

Decoupling the relation-marking and transitivity-marking functions of Austronesian voice

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1 Preliminaries

- My goal here is to look at Austronesian voice from a somewhat different perspective that is in principle independent from alignment.
- There are two camps in Chomskyan work on Philippine-type languages: One camp sees voice as a set of valency and transitivity-based alternations. The other camp sees voice as “extraction marking”, indexing the original case-relation of a prominent argument (the pivot). I will refer to these as the transitivity and indexing functions of voice.
- I argue that both camps are “correct” in some sense but that these are distinct functions which have a tumultuous relation with the inherited voice system across Austronesian time and space. In some languages, the same morphology handles both transitivity and indexing, while in others they have been completely decoupled.
- With regard to the transitivity function, I want to highlight that sensitivity to **undergoer definiteness** is a surprisingly tenacious feature of Austronesian morphosyntax, which outlasts the PAn voice system in several geographical areas and which cross-cuts different alignment systems.
- Our story begins with the PAn voice system as reconstructed by Ross (2002) (building on Wolff 1973) as in figure 1.
- Four voices are differentiated here in three aspects. The paradigm makes an important split between what is labelled here the indicative and non-indicative sub-paradigms, which make the same voice distinctions using very different morphology.

	Actor	Patient	Location	Circumstantial
INDICATIVE				
Neutral	<um>√ *k _{um} áRaw *k _{um} aRáC	√-ən *kaRáw-ən *kaRaC-ən	√-an *kaRáw-an *kaRaC-án	Si-√ *Si-káRaw *Si-kaRáC
Perfective	<umin>√ *k _{um} <in>áRaw *k _{um} <in>aRáC	<in>√ *k<in>áRaw *k<in>aRáC	<in>√-an *k<in>aRáw-an *k<in>aRaC-án	Si-<in>√ *Si-k<in>áRaw *Si-k<in>aRáC
Durative	<um>R-√ *k _{um} a-káRaw *k _{um} a-kaRáC	R-√-ən *ka-kaRáw-ən *ka-kaRaC-ən	R-√-an *ka-kaRáw-an *ka-kaRaC-án	Si-R-√ *Si-ka-káRaw *Si-ka-kaRáC
NON-INDICATIVE				
Atemporal	√ *káRaw *kaRáC	√-u, √-a *kaRáw-u, -a *kaRaC-ú, -á	√-i *kaRáw-i *kaRaC-i	án-i + √, (√-áni) *án-i káRaw (*kaRaw-áni) *án-i kaRáC (*kaRaC-áni)
Projective	<um>√-a *k _{um} aRáw-a *k _{um} aRaC-á	√-aw *kaRáw-aw *kaRaC-áw	√-ay *kaRáw-ay *kaRaC-áy	án-ay + √, (√-ánay) *án-ay káRaw (*kaRaw-ánay) *án-ay kaRáC (*kaRaC-ánay)

Figure 1: The PAn verbal paradigm reconstructed by Ross (2002)

- The indicative paradigm is thought to have come from the reanalysis of nominalizations, as these forms still play an important role in participant nominalization in modern languages, as seen in figure 2.
- The reanalysis is hypothesized to have proceeded as shown in (1).

Paiwan	verb form	nominalisation
k _{əm} an	actor voice neutral	‘eater’, ‘someone who eats’
kan-ən	patient voice neutral	‘food’, ‘something to be eaten’
k<in>an	patient voice perfective	‘consumed food’, ‘something eaten’
kan-an	location voice neutral	‘place where one eats’
si-kan	circumstantial voice neutral	‘eating utensil’, ‘something to eat with’

Figure 2: After Ross (2002); Ferrell (1982:17, 106)

(1) PAIWAN (Ferrell 1982; Ross 2002)

- təkəl-ən a vaua
drink-PAT.NMLZ SPEC wine
‘the wine is something to be drunk’
- təkəl-ən nua qala a vaua
drink-PAT.NMLZ GEN stranger SPEC wine
‘the wine is the stranger’s drinking thing’ → ‘the stranger will drink the wine’

2 Choice of voice in conservative Austronesian languages

2.1 Transitivity marking

- Teng (2008) shows that Puyuma, a Formosan language thought to be highly conservative morphosyntactically (Ross 2009), has a set of syncretic argument markers that indicate both case and definiteness but that an actor voice clause avoids a definite undergoer, as seen in (2) and (3).

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|-----|--|-----|---|
| (2) | PUYUMA (Teng 2008:155) | (3) | ta=trekelr-aw na eraw
1P.GEN=drink-TR1 DF.NOM wine
'We drank the wine.' |
| a. | an trekelr=ta dra eraw i,...
when <ITR>drink=1P.NOM ID.OBL wine TOP
'When we drink wine, ...' | | |
| b. | *an trekelr=ta kana eraw i,...
when <ITR>drink=1P.NOM DF.OBL wine TOP | | |

- A definite undergoer not only avoids being an AV object, it also avoids being the non-pivot argument of a locative voice clause, as Teng shows in (4) and (5) (Kaufman 2017 shows this is also true for Tagalog).

- | | | | |
|-----|---|-----|---|
| (4) | PUYUMA (Teng 2008:155) | (5) | tu=kiwitr-aw na patraka
3.GEN=grab-TR1 DF.NOM meat
'They grabbed the meat.' |
| a. | tu=kiwitr-ay i temamataw dra patraka
3.GEN=grab-TR2 SG.NOM their.father ID.OBL meat
'They grabbed meat from their father.' | | |
| b. | *tu=kiwitr-ay i temamataw kana patraka
3.GEN=grab-TR2 SG.NOM their.father DF.OBL meat | | |

- Note that the transitive clauses seen above are **not** headed by the forms derived from nominalizations. They are thought to be the original transitive verbs of Proto-Austronesian (PAN). The AV form, on the other hand, which Teng glosses INTRANSITIVE, appears to have lived in both the verbal and nominal domain.
- **Conclusion:** Whatever we call this alignment system, the definiteness of the undergoer determines the choice of voice in main clauses to a large extent.
- The two referential constraints can be summed up as follows (based on Adams and Manaster-Ramer 1988).

Definite Pivot Constraint The pivot must be familiar/unique
(the Definite Topic Constraint of Adams and Manaster-Ramer 1988:81)

Indefinite Undergoer Constraint A non-pivot undergoer must not be familiar/unique
(the Indefinite Goal Constraint of Adams and Manaster-Ramer 1988:82)

- Although not sharing a common ancestor for well over 4,000 years and expressing these clause types with etymologically distinct morphology, Tagalog maintains the same constraint as Puyuma in main clauses. A definite undergoer strongly prefers to be the pivot of an undergoer voice clause rather than the object of an actor voice clause.

(6) TAGALOG

- a. K<um>áin ng tokwa si Juan
<AV.BEG>eat GEN tofu NOM Juan
'Juan ate tofu.'
- b. K<in>áin-∅ ni Juan ang tokwa
<BEG>eat-PV GEN Juan NOM tofu
'Juan ate the tofu.'

- This has led one camp, the ergativists (Gerds 1988; De Guzman 1988; Liao 2004; Aldridge 2004, 2012 inter alia), to treat the voice distinction as fundamentally related to transitivity (more specifically, viewing the AV as a type of antipassive).

2.2 Extraction marking

- Another aspect of the voice system emerges when we look at relativization and certain other types of embedded clauses.
- Here, we find that the voice must correspond to the relativized argument so that a clause will be in the patient voice when the patient has been relativized and in the actor voice when the actor has been relativized, etc.

(7) KATIPUL PUYUMA (Teng 2009:825)

- a. ma'izang izu na trunga' nantu k<in>erutr
big that DEF.NOM ginger 3.GEN <PERF.UV>dig
'That ginger that he dig out was big.'
- b. salaw asavak nantu k<in>erutr-an
very deep 3.GEN <PERF.UV>dig-LOC
'The place that he dug was very deep.'
- c. Aluzun izu na pitaw nantu i-kerutr
heavy that DEF.NOM hoe 3.GEN CONV-dig
'The hoe that he used to dig was heavy.'

(8) TAGALOG

- a. ang=s<in>ulat-∅ (na libro)
NOM=<BEG>write-PV LNK book
'The (book) written.'
- b. ang=s<in>ulat-an(=g papel)
NOM=<BEG>write-LV=LNK paper
'The (paper) written on.'
- c. ang=i-s<in>ulat (na bolpen)
NOM=CV-<BEG>write LNK pen
'The (pen) written with.'

- This has been interpreted in several very different ways.
 - Ergativists see this as a constraint common to ergative languages wherein the absolutive is syntactically privileged for purposes of extraction.
 - Another camp sees the voice marking as a kind of inflection which agrees with the case of an extracted argument (Chung 1998; Rackowski 2002; Pearson 2005; Chen 2017; Erlewine et al. 2017), often referred to as the “case agreement” approach.
- Note that other language groups, e.g. Tibeto-Burman, are known to index the role of a relativized argument on the verb, as seen in Tibetan and Newari, among others.

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|--|--|
| <p>(9) CENTRAL TIBETAN (DeLancey 1999)</p> <p>a. mi sha gtub=mkhan de
 person meat chop=NMLZ1 DEM
 'the person who chopped the meat'</p> <p>b. nga-s sha btsos-pa de
 1SG-ERG meat cook-NMLZ2 GEN
 'the meat which I cooked'</p> | <p>(10) NEWARI Genetti (2007:312-3)</p> <p>a. pali depān coŋ-gu kok
 roof on stay-NMLZ1 crow
 'the crow that is on the roof'</p> <p>b. jin phoŋ-a misā
 1S.ERG ask.for-NMLZ2 woman
 'the woman whom I asked for (in marriage)...'</p> |
|--|--|

3 When transitivity and relation marking conflict

- The indexing and transitivity functions of Austronesian voice are, in principle, independent, but they are combined in the same morphosyntax alternations in the above languages.
- However, they come into conflict when relativizing the agent of a clause with a definite undergoer.
- Here, the indexing function demands AV while the transitivity function requires an undergoer voice (i.e. PV, LV, CV).
- How do languages resolve this conflict?

3.1 Philippine languages

- In Philippine languages, case markers come to the rescue as a last resort.
- In Tagalog, the oblique case marker *sa* gives a definite interpretation to its complement. In a plain matrix clause context, an AV predicate cannot simply choose whether to express its object as an indefinite genitive or a definite oblique, as shown in (11).
- A definite undergoer, in this case, will require the patient voice, as in (12).

- | | |
|---|--|
| <p>(11)a. B<um>ili ang babae ng kotse
 <AV>bought NOM woman GEN car
 'The woman bought a car.'</p> <p>b. *B<um>ili ang babae sa kotse
 <AV>bought NOM woman OBL car</p> | <p>(12) B<in>ili-∅ ng babae ang kotse
 <PRF>bought-PV GEN woman NOM car
 'The woman bought the car.'</p> |
|---|--|

- However, when the agent is relativized and there is no choice of voice, case marking emerges as a way to distinguish definite from indefinite objects, as seen in (13).

- (13)a. ang b<um>ili ng kotse
 NOM <AV>bought GEN car
 'the one who bought a car'
- b. ang b<um>ili sa kotse
 NOM <AV>bought OBL car
 'the one who bought the car'

- In many languages of Sulawesi, it seems best to treat reflexes of *paŋ- as marking **existential quantification over an object**.
- The result is that plain actor voice *<um> is unable to license objects at all, as seen in (18-a); *mang-* is required to introduce an indefinite object of a bivalent predicate, as in (18-b).
- But *mang-* **cannot** introduce a definite undergoer, as seen in (19-a). Definite undergoers require the (morphologically unmarked) undergoer voice, which maps them to the absolutive argument, as in (19-b).

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|------|---|--------|---|
| (18) | MAMUJU (Kaufman 2017) | (19)a. | *Mang-kita=ko i Ali
ANTIPASS-see=2.ABS PM Ali
For: ‘Ali saw you.’ |
| a. | k<um>ande=ko (*bau)
<AV>eat=2.ABS fish
‘You eat (*fish).’ | b. | Mu-kita i Ali
2.ERG-see PM Ali
For: ‘You saw Ali.’ |
| b. | Mang-kande=ko bau
ANTIPASS-eat=2.ABS fish
‘You eat a fish.’ | | |

- Now we can turn to the conflict situation: What happens when an agent is extracted from a clause with a definite undergoer?
- In Mamuju, the indexing function of voice wins out and the previously ungrammatical structure with a definite antipassive object suddenly becomes grammatical, as in (20). Note that the absolutive clitic now references the object rather than the subject, in contrast to the usual antipassive pattern.
- An extracted argument in Mamuju can never (as far as I’ve seen) correspond to the ergative, as exemplified in (21).

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|------|--|------|--|
| (20) | Sema=ko mang-kita?
who=2.ABS ANTIPASS-see
‘Who saw you?’ | (21) | Sema na-kita i Ali?
who 3.ERG-see PM Ali
‘Who did Ali see?’ NOT ‘Who saw Ali?’ |
|------|--|------|--|

- The same phenomenon can be seen in Bugis (22), which shows the ungrammaticality of a definite AV/antipassive object while (23) shows that such an object is fine when the agent is extracted.¹

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|------|--|------|---|
| (22) | BUGIS (Laskowske 2016:23)
*M-ita=ka’ ula-é.
AV-see=1S.ABS snake-DEF
For: ‘I saw the snake.’ | (23) | BUGIS (Laskowske 2016:25)
Ia’ m-anré=i otti-mmu.
1SG AV-eat=3ABS banana-2FAM.GEN
‘I ate your bananas.’ |
|------|--|------|---|

- Things change when we arrive at Makassarese (Jukes 2005, 2006, 2013, 2015).
- Here, just as in Mamuju, only the absolutive argument can be relativized from a transitive clause, but there are two verb forms employed when extracting the agent.
- When the undergoer is indefinite, the plain antipassive is used, as in (24-a).

¹Laskowske (2016) considers this structure as an undergoer voice clause with a fronted actor because the patient is definite and coreferent with the absolutive clitic. He thus glosses m- in (ii) as realis rather than AV.

- But when the undergoer is definite, Makassarese requires a prefix that looks similar to the antipassive but which does not trigger nasal substitution, as in (24-b). Here, the absolutive clitic again cross-references the the undergoer rather than the extracted argument.

(24) MAKASSARESE (Jukes 2015:24)

- a. sorodadu aN(N)-buno tau
 soldier SEMITR-kill person
 ‘a soldier who killed a person’
- b. sorodadu aN-buno=a=i tau=a
 soldier AF-kill=DEF=3 person=DEF
 ‘(the) soldier who killed the person.’ (Jukes 2015:25)

- The history of this latter prefix is a complete mystery. Two possibilities come to mind:
 - *aN-* could represent a compromise between the antipassive of the same shape and the unmarked transitive voice, which is never subject to nasal substitution. In this way, the first part of the prefix would carry out the indexing function of voice while the second (null) part of the prefix would carry out the transitivity function of voice.
 - Another possibility is that *aN-* is a reanalyzed relativizer (cf. Indonesian *yang*) and that the verb here is simply a transitive stem without ergative agreement.
- In either case, Makassarese seems to show a compromise of sorts between the two voice functions so that it fulfills both its indexing function and transitivity function within a single voice (historically speaking).
- Selayarese (Basri 1999; Mithun 1991; Basri and Finer 1987; Finer 1994) departs radically from the previous patterns. Here, **the transitivity function of voice overrides its indexing function**.
- In (25), we see how the definiteness of the undergoer determines voice in a simple matrix clause.

(25) SELAYARESE (Basri 1999:241-2)

- a. la-halli=i berasa-njo i-Ali
 3.ERG-buy=3.ABS rice-DEF PM-Ali
 ‘Ali bought the rice.’ Basri diss 241
- b. am-malli=i berasa i-Ali
 ANTIPASS-buy=3.ABS rice PM-Ali
 ‘Ali bought rice.’

- But the presence of a definite undergoer requires the transitive voice **even when the agent is extracted**, yielding ergative extraction, as in (26).

(26) tantara to=la-halli-njo=i loka-mu
 soldier RELT=3S.ERG-buy-DEF=3.ABS banana-2S.GEN
 ‘the soldier who bought your bananas’

- This is a rare pattern in the region! Riesberg (2014:34) does not find it symmetrical languages to the south (e.g. Bali) nor to the north (e.g. Totoli).²

²Of course, if one looks hard enough in Malay, one occasionally finds examples like (i), but such examples usually involve non-restrictive relatives with resumptive pronouns.

- But symmetrical languages, by definition, are generally insensitive to the definiteness of actor voice objects, as their AV constructions are fully transitive.
- It is likely that Selayarese picked this up from the Wotu-Wolio languages it shares Selayar island with. Mead and Smith (2015:62) notes that Barang-Barang allows the same pattern “apparently licensed by the fact that the object is specific.”

(27) BARANG-BARANG (Mead and Smith 2015:62)

- a. ito **ma**-bunu tria sapi-mu
 person AV-kill that cow-2SG.GEN
 ‘the person who killed your cow’
- b. ito **la**-bunu tria sapi-mu
 person 3.SBJ-kill that cow-2SG.GEN
 ‘the person who killed your cow’

- But while the transitivity function seems to outrank indexing in (27-b), the actor voice prefix in Barang-Barang appears to do extra indexing work in cases of agent extraction in intransitive clauses.
- Underlying intransitives such as *pəsua* ‘enter’ and *matte* ‘die’ do not take any voice marking in Barang-Barang. Yet, when the agent is relativized, as in (28), they appear with actor voice *ma*-nonetheless.
- *Ma*- is certainly not playing a transitivity role here, but what’s the great need to index the extracted actor of an **intransitive** predicate?
- In an SVO language without a relativizer/linker, *ma*- is the only element that distinguishes the clause from a matrix predication! (Generalized extraction marking can be important, too.)

(28) BARANG-BARANG (Mead and Smith 2015:62)

- a. pəali ganru **ma**-pəsua ri kampong Loə’
 buyer corn AV-enter at village Loa
 ‘corn buyers who come into Loa village’
- b. sərdadu-na Serəng **ma**-matte ri Loə’
 soldier-3SG.GEN Seram AV-die at Loa
 ‘soldiers of Seram who died at Loa’

- As an aside, the allowance for ergative extraction in languages like Barang-Barang and Selayarese increases the contexts for ergative agreement and may be a stepping stone towards a NOM-ACC alignment system.
- Barang-Barang differs from Selayarese in allowing intransitive predicates to index their subjects with “ergative” proclitics, as in (29). Wolio, the best documented language of this subgroup, has gone further in this direction and has lost most traces of ergativity.

(29) BARANG-BARANG (Mead and Smith 2015:59)

- a. Ne’e mu-lafəng.
 don’t 2SG.SBJ-reply
 ‘Don’t reply’

(i) ...oleh sebab Tuhan kita, Yesus Kristus, yang oleh-nya juga kita di-beri masuk...
 by reason God 1P.IN Jesus Christ RELT by-3S.GEN also 1P.INC PV-give enter
 ‘...through our Lord Jesus Christ: by whom also we have been given entrance...’ (KSPB Rom 5:2)

- b. Ku-mədinging.
1SG.SBJ-cold
'I'm cold.'
- c. La-pə-rəngkeu kiyau təria.
3.SBJ-INTR-bark dog that
'The dog is barking.'

4 After the AV/PV dichotomy is gone

4.1 Polynesian

- Inasmuch as Polynesian patterns like (30) hold, we find that transitivity restrictions can be maintained even after the relevant morphology is gone.³
- Rather than carry out existential quantification over indefinite objects via *paŋ-, as seen earlier, Niuean appears to employ pseudo-incorporation for a similar purpose (30-b).
- Definite undergoers, on the other hand, are mapped to the absolutive argument in a transitive clause, as in (30-a).

(30) NIUEAN (Massam 2000:98)

- a. Ne inu e Sione e kofe.
past drink ERG Sione ABS coffee
'Sione drank the coffee.'
- b. Ne inu kofe a Sione.
PAST drink coffee ABS Sione
'Sione drank coffee.'

- As the old AV/PV morphology is completely lost in Polynesian, voice cannot index the role of extracted arguments.
- No ergative Polynesian language (as far as I am aware) requires pseudo-incorporation of the undergoer (as in (30-b)) when extracting agent of a bivalent clause, despite having restrictions on extracting ergative arguments.
- Rather, extraction of a transitive agent requires a resumptive pronoun within the clause, as shown in (32).
- It makes sense that transitivity should override indexing when the morphological means for role indexing have been largely lost.

(31) TONGAN (Otsuka 2017:994)

- a. ki he fefine_i [na'e kata ____i]
to SPEC woman PST laugh
'to a woman who laughed'
- b. ki he fefine_i [na'e fili 'e Sione ____i]
to SPEC woman PST choose ERG John
'to a woman whom John chose'

³For present purposes, we can posit that the patterns discussed here continue older PMP structures, following Clark (1976); Kikusawa (2002), although this is controversial.

- c. *ki he fefine_i [na'e kai ___i 'a e ika]
 to SPEC woman PST eat ABS SPEC fish
 For: 'to a woman who ate a fish'
- (32) ki he fefine_i [na'e kai ne_i 'a e ika]
 to SPEC woman PST eat 3SG ABS SPEC fish
 'to a woman who ate a fish'

4.2 Muna

- Muna is a NOM-ACC language which has also lost all traces of the AV/PV distinction in main clause predications.
- Yet, undergoer definiteness is still of crucial importance to its verb system, as shown by Van den Berg (1995)!
- Surprisingly, the *e-* in the *ae-* class of agreement markers descends from **maŋ-* (which marks existential quantification over indefinite objects).
- The *a-* class marks both intransitives and transitives with definite objects while the *ae-* class marks verbs with indefinite objects.

- | | | | |
|------|------------------------------------|------|---|
| (33) | MUNA (Van den Berg 1995:164) | (34) | MUNA (Van den Berg 1995:162) |
| a. | a-losa
'I emerge, come through' | a. | Ae-uta kalei
1s.R-pick banana
'I pick(ed) a banana/bananas.' |
| b. | ae-lobhi
'I hit, cut' | b. | A-uta kalei-no
1s.R-pick banana-his
'I pick(ed) his banana(s).' |
| c. | ao-lowu
'I am drunk' | | |

- The old transitivity function of voice has been "continued" by the distributive here.
- We should ask if such patterns on the edge of Austronesian and non-Austronesian languages are truly continuations or contact induced.
- The non-Austronesian language, Tobelo, not so far away, also indexes object definiteness, but in a more traditional way. (Definite objects trigger object agreement; indefinite ones don't.)

- (35) TOBELO (Holton 2003:67)
- a. o-pine t-a-ija
 NM-rice 1-3-buy
 'I bought the rice.'
- b. o-pine to-ija
 NM-rice 1-buy
 'I went rice-shopping.'

5 Conclusion

- I’ve tried to show here how the functions of voice and, secondarily, case in Philippine languages are taken over by non-voice morphology when case marking is lost.
- This might suggest a new way of looking at Austronesian voice such that both theoretical camps (the ergativists and the case-agreement-niks) capture a piece of the truth.
- If this is worth pursuing, it might lead us to a typology as shown below, where certain languages combine the transitivity and indexing function of voice markers to a large extent while others privilege one or the other function.

	INDEXING	TRANSITIVITY
Tagalog-type	✓	✓
Symmetrical-type	✓	✗
Selayarese-type	✗	✓

Table 1: Indexing and transitivity with voice

	INDEXING	TRANSITIVITY
Niuean-type	✗	✓
Tetun-type	✗	✗

Table 2: Indexing and transitivity without voice

- The comparison that’s really waiting to be made is with the Mayan languages.
- Mayan is reconstructed with distinct a “actor focus” morpheme (which indexes an extracted agent) and an antipassive (which detransitivizes a bivalent predicate) but these eventually merge in many languages.
- I’ve argued that the development in Austronesian has been exactly the opposite: merged functions of the original voice markers have been decoupled through an innovative use of the distributive prefix.

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