned several houses with Maria.’

(48) Acehnese

- ***Ngen kamera** lon cok padumboh poto.
with camera 1SG take several/some photo
‘I took some photos with a camera.’
- ***U rumoh** lon kirem saboh gari.
to house 1SG send one bicycle
‘I sent a bike to a house.’
- ***Gara-gara utang** lon prah meupadumdroe jiran.
because debt 1SG extort several neighbour
‘I extorted several neighbours because of debt.’
- ***Ngon sidroe ureung** lon peugleh rumoh.
with one person 1SG clean house
‘I cleaned a house with someone.’

→ Presence of this ban is in line with the observations above that **pivots show prototypical subject (and not topic) behaviors**.

Summary

<i>A pivot phrase . . .</i>	Javanese	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	✓	✗	✗
e. allows pre-aux quantifier float in AV	✓	✗	✗
f. allows pre-aux quantifier float in NAV	✗	✗	✗
	pivots as topics		pivots as subjects
	Ā-approach to voice		A-approach to voice

4 Balinese: hybrid voice system with mixed Ā- and A-properties

- Pivots in Balinese show a mixture of topic and subject properties:

<i>A pivot phrase . . .</i>	diagnostics	Balinese
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	✗
e. allows pre-aux quantifier float in AV	topic property	✓
f. allows pre-aux quantifier float in NAV	topic property	✓

4.1 Relaxed definiteness/specificity constraints on pivots

- Balinese imposes a relaxed definiteness constraint on pivothood:
 - Indefinite human pivots must be introduced by an existential word, as in (49a)
 - Human pivots must be definite-marked (49b); indefinite non-human pivots are permitted (49c–f).

(49) Balinese

- AV; agent pivot
*(Ada) anak ng-aukin Rani.
(EXST) person AV-call Rani
‘Someone called Rani.’
- Passive; theme pivot

Murid-*(e) ba orin wake tuni semengan.
 student-DEF ASP inform 2SG PAST morning
 ‘You have informed the/*a student this morning.’

c. Passive; theme pivot

Nasi (ento) daar-a teken anak luh.
 rice DEM eat-PASS by person female
 ‘That/a (cooked) rice was eaten by a woman.’

d. OV; theme pivot

Umah a-bungkul suba adep tiang ibi.
 house one-CLF PERF sell 1SG yesterday
 ‘I sold a house yesterday.’

e. AV; agent pivot

Sampi ng-amah padang.
 cow AV-eat grass
 ‘A cow eats grass.’ (Arka 2003:112)

f. OV; theme pivot

Buku tumbas tiang.
 book buy 1
 ‘I bought a book/books.’ (Arka 2003:112)

→ Balinese pivots still display topic properties.

4.2 Binding facts

- In AV, the agent can bind the theme, but not vice versa (as expected).
- In NAV, the agent may bind a reflexive theme pivot (50a–b).
 → Theme pivots show reconstruction effect (as in Javanese)

(50) Balinese

a. OV; theme pivot

Iban sayae padidi pasti tulungan tiang.
 body 1SG self MOD help 1SG
 ‘Myself must be helped by me.’

b. Passive; theme pivot

Dewekne padidi sakit-ang-a ajak/teken Andra.
 3SG self hurt-APPL-3SG by Andra
 ‘Himself was hurt by Andra.’

- In NAV, a theme pivot can bind a *by*-phrase agent (51).
 → Theme pivots show subject behaviors and function like a binder (51)
 (as in Indonesian/Acehnese)

(51) Balinese

a. Rani sakit-ang-a teken dewekne padidi.
 Rani pain-APPL-PASS by 3SG self
 ‘Rani_i was hurt by herself_i.’

b. Sabilang_i anak cerik sayang-ang-a ajak meme-ne_i
 every person small love-APPL-PASS by mother-DEF
 padidi.
 self
 ‘Every child is loved by their mother.’ (distributed reading available)

4.3 PP adjuncts banned from pivothood

- PP adjuncts cannot render the pivot:

(52) Balinese

- a. ***Aji kuas-(ne)** gae-nang tiang Gede lukisan.
 with brush-DEF make-APPL 1SG Gede painting
 (intended: ‘I made Gede a painting with the/a brush.’)
- b. ***Ka umah-ne** kirim sayae surate.
 to house-DEF send 1SG letter
 (intended: I sent a letter to the/a house.’)
- c. ***Ulian utang** rampok sayae nake.
 because.of debt extort 1SG person 1SG letter
 (intended: ‘I extorted people because of my/a debt.’)

- d. ***Baang nake** bukak sayae pintue.
for person open 1SG person 1SG door
(intended: ‘I opened a door for a person.’)

4.4 Pre-auxiliary quantifier float

- In Balinese, both AV and NAV allow QF in the pre-auxiliary field (53):

(53) Balinese

a. AV

Pisagan sayae **molas** ng-undang nake.
relative 1SG.POSS **fifteen** AV-invite person
‘Ten of my relatives invited some people.’

b. OV

Punyan poh-e **roras** tanem sayae.
tree mango-DEF **twelve** plant 1SG
‘I planted the twelve mango trees.’

c. Passive

Buku **solas** beli-a ken anake
book **eleven** buy-PASS by person
‘A person/some people bought eleven books.’

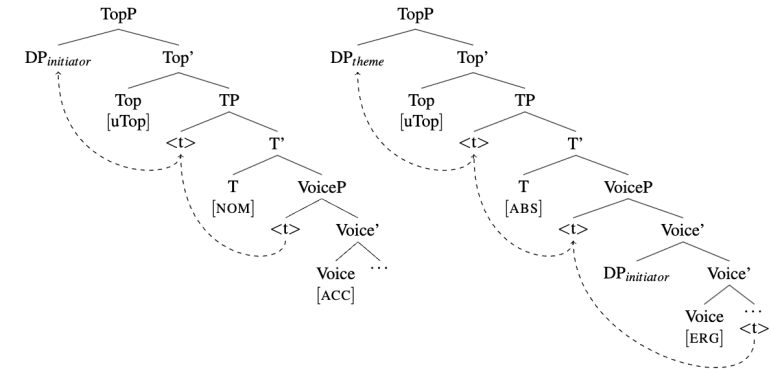
- This QF pattern suggests the **presence of \bar{A} -movement in both AV and NAV.**

→ This is in line with the observations above that Balinese pivots display **topic properties** (4.1–2).

4.5 Proposal: Balinese voice as a hybrid system

- ⊗ **Proposal:** Balinese possesses a hybrid voice system, imposing **obligatory topicalization** on top of a split-ergative system:

(54) a. “Actor Voice” b. “Object Voice”



- In AV (54a), the nominative subject moves from [Spec TP] to [Spec TopP] and render the pivot;
- In NAV (54b), the absolutive theme moves from [Spec TP] to [Spec TopP] and render the pivot.
→ This accounts for PP adjuncts’ ineligibility for pivohood – as **pivots must first render the subject before becoming the topic**
- This proposed hybrid approach captures the mixed \bar{A} - and A-propertyess observed with this voice system:

<i>A pivot phrase . . .</i>	diagnostics	Balinese
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	✗
e. allows pre-aux quantifier float in AV	topic property	✓
f. allows pre-aux quantifier float in NAV	topic property	✓

* * * * *

5 Conclusion and implications

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	✓	✗	✗	✗
e. allows pre-aux quantifier float in AV	✓	✓	✗	✗
f. allows pre-aux quantifier float in NAV	✗	✓	✗	✗
	pivots as topic (\bar{A} -elements)	pivots as both topic and subject (mixed A- and \bar{A} -properties)	pivots as subject (A-element)	
	\bar{A} -approach to voice	hybrid approach	A-approach to voice	

- ⊗ “Indonesian-type voice” is a continuum in flux in transition from a **topic-oriented** to a **subject-oriented** voice system.
 - ▷ Indonesian-type voice systems do *not* form a homogeneous group and are at various stages of progression from \bar{A} to A-syntax:
 - ▷ **Javanese** remains underlyingly Philippine-type (as was Old Javanese), 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.
- The core syntax of “Indonesian-type” voice systems does *not* form a homogeneous group (see McDonnell & Chen 2022 for a similar claim).
 - Surface-level typological similarities (e.g., word order pattern, number of voice distinction, form of voice morphology) are not reliable indicator of a language’s core syntax.

⊗ A tentative hierarchy of innovation:

Javanese ⇒ Balinese ⇒ Indonesian ⇒ Acehnese

- Recall that AV clauses unitarily lack person-indexing on the verb across Javanese, Indonesian, and Balinese:

(55) Absence of person indexing in Actor voice

a. Javanese

Siti wis ng-rangkul arè’ iku.
Siti PERF AV-hug child DEM

‘Siti hugged that child.’

b. Indonesian

Tono mem-beli buku di toko buku.
Tono AV-buy book LOC store book
 ‘Tono bought a book at the bookstore.’

c. Balinese

Ia maang Nyoman pipis.
3 AV.give Nyoman money

‘S/he gave Nyoman money.’

- Only Acehnese AV clauses employ person-indexing on the verb:

(56) Acehnese

a. **Kamo** meu-kalon si Ranti.
1PL.EXC **1PL.EXC-see** ART Ranti
 ‘(Exclusive)we saw Ranti.’

b. **Geutanyo** ta-blo saboh rumah.
1PL.INC **1PL.INC-buy** one-CLF house
 ‘(Inclusive)we bought a house.’

- Presence of subject agreement is expected in an A-oriented voice system (such as Acehnese’s and Indonesian’s) – given the absence of anti-agreement effect (i.e. the subject in AV does *not* undergo \bar{A} -movement)

→ Acehnese has developed a fully A-oriented system, hence the presence of subject-agreement on the lexical verb.

→ In this view, Acehnese voice is more innovative than Indonesian voice: **Javanese** ⇒ **Balinese** ⇒ **Indonesian** ⇒ **Acehnese**

* * * * *

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