Move & Agree: Forum on the Formal Typology of A'-agreement
University of British Columbia & McGill University
May 31 – June 4, 2021

Diachronic Origin of A'-agreement in Austronesian Languages

Edith Aldridge, Academia Sinica
ealdridge@sinica.edu.tw

1. Introduction

Tagalog "voice/focus" system:
=> Correspondence between nominative case and argument structure position

Tagalog

(1) a. B<**um**>ili *ang babae* ng isda.
<TR.PFV>buy NOM woman GEN fish
'The woman bought (a) fish.'

b. Bi-bilh-**in** ng babae *ang isda*.
<RED>buy-TR GEN woman NOM fish
'The woman will buy the fish.'

c. B<*in*>ilh-**an** ng babae ng isda *ang tindahan=ko*.
<TR.PFV>buy-APPL GEN woman GEN fish NOM store=1.SG.GEN
'The woman bought a/the fish at my store.'

d. **I**-b<*in*>ili ng babae ng isda *ang lalaki*.
APPL-<TR.PFV>buy GEN woman GEN fish NOM man
'The woman bought the fish for the man.'

Agreement approach (Chung 1994, Pearson 2001, Rackowski 2002, Chen 2017):
⇨ Verb morphology reflects the source of (case) licensing of the NOM DP.
⇨ DP marker *ang* signals the DP that has been agreed with.

(2)	**Agree approach**	AGR_{NOM}	AGR_{ACC}	AGR_{DAT}	AGR_{OBL}
		<*um*>V	V-*in*	V-*an*	*i*-V

Aldridge (2004 & subsequent):
⇨ Case markers directly reflect licensing: *ang* 'NOM', *ng* (*nang*) 'GEN'

(3)	**Direct approach:**	INTR/AP	TR	$APPL_L$	$APPL_H$
		<*um*>V	V-*in*	V-*an*	*i*-V

Only the nominative (agreeing) DP can undergo A'-extraction.

Direct object extracts in transitive clause, but not subject

(4) a. isda-ng b<in>ili ng babae (Transitive object: OK)
fish-LK <TR.PFV>buy GEN woman
'fish that the woman bought'

b. *babae-ng b<in>ili ang isda (Transitive subject: *)
woman-ng <TR.PFV>buy NOM fish
'woman who bought the fish'

Subject extracts in intransitive clause, but not anitpassive object

(5) a. B<um>ili ang babae ng isda. (Antipassive clause)
<INTR.PFV>buy NOM woman GEN fish
'The woman bought a fish.'

b. babae-ng b<um>ili ng isda (Intransitive subject: OK)
woman-LK <INTR.PFV>buy GEN fish
'woman who bought a/the fish'

c. *isda-ng b<um>ili ang babae (AP object: *)
fish-LK <INTR.PFV>buy NOM woman
'fish that the woman bought'

Proposal:

⇨ Lack of C-T Inheritance results in competition between DPs for movement to CP layer.

⇨ Tagalog "A'-agreement" morphology on the verb reflects the historical alternation between finite & nominalizing verbal morphology.

⇨ Object extraction was only permitted in embedded clauses where exceptional licensing was available for the subject.

2. Synchronic Analysis

2.1. Theoretical background

(6) Chomsky (2008 and subsequent work) C-T Inheritance:
1. All uninterpretable features on T are inherited from C.
2. C passes [*u*ϕ] to T. [*u*ϕ] case licenses the subject and forces it to move to [Spec, TP].
3. C retains other features like [*u*WH] to allow *wh*-movement over the subject.

C-T Inheritance is not universal (Ouali 2006; Gallego 2014; Legate 2014; Martinović 2015; van Urk 2015; Erlewine 2018; Aldridge 2018, 2019)

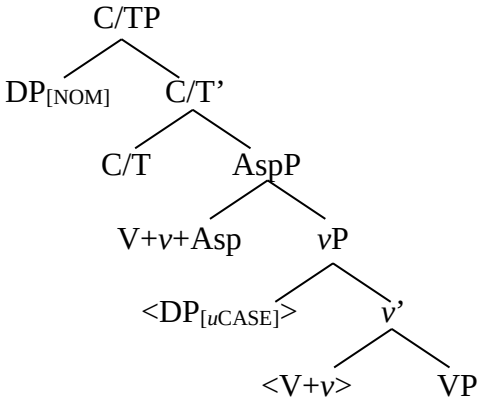
Languages with the extraction restriction
No C-T Inheritance (at least not for DP movement); no A/A' partition
DPs move directly to [Spec, C/TP] in order to be case licensed.

2.2. Analysis of Philippine-type "A'-agreement"

Accusatively aligned ("subject-agreement") clause
C & T do not split; as the highest DP, EA can move to [Spec, C/TP] for NOM case.

(7) a. babae-ng [b<um>ili ng isda] (Tagalog EA extraction)
woman-LK <INTR.PFV>buy GEN fish
'woman who bought a/the fish'

b.



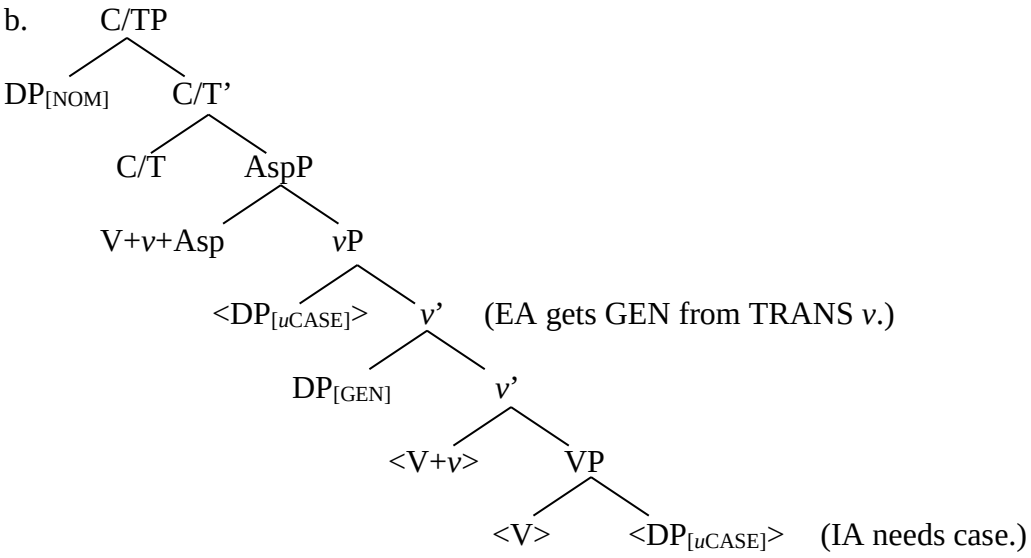
But IA cannot move over NOM subject. If IA moves, EA will not be licensed.

(8) *isda-ng b<um>ili ang babae (AP object: *)
fish-LK <INTR.PFV>buy NOM woman
'fish that the woman bought'

Ergatively aligned ("non-subject-agreement") clause
EA assigned inherent GEN case by *v*; does not need to agree with C/T.
IA can extract and value NOM with C/T.
If EA tries to move, IA is not licensed.

(9) a. isda-ng b<in>ili ng babae (Tagalog object extraction)
fish-LK <TR.PFV>buy GEN woman
'fish that the woman bought'

b.

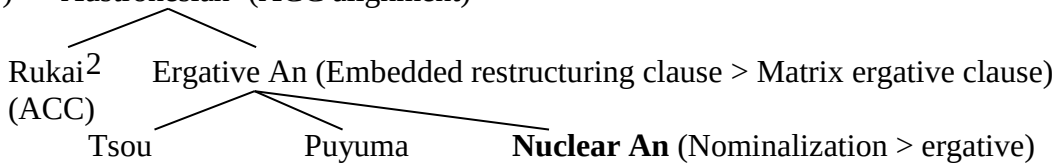


Point: The highest DP with an unvalued case feature undergoes Agree with C/T.
⇨ This will become the NOM DP; only the NOM DP can undergo movement from *v*P.

3. Diachronic Source

Aldridge (2015, 2016, 2021, in press): PAn as accusative (like Rukai)
⇨ Accounts for Rukai ACC alignment without unmotivated loss of ergative morphology
⇨ Embedded restructuring clause > Ergative in other languages in PEAn
⇨ Nominalization > ergative in NucAn (Ross 2009, 2012)

(10) Austronesian (ACC alignment)[1]



Starosta et al. (1981):
⇨ AN "A'-agreement" was used historically to produce nominalized relative clauses.

Ross (2009):
⇨ Nominalized clauses were reanalyzed as matrix ergative clauses in Proto Nuclear AN (NucAn).

Tagalog

(11) a. B<**um**>ili *ang* *babae* ng isda.
<TR.PFV>buy NOM woman GEN fish
'The woman bought (a) fish.'

b. Bi-bilh-**in** ng babae *ang* *isda*.
<RED>buy-IPFV.TR GEN woman NOM fish
'The woman will buy the fish.'

c. B<*in*>ilh-**an** ng babae ng isda *ang* *tindahan=ko*.
<TR.PFV>buy-APPL GEN woman GEN fish NOM store=1.SG.GEN
'The woman bought a/the fish at my store.'

d. **I**-b<*in*>ili ng babae ng isda *ang* *lalaki*.
APPL-<TR.PFV>buy GEN woman GEN fish NOM man
'The woman bought the fish for the man.'

[1] This subgrouping hypothesis is a revision of the one proposed by Ross (2009), which assumes four first-order subgroups (Rukai, Tsou, Puyuma, and Nuclear An) and reconstructs Proto-Austronesian with ergative alignment, claiming without evidence or argumentation that Rukai changed to accusative though wholesale loss of the verbal affixes marking ergative clauses. Ross (2009) in turn is primarily a regrouping of the ten primary branches proposed by Blust (1999). The main point of contention between Ross (2009) and Blust (1999) concerns the existence of the Tsouic subgroup proposed by Tsuchida (1976), which Ross divides between Tsou in extra-NucAn and two other languages in NucAn. Ross (2012) provides arguments against maintaining Tsouic as a subgroup. Blust & Chen (2017) attempt to revive the ten primary branches hypothesis by suggesting that not only the ergative alignment in Rukai but also the distinction between verbal and nominal affixation in both Rukai and Puyuma might have been lost without a trace. However, their speculation is not corroborated by empirical evidence or argumentation based on reliable processes of morphosyntactic change.

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

Proposed origins:

(12)		INTR/AP	TR	$APPL_L$	$APPL_H$
	Tagalog:	*<um>*	*-in*, *<in>*	*-an*	*i*-V
	Origin:	* FIN_V	*-en $IPFV_N$ *<in> PFV_N	*-an NMLZ	*Si 'wear/have/carry'[3]

3.1. Subject & object extraction in extra-Nuc An languages

Rukai reflexes of *:
⇨ Marks finite realis verbs.

Mantauran Rukai

(13) a. **o**-dhaa-dhaace-lrau
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-1SG.OBL
'I see you.'

Budai Rukai

(14) a. **W**a-kane ku babui ka cumai. (Chen 2008: 77)
NONFUT-eat ACC boar NOM bear
'The bear ate a boar.'

b. **W**a-bai ku laimai ka kineple ki cegau.
NONFUT-give ACC clothes NOM Kineple OBL Cegau
'Kineple gave clothes to Cegau.' (Chen 2008: 40)

Subject relative clauses are verbal, can contain tense.
⇨ Subject moves directly to [Spec, CP] in finite clause.

Tona Rukai

(15) a. kusi'a ka **wa**-dhenay ki tatay namia (Finite clause)
yesterday TOP REAL-sing NOM father 1.PL.INC
'Our father sang yesterday.'

b. nani-ini [kudrai **wa**-dhe-dhenay]? (RC)
who-3SG.GEN that REAL-RED-sing
'Who is that one who is singing?'

Tanan Rukai

(16) a. ludha **ay**-kela ku tina=li (Finite clause)
tomorrow FUT-come NOM mother=1.SG.GEN
'My mom will come tomorrow.'

[3] Teng (2014) reconstructs this verb, though she does not identify it as the diachronic source of the applicative.

b. [kuaDa **ay**-suwasuwaw] ka muka-baru-barua (RC)
DEM FUT-clean TOP girl
'The one who will clean is the girl.'

Puyuma reflex of *:
Marks intransitive & antipassive ("subject agreement") verbs.
Surfaces in subject relative clauses.

Puyuma (Teng 2008: 135)

(17) a. t<**em**>a-ka-kesi=ku (Finite clause)
<INTR>-RED-study=1.SG.NOM
'I am studying.'

b. a t<**em**>a-ka-kesi=ku (RC)
INDEF.NOM <INTR>-RED-study=1.SG.NOM
'I am a student.' (lit: 'I am one who studies.')

But object relatives are nominalized: contain aspect, but not tense
⇨ Reflex of *-an as nominalizer; *<in> PFV_N also reflected in Puyuma

Tanan Rukai

(18) w-aga=su sa aga sa [**a**-kane-**ane**=ta ki maum]
PAST-cook=2.SG INDEF food INDEF IMPFV-eat-NMLZ=1.PL.INC P night
'Did you cook dinner (the food that we will eat tonight)?'

Nanwang Puyuma (Teng 2008: 105)

(19) ala amuna sadru [[tu=tr<**in**>ekelr-**an**] na asi]
maybe because many 3.PSR=<PFV>drink-NMLZ DEF.NOM milk
'Maybe because the milk he drank is a lot.'

Why are object relatives nominalized in languages lacking C-T Inheritance?
- ⇨ [Spec, CP] is the only landing site for both subjects & objects.
- ⇨ IA cannot move over EA in finite clause, because EA needs to value case. (20)
- ⇨ IA can move over EA if EA has inherent (genitive) case. (21)

(20) [$_{CP}$ C [… $DP_{[uCase]}$ … DP]] (Finite clause)

(21) [$_{CP}$ C [… $DP_{[GEN]}$ … DP]] (Nominalization)

3.2. NM.Z > FINITE in NucAn languages

(22)		INTR/AP	TR	$APPL_L$	$APPL_H$
	Tagalog:	*<um>*	*-in*, *<in>*	*-an*	*i*-V
	Origin:	* FIN_V	*-en $IPFV_N$	*-an NMLZ	*Si 'wear/have/carry'[4]
			*<in> PFV_N		

[4] Teng (2014) reconstructs this verb, though she does not identify it as the diachronic source of the applicative.

Reflexes of *<in> PFV_N & *-en $IPFV_N$ attested as nominalizers in Katripul Puyuma (extra-NucAn:

		Root	<*in*>V PFV_N	RED-V-*en* $IPFV_N$
(23)	a.	kerutr ‘dig’	k<in>erutr ‘thing dug’	ka-kerutr-en ‘thing to be dug’
	b.	kezeng ‘pull’	k<in>ezeng ‘thing pulled	ka-kezeng-en ‘thing to be pulled’

Reflexes of *<in> PFV_N & *-en $IPFV_N$ have been reanalyzed as verbal and finite in Kanakanavu (NucAn)[5].

Kanakanavu (Teng & Zeitoun 2016: 138)[6]

(24) a. c<**in**>apa=maku ’alam.
<PFV.TR>roast=1SG.GEN meat.NOM
‘I roasted meat.’

b. te:=maku cak~~u~~p-**~~u~~n** ca:u i:sa.
IPFV=1SG.GEN.AG stab-IPFV.TR person that
‘I will stab that person.’

But the PAN nominalizer *-an is still reflected only as a nominalizer in Kanakanavu and can be used in both theme and locative relative clauses.

Kanakanavu (Teng & Zeitoun 2016)

(25) a. cikiringa cakuran=ia, [ni-pe-pacal-**an**-in vavulu]. (p. 145)
side.river=TOP PFV-CAUS-die-LOC.NMLZ-3GEN wild.pig
‘As for the riverside, it is the place where he killed wild pigs.’
(lit. “As for the riverside, (it) his pig-killing place.”)

b. sua [ni-kal~~u~~’-**a(n)**=maku=ia] ’a:cu ni-ara-[a]ka. (p. 146)
NOM PFV-like/love-NMLZ=1SG.GEN=TOP PFV-INCH-bad
“As for my lover, s/he is dead.” (lit. “As for the one I loved, s/he is dead.”)

In NucAn languages, reflexes of *-en and *-an undergo a split: *-en > TR.IPFV & *-an > $APPL_L$.

(26) a. Bi-bilh-**in** ng babae *ang* *isda*.
<RED>buy-IPFV.TR GEN woman NOM fish
‘The woman will buy the fish.’

b. B<*in*>ilh-**an** ng babae ng isda *ang* *tindahan=ko*.
<TR.PFV>buy-APPL GEN woman GEN fish NOM store=1.SG.GEN
‘The woman bought a/the fish at my store.’

This split was very likely related to event structure (VP-internal “inner” aspect). In NucAn languages, reflexes of *-en tend overwhelmingly to mark bounded events with fully affected objects.

[5] Teng & Zeitoun (2016) place Kanakanavu outside NucAn and treat it as reflecting an intermediate stage in the reanalysis of nominalizations as finite verbal clauses. Whether Kanakanavu is a member of NucAn or is classified just outside this subgroup is not relevant for my analysis. What is relevant is the fact that it demonstrates the ongoing nature of the change in question.

[6] Glosses are slightly modified for consistency.

(27) a. Bi-bilh-**in** ng babae *ang* *isda*.
<RED>buy-IPFV.TR GEN woman NOM fish
'The woman will buy the fish.'
b. Bi-bili ang babae *ng* *isda*.
<RED>buy-IPFV.INTR NOM woman GEN fish
'The woman will buy a/some fish.'

The event structure distinction can also correlate with affectedness of a theme in Tagalog.

Tagalog
(28) a. K<in>ain=ko ang isda.
<TR.PFV>eat=1SG.GEN NOM fish
'I ate (up) the fish.'
b. K<in>ain-**an**=ko ang isda.
<TR.PFV>eat-APPL=1SG.GEN NOM fish
'I ate some of the fish.'

The high applicative (INSTR, BEN, MOVED THEME) is found only in nominalizations in Kanakanavu.

(29) a. ka:lu i:si=ia **si**-po'ocipi-in 'u:ru (Teng & Zeitoun 2016: 145)
wood this=TOP INS.NOMLZ-cook-3SG.GEN cooked.rice
'As for the wood, (it) was her rice-cooking instrument.'
b. **I**-b<*in*>ili ng babae ng isda *ang* *lalaki*.
APPL-<TR.PFV>buy GEN woman GEN fish NOM man
'The woman bought the fish for the man.'

High applicative selecting an instrument, beneficiary, or transported theme:
⇨ NAn *Si- (> *hi- > *i*-) < PAN verb *Si 'wear/have/carry'.

Reflexes of *Si- 'wear/have/carry' (cited in Teng 2014: 148-149)
(30) a. ki'ing 'clothes' **si**-ki'ing 'to wear clothes' (Tanan Rukai; Li 1973: 250)
b. vagu 'millet' ma-**si**-vagu 'to carry millet' (Kulalao Paiwan; Ferrell 1982: 25)
c. pazeng 'thorns' **si**-pazeng 'to have thorns' (Pazih; Li & Tsuchida 2001: 274)

3. "A'-agreement" in nominalized relative clauses cross-linguistically

3.1. Late Archaic Chinese

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.

(1) 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.

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

3.2. Others (Altaic, Uto-Aztecan, Tibeto-Burman)

Yaqui (Uto-Aztecan): Accusative alignment; SOV word order

Yaqui
(3) U yoeme uka kari-ta jinu-k
DET man.NOM DET.ACC house-ACC buy-PFV
'The man bought the house.' (Gonzáles 2012: 71)

Relative clauses:
⇨ Subject extraction with V-*me*
⇨ Object extraction with V-*'u*
⇨ Locative extraction with V-*'epo/'apo*

Yaqui
(4) a. U yoeme [kari-ta jinu-ka-**me**] ousi tom-ek
DET man.NOM house-ACC buy-PFV-REL a.lot.of money-POSS
'The man who bought the house has a lot of money.' (Gonzáles 2012: 72)
b. U bisikleeta [in jinu-ka-**'u**] sikili
DET bicycle 1SG.GEN buy-PFV-REL red
'The bicycle that I bought is red.' (Gonzáles 2012: 73)
c. Wa kari [nim bo'e-pea-**'apo**] ujyooli
DEM house 1SG.GEN sleep-DES-REL pretty
'The house that I want to sleep in is pretty.' (Gonzáles 2012: 78)

Locative relativizer < locative adposition

Yaqui
(5) U ili uusi kari-po emo esso-k
DET little boy house-LOC REFX hide=PFV
'The little boy was hiding in the house.'

5. Conclusion

1. "A'-agreement" morphology in Austronesian languages derives diachronically from verbal affixes forming nominalized relative clauses.
2. Proto-Austronesian (PAN) did not have C-T Inheritance, so DPs competed for access to [Spec, CP]. Subjects in finite clauses could move there and value case.
3. Internal arguments in transitive clauses could only move over a subject that was exceptionally licensed with non-nominative case. Nominalizations were employed for non-subject extraction because genitive case was available to exceptionally license the subject.

Appendix 1: Syntactic reanalysis of NMLZ > FINITE

Aldridge (2017), Aldridge & Yanagida (in press):
⇨ Ergative clauses were reanalyzed from nominalized relative clauses in an "in-situ" cleft.[7]

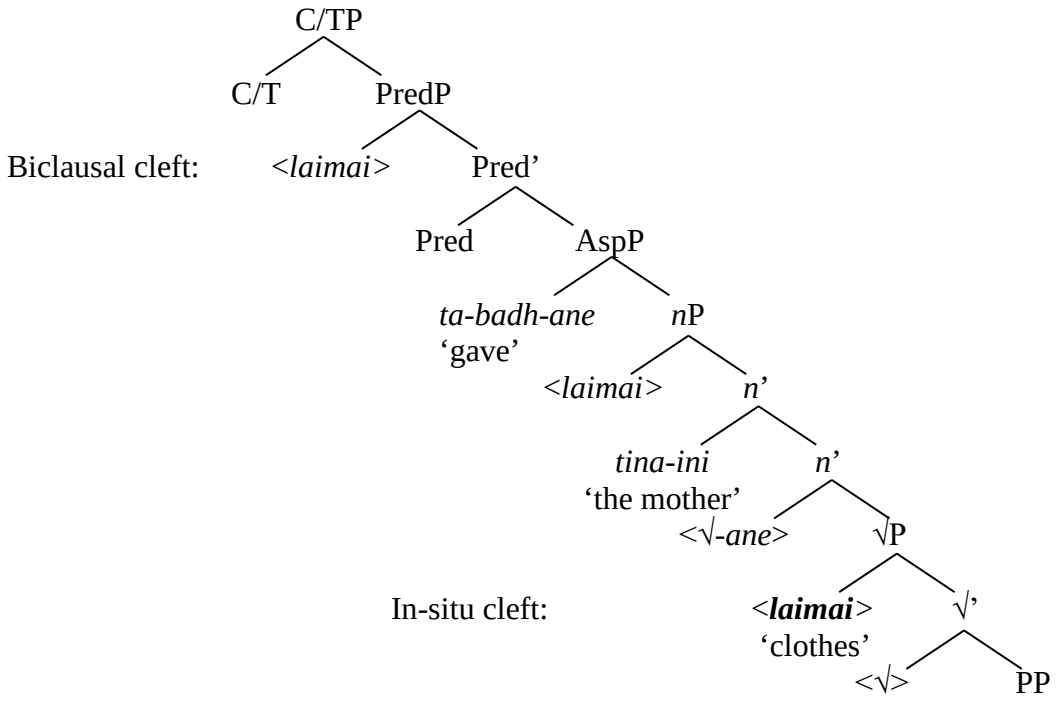
(1) Budai Rukai (Chen 2008: 82)

Ta-badh-**ane**	ki	tina-ini	*ka*	*laimai*	
NONFUT-give-NMLZ	GEN	mother-3SG.GEN	NOM	clothes	
ki	lalake-ini.				
OBL	child-3SG.GEN				

'The clothes are what the mother gave her child.'

Aldridge (2017) and Aldridge & Yanagida (in press):
⇨ Focused DP moves to [Spec, PredP] to value NOM.
⇨ Focused DP is spelled out in-situ in its argument position in the reduced relative clause.
⇨ Post-verbal surface position of the focused theme facilitates the reanalysis of this construction as monoclausal.

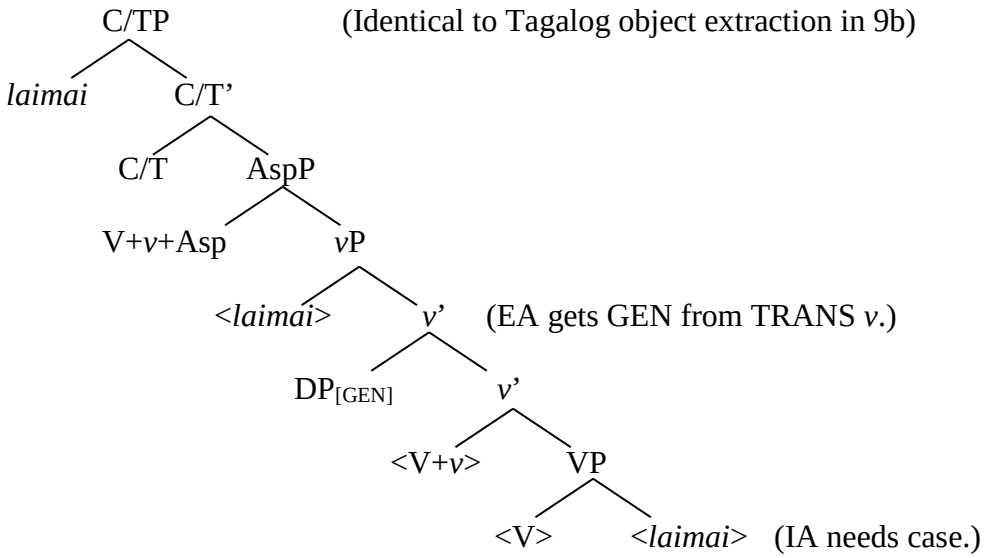
(2)



[7] Whitman proposes such an analysis for focus constructions in Early Middle Japanese and Modern Sinhala.

Reanalysis as monoclausal:

(3)



Indirect support for the cleft > ergative reanalysis:

Old Japanese (8th C.): Focus precedes reduced nominalized relative clause (4a)
Middle Japanese (10th C.): In-situ focus (4b)

(4) a. 何物 鴨 御狩 人之 折而 将挿頭
Nani=wo *ka=mo* [mi-kari=no pito=**no** wori-te kazasa-**mu**]?
what=ACC KA=FOC HON-hike=GEN person=GEN pick-CONJ wear.MOD.RT
'What should the hikers pick and wear (on their hair)?' (MYS 1974)

b. Ofotomo no Dainagon **ϕa** [*tatu no kubi no tama*] ya
Otomo GEN Councillor TOP dragon GEN head GEN gem Q
tori-i-te oϕas-i-tar-**u** (TM; Whitman 1997: 161)
take-RY-PFV.RY come.HON-RY-PFV.RT
'Did Otomo no Dainagon get the gems on the dragon's head?'

Slade (2011, 2018):
⇨ Sinhala Biclausal cleft (5a) > in-situ cleft (5b)
⇨ Scope of the focus is marked by participle inflection "E".
⇨ Accusative case on the embedded subject (5a) > nominative in matrix (5b).
⇨ Unmarked finite inflection is glossed as "-A".[8] (5c)

(5) a. [mā yann**e**] gamaʈa^{F} ya
I.ACC go.PRS.E village.DAT YA
'It is to the village that I go.' (Literary Sinhala; Slade 2011: 46)

b. mamə gaməʈə^{F} (y/tamay) yann**e**
I.NOM village.DAT EMPH go.PRS.E
'It is to the village that I go.' (Modern Colloquial Sinhala; Slade 2011: 44)

[8] See also Gair (1983), Kishimoto (1992, 2005), and Hagstrom (1998) for other analyses of Sinhala in-situ clefts.

c. mamə gaməʈə yann**a**
I.NOM village.DAT go.PRS.A (Modern Colloquial Sinhala; Slade 2011: 45)
'I go to the village.'

Sinhala & Japanese matrix clauses have accusative alignment with nominative subjects.
But: In languages where the non-nominative case is retained on the subject after reanalysis have ergative alignment.

Johns (1992):
⇨ Inuit ergative clause < embedded nominalizations as transitive verbal clauses[9]
⇨ "relative" case = genitive/ergative

(6) Inuktitut
a. anguti-**up** nanuq kapi-ja-a-0
man-REL bear.ABS stab-PASS.PTCP-3SG/3SG
'The man stabbed the bear.'
(formerly: 'The bear is the man's stabbed one.') (Johns 1992: 61)
b. anguti-**up** qimmi-a
man-REL dog-3SG
'the man's dog' (Johns 1992: 69)

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

Appendix 2: Revised analysis of "A'-agreement" in Chamorro

Realis transitive verbs in declarative clauses show agreement for number and person with the subject.

Chamorro
(1) a. **Ha**-atan i taotao mansu i guaga'-na.
3SG.A1-watch the man tame the fish.basket-3SG.GEN
'The tame man looked (in) his basket.' (Chung 1998: 21)
b. **Hu**-li'e' i lepblo.
1SG.A1-see ART book
'I saw the book.' (Zobel 2002: 412-3)

Objects can be extracted directly in realis clauses. Chung (1998) claims that there is some kind of agreement being registered with the accusative case feature of the object, but there is no marker of this agreement.

(2) a. Hafa **un**-kakannu' *t* ?
what 2SG.A1-eat.PROG
'What are you eating?' (Chung 1998: 239)

[9] Gildea (1998) also proposes that ergative clauses were reanalyzed from nominalized clauses in copula constructions in Carib languages.

b. [i lepblu [*Op* ni **ha**-na'i hit si Juan *t*]]
the book COMP 3SG.A1-give us DET Juan
'the book that Juan gave us' (Chung 1998:239)

A better explanation:

- ⇨ A1 prefixes are historically genitive clitic pronouns (Zobel 2002).
- ⇨ Realis clauses are basic transitive, ergative clauses with non-nominative subjects.
- ⇨ Object can move, because the subject is not nominative.

A nominalization can also be used to extract an object. Chung (1998) claims that this is a second type of "accusative agreement", but how can a nominalized clause be the spell out of a case feature on C? And why would the language have two reflexes of agreement with the same feature?

Chamorro

(3) a. Hafa k<**in**>annono'-mu *t* ?
what <IN>eat.PROG-1SG.GEN
'What are you eating?' (Chung 1998: 237)

b. [[*Op* t<**in**>aitai-mu *t*] na lepblu]
<IN>read-2SG.GEN LK book
'the book that you read' (Chung 1998: 237)

External argument extraction requires <*um*>. Chung (1998) claims that this is agreement with a nominative case feature.

Chamorro

(4) a. Hayi f<**um**>a'gasi *t* i kareta?
who <UM>wash the car
'Who washed the car?' (Chung 1998: 236)

b. [i taotao [*Op* ni f<**um**>a'gasi *t* i kareta-hu]]
the person C <UM>wash the car-1SG.GEN]
'the man who washed my car' (Chung 1998: 236)

Better explanation:

- ⇨ Just like Puyuma, Chamorro is an ergative or split-ergative language but also retains conservative strategies from PAn for relativization.

Puyuma

(5) a. a t<**em**>a<ka>kesi=ku (Teng 2008:135)
INDEF.NOM <INTR><RED>-study=1.SG.NOM
'I am a student.'

b. [[tu=tr<**in**>ekelr-**an**] na asi] (Teng 2008: 105)
3.PSR=<PFV>drink-NMLZ DEF.NOM milk
'the milk he drank'

Point: Chamorro can be accounted for on my uniform approach to extraction in Austronesian languages.

- ⇨ Like Puyuma, it has (split-)ergative alignment.
- ⇨ But it also allows object extraction in ergative clauses (like most AN languages with (split-)ergative alignment).
- ⇨ And it also retains conservative relativization strategies from PAn.

Retentions:
1. <*um*> in PAn marked dynamic transitive clauses.
   - ⇨ Subject with NOM; subject can extract.
   - ⇨ Retained in Chamorro for subject extraction.
2. <*in*> in nominalizations only in PAn.

=> Subject with GEN; object can extract.

Appendix 3: Revised analysis of "A'-agreement" in Palauan

Extraction tied to realis (for subject) or irrealis (for object) mood

(1) Palauan subject agreement (realis) (Georgopoulos 1991:26)

	SG	PL	
		EXCL	INCL
1	*ak-*	*aki-*	*kede-*
2	*ke-*	*kom-*	
3	*ng-*	*te-*	

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

	SG	PL	
		EXCL	INCL
1	*ku-*	*kimo-*	*do-*
2	*('o)m(o)-*		
3	*l(e)-*		

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

	SG	PL	
		EXCL	INCL
1	*-ak*	*-emam*	*-id*
2	*-au*	*-emiu*	
3	-ii	*-terir*	

Realis vs. irrealis mood:

		Palauan			
(4)	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)

(5) 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)

Basic word order: VOS

Palauan (Georgopoulos 1985:64)

(6) ng-ulemeng? er a ʔoʔ-il a bilis
3.SG.IMPRV-bite P foot-3.SG dog
'The dog was biting its own foot.'

The verb is inflected for realis mood when the subject is extracted.

Palauan

(7) a. a sensei a omes er a rengalek
teacher REAL.IMPV.look P children
'The teacher is looking at the children.' (Georgopoulos 1991:84)

b. ng-te'a a kileld-ii a sub?
CL-who REAL.PRV.heat-3.SG soup
'Who heated up the soup?' (Georgopoulos 1991:88)

The verb is inflected for irrealis mood when a VP-internal DP is extracted.

Palauan

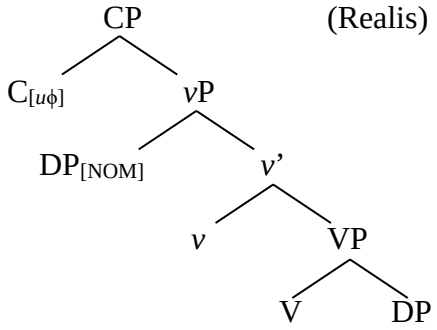
(8) a. a blaia le-silseb-ii a se'el-ik
house **IRR**-3.PRV.burn-3.SG friend-1.SG
'My friend burned down the house.' (Georgopoulos 1991:87)

b. ng-te'a a l-ulekod-ir a rubak
CL-who **IRR**-3.Perf.kill-3.SG old.man
'Who did the old man kill?' (Georgopoulos 1991:88)

Point: This is NOT WH-agreement with a case feature.
=> Palauan irrealis preserves the transitivity of PEAn irrealis.

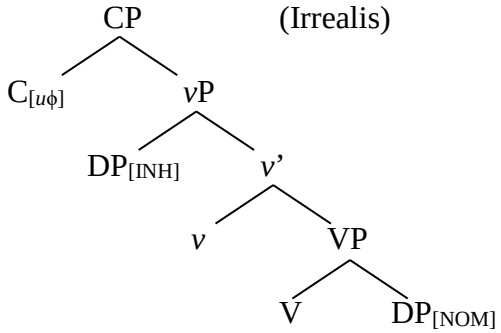
Subject in realis clauses are nominative; they value case with C and can be attracted by the EPP feature there.

(9) (Realis)



External arguments in irrealis clauses are not nominative (agreement < genitive paradigm). Internal arguments undergo Agree with C.

(10) (Irrealis)



Appendix 4: Problems with the "case agreement" approach to Tagalog

Tagalog "voice/focus" system:
=> Correspondence between nominative case and argument structure position

Tagalog

(1) a. B<**um**>ili *ang* *babae* ng isda.
<TR.PFV>buy NOM woman GEN fish
'The woman bought (a) fish.'

b. Bi-bilh-**in** ng babae *ang* *isda*.
<RED>buy-TR GEN woman NOM fish
'The woman will buy the fish.'

c. B<*in*>ilh-**an** ng babae ng isda *ang* *tindahan=ko*.
<TR.PFV>buy-APPL GEN woman GEN fish NOM store=1.SG.GEN
'The woman bought a/the fish at my store.'

d. **I**-b<*in*>ili ng babae ng isda *ang* *lalaki*.
APPL-<TR.PFV>buy GEN woman GEN fish NOM man
'The woman bought the fish for the man.'

(2)	**Ergative**	INTR/AP	TR	$APPL_L$	$APPL_H$
		<*um*>V	V-*in*	V-*an*	*i*-V

(3)	**Voice**	AV	TV	LV	CV
		<*um*>V	V-*in*	V-*an*	*i*-V

(4)	**Agreement**	NOM	ACC	DAT	OBL
		<*um*>V	V-*in*	V-*an*	*i*-V

Only the nominative (agreeing) DP can undergo A'-extraction.

Direct object extracts in transitive clause, but not subject

(5) a. isda-ng b<in>ili ng babae (Transitive object: OK)
fish-LK <TR.PFV>buy GEN woman
'fish that the woman bought'

b. *babae-ng b<in>ili ang isda (Transitive subject: *)
woman-ng <TR.PFV>buy NOM fish
'woman who bought the fish'

Subject extracts in intransitive clause, but not anitpassive object

(6) a. B<um>ili ang babae ng isda. (Antipassive clause)
<INTR.PFV>buy NOM woman GEN fish
'The woman bought a fish.'

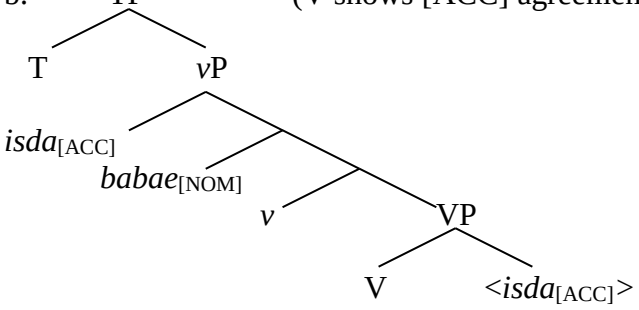
b. babae-ng b<um>ili ng isda (Intransitive subject: OK)
woman-LK <INTR.PFV>buy GEN fish
'woman who bought a/the fish'

c. *isda-ng b<um>ili ang babae (AP object: *)
fish-LK <INTR.PFV>buy NOM woman
'fish that the woman bought'

Rackowski (2002), Rackowski & Richards (2005)
Specific object raises to highest specifier in *v*P edge & copies its case feature to T/*v*
=> Raised object gets specific interpretation
=>Also can undergo further A'-movement

(7) a. Bi-bilh-**in** ng babae *ang* *isda*. (TV)
EA: <RED>buy-TR GEN woman NOM fish
CA: <RED>buy-ACC CS woman ANG fish
'The woman will buy the fish.'

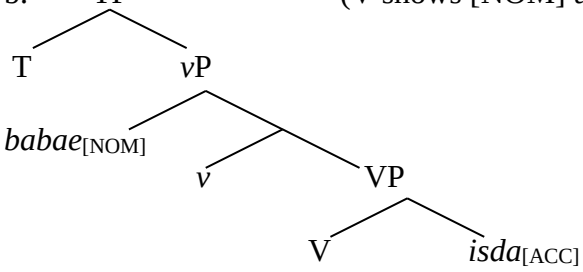
b. (V shows [ACC] agreement.)



Nonspecific object
=> No object shift; Nominative agreement

(8) a. B<**um**>ili ang babae *ng* *isda*. (AV)
EA: <INTR.PFV>buy NOM woman GEN fish
CA: <ASP.NOM>buy ANG woman CS fish
'The woman bought a/*the fish.'

b. TP (V shows [NOM] agreement.)



Point: Highest DP in *v*P phase edge can undergo extraction.

Questions for Tagalog Case Agreement

Conceptual problem:
=> Why would T or *v* value a case and then demand it back in the form of agreement?

Furthermore, this requires an unorthodox treatment of agreement.

- ⇨ Canonical agreement: If A agrees with B, then A displays a feature present on B but not originally shared by A.
- ⇨ Case agreement: ACC agreement on *v* entails displaying on a feature on A(*v*) which is originally supplied by A (*v*) and shared with B (object DP).

Comparative problem 1: Accusative case is assumed to always be assigned to theme/patient arguments.

But this is not true in other languages with differential object marking.

- ⇨ Object shift generally correlates with BOTH interpretation and structural case.
- ⇨ ACC is assigned only to shifted objects.

Turkish (Runner 1993:23)

(9) a. Ben dun aksam [$_{VP}$ [cok guzel bir biftek] yedim].
I yesterday evening very nice a steak ate
'Yesterday evening, I ate a very nice steak.'

b. Ben **bifteg-i** dun aksam [$_{VP}$ t_{Obj} yedim].
I steak-ACC yesterday evening ate
'I ate the steak yesterday evening.'

Icelandic Object Shift

(10) a. Hans las ekki **bokur**.
He read not books
'He didn't read books.'

b. Nemandinn las **bokina** ekki.
students.the.Nom read book.the.Acc not
'The students didn't read the book.'

Tagalog antipassives pattern with antipassives in other ergative languages.

- ⇨ Object is indefinite/nonspecific and receives non-structural case.
- ⇨ There is no evidence that it has structural (accusative) case.

South Baffin Eskimo (Kalmar 1979:124)

(11) a. Joosi quqiq-**si**-y-up *tuttu-mik*
Joosi.ABS shoot-AP-PTCP-MONOP caribou-MOD
'Joosi shot a caribou.'

b. Joosi-up quqi-kkaniq-t-a-nga *tuttu*
Joosi-ERG shoot-again-PTCP-POLYP-3/3 caribou.ABS
'Joosi shot the same caribou again.'

GEN object nonspecific; NOM object specific/definite

(12) a. B<**um**>ili ang babae *ng isd*a. (Antipassive)
<INTR.PFV>buy NOM woman GEN fish
'The woman bought a fish.'

b. B<**in**>ili ng babae *ang isda*. (Transitive)
<TR.PFV>buy GEN woman NOM fish
'The woman bought the fish.'

Non-specific objects in atelic events usually do not have structural (ACC) case.

Finnish (Kiparsky 1998:3)

(13) etsi-n karhu-a/#karhu-n
seek-1.SG bear-PART/bear-ACC
'I'm looking for the (a) bear.'

Antipassive VPs are atelic.

Chuckchee (Palmer 1994:182)

(14) a. *e*tl*e*g-e **keyng-*e*n** penr*e*-nen
father-ERG bear-ABS attack-3SG.3SG.AOR
'Father attacked the bear.'

b. *e*tl*e*g-*e*n penr*e*-tko-g'e **kayng-et*e***
father-ABS attack-AP-3SG.AOR bear-DAT
'Father ran at the bear.'

Tagalog antipassive VPs are also atelic.

⇨ AP object should not have structural case.

Tagalog (Nolasko 2009:11-12)

(15)a. Nang mainit=na ang mantika, i-p<**in**>rito=niya ang kamote.
when hot=already NOM oil APPL-TR.PFV-fry=3.SG.GEN NOM camote
'When the oil was already hot, she friend the camote.'
=> The camote ends up being fried.

b. Nang mainit=na ang mantika, **nag**-prito=siya ng kamote.
when hot=already NOM oil INTR.PFV-fry=3.SG.NOM GEN camote
'When the oil was already hot, she friend the camote.'
=> A frying activity took place.

Comparative problem 2: Some An languages have more than one set of "agreement" affixes, one for realis mood and one for irrealis.

⇨ Consequence of innovations in Proto-Ergative Austronesian and Proto-Nuclear Austronesian resulting in ergative alignment (see family tree in 32)

(16) Seediq realis vs irrealis (Holmer 1996:38[10])

	AV	TV	LV	CV
Realis	<*m*>/*m*-V	V-*un*	V-*an*	*s*-V
Negative	V	V-*i*	V-*ani*	…

Seediq

(17) a. Ini=mu burig-**i** kanna.
NEG=1SG.GEN buy-TR.IRR all
'I didn't buy all of them.'

b. Wada=mu burig-**un** ka patis-ni.
PAST=1SG.GEN buy-TR.REAL NOM book-DEF
'I bought the book.'

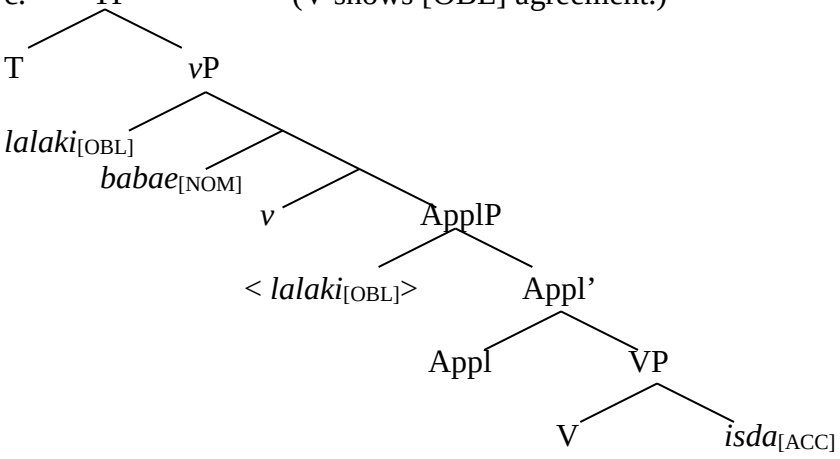
Empirical problem: Applied objects are always nominative (i.e. the "agreed with" DP).

Applicatives attach to transitive (and never intransitive verbs)

(18) a. B<*in*>ilh-**an** ng babae ng isda *ang* *tindahan=ko*.
<TR.PFV>buy-APPL GEN woman GEN fish NOM store=1.SG.GEN
'The woman bought a/the fish at my store.'

b. **I**-b<*in*>ili ng babae ng isda *ang* *lalaki*.
APPL-<TR.PFV>buy GEN woman GEN fish NOM man
'The woman bought the fish for the man.'

c. (V shows [OBL] agreement.)



But CA approach predicts applied objects need not be nominative, since they are assumed to be assigned some "oblique" case. But applied objects cannot surface with this case.

(19) *B<*um*>ili ang babae ng isda *ng* *lalaki*.
EA: <INTR.PFV>buy NOM woman GEN fish GEN man
CA: <ASP.NOM>buy ANG woman CS fish CS man
'The woman bought (the) fish for a man.'

[10] The chart on page 38 does not show the forms for negation but Holmer (1996:62) points out that the negator*ini* is followed by imperative verb forms.

Rackowski & Richards merely stipulate that applied objects must be agreed with.

Alternative: Simpler, typologically broader, and empirically more accurate

- ⇨ Valuation of case suffices to account for the extraction restriction.
- ⇨ Only the nominative DP can undergo extraction.
- ⇨ There is no need for additional agreement with the case feature of the moving DP.

References

Aldridge, Edith. 2004. *Ergativity and Word Order in Austronesian Languages*. Ph.D. dissertation, Cornell University.

Aldridge, Edith. 2008. Generative Approaches to Ergativity. *Language and Linguistics Compass: Syntax and Morphology* 2.5:966-995.

Aldridge, Edith. 2015. A Minimalist Approach to the Emergence of Ergativity in Austronesian Languages. *Linguistics Vanguard* 1.1: 313–326.

Aldridge, Edith. 2016. Ergativity from subjunctive in Austronesian languages. *Language and Linguistics* 17.1:27-62.

Aldridge, Edith. 2017. Extraction asymmetries in ergative and accusative languages. In Michael Yoshitaka Erlewine (ed.), *Proceedings of GLOW in Asia XI*, 1-20. MIT Working Papers in Linguistics.

Aldridge, Edith. 2018. C-T Inheritance and the Left Periphery in Old Japanese. *Glossa* 3(1): 1-22. DOI: http://doi.org/10.5334/gjgl.254.

Aldridge, Edith. 2021. The origins of nominative case in Austronesian. In *Proceedings of AFLA 27*, ed. by Henrison Hsieh and Keely New. https://ir.lib.uwo.ca/afla/aflaxxvii/

Aldridge, Edith. In press. Syntactic conditions on accusative to ergative alignment change in Austronesian languages. *Journal of Historical Linguistics*.

Aldridge, Edith and Yuko Yanagida. To appear. Two types of alignment change in nominalizations. *Diachronica*.

Blust, Robert A. 1999. Subgrouping, circularity and extinction: Some issues in Austronesian comparative linguistics. In *Selected Papers from the eighth International Conference on Austronesian Linguistics* (Symposium Series of the Institute of Linguistics), ed. by Elizabeth Zeitoun and Paul Jen-kuei Li, 31-94. Taipei: Institute of Linguistics (Preparatory Office), Academia Sinica.

Blust, Robert and Victoria Chen. 2017. The pitfalls of negative evidence: 'Nuclear Austronesian', 'Ergative Austronesian', and their progeny. *Language and Linguistics* 18.4: 577-621.

Chang, Henry Y. 2011. Transitivity, ergativity, and the status of O in Tsou. In Jung-hsing Chang (ed.), *Language and Cognition: Festschrift in Honor of James H-Y. Tai on His 70th Birthday*, 277–308. Taipei: Crane Publishing.

Chen, Cheng-Fu. 2008. *Aspect and tense in Rukai: Interpretation and interaction*. University of Texas, Austin, dissertation.

Chen, Victoria. 2017. *A Reexamination of the Philippine-type Voice System and its Implications for Austronesian Primary-level Subgrouping*. [Unpublished doctoral dissertation]. University of Hawaii.

Chomsky, Noam. 2008. On phases. In *Foundational Issues in Linguistic Theory: Essays in Honor of J-R. Vergnaud*. Cambridge, MA: MIT Press.

Chung, Sandra. 1994. *Wh*-Agreement and Referentiality in Chamorro. *Linguistic Inquiry* 25.1: 1-44.

Chung, Sandra. 1998. *The Design of Agreement*. Chicago: University of Chicago Press.

Gair, James W. 1983[1998]. Non-configurationality, movement, and Sinhala focus. Paper presented at the Linguistic Association of Great Britain, Newcastle, September 1983. [Published in Gair 1998:50–64].
Gair, James W. 1998. *Studies in South Asian linguistics: Sinhala and other South Asian languages*. New York: Oxford University Press.
Gallego, Angel J. 2014. Deriving featuring inheritance from the copy theory of movement. *The Linguistic Review* 31.1: 41-71.
Georgopoulos, Carol. 1985. Variables in Palauan Syntax. *Natural Language and Linguistic Theory* 3:59-94.
Georgopoulos, Carol. 1991. *Syntactic Variables*. Dordrecht: Kluwer Academic Publishers.
Gildea, Spike. 1998. *On Reconstructing grammar*. New York: Oxford University Press.
Gonzáles, Albert Álvares. 2012. Relative clauses and nominalizations in Yaqui. In Bernard Comrie & Zarina Estrada-Fernández (eds.), *Relative Clauses in Languages of the Americas: A typological overview*, 67-95. Amsterdam & Philadelphia: John Benjamins.
Himmelmann, Nikolaus P. 2005. The Austronesian languages of Asia and Madagascar: Typological characteristics. *The Austronesian Languages of Asia and Madagascar*, ed. by Alexander Adelaar and Nikolaus P. Himmelmann, 110-181. New York: Routledge.
Holmer, Arthur. 1996. *A Parametric Grammar of Seediq*. Lund: Lund University Press.
Johns, Alana. 1992. Deriving Ergativity. *Linguistic Inquiry* 23. 57-88.
Kalmar, I. 1979. The Antipassive and Grammatical Relations in Eskimo. In F. Plank, ed., *Ergativity*, 117-143. New York: Academic Press.
Kaufman, Daniel. 2017. Lexical category and alignment in Austronesian. In *Handbook of Ergativity*, ed. by Lisa Travis, Jessica Coon, and Diane Massam. Oxford University Press.
Keenan, Edward. 1976. Remarkable Subjects in Malagasy. In: Li, C. (Ed.), Subject and Topic. Academic Press, New York, pp. 249-299.
Keenan, Edward & Bernard Comrie. 1977. Noun Phrase Accessibility and Universal Grammar. *Linguistic Inquiry* 8.1:63-99.
Kiparsky, Paul. 1998. Partitive case and aspect. *The Projection of Arguments*, ed. by M. Butt, W. Geuder, 265-307. Stanford: CSLI.
Kishimoto, Hideki. 1992. LF pied piping: Evidence from Sinhala. *Gengo Kenkyu* 102. 46–87.
Kishimoto, Hideki. 2005. *Wh*-in-situ and movement in Sinhala questions. *Natural Language and Linguistic Theory* 23. 1–51.
Legate, Julie. 2014. *Voice and* v*: Lessons from Acehnese*. Cambridge, MA: MIT Press.
Martinović, Martina. 2015. *Feature Geometry and Head-splitting: Evidence from the morphosyntax of the Wolof clausal periphery*. Ph.D. dissertation, University of Chicago.
Nolasco, Ricardo. 2009. What Philippine Ergativity Really Means. ms, University of the Philippines, Diliman.
Ouali, Hamid. 2006. On C-to-T ϕ-transfer: The nature of agreement and anti-agreement in Berber. In Roberta D'Alessandro, Susann Fischer, and Gunnar Hrafn Hrafnbjargarson (eds.), *Agreement Restrictions*, 159-180. Berlin: Mouton de Gruyter.
Palmer, F. R. 1994. *Grammatical Roles and Relations*. Cambridge University Press.
Pearson, Matthew. 2001. *The Clause Structure of Malagasy: A Minimalist Approach*. Ph.D. dissertation, UCLA.
Rackowski, Andrea. 2002. *The Structure of Tagalog: Specificity, Voice, and the Distribution of Arguments*. Ph.D. dissertation, MIT.
Rackowski, Andrea and Norvin Richards. 2005. Phase Edge and Extraction: A Tagalog Case Study. *Linguistic Inquiry* 36.4:565-599.
Richards, Marc. 2007. On Feature Inheritance: An Argument from the Phase Impenetrability Condition. Linguistic Inquiry 38. 563-572.

Richards, Marc. 2012. On feature inheritance, defective phases, and the movement morphology connection. In Angel Gallego (ed.), Phases: Developing the framework, 195-232. Berlin: De Gruyter Mouton.

Ross, Malcolm. 2009. Proto Austronesian Verbal Morphology: A reappraisal. In Alexander Adelaar and Andrew Pawley (eds.), *Austronesian Historical Linguistics and Culture History: A festschrift for Robert Blust*, 295-326. Canberra: Pacific Linguistics.

Ross, Malcolm. 2012. In defense of Nuclear Austronesian (and against Tsouic). *Language and Linguistics* 13.6:1253-1300.

Runner, Jeffrey T. 1993. Quantificational Objects and Agr-o. In V. Lindblad and M. Gamon, eds., *Papers from the Fifth Student Conference in Linguistics (SCIL-V), University of Washington*, 209-224. Cambridge, MA: MIT Working Papers in Linguistics.

Slade, Benjamin. 2011. *Formal and philological inquiries into the nature of interrogatives, indefinites, disjunction, and focus in Sinhala and other Languages*. University of Illinois Ph.D. dissertation.

Slade, Benjamin. 2018. History of focus-concord constructions and focus-associated particles in Sinhala, with comparison to Dravidian and Japanese. *Glossa* 3. 1–28.

Starosta, Stanley. 1995. A grammatical subgrouping of Formosan fanguages. *Austronesian Studies Relating to Taiwan*, ed. by Paul J.-K. Li, Cheng-hwa Tsang, Ying-kuei Huang, Dah-an Ho, Chiu-yu Tseng, 683-726. Taipei: Academia Sinica.

Starosta, Stanley. 2001. Reduplication and the subgrouping of Formosan languages. Paper presented at the International Symposium on Austronesian Cultures: Issues relating to Taiwan, Academia Sinica. Published in Zeitoun (2009), 801-834.

Starosta, Stanley, Andrew K. Pawley, and Lawrence A. Reid. 1982. The Evolution of Focus in Austronesian. In Amram Halim, Lois Carrington, and S. A. Wurm (eds.), *Third International Conference on Austronesian Linguistics*, 145-170. Pacific Linguistics, C-75.

Teng, Stacy Fang-ching. 2008. *A Reference Grammar of Puyuma*. Canberra: Pacific Linguistics.

Teng, Stacy Fang-ching. 2014. Grammaticalization of predicative possession in Nanwang Puyuma and as a basis for reconstruction in PAn. *Oceanic Linguistics* 53.1: 141-159.

Teng, Stacy F & Elizabeth Zeitoun. 2016. The noun-verb distinction in Kanakanavu and Saaroa: Evidence. *Oceanic Linguistics* 55(1). 134–161.

Tsuchida, Shigeru. 1975. *Reconstruction of proto-Tsouic phonology*. Doctoral Dissertation, Yale University.

van Urk, Coppe. 2015. *A Universal Syntax for Phrasal Movement: A case study of Dinka Bor*. MIT dissertation.

Whitman, John. 1997. *Kakarimusubi* from a comparative perspective. In Ho-min Sohn & John Haig (eds.), Japanese/Korean linguistics, vol. 6, 161–178. Stanford: Center for the Study of Language and Information.

Zobel, Erik. 2002. The position of Chamorro and Palauan in the Austronesian family tree: Evidence from verb morphosyntax. In Fay Wouk and Malcolm Ross (eds.), *The History and Typology of Western Austronesian Voice Systems*, 405-434. Canberra: Pacific Linguistics.