

Syntactic ergativity without morphological ergativity: An argument for abstract Case

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- A central question for theories of case concerns the relationship between morphological and syntactic ergativity.

- Morphological ergativity refers to the overt expression of this alignment in a language's case or agreement system.

(1) West Greenlandic (Bittner and Hale 1996)

- a. Arna-**t** mīrsur-p-u-t.
woman-PL.ABS set-IND-INTR-3PL
'The women are sewing.'
- b. Juuna-**p** mīqqa-**t** paar(i-v)-a-i.
Juuna-ERG child-PL.ABS look.after-IND-TR-3SG.3PL
'Juuna is looking after the children.'

- Morphological ergativity refers to the overt expression of this alignment in a language's case or agreement system.

(2) Q'anjob'al (Coon et al. 2014:10)

- a. Max-**ach** way-i.
ASP-2ABS sleep-INTR
'You slept.'
- b. Max-**ach** **y**-il-a'.
ASP-2ABS 3ERG-see-TR
'She saw you.'

- Syntactic ergativity describes the differential treatment of transitive subjects in syntactic operations, such as \bar{A} -movement.

(3) West Greenlandic (Bittner 1994:55–58)

- a. **miiqqa-t** [_{ABS} sila-mi pinnguar-tu-t]
child-PL.ABS outdoors-LOC play-REL.INTR-PL
'the children who are playing outdoors'
- b. **miiqqa-t** [Juuna-p _{ABS} paari-sa-i]
child-PL.ABS Juuna-ERG look.after-REL.TR-3SG.PL
'the children that Juuna is looking after'
- c. * **angut** [_{ERG} aallaat tigu-sima-sa-a]
man.ABS gun.ABS take-PRF-REL.TR-3SG.SG
Intended: 'the man who took the gun'

- Dixon (1979, 1994) states that all languages with syntactic ergativity are morphologically ergative.

	A can extract	A cannot extract
Morphologically ergative	✓	✓
Morphologically non-ergative	✓	—

Table 1: Morphological vs. syntactic ergativity (Deal 2016:168)

- From this typology, it seems like morphological ergativity is a *necessary precondition* for syntactic ergativity.

- According to generative theories of case and syntactic ergativity, it's not clear why Dixon's generalization should hold.
 - ① Analyses of syntactic ergativity rely on abstract Case
 - ② Abstract Case need not be realized morphologically
- The theoretical prediction: we should find a language with syntactic ergativity and a *neutral alignment* (i.e., no morphological case or agreement).

- I show that this prediction is upheld in Nukuoro (Polynesian), which has syntactic ergativity without morphological ergativity.
- We can revise Dixon's (1979, 1994) generalization: *abstract ergativity* is the necessary precondition for syntactic ergativity.
 - This aligns with generative theories of case and ergativity.
- The Nukuoro pattern provides an additional argument for abstract Case (e.g., Legate 2008), and has implications for the learnability of abstract categories.

Introduction

Background: A detour to Mayan

The Nukuoro data

- No morphological ergativity

- Syntactic ergativity

Obscuring abstract alignment

Implications

- Typology

- Theory

- Learnability

Background: A detour to Mayan

- Modern generative syntax generally assumes a distinction between abstract Case and morphological case. (Chomsky 1981; Legate 2008)
 - Abstract Case: syntactic, obligatory for nominal licensing
 - Morphological case: surface level, built on abstract Case

- Insertion of case morphemes is subject to general morphological principles, like the Elsewhere Condition. (Kiparsky 1973; Halle and Marantz 1993)
 - A single morpheme may realize multiple abstract Cases.
 - Abstract Cases may have no suitable vocabulary item.
- If *all* Cases are covert in a language, the language can be said to have abstract Case without morphological case.

- Nearly all theories of syntactic ergativity rely on abstract Case.
 - Abstract Case discrimination (e.g., Otsuka 2006, 2010a; Deal 2017)
 - By-product of Case assignment mechanisms (e.g., Campana 1992; Ordóñez 1995; Bittner and Hale 1996; Coon et al. 2014; Assmann et al. 2015; Polinsky 2016)
- Syntactic ergativity is a property of syntactic operations, so it should be attributed to the operation itself (e.g., the features it can reference) or the structure that it operates on.
- The morphological realization of Case occurs too late to cause a syntactic problem.

- There is a fundamental mismatch between the predictions made by Dixon's generalization and theories of syntactic ergativity.
- The theory predicts that any language with abstract Case can show syntactic ergativity, even if that Case isn't realized morphologically.

- To demonstrate this prediction, we can look to syntactically ergative Mayan languages like Q'anjob'al.
 - Mayan languages are purely head-marking and show no case marking on nominals.

(4) Q'anjob'al

a. Max- \emptyset way[-i] **naq winaq.**

ASP-3ABS sleep-ITV CLF man

'The man slept.'

b. Max- \emptyset y-il[-a'] **naq winaq ix ix.**

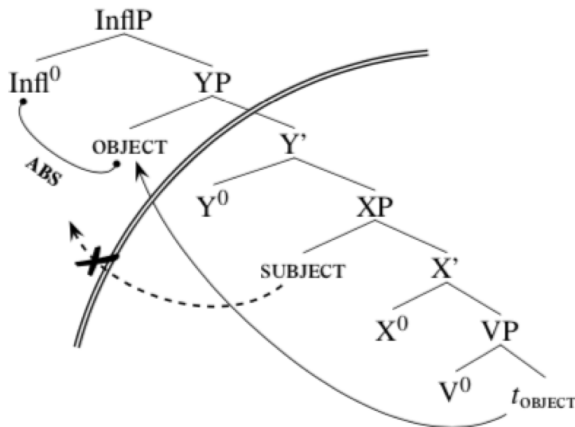
ASP-3ABS 3ERG-see-TV CLF man CLF woman

'The man saw the woman.' (Coon et al. 2014:15)

Background: A detour to Mayan

- Accounts of syntactic ergativity in Mayan argue that the object systematically shifts over the subject, preventing \bar{A} -movement of the subject (Campana 1992; Ordóñez 1995; Coon et al. 2014; Assmann et al. 2015)

(5) Absolutive object traps the subject (Coon et al. 2014:36)



- **Core claim:** Syntactic ergativity is directly tied to absolutive Case assignment from T.
- Object shift is driven by a need for Case licensing.
 - Absolutive is assigned by finite T, but Case assignment cannot cross the vP phase.
 - The object must move to Spec,vP to escape the phase and receive Case from T.
- Object movement to Spec,vP prevents the subject from escaping the vP phase, so it is inaccessible for \bar{A} movement.

- The implication is that Mayan languages assign abstract ergative and absolutive Case without realizing it on nominals.
- Mayan languages only satisfy Dixon's generalization by having overt verbal agreement that follows an ergative alignment.
 - Nothing in the theory requires this agreement to be overt!
 - We only need to go one step further to get a language with syntactic ergativity and no morphological ergativity.

- If such a language were unattested, we need to change the theory in one of two ways. Either:
 - ① Abstract Case must be realized on heads or dependents.
 - ② Syntactic operations directly reference morphological marking.
- I argue that neither of these revisions is necessary.
 - This gap in the typology is filled by Nukuoro, as predicted by standard theories of case and syntactic ergativity.

The Nukuoro data

- Nukuoro fills the typological gap in Dixon's generalization.
 1. Nukuoro has no ergative case or agreement.
 2. Nukuoro shows an extraction restriction on transitive subjects.
- Relevant background:
 - Polynesian-Outlier of Micronesia, spoken by ~1000 people
 - Basic SVO word order, though historically VSO
 - No morphological case except genitive
- All data comes from primary fieldwork in Pohnpei, Micronesia with 3 native speakers (2015-present).

Claim 1: Though historically ergative, modern Nukuoro does not show ergativity in case or agreement.

- Many Polynesian Outliers mark ergative case only on post-verbal pronominal subjects.

(6) Ku kopoina **e ia** a Hina.
PERF praise ERG 3SG PERS Hina
'He praised Hina.'

(Kapingamarangi; Elbert 1948:33)

(7) Ttoeaina koo see matea **nee ia** se mea e tasi.
DET.old.man INC NEG see ERG 3SG a thing NPST one
'The old man can no longer see anything.'

(Tuvalu; Besnier 2000:281)

The Nukuoro data: No morphological ergativity

- This was also the case in an earlier stage of Nukuoro.
- Narratives from the early 1960s (Carroll 1980) show ergative marking only on **postverbal pronouns**.

(8) Ga gidee ai e ia tagodo o de gau
PRSP see OBL.PRO ERG 3SG DET.state of DET people
'...he saw (there) the state of the people...' (Carroll 1980:10-1.243)

(9) Gai a Vave gu gidee ange e ia hegau a
DM PERS Vave INC see DIR ERG 3SG work GEN
Tubuanage ne hai...
Tubuanage PFV do
'And Vave saw the work that Tubuanage did...' (Carroll 1980:10-1.255)

- Modern speakers only offer ergative marking in post-verbal contexts as the “older” or “more proper” way of speaking.
 - No living Nukuoro speakers would use *e* marking.
 - The last generation that would use *e* was at least one generation above the oldest living speakers.

(10) Ne llanga **e** **goe** **denga** **gede**?

PFV weave ERG 2SG DET.PL basket

‘Did you weave the baskets?’

JR (~70 y.o.): “Yes, the older people, that would be their way of speaking... My grandparents.”

JR: “My grandmother and people before her (would say this). My mother and people younger would say *goe*.”

- Where modern Nukuoro allows post-verbal transitive subjects (like in polar questions), they appear unmarked.

(11) Ne llanga **goe** **denga** gede?
PFV weave 2SG DET.PL basket
'Did you weave the baskets?'

- Modern Nukuoro doesn't allow postverbal subjects in declarative transitive clauses, with or without ergative marking.

(12) *Ne tilo (e) ia Johnny.
PFV watch ERG 3SG Johnny
'S/he watched Johnny.'

(13) *Ia ne tilo (e) ia Johnny.
3SG PFV watch ERG 3SG Johnny
'S/he watched Johnny.'

- In SVO declarative clauses, there is no case marking on pronominal arguments...

- (14) a. **Au** ne seni.
1SG PFV sleep
'I slept.'
- b. Soni ne tilo **au**.
Johnny PFV watch 1SG
'Johnny watched me.'
- c. (*E) **au** ne tilo Soni.
ERG 1SG PFV watch Johnny
'I watched Johnny.'

- ...or on full DPs.

- (15) a. **De gauligi** ne seni.
DET child PFV sleep
'The child slept.'
- b. Soni ne tilo **de gauligi**.
Johnny PFV watch DET child
'Johnny watched the child.'
- c. (*E) **de gauligi** ne tilo Soni.
ERG DET child PFV watch Johnny
'The child watched Johnny.'

- Nukuoro doesn't have canonical verbal agreement.
- A subset of intransitive verbs show **participant number** marking using reduplication or suppletion (Durie 1986; Mithun 1988).

- (16) a. Ia gu **seni**.
3SG INC sleep
'S/he fell asleep.'
- b. Gilaadeu gu **ssemi**.
3PL INC sleep.PL
'They fell asleep.'

- However, this only applies to intransitives and is thus not ergatively-aligned.

Descriptive generalizations:

- ✓ Nukuoro has no ergative case or agreement.

Nukuoro shows an extraction restriction on transitive subjects.

Claim 2: Nukuoro shows syntactic ergativity in relativization.

- Transitive subjects cannot be relativized using an unmarked gap.
- Instead, passive voice morphology must appear on the verb.

- Nukuoro passives use the Polynesian *-(C)ia* suffix and the post-verbal particle *ina* (historically derived from *-(C)ia*).

- (17) a. Soni gu hagaduu dogu hale.
Johnny INC build my house
'Johnny built my house.'
- b. Dogu hale ne **hagaduulia ina** (i Soni).
my house PFV build.PASS PASS OBL Johnny
'My house was built (by Johnny).'

- Relativization is the primary \bar{A} -movement strategy in Nukuoro.
 - Nukuoro uses a genitive relative clause (GRC), which marks the subject of the relative clause with genitive case.
- Intransitive subjects and transitive objects are relativized using an unmarked gap in base position (18).

- (18) a. Go ai [t_{ABS} e anu naa]?
FOC who NPST dance MED
'Who is dancing?' (S)
- b. Go ai [a Ruth ne tugi t_{ABS} laa]?
FOC who GEN Ruth PFV hit DIST
'Who did Ruth hit?' (O)

- Transitive subjects cannot use the unmarked strategy (19a).
- Relativizing a transitive subject requires passive morphology on the verb (19b).

- (19) a. *Go ai [t_{ERG} ne tugi Soni]?
FOC who PFV hit Johnny
'Who hit Johnny?' (A)
- b. Go ai ne **duugia ina** Soni?
FOC who PFV hit.PASS PASS Johnny
'Who hit Johnny?'

- Voice morphology is a common cross-linguistic strategy to obviate an ergative extraction restriction. (Polinsky 2017)

- The restriction targets ergative subjects, not just agents: only syntactically transitive verbs relativize with *ina*.
 - *ina* is ungrammatical for subject extraction in syntactically intransitive constructions.

- (20) a. Go ai [_{ABS} e gadagada (*ina) naa]?
FOC who NPST laugh PASS MED
'Who is laughing?' (intransitive)
- b. Go ai [_{ABS} e dele (*ina) i de moni]?
FOC who NPST sail PASS OBL DET canoe
'Who sailed the canoe?' (middle)

Descriptive generalizations:

- ✓ Nukuoro has no ergative case or agreement.
- ✓ Nukuoro shows an extraction restriction on transitive subjects.

Obscuring abstract alignment

- Nukuoro shows a surface nominative-accusative pattern in relative clauses, where subjects are marked with genitive case.

- (21) a. de masovaa [**oogu** ne seese ai]
DET time 1SG.GEN PFV walk OBL.PRO
'the time that I walked'
- b. de masovaa [**aagu** ne saabai ai **Soni**]
DET time 1SG.GEN PFV carry OBL.PRO Johnny
'the time that I carried Johnny'

- The same pattern is found across Polynesian, including in morphologically ergative languages like Niuean (Seiter 1980) and Tongan (Otsuka 2010b).

- I argue that this is an instance of **split ergativity**: a part of the grammar which shows a nominative alignment in an otherwise ergative language.
- Following Coon (2013), I attribute splits to general constraints on locality, rather than different Case assignment mechanisms.
 - This allows us to posit a single abstract alignment for a language despite construction-specific morphology.

- The genitive pattern is reminiscent of “extended ergative” in Mayan, where subjects of non-finite clauses take Set A agreement, typically used for ergatives and possessors.

(22) Akatek

- a. x-y-il ix [aw-el-toj]
COM-3SG.A-see she 2SG.A-leave-DIR
'She saw you leaving.'
- b. x-y-il ix [in-aw-ante-on an]
COM-3SG.A-see she 1SG.B-2SG.A-cure-NML CL.1SG
'She saw that you cured me.'

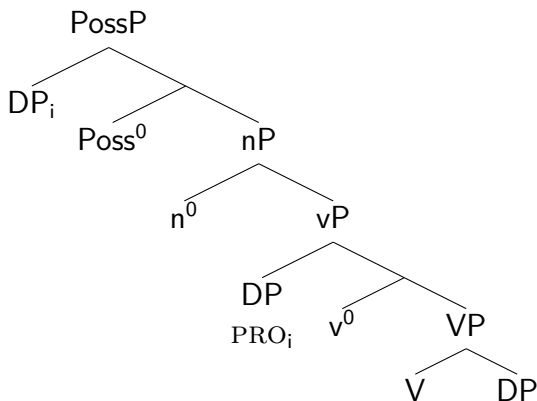
(Zavala 1997:446)

- Many analyses propose that these clauses are nominalizations, where the overt subject is actually a possessor (e.g., Coon 2013).

Obscuring abstract alignment

- Analyses of Polynesian GRCs propose nearly the same structure, where the genitive subject is external to the RC and controls an embedded PRO subject (Bauer 1997, 2007; Hawkins 2000; Otsuka 2010b; Herd et al. 2011)

(23)



- This clause-external position is obscured by Nukuoro SVO order, but supported by two pieces of evidence.
- First, when postverbal subjects are permitted in intransitives, the clearly clause-internal subject appears in unmarked case, rather than genitive case.

- (24) a. de masovaa **olaadeu** ne kada ai
DET time 3PL.GEN PFV laugh OBL.PRO
'the time that they laughed'
- b. de masovaa ne kada ai **gilaadeu**
DET time PFV laugh OBL.PRO 3PL
'the time that they laughed'

- Second, Nukuoro allows preposed genitives in RCs, which are clearly displaced from subject position (25).

- (25) a. **d-ono_i** masovaa [PRO_i e seesee ai]
DET-3SG.GEN time NPST walk OBL.PRO
'the time that he walked'
- b. **d-agu_i** daane [PRO_i ne gidee laa]
DET-1SG.GEN man PFV see DIST
'the man that I saw'

- I argue that the nominative alignment is only apparent.
 - Genitive case is assigned clause-externally by a functional head in the nominal domain (e.g., D^0 , $Poss^0$).
 - Inside the relative clause, abstract ergative and absolutive Case are assigned, just like in matrix clauses.
- The nominative-like appearance stems from locality conditions on control (Relativized Minimality; Rizzi 1990): control must target the most local DP.

- Split ergativity in Nukuoro shows how delicate it is to identify a single alignment for an entire language.
 - Different aspects of Nukuoro syntax show neutral, ergative, and accusative alignments.
- Identifying abstract alignment requires thorough investigation of not just morphological marking, but also clause structure, licensing, and movement.

Implications

Implications: The typology

- Dixon's generalization doesn't hold entirely: syntactic ergativity is possible without morphological ergativity.
- All four cells of the typology are attested.

	A can extract	A cannot extract
Morphologically ergative	✓	✓
Morphologically non-ergative	✓	Nukuoro

Table 2: Morphological vs. syntactic ergativity, revised

- Crucially, Nukuoro has neutral case marking (rather than nominative-accusative case).

- A language like Nukuoro is predicted by theories of syntactic ergativity, assuming that Nukuoro has abstract ergative Case.
 - We don't need to revise the Y-model to allow syntax to reference morphological marking.
 - We don't need to enforce the realization of abstract Case.
- Nukuoro provides a new type of evidence for abstract Case as a distinct phenomenon from morphological case (e.g., Legate 2008), particularly in a language with no overt Case marking. (Sheehan and van der Wal 2016)

- Why might the Nukuoro pattern be rare? **Learnability.**
 - Acquisition of categories requires some level of input.
 - In most languages, morphological case or agreement provides enough input to posit abstract Case.
- Nukuoro shows that abstract Case can be acquired without phonological case distinctions in the nominal or verbal domain.
- However, given the limited input, this pattern may become opaque or unlearnable, leading to loss or reanalysis.

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- The *e* marking found in the historical record and even remembered by speakers doesn't have an ergative distribution.

(26) Au ne hano gi Kolonia [gi hedae ange ai **e**
1SG PFV go to Kolonia INF meet DIR OBL.PRO ERG
au gi dogu dinana].

1SG to my mother

'I went to Kolonia to visit my mother.'

JR (~70 y.o.): "Just *au*. Okay, that is almost like this generation level of speaking. The last generation will be almost like what you're saying, *e au*.'

- In the historical narrative corpus, *e* often appears on post-verbal *intransitive* subjects.

(27) Gai ga humai huu **e** **ia**...
DM PRSP come when ERG 3SG
'So when he came...'

(Carroll 1980:11-2.14)

(28) Dee iloo **e** **ia** be ahee.
NEG know ERG 3SG C which
'He didn't know which.'

(Carroll 1980:10-2.185)

- Participant number marking in Nukuoro is almost exclusively found with intransitives, particularly verbs of motion.

- (29) a. Ia gu lele.
3SG INC jump
'S/he jumped.'
- b. Gilaadeu gu llele.
3PL INC jump.PL
'They jumped.'

- I have one instance of a transitive verb that shows participant number, but it was controlled by the subject (and might not be replicable).

- (30) a. Ia gu **hua** taahili.
3SG INC bloom DET.song
'S/he sang a song.'
- b. Gilaadeu gu **hhua** taahili.
3PL INC bloom.PL DET.song
'They sang a song.'
- c. *Ia gu hhua denga daahili.
3SG INC bloom DET.PL song
'S/he sang songs.'

O- and a-marking in GRCs

- Genitives mark alienability in possessed nominals through o- or a-marking of the genitive.

- (31) a. **d-ogu** vae
DET-1SG.GEN leg
'my leg'
- b. de vae **o** **Soni**
DET leg GEN Johnny
'Johnny's leg' (inalienable)
- (32) a. **d-agu** biini
DET-1SG.GEN pen
'my pen'
- b. de biini **a** **Soni**
DET pen GEN Johnny
'Johnny's pen' (alienable)

A- and o-marking in GRCs

- In relative clauses, a- and o-marking of the genitive subject tracks ergativity: transitive subjects are a-marked. (Drummond 2017)
 - The distinction does not track alienability here, since the same relative head can have o-marked or a-marked possession.

- (33) a. de boose **oogu** e noho ai
DET boat 1SG.GEN NPST live OBL.PRO
'the boat that I live on'
- b. de boose **aagu** ne hagao
DET boat 1SG.GEN NPST buy
'the boat that I bought'

- The distinction cannot be tied to theta role: experiencers can be o-marked (34a) or a-marked (34b) depending on the transitivity of the verb.

- (34) a. de masovaa **oogu** ne kino ai ide goe
DET time 1SG.GEN PFV hate OBL.PRO LOC 2SG
'the time that I hated you'
- b. de gaagoo **aagu** ne gidee
DET chicken 1SG.GEN PFV see
'the chicken that I saw'