

Reconstructing Proto-Austronesian Alignment

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1. Introduction

Challenges for diachronic syntax and syntactic reconstruction:

1. When applying the Comparative Method, what do we compare and reconstruct?

=> Parameters: Bundles of formal features on functional heads (“Borer-Chomsky Conjecture”)

2. How do we determine the direction of change?

=> Certain syntactic environments provide conditions for certain reanalyses.

3. How does change take place?

=> Results from setting different parameters in response to changes in the primary linguistic data in first language acquisition (Lightfoot 1979, 1991, 1999; Roberts 1997; Roberts and Roussou 2003; and others).

Proposal (revised version of Aldridge 2015, 2016):

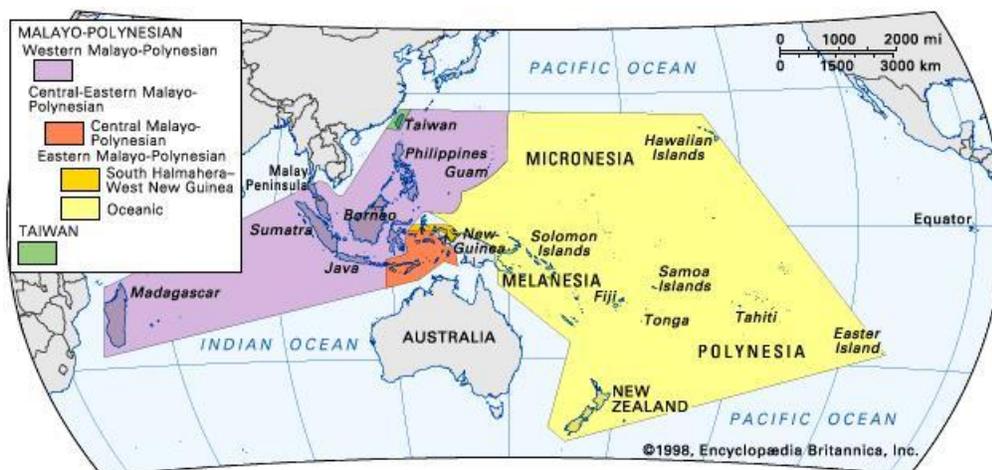
⇒ Reconstruct Proto-Austronesian (PAN) with accusative alignment.

⇒ By comparing functional morphemes marking ergative verbs in some An languages.

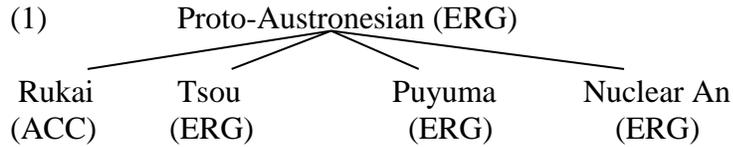
⇒ Show that ergative alignment was innovated in nonfinite and irrealis clauses in a daughter of PAN called Proto-Ergative Austronesian (PEAn).

2. Data and reconstructions

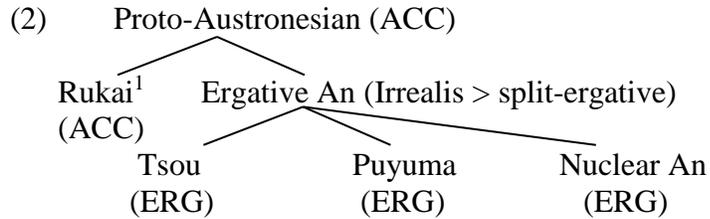
Austronesian Language Family; Taiwan as the homeland of Proto-Austronesian (PAN)



Ross (2009, 2012): PAn reconstructed as split-ergative



Aldridge (2015, 2016): Pan reconstructed as accusative



Alignment variation:

- Tsou split-ergative alignment (Chang 2011; based on Zeitoun 2000: 93-4)
- (3) a. **mi-ta** **m-ongsi** 'e pasuya
 AV-3SG AV-cry NOM PN
 'Pasuya is crying.' (Chang 2011: 281)
- b. **mo** **mo-si** ta pangka to emi 'o amo
 AV.3SG AV-put OBL table OBL wine NOM father
 'Father put wine on the table.' (Chang 2011: 285)
- c. i-ta teaph-**a** to kexpx ta pasuya 'e cxyx
 TR-3SG put.into-TR OBL backpack ERG PN NOM lunch.box
 'Pasuya put the lunch box into his backpack.' (Chang 2011: 282)
- d. i-si si-**i** ta amo ta emi 'e pangka
 TR-3SG put-APPL ERG father OBL wine NOM table
 'Father put wine on the table.' (Chang 2011: 285)

- Puyuma split-ergative alignment
- (4) a. t<**em**>a-ka-kesi=ku (Teng 2008: 135)
 <AV>RED-study=1.SG.NOM
 'I am studying.'
- b. tr<**em**>akaw dra paisu i isaw (Teng 2008: 147)
 <AV>steal INDEF.OBL money SG.NOM Isaw
 'Isaw stole money.'
- c. tu=trakaw-**aw** na paisu kan isaw (Teng 2008: 147)
 3.GEN=steal-TR DEF.NOM money SG.OBL Isaw
 'Isaw stole the money.'

¹ This proposal is in agreement with Starosta's (1995, 2001) claim that Rukai is a primary subgroup of PAn, though there are significant differences between the bases for the two claims.

- d. tu=trakaw-**ay**=ku dra paisu kan isaw
 3.GEN=steal-APPL=1SG.NOM INDEF.OBJ money SG.OBL Isaw
 ‘Isaw stole money from me.’

Puyuma imperatives (Teng 2008:216)

- (5) a. pilang-**u** i temuu
 take-TR.IMP SG.NOM your.grandmother
 m-uka i drena-drenan
 AV-go LOC RED-mountain
 ‘Take your grandmother to the mountains.’
 b. puka-**i** dra tidrul dra samaya
 put-APPL.IMP INDEF.OBL wasp INDEF.OBL some
 ‘Put some wasps (in).’

Mantauran Rukai accusative alignment

- (6) a. o-dhaa-dhaace-**lra**
 DYN-RED-walk-1SG.NOM
 ‘I am walking.’
 b. o-cengele-mi’-**iae**
 DYN-see-2SG.NOM-1SG.OBL
 ‘You see me.’
 c. o-cengele-**lra**-imia’e
 DYN-see-1SG.NOM-2SG.OBL
 ‘I see you.’

(7) Puyuma verbal inflection (adapted from Teng 2008)

	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	V	V-aw	V-ay
Hortative	V-a	V-aw	V-ay
Imperative	V	V-u	V-i
Negative	V	V-i	V-i

- (8) **Tsou** AV² TR APPL
 Nonfinite m-V V-a V-i

Ross (2009, 2012): 1. PAn reconstruction based mainly on Puyuma and Tsou (split-ergative)
 2. Transitive and applicative morphology assumed to be lost in Rukai

- (9) **PAn** AV TR APPL
 Realis *M-V *V-aw *V-ay
 Hortative *M-V-a *V-aw *V-ay
 Imperative *V *V-u *V-i
 Nonfinite *M-V *V-a *V-i

² Unusual gloss: AV = actor voice (transitive and intransitive clauses showing accusative alignment)

But there seems to be a derivational relationship between Puyuma realis and irrealis verbal affixes³: $V-aw < -a + -u$; $V-ay < -a + -i$
 ⇒ Maybe this is an innovation.

Proto-Rukai (Ross 2009: 311; based on Zeitoun 2003)

(10)	<u>ACT</u>
Realis	* <i>u-a-V</i>
Imperative	* <i><u>V-a</i>
Nonfinite	* <i><u>V</i>

Aldridge (2015, 2016): PAn reconstruction based mainly on Rukai (accusative)

(11) PAn reconstruction (revised from Aldridge 2015, 2016)

PAn	<u>ACT</u>
Realis	* <i>m-V</i>
Imperative	* <i>V</i>
Nonfinite	* <i><m>V-a</i>

Ergative alignment innovated in Proto-Ergative Austronesian (PEAn):

- ⇒ **-u* and **-i* from incorporated accusative case marker and preposition⁴
- ⇒ Bare object reanalysed as nominative
- ⇒ Non-nominative subject in negated clauses

(12) PEAn reconstruction (revised from Aldridge 2015, 2016)

PEAn	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	* <i>m-V</i>	---	---
Imperative	* <i>V</i>	* <i>V-u</i>	* <i>V-i</i>
Nonfinite	* <i><m>V-a</i>	* <i>V-a-u</i>	* <i>V-a-i</i>

3. From PAn to PEAn

Methodological considerations:

1. What changed? Parameters (formal features on functional heads)
 - ⇒ Realis *v* (**m-*)
 - ⇒ Nonfinite *C* (**-a*)
 - ⇒ Transitive *v* (**-u*)
 - ⇒ Appl (*-i*)
2. Considerations in reconstruction:
 - ⇒ Reanalysis results from intergenerational changes in PLD.
 - ⇒ Plausibility of the reanalyses

³ This pattern was also noticed by Ross (2002), but he proposed no account for it.

⁴ First proposed by Starosta et al. (1982) and Starosta (1995).

3.1. Realis

PAn realis clauses

=> Verb movement to C

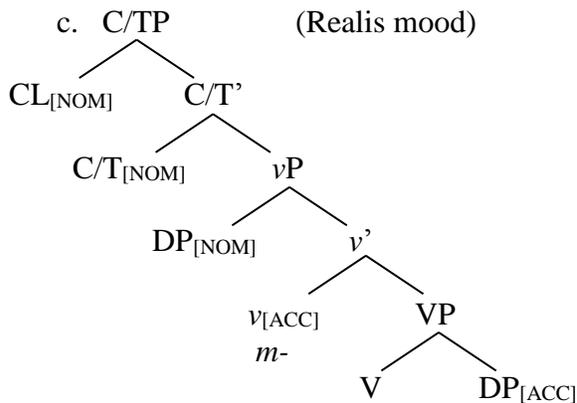
=> PAn did not have C-T Inheritance.

=> Subject clitic pronouns move to [Spec, CP] to value NOM; realigned in PF.

=> Subject DPs value nominative case with C under c-command.

=> Objects value accusative case with **m-*.

- (13) Tanan Rukai
- a. u-duri=**aku** sa bilbil
 DYN=plant=1SG.NOM INDEF.ACC banana
 ‘I plant bananas.’
- b. luða ay-kila **ku** tina=**li**
 tomorrow FUT-come NOM mother=1.SG.GEN
 ‘My mother will come tomorrow.’



Need to account for three morphemes:

=> Nonfinite C (*-a)

=> Transitive *v* (*-u)

=> Appl (-i)

*C-*u* as ACC case marker (Ross 2006); **i* reflected as locative preposition:

- Northern Paiwan
- (14) na-talem azua tsaotsao **tua** velevel **i** gadu
 PRV-<INTR>plant NOM.DEM person ACC banana in mountain
 ‘That person plants bananas in the mountains.’

Nonfinite *-a

1. Reflex of *-a on embedded nonfinite verbs in Puyuma:

Puyuma (Teng 2008:113)

- (15) drua-drua me-na'u-a a traу
 RED-come AV-see-A INDEF.NOM person
 'Many people came to see.'

2. Reflex of *-a as nonfinite TRANS in Tsou; Reflex of *-i as applicative

- (16) **Tsou** INTR/AP TRANS APPL_L APPL_H
 Nonfinite M-V V-a V-i V-(n)eni

Tsou (Chang 2011: 285; based on Zeitoun 2000:93-4)

- (17) a. i-si si-a ta pangka to amo 'o emi (TRANS)
 TR-3SG put-TR OBL table ERG father NOM wine
 'Father put the wine on the table.'
 b. i-si si-i ta amo ta emi 'e pangka (APPL_L)
 TR-3SG put-APPL ERG father OBL wine NOM table
 'Father put wine on the table.'

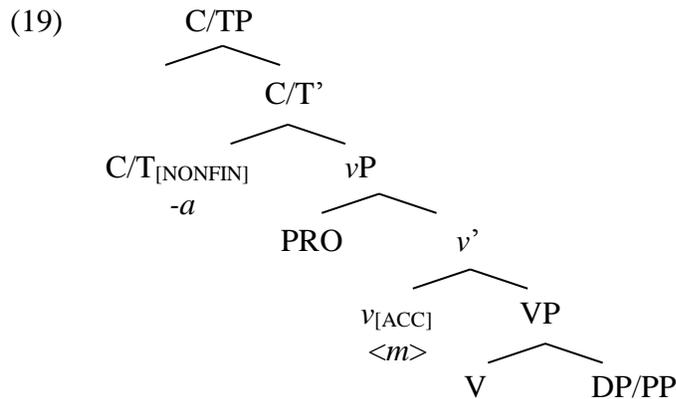
Puyuma transitive and applicative -a+u and -a+i:

Puyuma

- (18) a. tu=trakaw-aw na paisu kan isaw (Teng 2008: 147)
 3.GEN=steal-TR DEF.NOM money SG.OBL Isaw
 'Isaw stole the money.'
 b. tu=trakaw-ay=ku dra paisu kan isaw
 3.GEN=steal-APPL=1SG.NOM INDEF.OBJ money SG.OBL Isaw
 'Isaw stole money from me.'

PAn nonfinite clauses:

=> PRO subject; ACC object



Reanalysis: D & P incorporated to V (Starosta 1995)
 => *-u* and *-i* attach to nonfinite *-a*.
 => ACC *-u* becomes a transitivity marker
 => P *-i* becomes an applicative

Transitive suffix **-u*

Input: 1. *m-V-a* [DP Cu_[ACC] NP]
 Incorporation: 2. *m-V-a-u* DP (Bare object with NOM)
 Reanalysis: 3. *V-a-u* DP (Replacement of verb marking)

Applicative suffix **-i*

Input: 1. *m-V-a* [PP *i* DP]
 Incorporation: 2. *m-V-a-i* DP (Bare object with NOM)
 Reanalysis: 2. *V-a-i* DP (Replacement of verb marking))

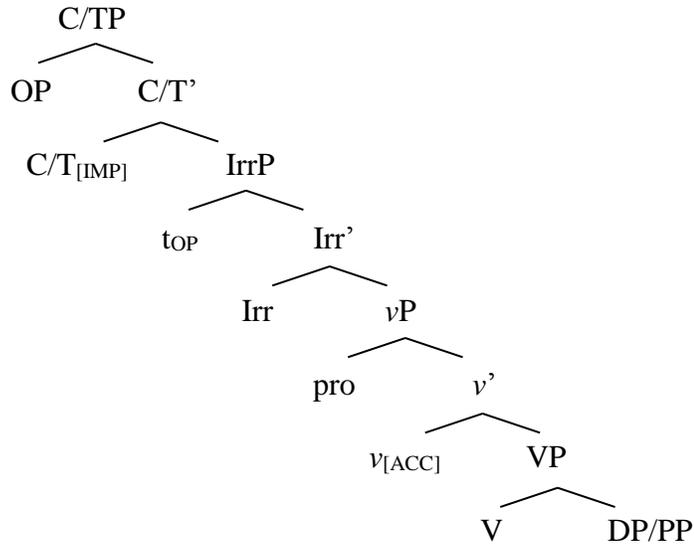
3.2. Imperatives

Transitive and applicative in Puyuma imperatives:

- Puyuma imperatives (Teng 2008:216)
- (20) a. pilang-**u** i temuu
 take-TR.IMP SG.NOM your.grandmother
 m-uka i drena-drenan
 AV-go LOC RED-mountain
 ‘Take your grandmother to the mountains.’
- b. puka-**i** dra tidrul dra samaya
 put-APPL.IMP INDEF.OBL wasp INDEF.OBL some
 ‘Put some wasps (in).’

PAn imperative clauses:
 => pro subject; ACC DO; PP IO
 => *-u* and *-i* attach directly to V

(21)



What about the ergative alignment?

=> Imperative: pro subject, bare NOM object

=> Nonfinite PRO subject, bare NOM object

3.3. Negated clauses

Ergative alignment comes primarily from negated clauses.

=> Overt non-nominative subject clitic; bare object

=> Bare object reanalysed as nominative

Non-nominative subjects in negated clauses:

- (22) a. Mantauran Rukai
o-moa-**lrao** ta-iki-e-ni adhidhapaē
DYN-go-1SG.NOM NMLZ-go-NMLZ-3SG.GEN work
'I went to the place where he/she goes to work.'
- b. o-moa-ka-**li** ka 'asika'olo
DYN-go-NEG-1SG.GEN NEG work
'I did not go to work.'

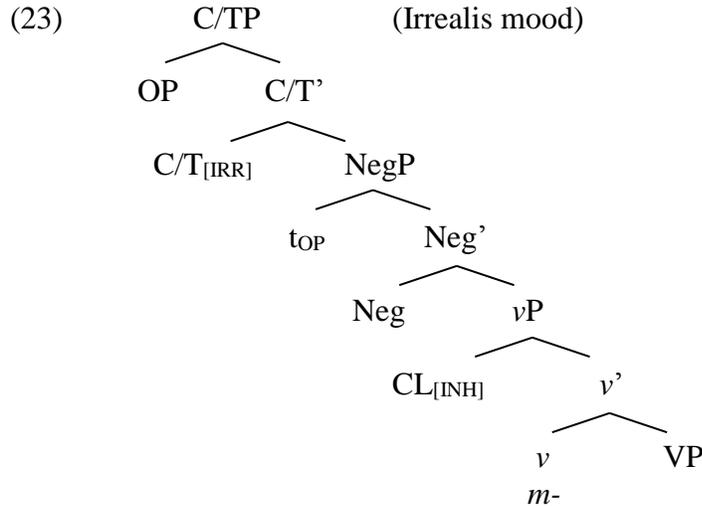
PAn irrealis clauses

=> Operator in [Spec, CP]⁵

=> Verb movement to C

=> PAn did not have C-T Inheritance.

=> Subject clitic pronouns cannot move to [Spec, CP]; must value non-nominative case.



NOM can be valued under c-command.

Budai Rukai (Chen 2008: 31)

- (24) kai ma-tuas ki cekele ka lasu
 not NONFUT-leave OBL village NOM guy
 ‘The guy did not leave the village.’

Evidence for OP in [Spec, CP]:

⇒ Negation restrictions in relative clauses

Mantauran Rukai (Zeitoun 2007: 168)

- (25) *akaodho ka Irihoa²-e-ka-li
 not.exist NEG know-NMLZ-NEG-1SG.GEN
 ‘There is nothing I do not know.’

Parallel in Late Archaic Chinese:

=> Non-nominative subject in irrealis mood

⁵ The analysis of operator movement in irrealis clauses is based loosely on Kratzer’s (1977, 1981, 1991) proposal that modals are propositional operators. Buttler (2003) extends this analysis and proposes that modals undergo quantifier raising to the closest phase edge. I adapt Buttler’s analysis in claiming that what undergoes movement is a null operator launched by a modal or irrealis clausal head. See also Kempchinsky (1986, 2009), Larson (1987), Watanabe (1993), Dubinsky & Williams (1995), Bhatt and Pancheva (2002, 2006), Demirdache & Uribe-Etxebarria (2004), Aboh (2005, 2010), Haegeman & Ürögdi (2010), Haegeman (2007, 2010a, 2010b), and others for various proposals that an operator occupies [Spec, CP] in non-assertive clauses.

(26) a. 我將死。 (Zuozhuan, Xiang 25)

Wǒ jiāng sǐ.
 1.NOM will die
 ‘I am going to die.’

b. 吾弗敬子矣。 (Zuozhuan, Zhuang 11)

Wú fú jìng zǐ yǐ.
 1.GEN NEG respect sir ASP
 ‘I no longer respect you, sir.’

(27) PEAn reconstruction

PEAn	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	* <i>m</i> -V	---	---
Imperative	*V	*V- <i>u</i>	*V- <i>i</i>
Nonfinite	*< <i>m</i> >V- <i>a</i>	*V- <i>a</i> - <i>u</i>	*V- <i>a</i> - <i>i</i>

Ergative alignment innovated in Proto-Ergative Austronesian (PEAn):

- ⇒ *-*u* and *-*i* from incorporated accusative case marker and preposition
- ⇒ Bare object reanalysed as nominative
- ⇒ Non-nominative subject in negated clauses

3.4. Further changes

Tsou: Retains embedded nonfinite ergative alignment with AUX
 => Monophthongization and loss of -*a* in AV

(28) **Tsou** AV⁶ TR APPL
 Nonfinite *m*-V V-*a* V-*i*

Tsou (Chang 2011; based on Zeitoun 2000: 93-4)

- (29) a. **mi**-ta **m**-ongsi 'e pasuya
 AV-3SG AV-cry NOM PN
 ‘Pasuya is crying.’ (Chang 2011: 281)
- b. **mo** **mo**-si ta pangka to emi 'o amo
 AV.3SG AV-put OBL table OBL wine NOM father
 ‘Father put wine on the table.’ (Chang 2011: 285)
- c. **i**-ta teaph-**a** to kexpx ta pasuya 'e cxyx
 TR-3SG put.into-TR OBL backpack ERG PN NOM lunch.box
 ‘Pasuya put the lunch box into his backpack.’ (Chang 2011: 282)
- d. **i**-si **si**-i ta amo ta emi 'e pangka
 TR-3SG put-APPL ERG father OBL wine NOM table
 ‘Father put wine on the table.’ (Chang 2011: 285)

Puyuma: Nonfinite reanalyzed as finite root clause via loss of AUX

⁶ Unusual gloss: AV = actor voice (transitive and intransitive clauses showing accusative alignment)

(30) Puyuma verbal inflection (adapted from Teng 2008)

	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	V	V-aw	V-ay
Hortative	V-a	V-aw	V-ay
Imperative	V	V-u	V-i
Negative	V	V-i	V-i

Clitic positions: NOM enclitic; Gen proclitic

- (31) a. Puyuma
 bəray=**ku** ɖa kuraw ɖa ŋiaw (Tan 1997:11)
 give=1.SG.NOM OBL.INDEF fish OBL.INDEF cat
 'I gave a fish to a cat.'
- b. **tu**=trakaw-aw na paisu kan isaw (Teng 2008)
 3.GEN=steal-TR DEF.NOM money SG.OBJ Isaw
 'Isaw stole the money.'

Loss of AUX

=> AUX introduced PEAn nonfinite clauses.

=> PAN clitics were all enclitics: ERG subject attaching to Aux; NOM object attaching to V

=> After loss of Aux, GEN clitic procliticizes to closest host, i.e. V⁷

- (32) a. AUX=CL_{ERG} V=CL_{NOM} (before loss of AUX)
 b. _____ CL_{ERG}=V=CL_{NOM} (after loss of AUX)

Summary: 1. PAN had accusative alignment.

2. Split-ergative alignment was innovated in PEAn.

=> Incorporation of ACC DET and P

=> Bare object reanalyzed as NOM

=> Non-nominative subject extended to other clause types with NOM object

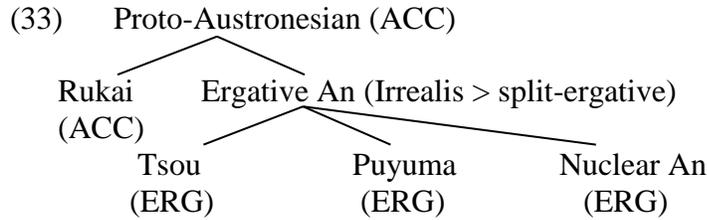
4. What about the alternative view?

What if PAN was split-ergative and Rukai lost the ergative verb-marking affixes (*-u and *-i)?

4.1. Consequence of morphological loss

Aldridge (2015, 2016): Pan reconstructed as accusative

⁷ A similar proposal has been made by Starosta et al. (1982) and Ross (2002, 2006).



(34) PAn reconstruction (revised from Aldridge 2015, 2016)

PAn	<u>ACT</u>
Realis	* <i>m-V</i>
Imperative	* <i>V</i>
Nonfinite	* <i><m>V-a</i>

Ergative alignment innovated in Proto-Ergative Austronesian (PEAn)

(35) PEAn reconstruction (revised from Aldridge 2015, 2016)

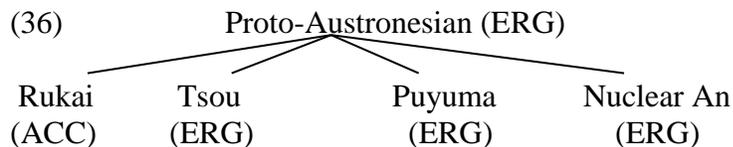
PEAn	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	* <i>m-V</i>	---	---
Imperative	* <i>V</i>	* <i>V-u</i>	* <i>V-i</i>
Nonfinite	* <i><m>V-a</i>	* <i>V-a-u</i>	* <i>V-a-i</i>

Blust & Chen (2017) criticism of Aldridge (2016):

- ⇒ Morphology on ergative verbs were innovated “ex nihilo”.
- ⇒ Absence of evidence cannot be equated with evidence for absence.

- But:
1. Blust & Chen do not acknowledge that I proposed a natural environment for the innovation of ergative alignment and plausible sources for the verbal affixes.
 2. The absence of evidence also cannot be equated with evidence of former presence.

Alternative approach: PAn reconstructed as split-ergative (Ross 2009, 2012)⁸



(37)

PAn	<u>AV</u>	<u>TR</u>	<u>APPL</u>
Realis	* <i>M-V</i>	* <i>V-aw</i>	* <i>V-ay</i>
Hortative	* <i>M-V-a</i>	* <i>V-aw</i>	* <i>V-ay</i>
Imperative	* <i>V</i>	* <i>V-u</i>	* <i>V-i</i>
Nonfinite	* <i>M-V</i>	* <i>V-a</i>	* <i>V-i</i>

⁸ It should be noted that though Blust and Chen assume that PAn had some kind of ergative alignment, they do not adopt Ross’ (2009) reconstruction or subgrouping proposal.

Loss of morphology (*-u, *-i, *-a) on ergative verbs induced loss of ergative alignment in Rukai.

But is ergative alignment lost if the transitive and applicative affixes are lost?

=> Not necessarily

Hypothetical input:	<i>m-V</i>	DPNOM	...		(AV)
	V-(a)-u	DPERG	DPNOM	PP	(TRANS)
	V-(a)-i	DPERG	DPNOM	DPOBL	(APPL)

Result of loss of ergative verb morphology:

⇒ Lose the distinction between transitive and applicative constructions

⇒ this is still a split-ergative alignment

<i>m-V</i>	DPNOM	...		(AV)
V	DPERG	DPNOM	PP	(TRANS)

4.2. External witness

Realis (*m-V*) vs. irrealis (bare V) mood:

- Palauan
- (38) a. ak-**mo** er a katsudo
 1.SG.REAL-go P movie
 'I am going to the movies.' (Georgopoulos 1991:26)
- b. ng-diak ku-nguiu er a hong
 NEG 1.SG.IRR-read P book
 'I am not reading the book.' (Georgopoulos 1991:27)

- Palauan (Georgopoulos 1991:28)
- (39) a. (ak-) **me-** ng- 'uiu
 1.SG.REAL- VM- IMPV- read
 'I am reading.' (realis)
- b. ku- ng- 'uiu
 1.SG.IRR- IMPV- read
 'I am reading.' (irrealis)

- (40) Palauan subject agreement (realis) (Georgopoulos 1991:26)

	SG	PL	
		EXCL INCL	(These look vaguely nominative, e.g. Tagalog <i>ako</i> 1SG.NOM.)
1	ak-	<i>aki- kede-</i>	
2	<i>ke-</i>	<i>kom-</i>	
3	<i>ng-</i>	<i>te-</i>	

(41) Palauan subject (irrealis) (Georgopoulos 1991:27)

	SG	PL	
		EXCL INCL	(These look vaguely ergative, e.g. Tagalog <i>ko</i> 1SG.GEN.)
1	<i>ku-</i>	<i>kimo-</i>	<i>do-</i>
2		<i>(‘o)m(o)-</i>	
3		<i>l(e)-</i>	

(42) Direct object agreement (Georgopoulos 1985:62)

	SG	PL	
		EXCL INCL	(These look vaguely nominative.)
1	<i>-ak</i>	<i>-emam</i>	<i>-id</i>
2	<i>-au</i>	<i>-emiu</i>	
3	<i>-ii</i>	<i>-terir</i>	

Point: Realis mood *m-V* = accusative alignment; Irrealis mood *V* = ergative alignment
=> Very similar to PEAn

5. Additional evidence

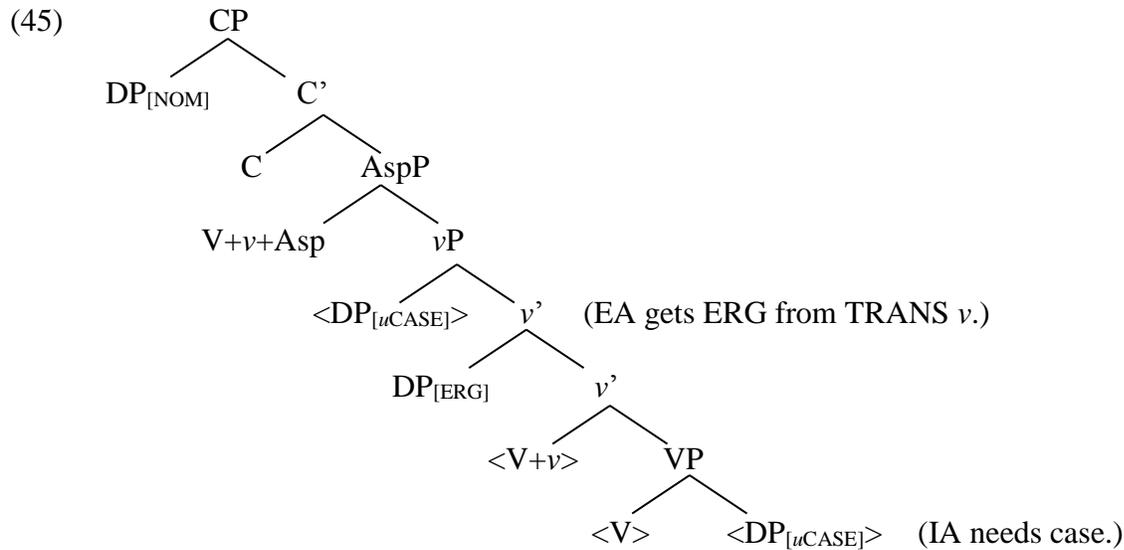
Tsou (Split-)Ergative alignment:

- Tsou (Chang 2011: 281-2)
- (43) a. *mi-ta m-onsi ’e pasuya*
 AV-3SG AV-cry NOM PN
 ‘Pasuya is crying.’
- b. *i-ta teaph-a to kexpx ta pasuya ’e cxyx*
 TR-3SG put.into-TR OBL backpack ERG PN NOM lunch.box
 ‘Pasuya put the lunch box into his backpack.’

Only NOM DP can undergo movement.

- Tsou (Chang 2011: 301-2)
- (44) a. *cuma na i-he papas-a*
 what C TR-3PL cut-TR
 Lit. ‘What are the things they are cutting?’
 ‘What are they cutting?’
- b. **sia na i-he papas-a ’e evi*
 who C TR-3PL cut-TR NOM tree
 Intended for ‘Who all are cutting the wood?’

Analysis: No C-T Inheritance: [Spec, CP] is also NOM case position.



Point: The highest DP with an unvalued case feature can move to [Spec, CP].
 ⇒ This will be the NOM DP; only the NOM DP can undergo movement.

Rukai has accusative alignment.
 Direct movement to [Spec, CP] of subjects.

- Tanan Rukai
- (46) a. luða ay-kila ku tina=li (Finite clause)
 tomorrow FUT-come NOM mother=1.SG.GEN
 ‘My mom will come tomorrow.’
- b. [kuaDa ay-suwasuwaw] ka muka-baru-barua (Subject RC)
 DEM FUT-clean TOP girl
 ‘The one who will clean is the girl.’

But object relatives are nominalized: contain aspect, but not tense

- Tanan Rukai
- (47) w-aga=su sa aga sa [a-kani-ani=ta ki maum]
 PAST-cook=2.SG INDEF food INDEF IMPRV-eat-NMLZ=1.PL.INC P night
 ‘Did you cook dinner (the food that we will eat tonight)?’

Why are object relatives nominalized?

- ⇒ IA cannot move over EA in finite clause, because EA needs structural case. (48)
 ⇒ IA can move over EA if EA has inherent (genitive) case. (49)

- (48) [CP C [... DP_[ιCase] ... DP_[ιCase]]] (Finite clause)
- (49) [CP C [... DP_[GEN] ... DP_[ιCase]]] (Nominalization)

Puyuma also has split-ergative alignment.
Direct movement to [Spec, CP] of subjects in AV clauses.

- Puyuma (Teng 2008: 135)
- (50) a. ta<ka>kesi=ku (Finite clause)
<INTR><RED>-study=1.SG.NOM
'I am studying.'
- b. [a ta<ka>kesi]=ku (Subject RC)
INDEF.NOM <INTR><RED>-study=1.SG.NOM
'I am a student.'

But: Object relativization only in nominalization. (47a) = finite clause; (47b) = RC

- Puyuma (Teng 2008: 105)
- (51) a. tu=trakaw-aw na paisu kan isaw (Teng 2008: 147)
3.ERG=steal-TR1 DEF.NOM money SG.OBL Isaw
'Isaw stole the money.'
- b. ala amuna sadru [[tu=tr<in>ekelr-an] na asi]
maybe because many 3.PSR=<PRV>drink-NMLZ DEF.NOM milk
'Maybe because the milk he drank is a lot.'

Why does Puyuma require nominalization for object relatives:

- ⇒ Should be able to extract NOM object in finite clause
- ⇒ Must be a retention from PAn
- ⇒ Makes sense if PAn was accusative.

Conclusion:

⇒ Accusative PAn subject relatives were finite CPs; object relatives were nominalized.

⇒ PEAn retained nominalized object relatives.

⇒ Tsou lost nominalized object relatives, because it lost nominalizing morphology, though there are remnants in fossilized forms.

Nominalized object relative clauses are found in other accusative languages with the extraction restriction.

Parallel in Late Archaic Chinese (LAC; 5th – 3rd centuries BCE):

- ⇒ Subjects move to [Spec, CP] to value nominative case.
- ⇒ Objects do not move over the subject; topics are resumed by pronouns.

- (52) a. 鄭伯亦惡之。 (Zuozhuan, Xi 31)
Zheng bo yi wu zhi.
Zheng earl also dislike 3.OBJ
'And the Earl of Zheng also disliked him.'

- b. 是二氏者，吾亦聞之。 (Zuozhuan, Zhao 29)
 Shi er shi zhe, wu yi wen zhi.
 DEM 2 clan DET 1 also hear 3.OBJ
 ‘These two clans, I have also heard of them.’

Relativization asymmetry:

- ⇒ Subject RC: Finite clause; DET binds operator in [Spec, CP].
- ⇒ Object RC: Nominalized; subject with GEN case.

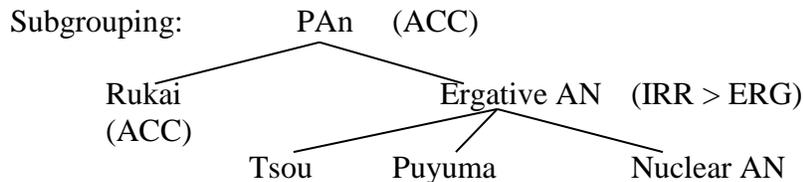
- (53) a. 欲戰者 (Zuozhuan, Cheng 6)
 [DP [CP OP [vP __ yu zhan]] zhe]
 desire fight DET
 ‘(those) who desire to fight’
- b. 人之所畏 (Laozi 20)
 [CP OP [TP ren zhi [vP suo wei __]]]
 person GEN NMLZ fear
 ‘what people fear’

6. Conclusion

PAn was a language with accusative alignment. Ergative alignment was innovated in irrealis clauses in PEAn.

Generative syntactic reconstruction leads us to this conclusion.

- ⇒ Compare morphemes (feature bundles on functional heads, e.g. Appl, v, C).
- ⇒ Identify natural syntactic changes or syntactic environments providing input to reanalyses, e.g. subject/object licensing in irrealis mood.
- ⇒ Be mindful of what PLD acquirers are likely to be exposed to.



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