# Programme and Abstract Booklet

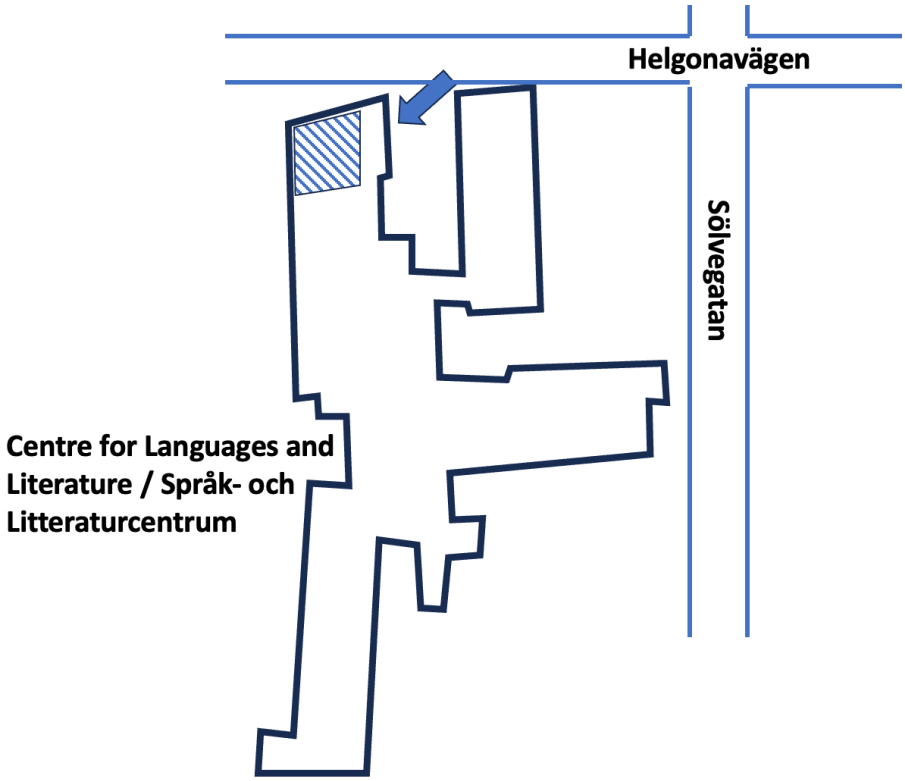

30th annual conference
of the
Austronesian Formal Linguistics Association

**Lund University, Sweden**
**20–22 October 2023**

LUND UNIVERSITY

# Venue

Lund University
Centre for Languages and Literature
Crossroads of Helgonavägen & Sölvegatan
H104: Hörsal Auditorium (enter from the north entrance)




Online and hybrid presentations:
https://tinyurl.com/afla30

# FRIDAY, 20 OCTOBER 2023

09:00 – 09:45 **Tamisha Tan**
*Ditropic datives and weak case containment in Amarasi*
09:45 – 10:15 **Victor Bogren Svensson**
*Manner adverbial verbs and functional categories in Takituduh Bunun*

10:15 – 10:30 COFFEE BREAK

10:30 – 11:00 **Michael Yoshitaka Erlewine & Carly J. Sommerlot**
*The Malayic verbal phase and cyclic linearization*
11:00 – 11:30 **Eve Suharwardy**
*The inventory of comparative operators in Malay*

11:30 – 11:45 BREAK

11:45 – 12:15 **Anastasia Riehl, Abigail Cohn, & Regina Yanti**
*The Changing status of nasal-stop sequences in Jambi Malay*
12:15 to 12:45 **Alexander Smith**
Mora sharing with weightless segments: The structure of closed light syllables in some Austronesian languages

12:45 – 14:15 LUNCH (SOL Café in the atrium)

14:15 to 14:45 **Jed Sam Pizarro-Guevara & Brian Dillon**
*How do Tagalog reflexives find themselves an antecedent?*
14:45 to 15:15 **Dave Kenneth Cayado, Samantha Wray, & Linnaea Stockall**
***ONLINE*** *Does linear position of affixes matter during early morphological processing? Evidence from Tagalog masked priming*

15:15 to 15:30 COFFEE BREAK

15:30 – 16:00 **Norielle Adricula**
*Examining the role of animacy and definiteness in Tagalog voice choice: A corpus study of web-based and conversational Tagalog*
16:00 – 16:30 **Gérard Avelino**
*Tagalog* sana *and the event relativization of preference modality*
16:30 – 17:00 **Yining Nie & Henrison Hsieh**
*Tagalog valency morphology and its neutralization*

Online and hybrid presentations:
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**Tamisha Tan**

## Ditropic datives and weak case containment in Amarasi

**1. Overview** Many Austronesian languages have radically restructured the case and alignment system of Proto-Austronesian in distinct ways. This is true also of Timoric languages like Amarasi, which has innovated a NOMINATIVE-ACCUSATIVE alignment as expressed via case distinctions in the pronominal paradigms (1). Drawing on novel evidence, I propose a expansion to the case system in (1), identifying for the first time a DATIVE case (2) which is distinct from the ACCUSATIVE only in the 3rd person.

This paper i) argues for the empirical existence of a typologically-unusual "ditropic clitic" in Amarasi (Embick & Noyer 1999), wherein the DAT case marker ***=n*** shows a mismatch in its structural and prosodic dependencies by linearly preceding the DP it case marks, whilst phonologically encliticising onto a verbal host at its left edge; ii) presents a theoretical analysis of these pronoun paradigms as requiring Weak rather than Strong Case Containment (Christopoulos & Zompì 2022), capturing not only the NOM *#h* ~ OBL *#k* alternation found with [+PART] pronouns but also the distribution of *#n* functors in the DAT paradigm and an apparent pattern of ABAA syncretism between the 3SG.ACC pronoun and determiner in *=ee*.

**2. Datives in /n/** As observed by Edwards (2021:138), there exists an allomorph of the 3SG.OBJ pronoun in *ne* which surfaces after the (prepositional) verb *n-ok* 'is with' and after *n-fee* 'gives'. Close investigation reveals that *ne* is conditioned by ditransitive contexts, routinely serving as a BENEFICIARY/RECIPIENT indirect object (3a, 4a). At the same time, all non-pronominal 3SG/PL arguments and the 3PL pronoun *sin* require insertion of an enclitic *=n* in these contexts (3b, 4b), which is otherwise ungrammatical with other pronouns (e.g. **=n ko/kai*). On the basis of this distribution (and the fact that all prepositional verbs select for *ne* rather than 3SG.ACC *=ee*), I propose that *ne/=n* are indicative of a DATIVE case in Amarasi.

Crucially, *=n* surfaces as the coda of the preceding verb rather than the onset of the following DP, such that e.g. *sii =n au* in (4b) is pronounced [sɪː.ʔəw] (with automatic [ʔ] insertion before #V words) and not [sɪː.nəw]. Further, this enclitic is not simply a 'left-leaning' *in situ* head, since its distribution in SVCs shows displacement onto the non-final lexical verb head of the string (5), which Tan (2022) has argued to involve raising of the lexical verb across the aspectual verb. While the existence of such "ditropic enclitics" has been questioned on the grounds of poor attestation (Klavans 1985, Embick & Noyer 1999, Cysouw 2005), the dative *=n* in Amarasi instantiates such a clitic in underlyingly preceding its structural associate DP, whilst forming a prosodic word with the verb on its left edge. This unusual prosodic behaviour is supported by the established tendency of Amarasi to resyllabify the first consonant of word-initial #CC as the coda of a preceding word, as with the sequence *hai m-nao* 'we (EX.) go' pronounced [hɛjm.ˈnaɔ].

**3. Weak Case Containment & ABAA** I assume the NOM pronouns (1a) to instantiate D heads which serve as the complement of KPs bearing case features, with the 3SG being the radical absence of φ-features (Preminger 2014). Building on the literature on case containment (Caha 2009, McFadden 2018, Smith et al. 2019), I take the (features of) the Amarasi DAT to properly contain those of the ACC, which itself is built onto the unmarked/NOM D head pronoun. Taking [+ACC] ⇔ *k-* in the context of [+PART] and ∅ elsewhere, and /kh/ clusters to be synchronically reduced to [k] (based on their absence in the language and similar contraints in related Timoric languages such as Tetun, cf. van Klinken 1999), the structure of an ACC [+PART] pronoun (1b) is akin to [KP+ACC *k-* [D *au/hit/hai/ho/hi*]], while the 3PL *sin* shows NOM-ACC syncretism. I furthermore propose that [+DAT] is impoverished in the context of [+PART] but exponed as /=n/ elsewhere, accounting for the ACC-DAT syncretism of [+PART] pronouns in (1b, 2) and the distribution of *=n* with 3PL *sin*, 3SG *ne* (from /=n =ee/), and other non-pronominal 3rd person arguments (3b, 4b).

While tempting to analyse the 3SG.NOM *in* as exponing [D] and the 3SG.ACC *=ee* as a suppletive exponent of [+ACC, D], I argue that Strong Case Containment (wherein the ACC contains the NOM) fails to capture the clear syncretism between the 3SG.ACC pronoun and determiner in *=ee*, which show identical phonologically-conditioned allomorphy (e.g. with /gw/ insertion after hosts ending in /u/) and prosodic behaviour in triggering metathesis (6, 7). This results in two undesirable options: either the 3SG.ACC and DET *=ee* are accidentally homophonous, or they instantiate an ABAA pattern, contra our expectations of *ABA patterns (Bobaljik 2012). To resolve this, I propose that i) Amarasi invokes Weak Case Containment, where the ACC does not contain the NOM, and ii) that reference can be made to a distinct [+NOM] feature. We may then analyse the 3SG.NOM *in* as a suppletive exponent of [+NOM, D], whilst the 3SG.ACC and DET head in *=ee* involve the default exponence of just [D], with a full set of VI rules given in Table 1 and 2.

(1) a. NOMINATIVE pronouns

| | SG | PL | |
|---|---|---|---|
| 1 | *au* | *hit* | (IN.) |
| | | *hai* | (EX.) |
| 2 | *ho* | *hi* | |
| 3 | *in* | *sin* | |

b. ACCUSATIVE pronouns

| | SG | PL | |
|---|---|---|---|
| 1 | *kau* | *kit* | (IN.) |
| | | *kai* | (EX.) |
| 2 | *ko* | *ki* | |
| 3 | *=ee* | *sin* | |

(2) DATIVE pronouns

| | SG | PL | |
|---|---|---|---|
| 1 | *kau* | *kit* | (IN.) |
| | | *kai* | (EX.) |
| 2 | *ko* | *ki* | |
| 3 | ***ne*** | ***=n*** *sin* | |

(3) a. Au '-saef **ne** kraas =ee.
1SG.NOM 1SG-wash.MET 3SG.DAT glass =DET
'I wash the glass for him/her.'

b. Au '-safe **=n** {Ince/sin} kraas =ee.
1SG.NOM 1SG-wash =DAT {Ince/3PL} glass =DET
'I wash the glass for Ince/them.'

(4) a. Ho m-sii **ne** ('si'i)
2SG.NOM 2SG-sing 3SG.DAT (song)
'You sing (a song) to/for him/her.'

b. Ho m-sii **=n** au aina ('si'i).
2SG.NOM 2SG-sing =DAT 1SG.NOM mother (song)
'You sing (a song) to/for my mother.'

(5) In n-tui **=n** na-rair Ince surut.
3SG.NOM 3-write =DAT 3-PFV Ince letter
'S/he already wrote Ince a letter.'

(6) a. In na-tuin **=ee**.
3SG.NOM 3-follow =3SG.ACC
'S/he follows him/her.'

b. Kuan **=ee**.
village =DET
'The village.

(7) a. Ho m-meup **=gwe**.
2SG.NOM 2SG-work.MET =3SG.ACC
'You work (on) it.' (< unmetathesised *mepu*)

b. Meup **=gwe**.
work.MET =DET
'The work.'

| | | | |
|---|---|---|---|
| [+AUTH +ADDR +PL, D] | ⇔ | /hit/ | 1PL.INCL.NOM |
| [+AUTH +PL, D] | ⇔ | /hai/ | 1PL.EX.NOM |
| [+ADDR +PL, D] | ⇔ | /hi/ | 2PL.NOM |
| [+AUTH, D] | ⇔ | /au/ | 1SG.NOM |
| [+ADDR, D] | ⇔ | /ho/ | 2SG.NOM |
| [+NOM, D] | ⇔ | /in/ | 3SG.NOM |
| [+PL, D] | ⇔ | /sin/ | 3PL |
| [D] | ⇔ | /=ee/ | 3SG.ACC and DET.DIST |

Table 1: Vocabulary Items for pronouns in Amarasi

| | | | |
|---|---|---|---|
| [+DAT] / [+PART] | → | ∅ | DATIVE (impoverishment) |
| [+DAT] | ⇔ | /=n/ | DATIVE (elsewhere) |
| [+ACC] / [+PART] | ⇔ | /k-/ | ACCUSATIVE |
| [+ACC] | ⇔ | ∅ | ACCUSATIVE (elsewhere) |
| [+NOM] | ⇔ | ∅ | NOMINATIVE |

Table 2: Vocabulary Items for case in Amarasi

**References**: Bobaljik, J. (2012). Universals in comparative morphology. Caha, P. (2009). The Nanosyntax of case. Christopoulos & Zompì. (2022). Taking the nominative (back) out of the accusative. van Klinken, C. (1999). A grammar of the Fehan dialect of Tetun, an Austronesian language of West Timor. Cysouw, M. (2005). Morphology in the wrong place. Edwards, O. (2021) Rote-Meto Comparative Dictionary. Embick, D. & Noyer, R. (1999). Locality in post-syntactic operations. Klavans, J. (1985). The independence of syntax & phonology in cliticization. McFadden, T. ( 2018). *ABA in stem-allomorphy and the emptiness of the nominative. Preminger, O. (2014). Agreement and its failures. Smith, P., Moskal, B., Xu, T., Kang, J., & Bobaljik, J. (2018). Case and number suppletion in pronouns. Tan, T. (2022). Three Ways to Serialise Verbs in Amarasi.

Manner Adverbial Verbs and Functional Categories in Takituduh Bunun

**Victor Bogren Svensson**

I present novel data from Takituduh Bunun, illustrating the morphosyntactic and semantic properties of manner adverbial verbs. Adverbial verbs are a typologically rare category in need of further research, and I show that a careful study of them can further our understanding of long-standing theoretical issues, including the ordering and nature of functional projections, the relationship between lexical and functional categories, and the Austronesian Voice System, shedding new light on these issues.

Adverbial verbs have been shown to be reflexes of functional projections in the extended verbal projection, thereby preventing verbal morphology from being realized on the lexical verb (Chang 2009, Holmer 2012, Wu 2019). However, contrary to previous claims for related languages, manner adverbial verbs in Takituduh Bunun vary in their position in relation of other adverbial verbs, differences in linear order reflecting differences in scope (1a-b). The ordering of 'again' and 'diligently' varies, with expected differences in scope (further to the left, higher scope). Since both adverbial verbs are the realization of functional projections, a strict, universal ordering of functional projections (cf. Cinque 1999) cannot be maintained. However, this type of variation in scope and order is highly limited, with modality, speaker-oriented and most aspect modifiers consistently scoping above manner, reflected in the linear order in (2a-b), where 'often' must scope above the manner modifier. This supports the overall structure of the clausal spine as divided into the familiar [CP [TP [*v*P]]], although some degree of flexibility must be permitted. This data supports the proposal made by Ramchand & Svenonius (2014), where the clause is divided into three corresponding domains [PROPOSAL [SITUATION [EVENT]]]. Manner, modifying events denoted by verbs, is limited to the lowest, EVENT domain (cf. the extended *v*P) before viewpoint aspect is added, but there are no a priori restrictions on ordering variation within this domain, allowing for the limited but productive variation in scope observed in Takituduh Bunun. Only functional projections merged inside the EVENT domain may scope both above and below manner adverbial verbs, and this is born out in the data.

Bound morphology introduced in the EVENT domain should likewise exhibit variation in order. This is prediction is born out for causatives and Circumstantial Voice. Causatives can be hosted by either the manner modifier (3a) or the lexical verb (3b), with expected differences in scope. This reflects the orders [Voice [Cau [Manner [LexV]]] and [Voice [Manner [Cau [LexV]]], where the bound morphemes *'Voice'* and *'Cau'* attach to the closest independent unit below them in the structure, in line with the Mirror Principle (Baker 1988). In both clauses, it is the manner adverbial verb that hosts the voice morphology (Patient Voice). We see the same pattern for CV, which can be situated on either the lexical verb (4a) or the manner adverbial verb (4b). If CV is hosted by the lexical verb, the manner adverbial verb must be in PV. This supports an applicative analysis of CV, since it can be merged both below and above manner, and it is not in complementary distribution with PV. Modal auxiliary verbs cannot host CV (5a), but they can take a lexical verb hosting CV as its complement, and must then be in PV (5b). This suggests that the primary distinction between Actor and Undergoer Voice reflects a functional projection much higher in the syntactic structure, whereas CV (and by analogy, Locative Voice) reflects functional projections situated much lower in the clause, corroborating the of the Split-Voice Hypothesis (Chang 2010).

There is also evidence if favor of manner adverbial verbs containing lexical roots, even though they are connected to functional heads. Highly specific semantic content like *'politely'* can be encoded via manner adverbial verbs (6a), and even loan words, as Mandarin Chinese '*zhijie'*, may take this function (6b). It is clear that they are finite verbs, since they host the distinctive voice morphology of their respective clauses (PV). They also function as independent stative verbs. I propose that they are a-featural roots (cf. Harley 2014) that may be merged to a manner functional projection ($\text{Manner}^0$), which is situated inside the extended verbal projection. The lexical properties of manner adverbial verbs come from their lexical roots, and their grammatical properties derive from their functional projection ($\text{Manner}^0$) being situated inside the extended verbal projection, thereby capturing earlier observations that adverbial verbs exhibit both grammatical and lexical properties (Chang 2010).

In summary, I make four central claims: i) Functional projections in the extended verbal projection are not strictly ordered, but exhibit limited and predictable variation in scope, ii) Manner adverbial verbs are limited to the lowest, EVENT domain of the clause, iii) The Split-Voice Hypothesis of the Austronesian Voice System is corroborated by the data, iv) Lexical roots may be merged to $\text{Manner}^0$, situated inside the extended verbal projection.

Abbreviations: AGT: Agent Marker AV: Actor Voice, CAU: Causative, DEM: Demonstrative INCH: Inchoative Aspect, IMPV: Imperfective Aspect NOM: Nominative Case, OBL: Oblique Case, PV: Patient Voice

1.a Uqna-un uva'az ma-qasmav sadu ca haqail
Again-PV child AV-diligently read NOM book
'The child read the book diligently again' [Voice [Rep [Mn [LexV]]]]
1b. In-qasmav-un uva'az m-uqna=ang sadu ca haqail
INCH-diligently-PV child AV-again=IMPV read NOM book
'The child diligently read the book again [Voice [MnV [Rep [LexV]

2a Ma-qanglac ca uva'az ma-qasmav ma-patas
AV-often NOM child AV-diligent AV-write
'The child often writes diligently' [Voice [Asp [Mn [LexV]]]]
2b *ma-qasmav ca uva'az ma-qanglac ma-patas
AV-diligent NOM child AV-often AV-write *[Voice [Mn [Asp [LexV]]]]

3a. Qasmav-un tina ca uva'az pa-patas tingami
Diligent-PV mother NOM child CAU-write letter
'Mother, in a diligent manner, made the child write a letter' [Voice [Mn [Cau [LexV]]]]
3b. Na=pi-qasmavun tina ca uva'az ma-patas is tingami
IRR=-CAU-diligent-PV mother NOM child AV-write OBL letter
'Mother will make the child write the letter diligently' [Voice [Cau [Mn [LexV]]]]

4a Qasmav-un uva'az is-patas is tingami ca papatas
Diligent-PV child CV-write OBL pen NOM pen
'The child write the letter diligently diligently with the pen [Voice [Mn [Appl [LexV]]]]
4b Is-qalmang uva'az ma-patas tingami ca ispapatas
CV-sloppy child AV-write letter NOM pen
'The child write the letter sloppily with a pen' [Voice [Appl [Mn [LexV]]]]

5a *Is-asa is uva'az ma-patas ca enpic
CV-want AGT child AV-write NOM pen
'Intended: The child wants to write with the pen' *[Voice [Appl [want [LexV]]]]
5b Asa-un=s uva'az is-patas ca enpic
Want-PV=AGT child CV-write NOM pen
'The child want to write with the pen' [Voice [Want [Appl [LexV]]]]

6a. ma'az ca kaz'av-un=s uva'az dii antalam
what NOM politely-PV=AGT child DEM answer
'What did the child answer politely?'
6b. *zhijie*-un=s uva'az bazbaz ca dii
directly-PV=AGT child speak ABS DEM
'The child said this directly'

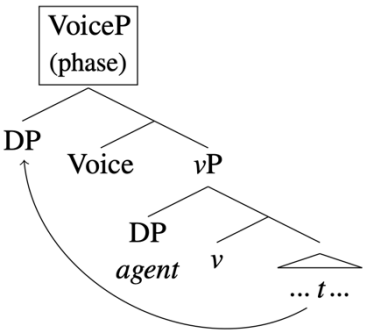
Baker, M. C. (1988). *Incorporation: a theory of grammatical function changing.* Univ. of Chicago Press, Chicago
Chang, H. Y. (2009). Adverbial verbs and adverbial compounds in tsou: A syntactic analysis. *Oceanic Linguistics*, pages 439–476.
Chang, H. Y. (2010). On the syntax of formosan adverbial verb constructions. *Austronesian and theoretical linguistics*, pages 183–211.
Cinque, G. (1999). *Adverbs and functional heads: a cross-linguistic perspective.* Oxford Univ. Press, New York.
Holmer, A. (2012). Evidence from formosan for a unified theory of adverb ordering. *Lingua*, 122(8):902–921.
Harley, H. (2014). On the identity of roots. *Theoretical linguistics*, *40*(3-4), 225-276.
Ramchand, G., & Svenonius, P. (2014). Deriving the functional hierarchy. *Language sciences*, *46*, 152-174.
Wu, H.-h. I. (2019). The syntactic categories of adverbials in isbukun bunun. *Concentric*, 45(1):1–23.

Abbreviations: AGT: Agent Marker AV: Actor Voice, CAU: Causative, DEM: Demonstrative INCH: Inchoative Aspect, IMPV: Imperfective Aspect NOM: Nominative Case, OBL: Oblique Case, PV: Patient Voice

**Michael Yoshitaka Erlewine & Carly J. Sommerlot**

**The Malayic verbal phase and Cyclic Linearization**

Chomsky 2001 and many others have hypothesized a clause-medial *verbal phase* headed by a functional head (*v*) that introduces the external argument (agent) and also serves as an "escape hatch" for movement out of the phase. In this talk, we argue for an organization of the verbal phase in Malayic where these functions are split across two different heads: Voice is the phase head, providing an escape hatch, and *v* introduces the agent; see tree at right, illustrated with movement through the edge. Our proposal accounts for voice and A'-extraction facts in Standard Indonesian and Malay (SI/SM) — including a novel, explanatory account of so-called "*meN*-deletion" — and Malayic-internal cross-linguistic variation in these behaviors.




Proposal for voices: A core assumption in our theory is that VoiceP can only host one DP specifier. We also assume that Voice hosts the voice prefixes (e.g. *meN-/di-*) which lower onto the verb in *v* via Local Dislocation (Embick & Noyer 2001). (We discuss case licensing and movement of non-DPs at the talk.)

We summarize the clause types in SI/SM for eventive transitive verbs in (2a–c), derived as in (1a–c):

(1) a. In actives (2a), the agent moves to Spec,VoiceP. Voice is realized as *meN-*.
b. In *di*-passives (2b), no agent is generated by *v* (although one can be adjoined postverbally) and the theme moves to Spec,VoiceP. Voice is realized as *di-*.
c. In "bare passives" (2c), the theme moves across the agent (see tree above) to Spec,VoiceP. Voice must be unpronounced because the agent intervenes, blocking lowering of Voice prefixes to *v*.

In all three cases, the DP subject in Spec,VoiceP then moves to Spec,TP to satisfy the EPP. This high subject will precede any and all auxiliaries; see the position of "Aux*" in (2a–c).

Proposal for A'-extraction: We adopt Fox & Pesetsky's (2005) *Cyclic Linearization* proposal for phase impenetrability effects. In brief: full phases (e.g. VoiceP, CP) undergo Spell-Out, establishing ordering statements for their terminals, which cannot be violated later in the derivation. For instance, we correctly predict that no non-subject DP can be extracted from VoiceP in actives (1a) and *di*-passives (1b). The subject occupies the sole nominal specifier of VoiceP, so any other nominal moving out of VoiceP will lead to an ordering contradiction: at VoiceP, we establish "*meN*/*di*- < DP" order, but leftward movement of DP will lead to a conflicting "DP < *meN/di-*" order at CP.

Our proposal predicts just one situation where two nominals can move out of VoiceP: the DP (theme) in Spec,VoiceP and the agent can both move out, in "theme < agent" order, *if and only if* Voice is null. This correctly predicts the possibility of object A'-extraction across a subject in Spec,TP with a bare verb (1d). (See example in (3). Notice that the agent subject precedes the auxiliary, showing that (3) is not simply subject extraction from a bare passive. Both the theme and agent have moved out of VoiceP.)

Although many works have investigated this so-called "*meN*-deletion" (Aldridge 2008, Sato 2012, a.o.), existing accounts ultimately stipulate the null pronunciation of *meN-* in object extraction (1d). Instead, our proposal offers a deeper explanation for why a null prefix in particular allows for object extraction across the high subject, parallel to Erlewine's (2017) Cyclic Linearization account for why a null complementizer in particular allows for subject extraction in so-called *that*-trace effects.

Cross-linguistic support: Many regional Malay(ic) varieties exhibit voice morphosyntax that is distinct from the SI/SM pattern above. Our two-head proposal supports the analysis of such patterns, in particular by analyzing *meN-* as a reflection of *me-* in Voice and *N-* in *v.* In SI/SM, *me-* and *N-* are in a selectional relationship and must be pronounced together, but this assumption can be relaxed:

- Desa allows both long (*meN-*) and short (*N-*) actives, but only the short *N*-V allows for object extraction; see (4). Our proposal above in fact only predicts that Voice (*me-*) needs to be null in object extraction, allowing *v* to still be realized as *N-*.
- Gil (2002) and Adelaar (2005) argue that *N-* in some Malay(ic) varieties has been reanalyzed as encoding an aspectual value, allowing it to appear in *di-* passives as well, as in (5).
- Furthermore, letting *di-* procliticize onto an agent in Spec,*v*P (rather than necessarily lowering onto the verb in *v*) allows for "*di*-agent *N*-V" patterns, as attested in Salako Kendayan (6).

(2) **Clause types in Standard Indonesian / Malay (SI/SM):**

| | | | | | | |
|---|---|---|---|---|---|---|
| a. | Active: | subj/agent | Aux* | *meN-* | V | obj/theme |
| b. | *Di*-passive: | subj/theme | Aux* | *di-* | V | |
| c. | Bare passive: | subj/theme | Aux* | agent | V | |
| d. | Object extraction: | subj/agent | Aux* | (**meN*-) | V | $t_{\text{theme}}$ |

(3) **Object extraction in SI/SM disallows *meN-* (Soh 1998: 297):**

| | | | | | |
|---|---|---|---|---|---|
| Apa-kah | yang | Ali | telah | {***mem**-baca / baca} | ____? |
| what-Q | C | Ali | perf | ME**N**-read | read |

'What has Ali read?'

(4) **Object extraction in Desa (West Borneo) disallows *me-* but allows *N-* (Sommerlot 2020):**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Tali [$_{\text{RC}}$ yang | aku | {***me**-**n**-ikuq / **n**-ikuq} | ____ | keq | perau | yen] | kuat. |
| rope C | 1sg | ME-N-tie | N-tie | to | boat | that | strong |

'The rope that I tie to the boat is strong.'

(5) **"*Di-N*-V" in Riau Indonesian (Gil 2002: 265):**

| | | |
|---|---|---|
| Baju-nya | **di**-**m**-injam. | (< *di-N-pinjam*) |
| garment-3sg | DI-N-borrow | |

'[She] borrowed his clothes.'

(6) **"*Di*=agent *N*-V" in Salako Kendayan (West Borneo; Adelaar 2005: 218):**

| | | | | | | |
|---|---|---|---|---|---|---|
| Aŋkoà-lah | tuàkŋ | kaleŋ | **di**=kau | matàh-matàh | (<*N-patàh*-RED) | aŋkoà. |
| DIST-EMPH | bone | catfish | DI-2SG | *N*-break-RED | | DIST |

'That's the catfish-bone you've broken into many pieces.'

References


Adelaar, Alexander. 2005. "Structural diversity in the Malayic subgroup." In *The Austronesian languages of Asia and Madagascar*, 202–226. Routledge.

Aldridge, Edith. 2008. "Phase-based account of extraction in Indonesian." *Lingua* 118:1440–1469.

Chomsky, Noam. 2001. "Derivation by phase." In *Ken Hale: A life in language*, 1–52. MIT Press.

Embick, David, and Rolf Noyer. 2001. "Movement operations after syntax." *Linguistic Inquiry* 32:555–595.

Erlewine, Michael Yoshitaka. 2017. "Why the null complementizer is special in complementizer-trace effects." In *A Pesky Set: Papers for David Pesetsky*, 371–380. MITWPL.

Fox, Danny, and David Pesetsky. 2005. "Cyclic linearization of syntactic structure." *Theoretical Linguistics* 31:1–45.

Gil, David. 2002. "The prefixes *di-* and *N-* in Malay/Indonesian dialects." In *The history and typology of western Austronesian voice systems*, 241–283. Pacific Linguistics.

Sato, Yosuke. 2012. "Successive cyclicity at the syntax-morphology interface: Evidence from Standard Indonesian and Kendal Javanese." *Studia Linguistica* 66:32–57.

Soh, Hooi Ling. 1998. "Certain Restrictions on A-bar Movement in Malay." In *AFLA 3–4*, 295–307.

Sommerlot, Carly J. 2020. "A reanalysis of the Austronesian nasal prefix: Evidence from Desa, a Malayic language of West Kalimantan." Presented at WCCFL 38.

**Eve Suharwardy**

## The inventory of comparative operators in Malay

**Introduction** This talk provides evidence that Malay (*Bahasa Melayu*; Western Malayo-Polynesian, Austronesian) is a language with phrasal (not clausal) comparatives. These should be analysed with a 3-place operator, which should be scopally mobile. The challenge presented by Malay is that, due to language-specific properties, no operator on the market can currently perform this.

**Background** Across languages, we differentiate between phrasal vs. clausal comparatives, using various diagnostics (elaborated below) to determine which a given language has. The syntactic category of the standard has implications for the semantic analysis. Standardly, phrasal comparatives are analysed with a 3-place operator, whereas we analyse clausal comparatives with a 2-place one. Both the number of arguments and their semantic type differentiates the operators. For 3-place operators, we additionally need to specify their schoenfinkelisation. Various alternatives have been proposed (Heim 1985, Kennedy 1997 & Merchant 2009), which cannot account for the same data. Heim (1985) is scopally mobile, but Kennedy (1997) is not (Berezovskya & Hohaus 2015). See (1) for the denotations to compare. As a result of this, Heim's operator can account for so-called internal (derived by keeping the DegP in-situ) and external (derived by DegP movement) readings of attributive comparatives. Kennedy (1997) can only account for the internal readings of attributives. This becomes important when we consider the Malay data.

**Data** I begin with the first clausal diagnostic: subcomparatives (e.g. 'the desk is longer than the door is wide'). In English, the standard phrase must be an unelided CP, so requires a clausal analysis. Malay expresses this meaning using an alternative strategy, see (2a), where the standard is a possessive DP. The copula *adalah* cannot appear in the standard, see (2b). The second clausal diagnostic is comparatives with multiple standards (e.g. 'Josh saw more dogs in the street than Ritchie in the park'). These are constructions where the standard phrase is an elided CP. As such, they also require a clausal analysis. In Malay, this meaning is expressed using alternative phrasal paraphrases, such as (3a). In terms of phrasal diagnostics, the first is whether the accusative can occur in the standard phrase. This cannot be tested as Malay does not mark case morphologically. The availability of reflexives in the standard is a second diagnostic which can be carried out, see (4). This is explained by Condition A of Binding Theory. If the standard in (4) is phrasal, the entire sentence is the minimal governing category for *diri kita sendiri*, which is bound by the subject *kita*. I conclude that Malay only has phrasal comparatives. In order to determine the schoenfinkelisation of the operator, we can consider attributive comparatives (e.g. 'Jon bought a faster car than Laura'). In English there are two potential interpretations; internal (a comparison between the speed of the car and the speed of Laura) and external (a comparison between the speed of the two cars). Malay lacks attributive adjectives so expresses this meaning using a relative clause comparative. Like English attributives, internal and external readings are possible, though (5) favours the external. Therefore, the latter should be derived by a scopally mobile operator (B&H 2015). Note that this contrasts with English relative clause comparatives, which only have an internal reading.

**Analysis** I propose that Malay comparatives are phrasal, so should be analysed by a 3-place operator. Based on data from Malay relative clause comparatives, I argue that this operator should be scopally mobile, which would make Heim's (1985) operator the most appropriate. Under this approach, *lebih* would essentially have the denotation in (1b). The problem is that in order to derive the external reading of (5), we require movement of the DegP. In this case, it needs to move out of a relative clause, which is an island in the language (Cole & Hermon 1998). This leaves us with the ungrammatical LF in (6). Malay then presents a challenge to conventional analyses of comparison constructions. At the moment, there is no comparative operator on the market that can be used when we take language-specific properties into account. Further investigation into the language is required and producing a comprehensive analysis is the next step. A fruitful line of enquiry may be to pursue some kind of "comparison frame" analysis, in the style of Hohaus (2015). In this case, the *daripada*-phrase would not be an argument of *lebih*, therefore avoiding island-violating movements.

(1) a. $[\![\text{-}er_{Kennedy}]\!] = \lambda R_{\langle d,\langle e,t\rangle\rangle}.\lambda y_e.\lambda x_e.\textsc{max}(\lambda d.R(d)(x)) > \textsc{max}(\lambda d'.R(d')(y))$
b. $[\![\text{-}er_{Heim}]\!] = \lambda y_e.\lambda R_{\langle d,\langle e,t\rangle\rangle}.\lambda x_e.\textsc{max}(\lambda d.R(d)(x)) > \textsc{max}(\lambda d'.R(d')(y))$

(2) a. *Pemain bola keranjang itu (adalah) lebih tinggi daripada panjang katil*
player basketball DEM COP more tall than length bed
'The basketball player is taller than the length of the bed.'
b. **Pemain bola keranjang itu adalah lebih tinggi daripada katil itu adalah panjang*
player basketball DEM COP more tall than bed DEM COP long

(3) a. *Jumlah anjing yang di-nampak oleh Josh di jalan (adalah) lebih banyak*
amount dog COMP PASS-see by Josh in street COP more many
*dariapda jumlah anjing yang di-nampak oleh Ritchie di taman*
than amount dog COMP PASS-see by Ritchie in park
'The amount of dogs that were seen by Josh in the street is more than the amount of dogs that were seen by Ritchie in the park'
b. **Josh nampak lebih banyak anjing di jalan daripada Ritchie di taman*
Josh see more many dog in street than Ritchie in park

(4) *Kita mahu anak-anak kita lebih bernasib baik daripada diri kita sendiri* (**mahu*)
1PL want children 1PL.POSS more fortunate than self 1PL alone (want)
'We want our children to be more fortunate than ourselves.'

(5) a. Context: Two daughters (Sharifah and Amina) need to pick their rooms in a new house. Amina doesn't mind but Sharifah wants the biggest one possible.
b. *Sharifah hendak bilik yang lebih besar daripada Amina*
Sharifah want room COMP more big than Amina
'Sharifah wants a room that is bigger than Amina.'

(6) LF: *[*Sharifah* [[$_{\text{DegP}}$ *lebih* [*daripada Amina*]] [3 [2 [$t_2$ [*hendak* [*itu* [*bilik* [$_{\text{CP}}$ [1 [*yang* [$t_1$ [$t_3$ *besar*]]]]]]]]]]]]

**References** Berezovskaya, Polina and Vera Hohaus (2015). 'The Crosslinguistic Inventory of Phrasal Comparative Operators: Evidence from Russian'. *Proceedings of FASL 22*, pp. 1–19. Cole, Peter and Gabriella Hermon (1998). 'The Typology of Wh-movement'. *Syntax* 1.3, pp. 221–258. Heim, Irene (1985). 'Notes on Comparatives and Related Matters'. Manuscript. Hohaus, Vera (2015). 'Context and Composition: How Presuppositions Restrict the Interpretation of Free Variables'. PhD thesis. Eberhard Karls Universität Tübingen. Kennedy, Christopher (1997). 'Projecting the adjective: The syntax and semantics of gradability'. PhD thesis. University of California, Santa Cruz. Merchant, Jason (2009). 'Phrasal and clausal comparatives in Greek and the abstractness of syntax'. *Journal of Greek Linguistics 9*, pp. 134-164.

**Anastasia Riehl, Abigail Cohn, & Regina Yanti**

# The Changing Status of Nasal-Stop Sequences in Jambi Malay

The phonologies of Austronesian languages differ from one another in interesting ways. One area of variation is in the realization of nasal-voiced-stop sequences (ND)s. In some languages, NDs form clusters while in others, NDs form unary segments. In this paper, we consider the intriguing case of Jambi Malay, which is reported to have two closely related dialects that differ in their realization of NDs — one cluster and one unary — and further, where the unary NDs are becoming indistinct from plain nasals (N)s. Through a phonological and phonetic study of these two dialects, in comparison with ND studies of other Austronesian languages, we propose that the NDs in one dialect are undergoing a change — from historical clusters, to unary segments, to Ns. This study offers insight not only into possible pathways to change but also into the typological differences between phonological inventories of closely related languages.

On the basis of phonological and phonetic studies, Cohn and Riehl (2016) make several claims about ND sequences. First, there are two (and only two) patterns in the phonology: unary and cluster (this includes reported cases of "post-occluded nasals" which they analyze as clusters). Second, the phonological patterns are manifested in the phonetics through duration: ND clusters are longer than Ns (~1.5 the length) while unary NDs are comparable in length to Ns. Third, all NDs, regardless of phonological status, have the same internal phonetic structure: they are primarily nasal with only a brief oral release. Fourth, in languages with progressive nasalization, such as many varieties of Malay and Indonesian, vowels following NDs are oral in contrast to vowels following Ns, which are nasalized, e.g. Indonesian [lembah] 'valley', [lemãh] 'weak'.

We focus here on two dialects of Jambi Malay, a language of Sumatra: Jambi Malay City (JM-City), as spoken in Jambi City, and Jambi Malay Rural (JM-Rural), as spoken in Tanjung Raden. We compare the phonological distribution of Ns and NDs; we also present a preliminary acoustic study of six speakers, three from each dialect, including measurements of ND/N duration and progressive nasalization of vowels (using the acoustic measure A1-P0, Chen 1997).

Yanti (2010) argues that in JM-City, the ND sequences are best analyzed as clusters, e.g. /tamaʔ/ 'greedy', /tambaʔ/, 'add', while in JM-Rural, the historical clusters are better analyzed as unary segments, e.g. /tam$^{b}$aʔ/. One source of evidence for this difference comes from patterns of truncation where only the final syllable is used, e.g. *pendek* 'short' is /deʔ/ in JM-City but /n$^{d}$eʔ/ in JM-Rural. This contrast, however, could also be due to a difference in syllabification patterns between the two dialects (heterosyllabic vs. tautosyllabic clusters). Further, Yanti observes that the NDs in JM-Rural sometimes alternate with plain nasals.

Our phonetic study of JM-City reveals that the NDs have the properties of canonical clusters. For all speakers, NDs are longer in duration than Ns (~1.5 the length) and are followed by oral vowels, whereas Ns are followed by nasalized vowels (see Figure A). In short, the NDs have the same properties as the clusters in other closely related Indonesian languages examined by Cohn and Riehl. In JM-Rural, however, the data is more complex. In terms of duration, for two speakers, NDs are comparable in length to Ns, while for a third the data is more variable. In terms of nasalization, for one speaker, vowels following ND are oral; for another speaker the vowels are nasalized, as if following N; and for a third speaker the results are mixed (see Figure B). Strikingly, we find more variability in JM-Rural, both within and across speakers, than in any other language we have considered. This variation, alongside the inconclusive phonological status of the NDs, indicates an instability in the system, and the results suggest that these historical NDs may be on a path to becoming Ns.

Given that there are two primary acoustic variables that distinguish ND clusters, unary NDs, and Ns — duration and nasalization — it is possible to see how as one variable starts to shift, particularly where phonological status is inconclusive, a different phonological entity can begin to emerge. The case of JM-Rural may offer insight into how the historical ND clusters of Austronesia have resulted in different typological ND inventories.

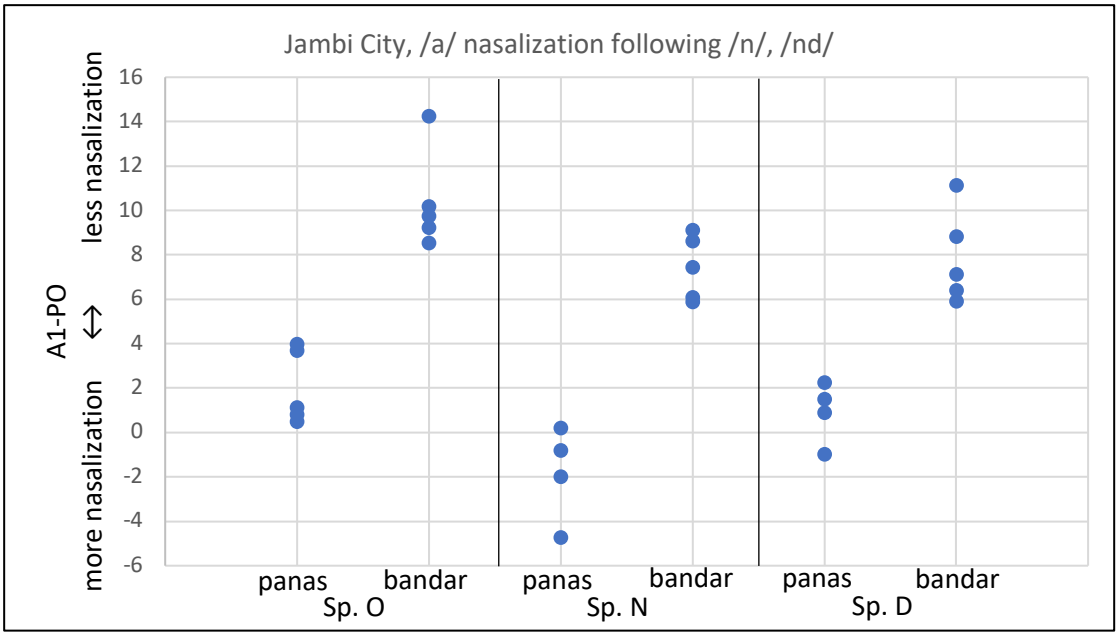



Figure A: Jambi Malay City, /a/ nasalization following /n/ (/panas/ 'hot') and /nd/ (/bandar/, 'port'), using measure A1-PO, for three speakers, 4-6 repetitions each; illustrating distinction between nasalized vowels following /n/ and oral vowels following /nd/ for all speakers.

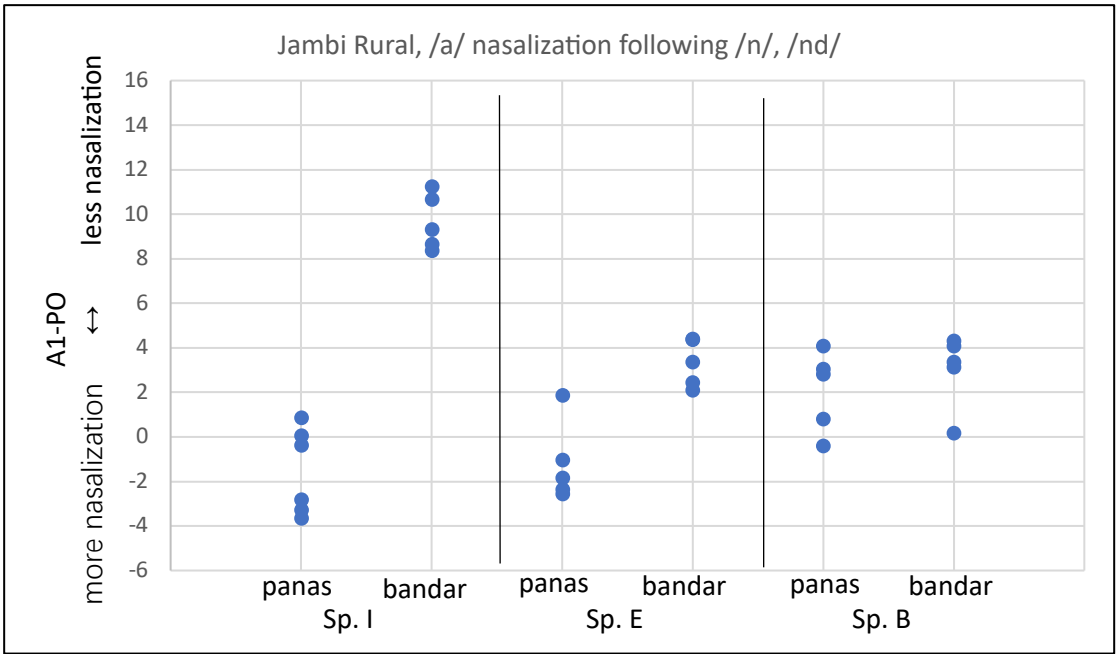



Figure B: Jambi Malay Rural, /a/ nasalization following /n/ (/panas/ 'hot') and /nd/ (/bandar/, 'port'), using measure A1-PO, for three speakers each, 4-6 repetitions each; illustrating clear distinction for Sp. I, less distinction for Sp. E and no distinction for Sp. B.

References

Chen (1997). Acoustic correlates of English and French nasalized vowels. *The Journal of the Acoustical Society of America*, 102(4), 2360-2370.

Cohn and Riehl (2016). Are there post-sopped nasals in Austronesian? *NUSA: Linguistic Studies of Languages in and around Indonesia*, 60: 29-57.

Yanti (2010). *A Reference Grammar of Jambi Malay*. PhD Diss. University of Delaware.

# Mora sharing with weightless segments: The structure of closed light syllables in some Austronesain languages

**Alexander Smith**

Coda consonants in languages that treat CVC syllables as light tend to share a mora with the preceding vowel, rather than linking directly to the syllable head. Although syllable-linked codas are theoretically possible, light CVC syllables have typically been analyzed as mora-sharing rather mora-nonsharing. Evidence for mora sharing involves observed vowel shortening in light light CVC syllables when compared to light CV syllables (Broselow et al., 1997). Additionally, vowel shortening is not attested in languages with heavy CVC syllables where the coda has its own mora and does not share a mora with the preceding vowel (Hall, 2017; Khattab and Al-Tamimi, 2014; Younes, 1995). These observations may be constrasted with languages that treat CVC syllables as heavy, where the coda has its own mora and does not trigger any vowel shortening.

Two Austronesian languages, Kayan and Kelabit, demonstrate an additional phenomenon associated with mora sharing codas – when weightless vowels are closed by a mora-sharing coda they create regular light syllables. In Kayan and Kelabit, the interaction of coda consonants and weightless vowels suggests both mora sharing as well alternate underlying geminate structures. A summary of both is given below:

**Kayan** The Data Dian variety of Kayan, spoken on the Indonesian area of the island in the Apo Kayan area has no phonemic geminates, but does have a length contrast in final-syllable vowels before glottal stop (Smith, 2018). Geminates appear in medial position if the penultimate-syllable vowel is a schwa. Most consonants are able to lengthen in this environment, but *r*, *h*, and *ʔ* do not. See example 2 for examples.

**Kelabit** Kelabit is in many ways similar to Kayan. A schwa in a penultimate syllable results in the gemination of the following consonant. Most consonants are available for gemination, but /r/, /ʔ/, and /h/ are not. Both also allow schwa to appear stressed in penultimate syllables closed by a cluster. Differences appear in the treatment of geminates. Although Kayan exhibits word-final stress after schwa-triggered geminate consonants, Kelabit has a stressed penultiamte schwa in the same environment (Blust, 2006). See example 3 for examples

This presentation therefore advances three main points:

1. Schwa is a weightless vowel in Kayan and Kelabit.

2. Schwa syllables are treated as regular light syllables if closed with a consonant. Both Kayan and Kelabit allow the first consonant in a consonant cluster to share a mora with a preceding schwa, but differ on whether geminates are also able to share a mora with preceding schwa.

3. The difference in treatment of geminates is ascribed to positional licensing, which distinguishes between positional-licenser $\mu$ and non-positional-licenser $\mu$ (see  for constraints and definitions). The distinct behavior of geminates and the role of positional licensing further suggests differences in geminate structure between Kayan and Kelabit.

**Data and Examples**

(1)

| | |
|---|---|
| Positional $\mu$-licensing: | A segment $\alpha$ is positionally $\mu$-licensed by a mora iff $\mu$ is the only prosodic unit directly dominating $\alpha$ |
| P-Dep-$\mu$: | A non-positional $\mu$-licenser mora in the output has a correspondent in the input. |

(2) ˈanit ‘skin’
daˈhaːʔ ‘blood’
təˈpaʔ [təˈpːaʔ] ‘pound rice’
ˈkəhran ‘to choke’

(3) anit [ˈanit] ‘skin, bark’
pepa’ [ˈpəpːaʔ] ‘chew’
bera [bəˈra] ‘husked rice’
gegkeng [ˈgəg͡kːʰəŋ] ‘numb with cold’

# References


Blust, R. (2006). The origin of the Kelabit voiced aspirates: a historical hypothesis revisited. *Oceanic Linguistics 45*, 311–338.

Broselow, E., S. Chen, and M. Huffman (1997). Syllable weight: convergence of phonology and phonetics. *Phonology 14*, 47–82.

Hall, N. (2017). Phonetic neutralization in palestinian arabic vowel shortening, with implications for lexical organization. *Glossa*.

Khattab, G. and J. Al-Tamimi (2014). Geminate timing in Lebanese Arabic: the relationship between phonetic timing and phonological structure. *Laboratory Phonology*.

Smith, A. D. (2018). Kayanic comparative vocabularies. Kaipuleohone University of Hawai‘i Digital Languages Archive. http://hdl.handle.net/10125/81770.

Younes, M. A. (1995). On vowel shortening in Palestinian Arabic. In *Perspectives on Arabic lingusitics: Papers from the annual symposium on Arabic linguistics. Volume VII: Austin, Texas 1993*, pp. 157–171. John Benjamin.

**Jed Sam Pizarro-Guevara & Brian Dillon**

**How do Tagalog reflexives find themselves an antecedent?**

One of the core insights in syntactic theory is that the interpretation of reflexives is regulated by an abstract syntactic principle, Principle A of the Binding Theory (Chomsky, 1981). We recast Principle A as an interaction between two conditions on antecedents: (i) STRUCTURAL PROMINENCE, and (ii) LOCALITY. Essentially, two conditions have to be satisfied for a DP to be able to antecede a reflexive: the DP must c-command the reflexive (structural prominence) and they must be in the same clause (locality). In configurations where a DP violates either or both conditions, said DP, by hypothesis, is unable to antecede a reflexive. Table 1 provides the four logical possibilities of this interaction.

Even though reflexives have been used to probe the properties of Tagalog's clause structure (e.g., Rackowski & Richards, 2005) or of particular movement operations (e.g., Richards, 2013), there has been little systematic investigations of the contexts in which reflexives are licensed. **In this study, we seek to establish the empirical picture of the distribution of reflexives (in coargument position) in Tagalog by conducting three offline antecedent selection studies**, corresponding to the configurations in Table 1 that are shaded in gray. Given two DPs, one that is compliant with Principle A for satisfying both conditions (TARGET) and one that is not compliant with Principle A for violating either or both of the conditions (DISTRACTOR), we ask:

i To what extent do speakers allow the target as the antecedent?
ii To what extent do they allow the distractor?
iii To what extent do they prefer the target over the distractor?

To determine the extent to which Tagalog speakers consider distractors when interpreting reflexives, we use an antecedent selection task with a number mismatch paradigm, manipulating whether the target is singular or plural (TNUM: PL, SG), and whether the distractor matched the number feature of the target or not (DMATCH: ±MATCH). We created 24 item sets for each experiment. Each item is then paired with a question, which probes the participants' interpretation of the reflexive. See Table 2 for a sample item and probe. Half of the time, they are presented with the target and the distractor as response options, and they have to choose one. Half of the time, they are presented with the target, the distractor, and "some other person/people" as response options, and they can select all that apply. We included two types of probes because they give us qualitatively different pieces of information. The first one answers question (iii), while the second one answers questions (i) and (ii). To the extent that there is a difference between the rate at which they offer the target as the antecedent when the distractor matches the number feature of the target and when it does not gives us a measure of the extent to which speakers attend to potential antecedents not licensed by Principle A.

**At the time of writing, data collection is ongoing at the University of the Philippines Diliman. We plan on recruiting 90+ participants (30+ per experiment), and we expect to complete data collection by mid to late July.** In lieu of presenting our findings, we discuss our hypotheses. Pizarro-Guevara & Dillon (2022) showed that when the distractor is both non-c-commanding and non-local, the number feature of the distractor had very little impact on the final interpretation of the reflexive. We expect comparable findings in Experiment 3, where the distractor is in the same configuration. How participants behave when the distractor only violates either structural prominence or locality, as in experiments 1 and 2, is an empirical question, as there have not been any experimental investigations of the binding possibilities in these configurations. If participants comply with Principle A, the rate at which they choose the target as the antecedent should not vary as a function of the number of the distractor. However, if they do attend to distractors, we expect that number-mismatching distractors are less likely to interfere with the interpretation of the reflexive, compared to number-matching distractors. That is, the rate at which they choose the target as the antecedent should be greater when the target and distractor do not feature-match, compared to when they do.

Table 1: Interaction between structural prominence and locality to derive Principle A. Shaded in gray are the configurations where a DP does not comply with Principle A

| Structural prominence | Syntactic locality | Prose description |
|---|---|---|
| +CCOMAND | +LOCAL | DP c-commands the reflexive and they are in the same clause → DP can antecede the reflexive |
| +CCOMAND | –LOCAL | DP c-commands the reflexive but they are not in the same clause → DP cannot antecede the reflexive |
| –CCOMAND | +LOCAL | DP does not c-command the reflexive, but they are in the same clause → DP cannot antecede the reflexive |
| –CCOMAND | –LOCAL | DP does not c-command the reflexive and they are in the same clause → DP cannot antecede the reflexive |

Table 2: Sample items by the configuration of the distractor and by whether it matches the number feature of the target. Only plural reflexives are shown for reasons of space. The target is *italicized*; the distractor, underlined; and the reflexive, in SMALL CAPS

| Exp | Configuration | DMatch | Item |
|---|---|---|---|
| 1 | +CCom,–Local | +MATCH | Tsika **ng mga katulong** kagabi na nilinis ***ng mga kusinero*** **ANG SARILI NILA** sa kusina ... |
| | | –MATCH | Tsika ng katulong kagabi na nilinis ***ng mga kusinero*** **ANG SARILI NILA** sa kusina ... |
| | ‘Last night, the **maid(s)** said that the ***cooks*** cleaned themselves in the kitchen... **Probe:** Sino ang nilinis? ‘Who was cleaned?’ | | |
| 2 | –CCom,+Local | +MATCH | ... sinuntok daw ***ng mga imbestigador*** **ng mga pulis** kani-kanina lang **ANG SARILI NILA** sa panga... |
| | | –MATCH | ... sinuntok daw ***ng mga imbestigador*** ng pulis kani-kanina lang **ANG SARILI NILA** sa panga... |
| | ‘... the ***investigators*** of **the police officer(s)** punched themselves in the jaw earlier ... **Probe:** Sino ang sinuntok? ‘Who was punched?’ | | |
| 3 | –CCom,–Local | +MATCH | Kinukurot daw ***ng mga parlorista*** na pinupuna **ng mga basketbolista** araw-araw **ANG SARILI NILA** ... |
| | | –MATCH | Kinukurot daw ***ng mga parlorista*** na pinupuna ng basketbolista araw-araw **ANG SARILI NILA** ... |
| | ‘The ***hairdressers*** that **the basketball player(s)** criticize(s) every day pinch themselves... **Probe:** Sino ang kinukurot? ‘Who is being pinched?’ | | |

**REFERENCES: Chomsky, N. (1981).** *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris • **Pizarro-Guevara, J.S. & Dillon, B. (2022).** What Tagalog can teach us: The influence of word order in reflexive processing. In C. Tallis, J. Dussere, & C. Ting (eds.), *AFLA 28: Proceedings of the 28th Meeting of the Austronesian Formal Linguistic Association*. London: University of Western Ontario. • **Rackowski, A. & Richards, N. (2005).** Phase Edge and Extraction: A Tagalog Case Study. *Linguistic Inquiry, 36*(4), 565–99. • **Richards, N. (2013).** Tagalog anaphora. In L.L-S. Cheng & N. Corver (eds.), *Diagnosing syntax* (pp. 412–33). Oxford, UK: Oxford University Press.

**Dave Kenneth Cayado, Samantha Wray, & Linnaea Stockall**

## Does linear position of affixes matter during early morphological processing? Evidence from Tagalog masked priming

Recent psycholinguistic models have proposed that the representations of affixes are position coded, such that affixes can only be recognized in a position-specific manner (eg., Beyersmann & Grainger, 2023; Crepaldi et al., 2015). By contrast, formal linguistic theories of morphology would argue that abstract representations may not be coded for linear position, which allows the same morpheme to be linearized as a prefix, infix, or a suffix (see Harbour, 2023; Kalin, 2022). The present study weighed in on this issue by conducting two experiments investigating [1] whether the linear position of affixes affects early morphological processing; and [2] if affixes are only recognized in a position-specific manner. Specifically, we looked at the inflectional <in> and <um> infixes and the ni- prefix, which is an allomorph of the <in> infix, in Tagalog (see Language Background).

We used the visual masked affix priming paradigm to investigate these questions. The experiments were conducted on Gorilla.sc and 70 native Tagalog speakers were recruited in each experiment. A prime word that was either related or not to the target was presented for 33ms, which was further masked by being preceded by strings of number signs (e.g., ########) for 500ms. The forward mask was preceded by a fixation cross for 500ms. Native Tagalog speakers were asked to judge whether the target word was a real Tagalog word or not by pressing the corresponding arrow key.

Experiment 1 had 4 critical conditions: [1] **<in> INF** in which the prime and target shared the <in> infix (eg. prime**:** sinapak 'punched' | target: TINAWAG 'called'); [2] **<um> INF** ibid. but with <um> infix (eg. prime: sumali 'joined' | target: TUMAYO 'stood'); **ni- PREF** ibid. with the ni- prefix (eg. prime: ninakaw 'stolen' | target: NILASON 'poisoned'); and **glottal-INF**, in which prime and target both had the <in> infix attached to a glottal stop initial stem, thereby orthographically appearing in the prefix position (eg. prime: inayos 'fixed', target: INUBOS 'consumed'). Unrelated primes in all 4 conditions also contained infixes (<um> for the <in> and ni- conditions, and vice versa). If affixes are successfully activated without any influence from affix linear position during early morphological processing, then we expect to find the same magnitude of priming effects for all 4 conditions.

Experiment 2 also had 4 conditions: [1] **ʔ infix** cross-position (**in-INF/ʔ-INF**), with an <in> infix attached to a glottal stop initial stem (eg., target: INUBOS from /ʔubos/ 'consumed') preceded by an <in> infixed word prime with the <in> following a written consonant (eg., prime: tinali 'tied'); [2] **ʔ-INF/in-INF)** where the prime-target direction was reversed; [3] **<in>infix/ni- prefix** (**<in>INF/ni-PREF**) where a ni- prefixed word as a target (eg., NIYUKO 'bowed') was preceded by an <in> infixed word prime (eg., binali 'broke') and [4] **ʔ-INF/ni-PREF** where the ni- prefixed target word is preceded by an <in> infix attached to a glottal stop initial stem (inalis-NIYUKO 'removed-BOWED'). All unrelated primes were morphologically complex words with a different affix (i.e., <um> infix). If affixes are recognized in a position-independent manner, then robust priming effects should be obtained for in-INF/ʔ-INF and ʔ-INF/in-INF conditions. Moreover, if phonological form matters in early morphological processing, then no priming effects should be obtained for <in>INF/ni-PREF and ʔ-INF/ni-PREF conditions, despite <in> and ni- being allomorphs of the same morpheme.

Experiment 1 revealed robust priming effects of similar magnitude for word pairs sharing the same <in> infix (estimate=15.33ms, p=0.0372), <um> infix (estimate=15.49ms, p=0.0379), and <in> when it orthographically appears in the prefix position (estimate=20.08ms, p=0.0069). No such effects were found for word pairs sharing ni- prefix (estimate=8.83, p = 0.2307). Experiment 2 revealed significant priming effects for the ʔ-INF/in-INF condition (estimate=20.34, p=0.0152), where the affix is in different linear positions in the prime and target. No significant priming effects emerged for the other conditions in Experiment 2, including the <in>INF/ni-PREF (estimate=6.86ms, p=0.4511) and ʔ-INF/ni-PREF conditions (estimate=7.95ms, p=0.3794), where the prime and target contains <in>/ni- allomorphs. **Overall, we provided evidence that affixes are successfully extracted and affix position did not negatively impact early morphological processing. Our findings also revealed that affixes that vary in linear positions may be recognized in a position-independent manner, which is consistent with formal linguistic theories of morphology. Finally, we showed that the phonological form of affixes might affect early morphological processing.**

**Language Background**

Tagalog has two infixes: <in> and <um>. <in> has a prefix allomorph ni-, which appears for l-, w-, y-, h, and n-initial stems (Zuraw, 2007) (see Table 1 for examples). Tagalog, therefore, allows us to closely compare the processing of <in> and ni- allomorphs.

Table 1. Examples of <um>, <in>, and ni- affixed words

| **<um> infixed words** | **translation** |
|---|---|
| g<um>awa | did |
| s<um>ulat | wrote |
| t<um>awa | laughed |
| **<in> infixed words** | **translation** |
| t<in>awag | called |
| t<in>utok | pointed |
| g<in>amot | healed |
| **ni- prefixed words** | **translation** |
| ni-lason | poisoned |
| ni-lunok | swallowed |
| ni-nakaw | stole |

Crucially, when the <in> infix is attached to a glottal stop-initial stem (an alternative view is that the glottal stop is not part of the stem's representation, but is a product of repair), the infix will orthographically appear in the prefix position. There is, therefore, a mismatch between the orthographic and phonological representations, since ʔ is unwritten in Tagalog (see Table 2). Tagalog offers a test-case where we can examine whether <in> can be recognized even if it is in different linear positions.

Table 2. Examples of <in> infix attached to glottal stop-initial stems

| **Phonological representation** | **Orthographic Representation** |
|---|---|
| ʔ<in>ayos 'fixed' | <in>ayos 'fixed' |
| ʔ<in>alis 'removed' | <in>alis 'removed' |
| ʔ<in>ubos 'finished' | <in>ubos 'finished' |

**References:**


Beyersmann, E., & Grainger, J. (2023). The role of embedded words and morphemes in reading. In D. Crepaldi (Eds.), *Linguistic morphology in the mind and brain* (pp. 26-46). Routledge. https://doi.org/10.4324/9781003159759-3.

Crepaldi, D., Hemsworth, L., Davis, C., Rastle, K. (2015). Masked suffix priming and morpheme positional constraints. *The Quarterly Journal of Experimental Psychology*. https://doi.org/10.1080/17470218.2015.1027713.

Harbour, D. (2023). Discontinuous agreement: Nine birds, two stones. *Brill's Journal of Afroasiatic Languages and Linguistics 15*, 23-66.

Kalin, L. (2022). Infixes are (underlyingly) prefixes/suffixes: Evidence from allomorphy on the fine timing of infixation. *Language 98*(4), 641-682.

**Norielle Adricula**

Examining the role of animacy and definiteness in Tagalog voice choice:
A corpus study of web-based and conversational Tagalog

Languages across the world exhibit a robust preference for privileging the role of Actors in an event. For example, Actors tend to be mapped to the most prominent grammatical function, such as the subject or privileged syntactic argument (PSA) (e.g., Riesberg et al., 2019; many others). Furthermore, the Actor role is frequently correlated with higher values on prominence hierarchies such that they are typically animate/human, definite, given, topical, etc. (Primus, 1999; Aissen, 2003; many others), which influences their mapping to the highest grammatical role. Symmetrical voice languages, such as Tagalog, challenge these patterns as there does not appear to be a default mapping between the Actor and the PSA in basic, transitive constructions. Although different analyses for the Tagalog voice system are proposed (e.g., Chen & McDonnell, 2019 for review), the authors assume that Tagalog has two "symmetrical" voice constructions, the Actor voice (PSA-Actor, Ex. 1) and the Undergoer voice (PSA-Undergoer, Ex. 2). Neither structure is understood to be basic and neither argument is promoted or demoted (e.g., Latrouite, 2011; Schachter 1976; Himmelmann 2008; etc.). Ample evidence (corpora, e.g., Wouk, 1986; Cooreman et al., 1984; sentence production, e.g., Sauppe et al., 2013; acquisition, e.g., Garcia et al., 2018) demonstrates that Tagalog speakers prefer to use the Undergoer voice. This research suggests a complex mapping process between different prominence hierarchies in Tagalog; however, it is an open question how these prominence features map onto each other. **We address this question in a corpus study of web-based and conversational Tagalog investigating the extent to which different prominence features motivate the use of Actor and Undergoer voice in Tagalog basic, declarative, transitive clauses. Preliminary results confirm prior findings that the Undergoer voice is the more prevalent structure regardless of these factors and that there are highly constrained contexts in which the Actor voice is used.**

We extract large, randomized samples of Undergoer and Actor voice clauses from the tlTenTen 2019 Tagalog (Filipino) Web-based corpus (Jakubíček et al., 2013) and the telephone corpus from the IARPA Babel Tagalog Language Pack (Bishop et al., 2016). We annotate each argument for thematic role, animacy, givenness, definiteness (e.g., Aissen, 2003), and accessibility (operationalized as argument realization, see Riesberg et al., 2022). Ongoing analyses (n = 731, 631 clauses from web-based corpus, 100 clauses from telephone corpus) support findings from previous studies (e.g., Ceña, 1977; Wouk, 1986; Cooreman et al., 1984) that when describing transitive, two-participant events, the Undergoer voice is more prevalent than the Actor voice (.82 to .18). Figure 1 shows that although Actors tend to have equal or higher animacy compared to Undergoers, there is a significant preference for the Undergoer voice. Figure 2 shows that while Actors and Undergoers both tend to be definite arguments, ultimately there is a similar pattern: the Undergoer voice is highly preferred, and the Actor voice is highly constrained. Across both prominence features, the Actor voice seems more likely to occur when the Actor is high and the Undergoer is low on that feature. Additional annotation and statistical analyses are needed to better understand how these prominence features may differ in their influence on syntactic choice and how various prominence hierarchies map onto each other for Tagalog. Moreover, genre-specific differences between web-based data and conversational data may provide further insight into the role of other discourse-related prominence such as topicality.

In sum, there is a complex interplay between these prominence hierarchies that results in these syntactic choices. Examining languages where these hierarchies may be "mismatched" suggests that the notion of "prominence" is a complex, multidimensional construct and future research should examine its multifaceted role in syntactic choice.

Glosses: AV: Actor voice; PFV: perfective; NPSA: non-Privileged Syntactic Argument; PSA: Privileged Syntactic Argument; UV: Undergoer voice

| (1) Actor voice | (2) Undergoer voice |
|---|---|
| B<um>ili ang guru ng libro<br>buy<AV>.PFV PSA teacher NPSA book<br>'The teacher bought a book' | B<in>ili-Ø. ng guru ang libro<br>buy<PFV>-UV NPSA teacher PSA book<br>'A/The teacher bought the book. |

**Fig. 1 Proportions of AV and UV across animacy (A = animate, nA = non-Animate)**

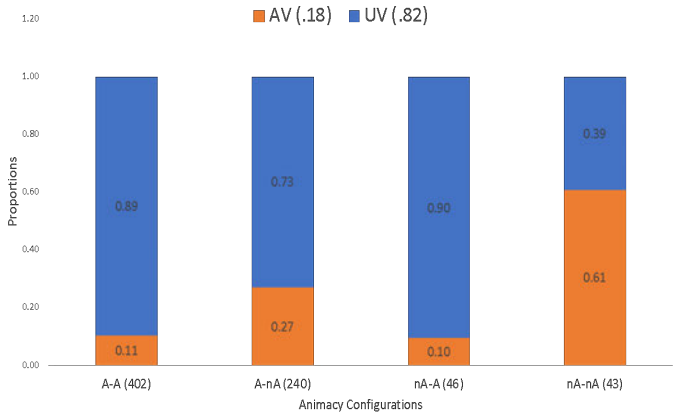
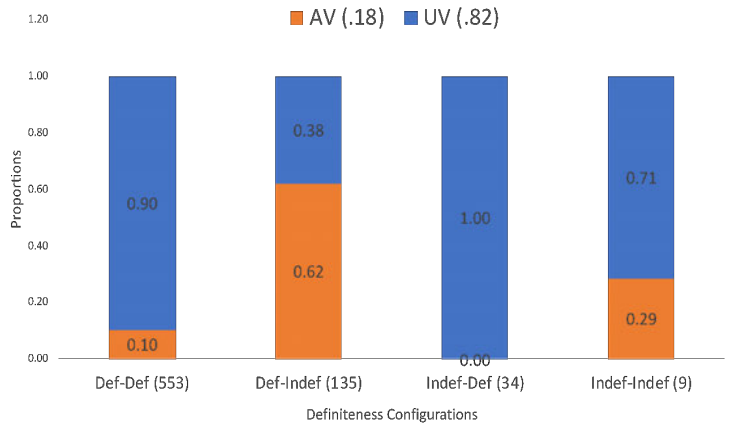



**Fig. 2 Proportions of AV and UV across definiteness**




References

**Aissen, Judith**. 2003. D fferent a object mark ng: Icon c ty vs. economy. *Natural language & linguistic theory*, 435–483. • **Chen, V., & McDonnell, B**. (2019). Western Austrones an vo ce. *Annual Review of Linguistics*, *5*, 173-195. • **Cooreman, A., Fox, B. A., & Givón, T.** (1984). The d scourse def n t on of ergat v ty. *Studies in Language. International Journal sponsored by the Foundation "Foundations of Language"*, *8*(1), 1-34. • **Garcia, R., Dery, J. E., Roeser, J., & Höhle, B.** (2018). Word order preferences of Taga og-speak ng adu ts and ch dren. *First Language*, *38*(6), 617-640. • **Himmelmann, N**. 2008. Lex ca categor es and vo ce n Taga og. Peter K. Aust n & S mon Musgrave (eds.) *Voice and grammatical relations in Austronesian languages*. 247–293. • **Latrouite, A.,** 2011. *Voice and case in Tagalog: The coding of prominence and orientation.* He nr ch He ne Un vers ty Düsse dorf, Germany: D ssertat on. • **Primus, B**. 1999. *Cases and thematic roles: Ergative accusative and active*. Tüb ngen: N emeyer. • **Riesberg, S., Malcher, K. Himmelmann, N**. 2019. How un versa s agent–f rst? Ev dence from symmetr ca vo ce anguages. *Language* 95(3). 523–561. • **Riesberg, S., Bardají i Farré, M. , Malcher, K. , Himmelmann, N**. 2021. Pred ct ng vo ce cho ce n symmetr ca vo ce anguages: A the th ngs that do not work n Toto . *Studies in Language.* 46(2). 453–516. • **Sauppe, S., Norcliffe, E., Konopka, A. E., Van Valin, R. D., & Levinson, S. C.** (2013). Dependenc es f rst: Eye track ng ev dence from sentence product on n Taga og. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vo . 35, No. 35). • **Schachter, Paul.** 1976. The subject n Ph pp ne anguages: Top c, actor, actor–top c, or none of the above. In L , Char es (ed.) *Subject and topic*. 493–518. New York: Academ c Press. • **Wouk, F.** (1986). Trans t v ty n Batak and Taga og. *Studies in Language 10*(2), 391-424.

## Gérard Avelino

**Tagalog *sana* and the event relativization of preference modality**

In this paper, I investigate the meaning of Tagalog particle *sana*. I show that *sana* is a preference modal and, using the modal event relativity model in Hacquard 2010, that the variation in its meaning obtains from syntactic height and the type of event it embeds into.

Tagalog has a set of second-position non-pronominal clitics, the meanings of which have been troublesome to pin down and understudied in the field of formal semantics. *Sana,* for instance, has previously been described as expressing wishes, hopes, and desires, and is also used for conditionals, counterfactuals, and otherwise unrealized states (S&O 1972). In simple sentences, two distinct meanings surface, illustrated in (1).

I analyze the meaning of *sana* as having two components: a preference modal and a negation.

First, it contains a preference modal: the set of worlds in which the prejacent is true are preferred over the set of worlds in which it is not true. In (1a), the preference expressed is the speaker's at the speaking time. This patterns with epistemic modals under the event relativity model. The modal meaning of epistemic *must* in *Talà must have brought lumpia*, for example, is relative to the speech event, thus hinging on the knowledge of the speaker at the speaking time.

The preference in (1b), on the other hand, is less explicit. It is not relative to the speaking event or the main verb event, as the preference is neither necessarily the speaker's (cancelable as in (2)) nor Tala's (as in (3)), respectively. However, some small felicity judgment experiments with Tagalog speakers reveal that a contextually-determined preference and preference-holder must exist (4).

Thus, I propose that the meaning from (1b) obtains from the modal relativizing to an assessment event, a covert attitude event in which some contextually-determined set of assessors—which may or may not include the speaker or main verb agent—has judged the prejacent to be true. (I adapt this from contextualist theories of non-solipsistic epistemic modality, such as in MacFarlane 2011.)

I illustrate the relative syntactic locations of both versions of *sana* in (5). Here, the ASSERT operator (6) represents the speech act for declaratives: the speech event is such that the speaker asserts a proposition that he knows to be true. I define the ASSESS operator similarly (7): some assessor(s) in the context has determined a proposition to be true.

This leads to the second part of the meaning of *sana*: the negation of its modal prejacent. For example, a sentence with would-*sana* as in (1b) is felicitous only when the main verb event has not taken place. On the other hand, hope-*sana* as in (1a) is felicitous only when there is no assessment: one cannot hope for something known to be true! These come out naturally from the structure in (5), where the prejacent of would-*sana* is the main verb event, while the prejacent of hope-*sana* is the assessment event.

I thus present my lexical entry for *sana* in (8) (using a world-ordering relation based on Heim 1992).

**Conclusion**. The particle *sana* is both a preference modal and negation. Using the event relativization model gives us its two possible meanings in a statement: hope-*sana* is relative to the speech event while would-*sana* is relative to an assessment event. For the former, the occurrence of the assessment event is denied. For the latter, the occurrence of the main verb event is denied.

This study aims to contribute to the study of modal meaning crosslinguistically, providing data from an underdescribed area in Tagalog grammar. Evidence from *sana* shows that first, high modals, relative to the speech event, need not be strictly epistemic. Second, that the left periphery can contain covert events, such as the assessment event, to which modals can relativize.

This paper is part of an ongoing, wider project on sentence-scoping adverbials in Tagalog and other Philippine languages aiming to describe, catalog, and analyze these forms and functions, particularly concerning syntax-semantics interface phenomena.

**Appendix**. Data and figures.

1. *Nag-dala sana si Talà ng lumpiâ*
   AV.BEGUN-bring *sana* NOM.PN Talà GEN spring-roll
   (a) 'I hope that Talà brought lumpia.'
   (b) 'Talà would've brought lumpia (but didn't).'

2. *Kahit hindi ko gusto, nag-dala sana si Talà ng lumpiâ.*
   even.if NEG 1SG.GEN like AV.BEGUN-bring *sana* NOM.PN Talà GEN spring-roll
   Even if I didn't want it to be the case, but Tala would've brought lumpiâ (and she didn't).

3. *Kahit hindi niya gusto, nag-dala sana si Talà ng lumpiâ.*
   even.if NEG 3SG.GEN like AV.BEGUN-bring *sana* NOM.PN Talà GEN spring-roll
   Even if she$_{Talà}$ didn't want to, Tala should've brought lumpiâ (and it turns out that she didn't).

4. An example scenario to elicit felicity judgments:

   Imagine a party in which Talà signed up to bring lumpia. However, the day of the party comes and Talà did not end up bringing lumpia.

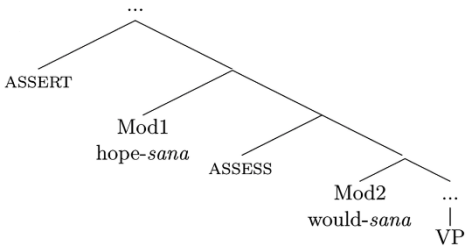
   Context A: Everybody invited *hates* Talà's lumpia recipe. They are *pleased* that she did not bring lumpia.

   Context B: Everybody invited *loves* Talà's lumpia recipe. They are *disappointed* that she did not bring lumpia.

   Question: For which context would it be possible for one of the party guests to say (1) with meaning (1b)?

   Result: 10 out of 10 respondents chose Context B. None chose Context A. This shows that there *is* a preference for the *unrealized* situation.

5. Proposed structure for sentences with *sana*:




6. $[[\text{ASSERT } e]] = \lambda p.\lambda w.\text{Assert}'(e, w) \wedge \forall w' \in \cap\text{con}(e) : p(w') = 1$
   where $\cap$ con($e$) = DOX($\iota x$ Holder($x$, $e$), $w$); $\iota x$ Holder($x$, $e$) = speaker (from Hacquard 2010)

7. $[[\text{ASSESS } e]] = \lambda p.\lambda w.\text{Assess}'(e, w) \wedge \forall w' \in \cap\text{con}(e) : p(w') = 1$
   where $\cap$ con($e$) = DOX(Holder($x$, $e$), $w$); Holder($x$, $e$) = assessor(s) from context

8. Let $w$ be the evaluation world and $e$ be the anchoring event:
   $[[sana(P)]]^{w,e} = \underbrace{\forall w'\{w' \mid [[P]]^{w'} = 1\} >_{e,w} \{w' \mid [[P]]^{w'} = 0\}}_{\text{preference modal}} \wedge \underbrace{[[P]]^{w} = 0}_{\text{negation of prejacent}}$

**References**. Hacquard 2010. "On the Event Relativity of Modal Auxiliaries." *Natural Language Semantics* 18 (1). | Heim 1992. "Presupposition Projection and the Semantics of Attitude Verbs." *Journal of Semantics* 9 (3) | MacFarlane 2011. "Epistemic Modals Are Assessment-Sensitive." In *Epistemic Modality*, Oxford U Press | S&O: Schachter and Otanes. 1972. *Tagalog Reference Grammar*.

**Yining Nie & Henrison Hsieh**

## Tagalog valency morphology and their neutralization

**Introduction.** Tagalog verbs display a three-way morphological distinction in the Agent Voice (AV). AV forms can be marked with *ma-*, <*um*> or *mag-* (composed of <*um*> and *pag-*; Wolff 1983) in the imperfective; the range of AV forms are available for each verb depends on the lexical semantics of the verb. We call verbs that undergo an causative∼anticausative alternation 'alternating verbs'. As shown in (2)-(4), *ma-* forms are generally intransitive , *mag-* forms are transitive, and <*um*> can be either intransitive and transitive depending on the verb; for this reason, <*um*> can be thought of as the default AV form. However, this morphological distinction found in finite AV forms is often neutralized (absent) in other contexts. In this abstract we examine the interaction between morphological marking and the valency of alternating verbs in the recent perfective (in which the morphological classes are fully neutralized), in productive causatives (partially neutralized) and gerunds (not neutralized).

**Recent perfective.** In recent perfective forms, which have the shape *ka*-CV-stem and have no pivot, the morphological distinction found in finite AV forms is completely neutralized. Thus the same verb forms in (5) can be used intransitively or transitively.

**Productive causatives.** (6) shows the AV, Patient Voice (PV) and Circumstantial Voice (CV) forms of a productive causative with the embedded verb *bukas* 'open'; AV, PV and CV causatives have causer, causee and embedded theme pivots, respectively. Travis (2005) has noted that the embedded verb in AV and CV productive causatives undergoes morphological neutralization; a causative with no overt causee can therefore be interpreted as having either an intransitive or transitive use of the embedded verb. Productive causatives in Tagalog are usually formed with *pa-*; interestingly, the PV causative of alternating verbs is marked with *pag-* instead, which seems to reflect the obligatorily transitive use of the embedded verb in the PV causative in (b).

**Gerunds.** The morphological distinctions in finite AV forms do find their counterpart in gerunds: *ma-* forms tend to be marked with *pag-ka-* in the gerund (7), while *mag-* forms tend to have the shape *pag*-CV-stem (8) (Schachter & Otanes 1972), though not strictly so. As we might expect, the *pag-ka-* and *pag*-CV-stem are interpreted as intransitive and transitively, respectively. Interestingly, <*um*> verbs tend to be 'unmarked' in the gerund, receiving only the gerundive *pag-* affix; the gerunds consequently can be used either intransitively or transitively.

**Proposal.** *Trivalent Voice.* The three-way valency distinction in Tagalog dovetails well with Kastner's (2016, 2020) proposal that the external argument introducing Voice head (Kratzer 1996) can come in three lexical variants: [+D] which requires an external argument in its specifier, [−D] which prohibits an external argument, and [∅] which is unspecified for an external argument (an argument is permitted but not required). Within the framework of trivalent Voice, Nie (2020) has suggested that *ma-* is associated with Voice[−D], *mag-*/*pag-* with Voice[+D] and <*um*> with Voice[∅].

*Morphological neutralization.* We propose that contexts with morphological neutralization involve the unspecified Voice[∅], which optionally has an external argument, thereby allowing either an intransitive or transitive use of the verb in question. Productive causatives, for instance, which we assume involve VoiceP embedded under another VoiceP (Nie 2020), in their AV and CV form have an embedded Voice[∅], which has an optional external argument (the causee), as shown in (1). While Voice[∅] is spelled out with <*um*> in finite AV contexts, Voice[∅] in the productive causative is spelled out as *pa-*; this captures the alternating nature of the verb as well as morphological neutralization of the embedded verb in *pa-* causatives. In PV causatives, the embedded VoiceP is headed by Voice[+D], spelled out as *pag-*.

(1) [VoiceP CAUSER [ Voice[+D] [VoiceP (CAUSEE) [ Voice[∅] [*v*P *v* THEME ] ] ] ] ]

Voice[∅] would also be involved in the recent perfective forms, which are fully neutralized, as well as the 'unmarked' gerunds.

(2) a. **Na**-basag ang baso.
AV.PFV.ma-shatter NOM glass
'The glass shattered.'

b. B<**um**>asag ang bata ng baso.
<AV.PFV.um>shatter NOM child GEN glass
'The child shattered a glass.'

(3) a. B<**um**>ukas ang pinto.
<AV.PFV.um>open NOM door
'The door opened.'

b. **Nag**-bukas ang guro ng pinto.
AV.PFV.pag-open NOM teacher GEN door
'The teacher opened the door.'

(4) a. B<**um**>agsak ang mag-aaral.
<AV.PFV.um>fail NOM student
'The student failed.'

b. **Nag**-bagsak ang guro ng mag-aaral.
AV.PFV.pag-fail NOM teacher GEN student
'The teacher failed a student.'

(5) a. Ka-ba∼basag lang (ng guro) ng plorera.
REC.PFV∼shatter only GEN teacher GEN vase
'A/The vase just shattered on its own.' / 'A/The teacher just shattered a vase.'

b. Ka-bu∼bukas lang (ng guro) ng pinto.
REC.PFV∼open only GEN teacher GEN door
'A/The door just opened on its own.' / 'A/The teacher just opened a door.'

c. Ka-ba∼bagsak lang (ng guro) ng mag-aaral.
REC.PFV∼fail only GEN teacher GEN student
'A/The student just failed.' / 'A/The teacher just failed a student.'

(6) a. **Nag-pa**-bukas ang salamangkero ng pinto (sa guro).
AV.PAG.PFV-CAUS-open NOM magician GEN door OBL teacher
'The magician made a door open.' / 'The magician made the teacher open a door.'

b. **P**<in>**ag**-bukas-∅ ng salamangkero ang guro ng pinto.
<PFV>CAUS-open-PV GEN magician NOM teacher GEN door
'A/The magician made the teacher open a door.'

c. **I-p**<in>**a**-bukas ng salamangkero ang pinto (sa guro).
CV-<PFV>CAUS-open GEN magician NOM door OBL teacher
'A/The magician made the door open.' / 'A/The magician made the teacher open the door.'

(7) a. ang pag-**ka**-basag ng baso
NOM GER-KA-shatter GEN glass
'the shattering of a glass on its own'

b. ang pag-basag (ng guro) ng baso
NOM GER-shatter GEN teacher GEN glass
'the shattering of a glass on its own' / 'the teacher's shattering of aa glass'

(8) a. ang pag-bukas (ng guro) ng pinto
NOM GER-open GEN teacher GEN door
'the opening of a door on its own' / 'the teacher's opening of a door'

b. ang pag-**bu**∼bukas ng guro ng pinto
NOM GER∼open GEN teacher GEN door
'the teacher's opening of a door'

# SATURDAY, 21 OCTOBER 2023

09:00 – 09:45 **Jake Aziz**
*Vowel devoicing as gestural alignment in Malagasy*

9:45 – 10:15 **Vanilla Dimisy, Ileana Paul, Baholisoa Simone Ralalaoherivony, Jeannot Fils Ranaivoson, & Lisa Travis**
*Here's an analysis: Malagasy presentatives*

10:15 – 10:30 COFFEE BREAK

10:30 – 11:00 **Benjamin Macaulay**
*Tone-to-edge constraints in Kavalan and beyond*

11:00 – 11:30 **Shih-chi Stella Yeh**
***ONLINE*** *Chain shift of vowel lowering and conjoined constraints in Paiwan*

11:30 – 11:45 BREAK

11:45 – 12:15 **Jennifer Kuo**
*Markedness effects in the history of Samoan thematic consonants*

12:15 – 12:45 **Maximilian Wiesner**
***ONLINE*** *A different level of coordination: Samoan subject sharing*

12:45 – 14:15 LUNCH (H135A)

14:15 – 14:45 **Shuki Otani**
*Argument ellipsis and voice agreement in Javanese and Tagalog*

14:45 – 15:15 **Hero Patrianto & Victoria Chen**
*A cline of Indonesian-type voice as in transition from A bar to A syntax: Insights from four languages*

15:15 – 15:30 COFFEE BREAK

15:30 – 16:00 **Jens Hopperdietzel**
*Change-of-state in Daakaka: A type-shifting account*

16:00 – 16:30 **David Medeiros**
***ONLINE*** *Embedded imperatives in Hawaiian*

16:30 – 17:00 **Matthew Maddox**
***ONLINE*** *From subject marker to personal article: Hawaiian 'o and its Polynesian cognates*

17.15 – 18.00 Business meeting

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**Jake Aziz**

## Vowel Devoicing as Gestural Alignment in Malagasy

**Introduction.** Vowel devoicing has been variably described as a phonological process (e.g., Vogel, 2022) or as a phonetic consequence of overlapping gestures (e.g., Jun et al., 1997 for Korean; Jannedy, 1994 for Turkish). Research on devoicing puts itself at the center of a debate on the nature of such sound processes, as each of these accounts makes a different assumption about the role of phonetics and phonology in the grammar. In this paper, I suggest that vowel devoicing in Merina Malagasy (Austronesian, Madagascar) is caused by phonologically-controlled gestural alignment, as evidenced by acoustic data (Center of Gravity). Data are modelled in a variant of Articulatory Phonology (Browman & Goldstein, 1986) that uses Alignment constraints to regulate the relative timing of gestures. This result shows that an account of vowel devoicing in Malagasy must make reference to both the articulators involved and the phonological constraints that modulate them, indicating that the phonology must have access to phonetic information.

**Data.** High vowels are frequently devoiced in unstressed utterance-medial syllables in the Merina dialect of Malagasy, but the precise realization and distribution of these vowels has not been investigated. Here, I present data collected from four speakers of Merina who produced a total of 360 tokens targeting unstressed /a/, /i/, and /u/ in various segmental environments. The acoustic analysis reveals that vowels in the devoicing environment may be realized as co-articulated or deleted.

Of interest to us are co-articulated vowels: these vowels are realized concurrently with the preceding consonant, typically a fricative. Acoustically, the result is extended high energy frication whose Center of Gravity reflects the underlying vowel. Compare Figure 1, which shows the spectrogram for /si/, with Figure 2, /su/: for /su/, CoG lowers, indicative of a rounding gesture associated with /u/; this is not present for /si/. In both cases, no voiced vowel is realized.

**Analysis.** These acoustic data can be explained by a theory of gestural overlap: in sum, before a consonant gesture ends, the vowel gesture begins, causing the observed effects on CoG of the consonant. In these cases, the vowel's glottal gesture is completely overlapped by the preceding voiceless consonant's, and thus no audible voiced vowel is observed. I analyse the Malagasy data using a variant of Articulatory Phonology (Browman & Goldstein, 1986; Gafos, 2002; Hall, 2003) in which gestural overlap is regulated by language-specific constraints on the alignment of these gestures. Each gesture associated with a sound consists of five landmarks to which another sound's gestures can align, shown in Figure 3. Following Delforge's (2008) work on devoicing in Andean Spanish, I use such alignment constraints to account for the Malagasy data.

For Malagasy, the co-articulated devoiced data can be described using two constraints: The first, ALIGN ($C_1$, CENTER, V, ONSET) assigns a violation to any CV sequence where the onset of the vowel gesture does not coincide with the center of the consonant. In the grammar, this constraint, which favours ease of articulation, competes with a constraint ALIGN ($C_1$, RELEASE, V, ONSET), which favours perceptibility by aligning the vowel so that it overlaps less with the consonant. In Malagasy, a high ranking for ALIGN ($C_1$, CENTER, V, ONSET) would result in gestural overlap of CV sequences, including the glottal gesture, which would produce the sort of co-articulation shown in Figures 1 and 2. This is shown in Tableau 1, where underlying /sin/ results in devoicing of /i/, phonetically realised as palatalization of /s/.

The low vowel /a/ as well as stressed vowels do not undergo devoicing. This can be explained by duration: low vowels are inherently longer than high vowels (Lehiste, 1970), and in Malagasy stressed vowels are longer than unstressed (Howe, 2019). Even if the onset of the vowel occurs at the center of the preceding consonant, the vowel gesture is long enough that the overlap by the consonant is not complete, leaving a voiced portion of the vowel. In the remainder of the analysis, these Alignment constraints are used similarly to account for vowel deletion that occurs after some sonorants, showing that vowel devoicing and deletion can be uniformly described as one articulatory outcome (overlap), but acoustically, this is realized differently in different segmental environments.

**Discussion.** Here, I've demonstrated that many so-called devoiced vowels in Malagasy are realized as co-articulated with the preceding consonant; this realization lends support to an account of gestural overlap as an explanation for devoicing, and I show that specific Alignment constraints in an Articulatory Phonology framework neatly account for the acoustic data. This result is theoretically consequential as it indicates that the phonological grammar has access to information about the articulators. In sum, processes like devoicing in Malagasy cannot be described as purely phonetic or phonological, but must take into account both.

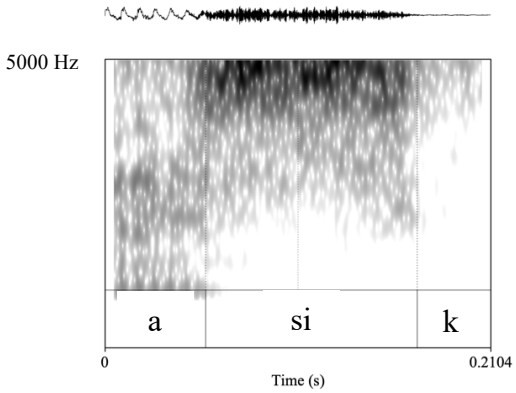



**Figure 1.** Co-articulated /si/

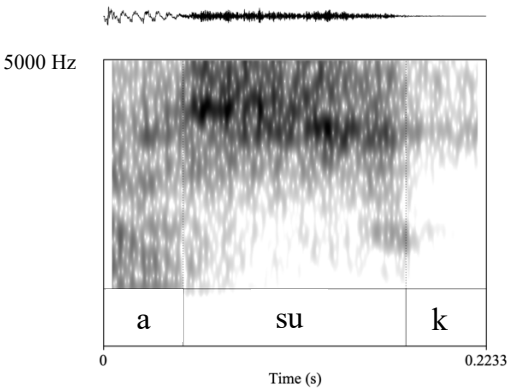



**Figure 2.** Co-articulated /su/

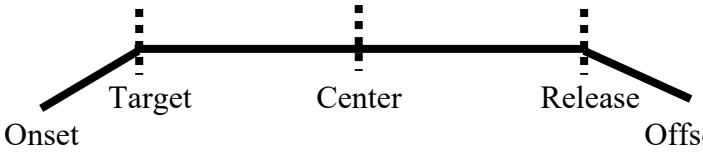



**Figure 3.** Alignment landmarks for a gesture, adapted from Gafos (2002).

| /sin/ | Align ($C_1$, CENTER, V, ONSET) | Align ($C_1$, RELEASE, V, ONSET) |
|---|---|---|
| a. ☞ [sʲn]<br>glottal<br>oral | | * |
| b. [sin]<br>glottal<br>oral | *! | |

**Tableau 1.** Underlying /sin/ results in devoicing of /i/. In this tableau, candidates consist of two gestural levels for expository purposes, glottal and oral, as well as the corresponding pronunciation in IPA. On each level, consonant gestures are represented with the black angled lines, while the vowel is represented with the red curved line.

**References.**


Browman, C. P., & Goldstein, L. M. (1986). Towards an articulatory phonology. *Phonology*, *3*, 219-252.

Delforge, A. M. (2008). Gestural alignment constraints and unstressed vowel devoicing in Andean Spanish. In *Proceedings of the 26th west coast conference on formal linguistics* (pp. 147-155). Somerville, MA: Cascadilla Proceedings Project.

Gafos, A. I. (2002). A grammar of gestural coordination. *Natural language & linguistic theory*, 269-337.

Hall, N. E. (2003). *Gestures and segments: Vowel intrusion as overlap*. University of Massachusetts Amherst.

Howe, P. (2019). Central Malagasy. *Journal of the International Phonetic Association*, *51*(1), 103-136.

Jannedy, S. (1995). Gestural phasing as an explanation for vowel devoicing in Turkish.

Jun, S. A., Beckman, M., Niimi, S., & Tiede, M. (1997). Electromyographic evidence for a gestural-overlap analysis of vowel devoicing in Korean. *Speech sciences*, *1*, 153-200.

Lehiste, I. (1970). Suprasegmentals.

Vogel, R. (2022). *Phonology of vowel devoicing: A typological perspective.*

**Vanilla Dimisy, Ileana Paul, Baholisoa Simone Ralalaoherivony, Jeannot Fils Ranaivoson, & Lisa Travis˚**

## Here's an analysis: Malagasy presentatives

Presentatives (*Here comes the bride!*) have received only minor attention in the syntactic literature (Lakoff 1987, Thoms et al. 2019; Wood and Zanuttini to appear (W&Z); Morin 1985 on French). W&Z, following up on Lakoff, argue that a locative inversion cannot capture English data and propose a minimal presentative structure: two heads in the discourse clausal domain ($C_{L(ocation)}$, $C_{T(ense)}$), an anaphoric T, and $v$ with a complement DP, small clause (SC) or full clause (CP) (see (1)). We examine Malagasy presentatives within W&Z's proposed structure and argue that (i) Malagasy presentative lexemes morphologically encode the relevant functional heads, and (ii) the complement of $v$ can be a DP, a small clause, or a full finite CP. Apparent complications in the data are explained through optionally realized relativizers, complementizers, and existential verbs, as well as an analysis of cleft constructions proposed by Svenonius (1998).

Malagasy has a dedicated set of presentative lexemes (PSTV) that are derived from demonstratives, which are in turn derived from locatives (Rajaona (1972)). Locatives (2a) encode DIS(tance), VIS(ibility), and BOUNDED(ness) (see e.g. Imai 2003). Demonstratives (2b) add # and DEF(initeness), while presentatives (2c) include an extra morpheme *n-*, which we argue represents $v$, explaining why this head is never filled independently.

As for complements, we see a DP complement in (2c) and more complex complements in (3). We propose that the possible complements for the presentative $v$ in Malagasy are DP, SC (DP with a pseudo-relative, see e.g. Moulton & Grillo (2015)), or CP. Structures that include *fa* are always CPs (optional *fa* is the usual complementizer used for embedded finite complements (see (4)). Predicates that **precede** the DP are all cases of clausal complements (following the VOS structure of Malagasy) while predicates that **follow** the DP are ambiguous between true relatives, pseudo-relatives, or CPs with extracted subjects.

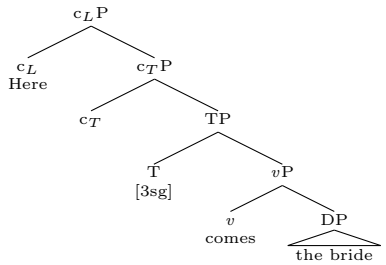
Given this view of complement structure, (3a) will be as in (5a), a full clause with VOS order. The subject must be definite (like all Malagasy subjects) and the complementizer is optional (as is always the case, see (4)). When the predicate follows the DP (as in (3b,c)), however, we get a three-way ambiguity: a true relative (the relativizer *izay* is optional) (5b), a pseudo-relative (which never has a relativizer) (5c), and a full clause (without the complementizer) with an extracted subject (5d).

Since this last order isn't attested elsewhere in Malagasy, we account for it using a proposal for clefts in Svenonius (1998). He argues that an *it*-cleft clause differs from a relative clause as it contains a trace not an operator in Spec, CP (see (6)). The structure in (6b) appears in Malagasy in long distance relative clause formation, and *fa* cannot appear in the C head with Op (see (7)). We claim that the presentative structure, like the cleft structure, allows movement of the subject (abiding by the subject only extraction restriction in Malagasy) out of the finite clause creating a CP which is 'anchored' (in the terms of Svenonius) by the presentative lexeme explaining its limited distribution.

Now we can also explain the allowance of indefinite subjects (see (3b)) only when (i) the DP precedes the subject, and (ii) the predicate is not preceded by *fa* ((3b) vs. (3c)). Here we have the structure of a pseudo-relative and there would be no requirement that the subject be definite.

In sum, a study of Malagasy presentatives not only confirms the proposals of W&Z, it also provides insights into the corners of Malagasy syntax.

(1)




(2) a. Eto ny mpianatra 'The students are here.' (*e-t-o*: +VIS, PROX, BOUND)
b. ireto mpianatra ireto 'These students' (*i-re-t-o*: DEF, PL, PROX, PROX, BOUND)
c. Indreto ny mpianatra. 'Here are the students' (*i-n(d)-re-t-o*: DEF, PSTV, PL, PROX, BOUND)

(3) a. Indreny (fa) mivoaka ny tanana *(ny) vehivavy
PSTV (COMP) leave DET city DET woman
b. Indreny (ny) vehivavy mivoaka ny tanana
c. Indreny *(ny) vehivavy fa mivoaka ny tanana.
'Here are (the) women leaving the city.'

(4) Ataony (fa) mivoaka ny tanana ny vehivavy.
do-3.GEN COMP leave DET city DET woman
'He/she/they think(s) that the women are leaving the city.'

(5) a. Indreny [$_{CP}$ ~~fa~~ [$_{TP}$ [$_{VP}$ mivoaka ny tanana ] [$_{DP}$ ny vehivavy ]]]
b. Indreny [ ny vehivavy$_i$ [$_{REL}$ Op$_i$ ~~izay~~$_{\overline{rel}}$ [$_{TP}$ [$_{VP}$ mivoaka ny tanana ] t$_i$ ]]]
c. Indreny [ ny vehivavy$_i$ [$_{PSREL}$ Op$_i$ $\emptyset$ [$_{TP}$ [$_{VP}$ mivoaka ny tanana ] t$_i$ ]]]
d. Indreny [ ny vehivavy$_i$ [$_{CP}$ t$_i$ ~~fa~~ [$_{TP}$ [$_{VP}$ mivoaka ny tanana ] t$_i$ ]]]

(6) a. RC: [$_{CP}$ Op$_i$ (that) [$_{IP}$ ... t$_i$ ... ]]
b. Cleft: [$_{CP}$ t$_i$ (that) [$_{IP}$ ... t$_i$ ... ]]

(7) ny vehivavy [ Op$_i$ (izay)/*fa [ ataony [ t$_i$ fa [ mivoaka ny tanana t$_i$ ]]]]
DET woman REL/COMP do-3.GEN COMP [ leave DET city ]]]]
'The women who they think are leaving the city'

## References


Imai, S. (2003). Spatial deixis. PhD dissertation, State University of New York at Buffalo.

Lakoff, G. (1987). Women, fire and dangerous things: What categories reveal about the mind. University of Chicago Press, Chicago.

Morin, Y. C. (1985). On the two French subjectless verbs voici and voilà. Language 61:777–820, 61:777–820.

Moulton, K. and Grillo, N. (2015). Pseudo relatives: Big and direct. In Bui, T. and Özyıldız, D., editors, Proceedings of the Forty-fifth Annual Meeting of the North East Linguistic Society (NELS25), volume 2, pages 193–202, Amherst, MA. GLSA (Graduate Linguistics Student Association).

Rajaona, S. (1972). Structure du malgache: étude des formes prédicatives. Librairie Ambozontany, Fianarantsoa.

Svenonius, P. (1998). Clefts in Scandinavian: an investigation. In Alexiadou, A., Fuhrhop, N., Law, P., and Kleinhenz, U., editors, ZAS Papers in Linguistics 10, pages 163–190, Berlin. Zentrum für Allgemeine Sprachwissenschaft.

Thoms, G., Adger, D., Heycock, C., and Smith, J. (2019). Syntactic variation and auxiliary contraction: The surprising case of Scots. Language, 95(3):421–455.

Wood, J. and Zanuttini, R. (to appear). The syntax of English presentatives. Language.

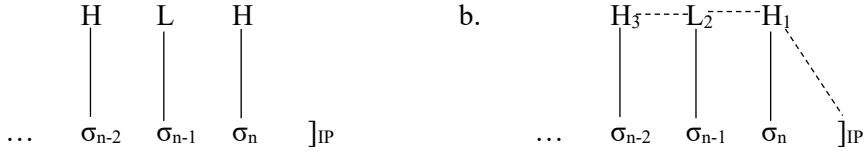
**Benjamin Macaulay**

## Tone-to-edge constraints in Kavalan and beyond

This paper presents evidence of a 'tone-to-edge' constraint: a constraint against a sequence of *n* tonal targets associated with the last *n* tone-bearing units in a prosodic domain. This constraint is active in the synchronic phonologies of Kavalan (Formosan) and Shupamem (Niger-Congo, Cameroon), and it was likely active in the development of the -L H- tonal element in Saaroa (Formosan). These cases differ by the length of the prohibited tonal sequence, the domain edge involved, and the role of the tonal elements in the languages' phonologies (see Table 1). However, all three languages avoid(ed) violation of this constraint by shifting the innermost tone to the opposite domain edge (see Table 2).

'Tonal crowding' has been observed to affect how tonal targets are aligned with relation to segmental material (Silverman & Pierrehumbert 1990). However, there is yet no formal encoding for this effect in the predominant frameworks for intonation. For example, in Autosegmental-Metrical (AM) phonology (Pierrehumbert 1980), tones are associated with tone-bearing units, but not with each other or domain edges directly: a tone associated with the third-to-last syllable has the same status whether it originated in a tonal melody aligned with the beginning, end, or prominent syllable of a prosodic domain.

(1) a. b.




To illustrate: (1) shows two possible representations of a sequence of three tones at the end of a domain: (1a) with the tools available in current AM phonology, and (1b) where there is a formal relationship between the series of tones and the domain edge. If (1a) is the true representation of edge-proximate tonal sequences, then rules can apply to positions like $\sigma_{n-2}$ but not to positions in a tonal sequence like $H_3$. However, in Kavalan, Saaroa, and Shupamem, positions like $\sigma_{n-2}$ are suitable landing sites for tones, so long as they are not tone number *n* in a sequence ending at the domain edge. Thus, a representation like the one in (1b) is necessary to target the correct tones for shifting rules (as well as capture generalizations about these tone-to-edge constraints across languages).

I also argue that tone-to-edge constraints are expected to develop given biases in perception: Blevins' (2004) typology of sound change includes a category called CHANCE, in which a signal is correctly heard by the listener, but interpreted to have a different underlying form (which then becomes part of that listener's phonology). In the case of tone-to-edge constraints, listeners hear a sequence of *n* tones intended to be associated with one domain edge, however the listener may interpret $T_n$ as instead being associated with the opposite domain edge (see example 2). As *n* increases, the proximity of $T_n$ to the opposite edge decreases, and this reinterpretation becomes more likely. In order for the tone to surface on that edge, a shifting rule must be introduced into the intonational phonology, which is now found in Kavalan and Shupamem (and likely Saaroa in a previous stage).

(2)

| Speaker | | Listener |
|---|---|---|
| $[\ T_4{=}T_3{=}T_2{=}T_1{=}]_{IP}$ | | $[{=}T_1\ T_3{=}T_2{=}T_1{=}]_{IP}$ |
| ↓1 | | ↑3 |
| $[T\ T\ T\ T]_{IP}$ | 2→ | $[T\ T\ T\ T]_{IP}$ |

**Data.** The data presented in this paper are novel data elicited in Kavalan, Saaroa, and Shupamem (by the same author). The Kavalan and Saaroa data were elicited as part of a wider study of prosody and intonation in 14 Formosan varieties. The Shupamem data were elicited as part of a wider documentation project, including focus on lexical and morphological tone.

**Table 1: Examples of tone-to-edge constraints and their resolution via spreading-shifting alternations in Kavalan, Saaroa, and Shupamem**

| Language | Tonal system | When? | # tones | Edge | What shifts? |
|---|---|---|---|---|---|
| Kavalan (Formosan) | intonational phonology | synchronic | 4 | right | /**L**+H*L? H%/ ]$_{IP}$<br>pitch accent L+H*L?<br>+ interrogative H% |
| Saaroa (Formosan) | intonational phonology | diachronic | (3?) | right | %H-H **L**+H* ]$_{ip}$ H- …<br>%H (all IP's)<br>+ L+H*<br>in non-final ip |
| Shupamem (Niger-Congo, Cameroon) | lexical tone | synchronic | 3 | left | /L H**L**/<br>lexical /L/ +<br>plural /HL/ |

Note: _ = syll. unspecified for tone; … = abridged material (f0 interpolates btw. tones on either side).

**Table 2: Examples of tonal shifting as a resolution to tone-to-edge constraints**

| Language | Example of default behavior | Example of shifting when *n* tones at edge |
|---|---|---|
| Kavalan | Declarative int.: L+H*L? ]$_{IP}$<br>3 tones at edge: $L_3$=$H_2$=$L_1$=]$_{IP}$<br>$L_3$ spreads<br>[L … L HL]$_{IP}$ | Interrogative int.: L+H*L? H% ]$_{IP}$<br>4 tones at edge: $L_4$=$H_3$=$L_2$=$H_1$=]$_{IP}$<br>$L_4$ shifts<br>[L _ … _ H LH]$_{IP}$ |
| Saaroa | ip-final IP: -H L+H* L% ]$_{ip}$]$_{IP}$<br>pitch accent not necessarily at edge<br>L and H of pitch accent stay put<br>[H … L H … L]$_{ip}$]$_{IP}$ | IP-initial ip (focus/*wh*-Q): [$_{IP}$ %H [-L H-]$_{ip}$<br>likely from [… L+H*]<br>L has shifted leftward (output fossilized)<br>[H L _ … _ H]$_{ip}$ |
| Shupamem | Underlying /H/ or /∅/ + plural /HL/<br>2 tones at edge: [$_{Word}$=$H_1$=$L_2$<br>$L_2$ spreads<br>[H L … L]$_{Word}$ | Underlying /L/ + plural /HL/<br>3 tones at edge: [$_{Word}$=$L_1$=$H_2$=$L_3$<br>$L_3$ shifts ($H_2$ spreads to fill toneless syll's)<br>[LH … H L]$_{Word}$ |

Note: the equals sign = is used here and elsewhere in this abstract to show an affiliation between a series of tonal targets and a domain edge, similar to the dotted lines in (1b).

**Selected references:**


Blevins, J. (2004). *Evolutionary phonology: the emergence of sound patterns*. CUP.

Pierrehumbert, J. (1980). *The phonology and phonetics of English intonation*. Ph.D. dissertation, MIT.

Silverman, K. & Pierrehumbert, J. (1990). The timing of prenuclear high accents in English. In J. Kingston & M. Beckman (Eds.), *Papers in Laboratory Phonology I. Between the Grammar and Physics of Speech*, pp.72-106. CUP.

**Shih-chi Stella Yeh**

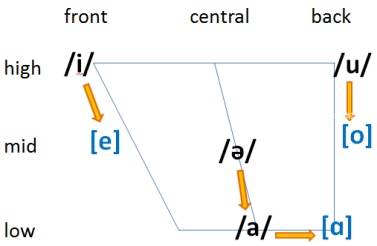
## Chain shift of vowel lowering induced by the loss of a uvular consonant in Paiwan

This study is twofold. First, it investigates a synchronic chain shift of vowel lowering or backing, which is induced by the loss of a uvular consonant *r between identical vowels in Tjuvetsekadan Paiwan. An Optimality-Theoretic (OT) analysis employing locally conjoined constraints accounts for these one-step vowel changes from high to mid (/i/>[e], /u/>[o]), from mid to low (/ə/>[a]), from low central to back (/a/>/ɑ/), but never two steps at once (e.g., no /ə/>[ɑ]). Second, while the lost uvular gave rise to three derived vowels [e, o, ɑ] in certain contexts, the loss of another lateral consonant *ɻ had no influence on vowels. Thus the phonemic contrast between the uvular and lateral consonants can be retrieved from neighboring vowels even though the consonants have no longer existed.

Paiwan is a Formosan language spoken in the southern mountainous area of Taiwan. The Tjuvecekadan village dialect has lost two consonants that most Paiwan dialects still preserve, the Proto *r and *ɻ, realized as a uvular fricative [ʁ] (or a tap [ɾ]) and a retroflex [ɻ] in many Paiwan dialects (Cheng 2016, Ang 2019). As a common phenomenon that uvular sounds lower or retract adjacent vowels (Rose 1996), the lost uvular in Tjuvecekadan resulted in vowel quality changes, which is apparent especially between identical vowels (V*rV), as in (1). With four phonemic vowels /i, u, ə, a/ in this language (Ho 1978), the high vowels become mid [e] and [o], and the mid vowel /ə/ becomes a low [a]; while /a/ cannot decrease the height, it moves backward as a low back [ɑ]. In an OT analysis, the markedness constraints LOWERING[RTR] and BACKING[RTR] outrank faithfulness constraints IDENT(backness) and IDENT(height), showing that vowel lowering and backing triggered by the [RTR] feature of uvulars is more important than maintaining features between the inputs and outputs, as shown in (2). LOWERING ranks over BACKING, thus it is more important to lower a vowel. However, when LOWERING is not feasible, satisfying BACKING makes the form better. A dominant conjoined constraint [IDENT(height)&IDENT(backness)] penalizes candidates that make vowels lower and backer concurrently (Kirchner 1996, Moreton & Smolensky 2002), as shown in (3).

By comparing the vowel shift caused by the lost uvular, the lost *ɻ did not effect on vowels; thus the phonemic contrast between *r and *ɻ can still be recovered when identical vowels are around, as shown in (4). Such distinction is yet neutralized when non-identical full vowels flank, as shown in (5). Although the pattern of vowel hiatus after the loss of these two consonants is complicated, the major principle is that vowels undergo lowering or backing due to a lost uvular in the vicinity. To sum up, this study clarifies the chain shift of vowels due to the loss of a uvular sound in Tjuvetsekadan Paiwan and offers an OT analysis using conjoined constraints. As a result of the chain shift of vowel lowering or backing, the phonemic distinction between the lost uvular and lateral is likely to retain between identical vowels.

(1) Chain shift of vowels




| *Proto form* | *Phonetic form* | *Gloss* |
|---|---|---|
| *təm**uru** | [tə.ˈm**oo**] | ‘dare (Agent Voice)’ |
| *qəm**iri** | [qə.ˈm**ee**] | ‘cheat (AV)’ |
| *q**ə**r**ə**pus | [ˈq**aa**.puʂ] | ‘cloud’ |
| *t**a**r**a**ŋ | [ˈt**ɑɑ**ŋ] | ‘protective talisman’ |

(2) Tableau and constraint ranking for /i*ri/

| Input: /i*ri/ | [IDENT(height)&IDENT(backness)] | Lowering | Backing | IDENT(backness) | IDENT(height) |
|---|---|---|---|---|---|
| a. əə | **! | | | **[fr] | **[hi] |
| b. aa | **! | | | **[fr] | **[hi] **[lo] |
| c. ɑɑ | **! | | | **[fr] **[bk] | **[hi] **[lo] |
| d.☞ee | | | ** | | **[hi] |

(3) Tableau and constraint ranking for /ə*rə/

| Input: /ə*rə/ | [IDENT(height)&IDENT(backness)] | Lowering | Backing | IDENT(backness) | IDENT(height) |
|---|---|---|---|---|---|
| a. əə | | **! | ** | | |
| b. ɑɑ | **! | | | **[bk] | **[lo] |
| c. ☞aa | | | | **[bk] | |

(4) Phonemic contrast between the lost uvular *r and lateral *ɭ

| *Proto form* | *Phonetic form* | *Gloss* | *Proto form* | *Phonetic form* | *Gloss* |
|---|---|---|---|---|---|
| *təm**uru** | [tə.ˈm**oo**] | ‘dare (A V)’ | *təm**uɭu** | [tə.ˈm**uu**] | ‘teach (AV)’ |
| *qəm**iri** | [qə.ˈm**ee**] | ‘cheat (AV)’ | *qəm**iɭi** | [qə.ˈm**ii**] | ‘lift (AV)’ |
| *qərəpus | [ˈq**aa**.puʂ] | ‘cloud’ | *ʎəɭət | [ˈʎəət] | ‘ilps’ |
| *t**a**r**a**ŋ | [ˈt**ɑɑ**ŋ] | ‘protective talisman’ | *s**a**ɭ**a**ŋ | [ˈs**aa**ŋ] | ‘storage room’ |

(5) Neutralization of the lost *r and *ɭ

| *Proto form* | *Phonetic form* | *Gloss* | *Proto form* | *Phonetic form* | *Gloss* |
|---|---|---|---|---|---|
| ***a**r**i**ts | [ˈ**ai**ts] | ‘diaphragm’ | *k**a**ɭ**i**p | [ˈk**ai**p] | ‘a kind of hawk’ |
| *v**a**r**u**ŋ | [ˈv**au**ŋ] | ‘chest, mind’ | ***a**ɭ**u** | [ˈ**au**] | ‘eight’ |

## References


Ang, ui-jin (2019). *Studies on Social Language Geographic of Taiwan*. Taipei: Avanguard Publishing House.

Cheng, Chunghua (2016). The study of Paiwan dialects. Doctoral dissertation. Peking University, China.

Ho, Dah-an (1978). A Preliminary comparative study of five Paiwan dialects. *Bulletin of the Institute of History and Philology* 49.4. 565-681.

Kirchner, Robert (1996). Synchronic chain shifts in Optimality Theory. *Linguistic Inquiry* 27. 341-350.

Moreton, Elliott and Paul Smolensky (2002). Typological consequences of Local Constraint Conjunction. *Proceedings of the West Coast Conference on Formal Linguistics* 21. 306-319.

Rose, Sharon. 1996. Variable laryngeals and vowel lowering. *Phonology* 13:73-119.

**Jennifer Kuo**

## Markedness effects in the history of Samoan thematic consonants

Paradigms with conflicting data patterns can be difficult to learn, resulting in child errors (e.g. *go/goed* instead of *go/went* in English). Such errors can in turn be adopted into speech communities, resulting in a type of change over time we refer to as *reanalysis*. Existing models of morphophonology, such as Albright's (2002; 2003) Minimal Generalization Learner, predict reanalysis to be *frequency-matching*, occurring in a way that matches probabilistic distributions within the paradigm. I propose that in fact, reanalysis responds to two factors: both frequency matching and the reduction of markedness.

In this study, we use iterated learning models to investigate this issue in a set of Samoan alternations. We compare two models: one that is frequency-matching, and one which has a markedness learning bias. We find that the latter model performs better. We further propose that markedness effects can only affect reanalysis if they are already active in the language (e.g. in root phonotactics), and show that Samoan is consistent with this proposal.

In some Samoan suffixes, a consonant of unpredictable quality surfaces, as exemplified in (1) for the ergative suffix (Mosel and Hovdhaugen, 1992). This pattern arose due to a historic process of final consonant loss. As a result, all consonants were deleted at the end of unsuffixed stems, but maintained in suffixed forms (e.g. *inum/*inum-ia 'to drink' → inu/inu-mia).

In general, the allomorph which surfaces can be traced back to the historic stem-final consonant in Proto-Oceanic (POc) (Pawley, 2001). For example, [inu]/[inumia] 'to drink' comes from POc *inum, and [pulu]/[pulu-tia] 'to plug up' comes from *bulut. However, in modern Samoan, the observed alternant often does *not* match the historical POc one; for example, [ŋuŋu] (<POc *ŋuŋul) 'arthritis' should have the suffixed form [ŋuŋu-lia], but instead [ŋuŋu-a] is observed. These mismatches suggest that language learners have carried out extensive reanalyses. To investigate the direction of reanalyses, we collected 358 POc forms taken from the Austronesian Comparative Dictionary (Blust and Trussel, 2020). POc protoforms were compared against 558 Samoan stem/ergative pairs from Milner (1966).

We find that suffixed forms are more likely to be reanalyzed if they violate a transvocalic OCP constraint against coronal sonorants (*[+COR,+son]...[+COR,+son]), which assigns violations to stems such as [**l**a**n**u] 'color'. In particular, in modern Samoan, there are almost no words of the type [pu**l**i-**n**a] or [pu**n**i-**l**ia] (n=2/584). Using a Monte Carlo simulation (Mooney, 1997), visualized in (2), we demonstrate that forms which violate coronal sonorant OCP are underrepresented in modern Samoan, given the distribution of final consonants in POc.

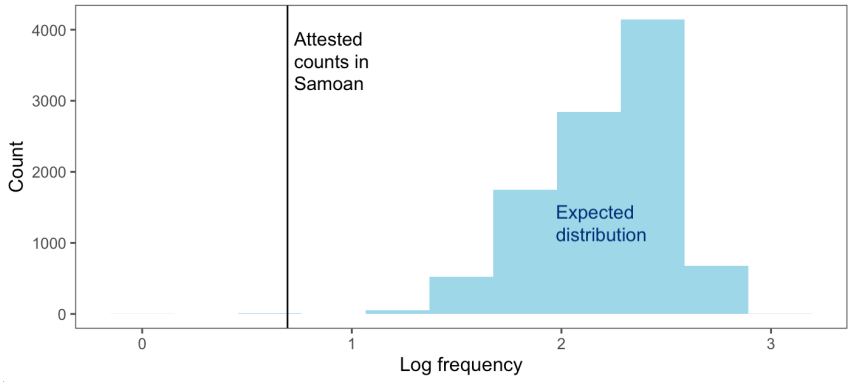
Moreover, we find that OCP[+COR,+son] is also active in Samoan root phonotactics. Specifically, we trained a probabilistic constraint-based phonotactic model (UCLA Phonotactic Learner; Hayes and Wilson, 2008) on 1600 Samoan roots from Milner (1966). The resulting model assigns significant weight to OCP[+COR,+son]. This finding is compatible with our proposal that markedness effects in reanalysis are restricted to those already active in the language.

These results are confirmed using a model of reanalysis implemented in Maximum Entropy Harmonic Grammar (MaxEnt; Goldwater and Johnson, 2003). To simulate the cumulative effects of reanalyses over time, the model is iterated. In other words, at each "generation", a learner induces a grammar based on input data, and then uses this grammar to generate data that is passed down to the next generation. Two models are compared: 1) a baseline model that is purely frequency-matching, and 2) a markedness-biased model in which the constraint OCP[+COR,+son] is biased to have high weight using the method laid out by Wilson (2006). We find that the markedness-biased model performs significantly better than the purely distributional baseline model. In sum, the Samoan data supports the view that reanalysis is guided both by the statistical patterns that learners encounter, and by principles of markedness.

(1) *Ergative suffix allomorphy in Samoan*

| ERG. | STEM | SUFFIXED | GLOSS |
|---|---|---|---|
| a | rere | rere-a | 'to take' |
| ina | iloa | iloa-ina | 'to see, perceive' |
| **t**ia | pulu | pulu-**t**ia | 'to plug up' |
| **s**ia | laka | laka-**s**ia | 'to step over' |
| **ŋ**ia | tutu | tu-**ŋ**ia | 'to light a fire' |
| **f**ia | utu | utu-**f**ia | 'to draw water' |
| **m**ia | inu | inu-**m**ia | 'to drink' |
| **l**ia | tautau | tautau-**l**ia | 'to hang up' |
| **n**a[1] | ʔai | ʔai-**n**a | 'to eat' |
| ʔia | momo | momo-ʔia | 'to break in pieces' |

(2) Attested [pu**l**i-**n**a]/ [pu**n**i-**l**ia] words vs. expected distribution from POc




**References.** [1] A. Albright and B. Hayes. "Rules vs. analogy in English past tenses: A computational/ experimental study". In: *Cognition* 90.2 (2003), pp. 119–161. [2] A. C. Albright. "The identification of bases in morphological paradigms". PhD thesis. UCLA, 2002. [3] R. Blust and S. Trussel. *Austronesian comparative dictionary*. 2020. [4] S. Goldwater and M. Johnson. "Learning OT constraint rankings using a maximum entropy model". In: *Proceedings of the Stockholm workshop on variation within Optimality Theory*. 2003, pp. 111–120. [5] B. Hayes and C. Wilson. "A maximum entropy model of phonotactics and phonotactic learning". In: *Linguistic inquiry* 39.3 (2008), pp. 379–440. [6] G. B. Milner. *Samoan Dictionary; Samoan-English, English-Samoan*. ERIC, 1966. [7] C. Z. Mooney. *Monte carlo simulation*. 116. Sage, 1997. [8] U. Mosel and E. Hovdhaugen. *Samoan reference grammar*. Scandinavian Univ. Press, 1992. [9] A. Pawley. "Proto Polynesian *-CIA". In: *Issues in Austronesian Morphology: A festschrift for Byron W. Bender*. Pacific Linguistics, 2001. [10] C. Wilson. "Learning phonology with substantive bias: An experimental and computational study of velar palatalization". In: *Cognitive science* 30.5 (2006), pp. 945–982.

[1] Note that when the ergative suffix starts with /n/ the allomorph is /na/ rather than /nia/

# A different level of coordination: Samoan subject sharing

**Maximilian Wiesner**

**1. Abstract.** I report on a puzzle in novel data of Samoan V-initial subject sharing constructions (SSC) where the second conjunct contains no subject. I claim that they structurally differ from clausal coordination. The major contributions are: First, clausal coordination and SSC in Samoan involve coordination at a different structural level. Second, distributed deletion can derive Samoan SSC but standard analyses cannot. Third, the data presented are the first syntactic analysis of Samoan SSC.

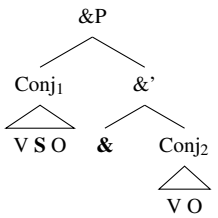
**2. Background.** Samoan is an understudied Polynesian language spoken on the Samoan Islands. The literature concerns ERG-ABS alignment (cf.,Tollan 2018) and V-initial word order (cf., Collins 2017) and the status of the subject (cf., Cook 1991). While transitive clauses display VSO order, coordination constructions display VSO&VSO. Throughout my analysis, I adopt Collins' (2017) predicate-fronting approach. The data I elicited with two native speakers concern SSC as well as clausal coordination.

**3. Observations/Data.** Samoan SSC have the surface structure VSO&VO. The second conjunct consist of only the verb (4) or the verb plus objects (5). However, the Ergative-marked DP serves as subject in both conjuncts. This contrasts with clausal coordination (6) containing two subjects. By comparing (4) and (5) to (6), it is straight forward that neither ATB movement nor RNR applies in the first two examples. The sharing of constituents, thus, does not involve overt movement. Further, the subject in the first conjunct should not be interpretable in the second conjunct due to no c-command over the second conjunct, cf. (1).

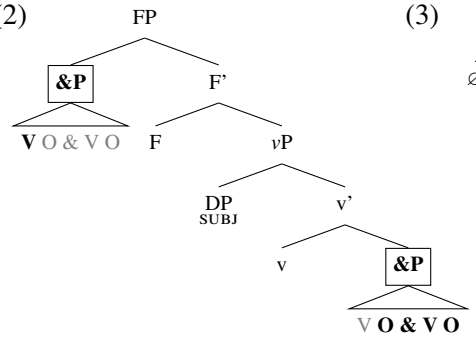
**4. Analysis.** The data in (7) and (8) suggests that pro-drop is not available in Samoan (contra Homer 2009, Koopman 2012, Muāgututi'a 2017, among others) and, thus, it cannot explain the structural issue. Further, assuming Samoan SSC to be subordinative could account for the c-command issue. However, since ATB is possible (9) and asymmetric extraction results in ungrammaticality (10), subject sharing must be coordinative (as by the CSC; Ross 1967). Further diagnostics suggest that SSC differ from clausal coordination as well as subordination. Additionally, a TAM marker in each conjunct obligatorily requires a subject in both of them (11), thus, resulting in VSO&VSO. Therefore, the conjuncts must be smaller than TP. Proposed analyses (clausal coordination (e.g. Fanselow 1991), FP-coordination (e.g. Johnson 2002) for the similar German SLF-constructions fail to account for the characteristics of SSC.

**5. Proposal.** Based on these observations, I claim that the subject is base-generated in a position which c-commands both conjuncts. This derives (i) the scope of the subject and (ii) the presence of only one subject in the structure. I propose low VP-coordination and subsequent distributed deletion (Fanselow & Ćavar 2002). That is, the coordination is copied entirely and subsequently, both existing copies are partially deleted, cf. (2). By assuming the coordination to be adjunction of the second to the first conjunct, the copy-mechanism naturally follows from Collins' (2017) predicate-fronting approach. The higher copy, thus, resides in SpecFP and thereby derives the correct word order. The application of distributed deletion has also been claimed for other Austronesian languages (i.e. van Urk 2022 for Imere). I claim that this structure is different from clausal coordination (VSO&VSO) which involves TP-coordination, cf. (3).

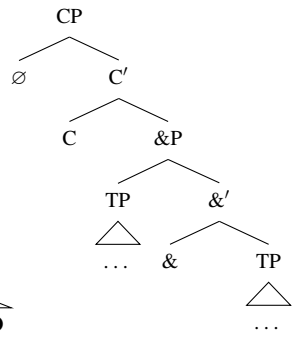
(1)




(2)




(3)




**6. Conclusion/Outlook.** Samoan SSC coordinate two VPs and only one subject is merged into their structure. Distributed deletion subsequently derives the predicate-inital word order. The analysis can account for structural difficulties and the scope of the subject. Future research will concern independent evidence for this proposal as well as carving out the motivation and constraints for distributed deletion to apply in Samoan SSC. Overall, this approach presents a promising structural solution to the puzzle.

(4) Lena sa fasi e le faiaoga le tama ma siva.
PST beat ERG the teacher the boy and dance
The teacher hit the boy and danced. ⇒ VSO&V

(5) Sa maua e Peter le taavale ma gaoi le uila.
PST steal ERG Peter the car and find the bike
Peter stole the car and found the bike. ⇒ VSO&VO

(6) Lena sa mauā e Lola se maile ma lena sa mauā e Peter se solofanua.
PST see ERG Lola a dog and PST see ERG Peter a horse
Lola saw a dog and Peter saw a horse. ⇒ VSO&VSO

(7) a. Agagafi, lena sa fo'i mai Melanie i le fale.
yesterday PST come to Melanie LD ART home
Yesterday, Melanie came home.
b. Lena sa siva *(gaia).
PST dance 3SG
She danced.

(8) a. Agagei i le ao, lena sa alu Jeanne i le aoga.
today LD ART morning, PST go Jeanne LD ART school
This morning, Jeanne went to school.
b. Lena sa fasi *(gaia) le faiaoga.
PST beat 3SG ART teacher
She beat the teacher.

(9) O leā le mea sa maua e Peter ma gaoi?
PRESENTATIVE what ART thing PST find ERG Peter and steal
What did Peter find and steal?

(10) *O leā le mea sa ta e Peter ma ai se apu?
PRESENTATIVE what ART thing PST hit ERG Peter and eat ART apple
What did Peter hit and ate an apple?

(11) Sa ta le faia'oga$_i$ le tama ma sa siva *(gaia$_i$).
PST hit ART teacher ART boy and PST dance 3SG
The teacher hit the boy and danced.

**References:** Collins, J. (2017). Samoan predicate initial word order and object positions. *NLLT*. • Cook, K. W. (1991). The search for subject in Samoan. In *Currents in Pacific linguistics: papers on Austronesian languages and ethnolinguistics in honour of George W. Grace*. Pacific Linguistics. • Fanselow, G. (1991). Minimale syntax. *Groninger Arbeiten zur germanistischen Linguistik*. • Fanselow, G. and Ćavar, D. (2002). Distributed deletion. In Alexiadou, A., editor, *Theoretical Approaches to Universals*. • Homer, V. (2009). Backward control in Samoan. *AFLA16*. • Johnson, K. (2002). Restoring exotic coordinations to normalcy. *LI*. • Koopman, H. (2012). Samoan ergativity as double passivization. In Brugé, L., Cardinaletti, A., Giusti, G., Munaro, N., and Poletto, C., editors, *Functional Heads, Volume 7: The Cartography of Syntactic Structures*. OUP. • Muagututia, G. (2017). The Acquisition of Ergativity in Samoan. *University of Hawai'i: Working Papers in Linguistics*. • Ross, J. R. (1967). *Constraints on variables in syntax*. PhD thesis, MIT. • Tollan, R. (2018). Unergatives are different: Two types of transitivity in Samoan. *GLOSSA*. • van Urk, C. (2022). Constraining predicate fronting. *LI*.

**Shuki Otani**

Argument Ellipsis and Voice Agreement in Javanese and Tagalog

**Introduction:** There has been a great discussion about the (im)possibility of Argument Ellipsis (AE), where arguments directly undergo ellipsis. Saito (2007) proposes *anti-agreement hypothesis*, where AE is available in the languages which do not have obligatory $\phi$-feature agreement. Although Saito's (2007) proposal appears to be plausible in some languages, Sato (2015) shows that AE cannot apply to the arguments that participate in voice agreement in Javanese, which lacks $\phi$-feature agreement. To explain the Javanese data, Sato (2015) proposes that AE is blocked by not only $\phi$-feature agreement but also voice agreement.

This paper examines AE in Tagalog, which appears to lack obligatory $\phi$-agreement and to have voice agreement. I show that AE can apply to the arguments which enter into voice agreement in Tagalog, claiming that voice agreement itself does not block the application of AE. Following Rackowski (2002) and Hsieh (2020), I argue that the Tagalog arguments with the voice morpheme *ang* can be deleted via AE because the arguments do not obtain topic interpretation.

**AE in Javanese:** Sato (2015) shows that null subjects in Javanese do not yield sloppy reading (cf. Sag 1976, Williams 1977, Fiengo and May 1994) but null objects do, as in (1) and (2). It is generally assumed that the availability of sloppy reading of null arguments arises from ellipsis (Otani and Whitman 1991, a.o.). To explain the subject-object asymmetry, Sato (2015) assumes that Javanese subjects must agree with the functional head (e.g., v) headed by voices, and be marked with a topic feature, as in (3). On the other hand, Javanese objects do not enter into voice agreement, and therefore, they do not receive the topic feature. Based on the assumption of the Javanese voice agreement system, Sato (2015) proposes that the impossibility of sloppy reading of null subjects follows from the definiteness restriction imposed by the topic requirement. Core et al. (2002) claim that Javanese subjects which join voice agreement must be topical. One of the supportive data for their claim is that an indefinite NP cannot appear in subject positions as in (4). Since topics refer to an entity previously introduced into the discourse, they are always definite and hence cannot introduce a new discourse referent. Therefore, the sloppy reading of null subjects is unavailable in Javanese.

**AE in Tagalog:** It has been observed that sloppy reading of a null argument is possible in Tagalog, as shown in (5) (Richards 2003, Sabbagh 2005). Richards (2003) and Sabbagh (2005) claim that Tagalog null objects as in (5) must be derived via V-stranding VP-Ellipsis (VVPE), but not AE. In contrast to the previous studies, I show two pieces of evidence that AE is available in Tagalog. Firstly, it has been argued (Goldberg 2005) VVPE is possible in V-stranding languages only when the verb in an antecedent sentence is identical to the verb in the elliptical sentence, while AE does not involve such restriction (Takahashi 2014, Sato 2015). As we can see the data in (6), the null object in Tagalog yields sloppy reading when different verbs are used between the antecedent and elliptical sentences. Secondly, I examine whether a null argument yields the interpretation including a VP adjunct. It has been assumed (Takahashi 2010, a.o.) that adjuncts can be deleted under VVPE because they are included in an ellipsis site in VVPE, whereas no adjuncts can be elided under AE because the elliptic candidate can only be an argument, as illustrated in (7). (8) shows that the second conjunct does not yield the interpretation including the adjunct (*madali*), suggesting that the adjunct is not in the ellipsis site. From (6) and (8), we can see that Tagalog allows AE and that the arguments with the voice morpheme (*ang*) are deleted via AE. These data support the claim that AE is not banned from applying to arguments which participate in voice agreement in Tagalog.

**Discussion and Conclusion:** I have to explain the differences: Tagalog allows arguments with voice morphemes to undergo AE but Javanese does not. Following Rackowski (2002) and Hsieh (2020), I assume that Tagalog arguments with a voice morpheme (*ang*) are not topic. This is supported by the examples of (9), where Tagalog allows arguments marked with *ang* to yield indefinite interpretation. Since *ang*-marked arguments are not topical, AE is not blocked by the definiteness restriction of the topic requirement. On the other hand, following Sato (2015), I assume that Javanese arguments which enter into voice agreement with v must be topic. Therefore, they cannot be deleted due to the definiteness restriction followed by topic. In sum, if the above discussions are plausible, I can provide strong evidence that ellipsis of null arguments in Tagalog is implemented by AE, and explain the distributions of elided arguments in Javanese and Tagalog.

(1) a. Esti ngomong [$_{CP}$ mahasiswa-ne di-sun karo Budi ].
Esti say student-3SG PV-kiss by Budi
'Esti said that her student was kissed by Budi.'
b. Yuli ngomong [$_{CP}$ [ e ] di-sun karo Ali ].
Yuli say PV-kiss by Ali
'Lit. Yuli said that [ e ] was kissed by Ali.' (Sato 2015: 77)
(i) Yuli said that her (=**Esti's**) student was kissed by Ali.' (strict reading)
(ii) *Yuli said that her (=**Yuli's**) student was kissed by Ali.' (sloppy reading)

(2) a. Esti ngomong [$_{CP}$ Budi di-sun karo mahasiswa-ne ].
Esti say Budi PV-kiss by student-3SG
'Esti said that Budi was kissed by her student.'
b. Yuli ngomong [$_{CP}$ Ali di-sun [ e ] ].
Yuli say Ali PV-kiss
'Lit. Yuli said that Ali was kissed [ e ].' (strict / sloppy) (Ibid: 78)

(3) [$_{vP}$ subject$_{[Topic]}$ [$_{v'}$ v$_{[PV]}$ VP ] ]
↑ Voice agreement ┘

(4) a.*[ Wong lanang ] [$_{VP}$ gek turu].
person male PROG sleep
'A boy is sleeping.' (indefinite NP)
b. [ Wong lanang kuwi ] [$_{VP}$ gek turu].
person male DEM PROG sleep
'That boy is sleeping.' (definite NP)
(Cole et al. 2002:103)

(5) S<in>untok-$\phi$ ni Mike [ ang anak niya ], pero hindi s<in>untok-$\phi$ ni Mary [ e ].
<PFV>hit-PV Gen Mike ang child his but not <PFV>hit-PV Gen Mary
Lit. 'Mike hit his child, but Mary didn't [ e ]. (strict / sloppy)

(6) **P<in>agalitan-$\phi$** ni Mike ang estudyante niya, pero **p<in>uri-$\phi$** ni Tom [ e ].
<PFV>scold-PV Gen Mike ang student his, but <PFV>praise-PV Gen Tom
Lit. 'Mike **scolded** his student, but Tom **praised** [ e ]. (strict / sloppy)

(7) a. VVPE: ~~[$_{vP}$ argument adverb]~~ b. AE: [$_{vP}$ ~~argument~~ adverb ]

(8) H<in>ugasan-$\phi$ ni Mike [ ang kotse niya nang madali ], pero hindi h<in>ugasan-$\phi$ ni Tom
<PFV>wash-PV Gen Mike ang car his NANG quickly but not <PFV>wash-PV Gen Tom
[ e ].
Lit. 'Mike washed his car quickly, but Tom didn't wash [ e ].'
a. Tom$_1$ didn't wash his$_1$ car at all.
b. *Tom$_1$ didn't wash his car$_1$ quickly. (adjunct reading)

(9) a. Na-tu-tulog [ ang isang bata ].
AV-PROG-sleep ang one-LK child
'**A child** is sleeping.'
b. I-p-in-asa-$\phi$ ng guro [ ang isa-ng mag-aaral].
<PFV>pass-PV gen teacher ang one-LK student
'The teacher passed **one student**.' (Collins 2019: 1380)

<Selected References> Hsieh, Henrison. 2020. Beyond nominative: A broader view of A'-dependencies in Tagalog. Doctoral Dissertation, McGill University. Richards, Norvin. 2003. Why there is an EPP. *Gengo Kenkyu [ Language Research ]* 123: 221-256. Sato, Yosuke. 2015. Argument ellipsis in Javanese and voice agreement. *Studia Linguistica* 69: 58-85.

**Hero Patrianto & Victoria Chen**

A cline of Indonesian-type voice as in transition from Ā- to A-syntax:
Insights from four languages

**1. Introduction.** We report an underexplored syntactic variation among four languages that possess an Indonesian-type three-way voice system. Despite their superficial similarities, five diagnostics (1a–e) reveal that their voice systems do not form a homogeneous group. While Indonesian possesses a voice system that fits well with the traditional split ergative analysis (Aldridge 2008; Legate 2014), in which the pivot in all voices show prototypical subject properties, the voice system of Javanese, at another extreme, clearly indexes topicalization and not promotion-to-subject, where pivots show prototypical topic and not subject behaviors. Balinese behaves similarly to Javanese in most but not all regards, with pivots showing a mixed of Ā- (topic) and potential A- (subject) properties. Acehnese behaves fairly similarly to Indonesian, but displays an unusual binding pattern where the pivot does not show canonical subject behaviors (1b–c).

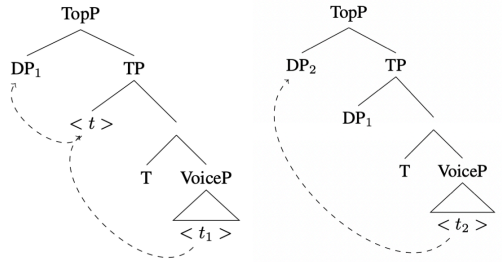
(1)

| | Variation among Indonesian-type voice systems | | | |
|---|---|---|---|---|
| *A pivot phrase . . .* | Javanese | Balinese | Acehnese | Indonesian |
| a. must be definite/specific | ✓ | ✓ | ✗ | ✗ |
| b. can surface as a reflexive in NAV | ✓ | ✓ | ✗ | ✗ |
| c. can bind a reflexive in NAV | ✗ | ✗ | ✗ | (✓) |
| d. can be a PP in NAV | ✓ | ✗ | ✗ | ✗ |
| e. allows pre-aux QF in AV | ✓ | ✗ | ✗ | ✗ |
| | pivots as topics (Ā elements) | | pivots as subjects (A-elements) | |
| | Ā approach to voice | | A- (split ergative) approach to voice | |

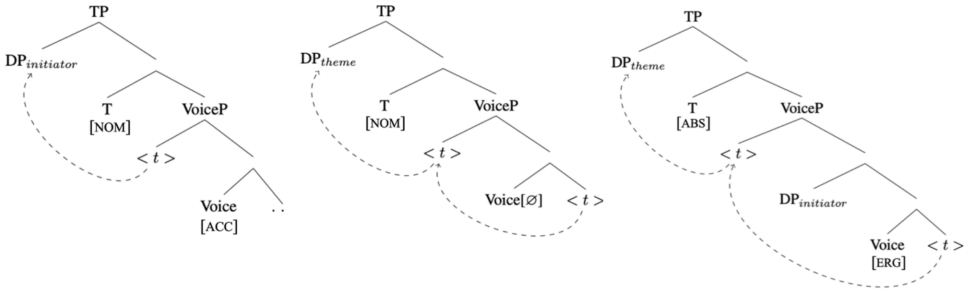
We propose that the so-called "Indonesian-type voice" is best viewed as a cline of voice systems in transition from a topic-oriented to a subject-oriented system. With the general consensus in the literature that (i) pivots in Philippine-type voices show topic behaviors and (ii) Old Javanese and Old Balinese both displayed transparent Philippine-style morphosyntax, we propose that languages with the so-called "Indonesian-type voice" are in transition from Ā to A-syntax, with different degrees of advancements – Indonesian as the most innovative and Javanese the most retentive.

**2. Ā- vs. A-oriented voice.** Indonesian-type voices have received two competing analyses. The Ā-approach holds that voice alternation indexes subject ("AV") vs. nonsubject topicalization ("OV"), with the so-called passive as an OV construction (2) (e.g., Davies 1995; Durie 1985; Patrianto and Chen 2023). The A-approach maintains instead that (i) voice is encoded in A-syntax, indexing alignment change between accusative ("AV") and ergative ("OV") and (ii) the so-called passive is a detransitivized AV (3). We show that some languages fit better with (2a–b) while others with (3a–b).

(2) a. AV (subject topic) b. OV (nonsubject topic)




(3) a. Actor Voice (accusative) b. Passive Voice (accusative) c. Object Voice (ergative)



**3. Presence or absence of definiteness/specificity constraints on pivots.** Only Javanese and Balinese impose a definiteness/specificity constraint on the pivots, a common constraint on topichood (4) vs. (5).

(4) Javanese
**Lawuh-*(é)** di-pangan (kucing (iku)).
**side.dish-*(DEF)** PASS/3-eat (cat (DEM))
'{The/*a} sidedish was eaten by {that/a} cat.'

(5) Indonesian
**Se-buah buku** di-temu-kan di sampah.
**one-CLF book** PASS-find-APPL in garbage
'A book was found in a rubbish bin.'

**4. Binding parameter I.** Only in Javanese and Balinese can a theme pivot be interpreted in its $\theta$-position and surface as a reflexive (see (6) vs. (7)). This variation supports the view that pivots in Javanese and Balinese behave like an Ā-element and those in Acehese and Indonesian behave like a subject/binder.

(6) Javanese
**Awa'-é déwé** di-jiwit ambe' Hero.
**body-3SG self** PASS/3-pinch by Hero
'Himself was pinched by Hero.'

(7) Indonesian
***Diri-nya** sendiri di-sakit-i oleh Rani.
**body-3SG** self PASS-hurt-APPL by Rani
(Intended: 'Herself was hurt by Rani.')

**5. Binding parameter II.** However, only in written Indonesian can a theme pivot in the so-called passive construction function as a binder of a reflexive. (see (8) vs. (9)) This shows that the pivots in Colloquial Indonesian and the other three languages do not show subject property in this regard.

(8) Javanese
***Hero** di-jiwit-i ambè' awa'-é déwé
**Hero** PASS/3-pinch-APPL by body-3SG self
(Intended: Hero was pinched by himself.)

(9) Indonesian
**Ayah-ku** telah di-bohong-i oleh diri-nya sendiri.
**father-1S.POSS** PERF PASS-lie-APPL by body-3SG self
'My father has been deceived by himself.'

**6. PP's eligibility to be the pivot.** Only in Javanese can a (definite) PP constitute a pivot in NAV. This lends further support to the topicalization approach to Javanese voice, as PPs cannot constitute a subject.

(10) Javanese
**Ambè' Maria/*arè'** ta'/mbo'=resi'-i omah ndi aé.
**with Maria/child** 1SG/2SG=clean-APPL house which AE
'I/you/s/he cleaned any house with Mary/*a boy.'

(11) Indonesian
***Dengan Maria** ku=bersih-kan beberapa rumah.
**with Maria** 1SG=clean-APPL several house
(Intended: 'I cleaned several houses with Maria.')

**7. Voice-based asymmetry in pre-auxiliary quantifier stranding.** Finally, only Javanese displays a voice-based asymmetry in quantifier float, allowing quantifier stranding between the pivot position and aspectual auxiliary in the AV and not the NAV. This lends empirical support for the proposed subject-to-topic movement (2a) in subject topic constructions, the "AV". Consider (12)–(13) vs. (14)–(15).

(12) Javanese: AV
**Konco-ku telu** ate nge-ja' Ayu.
**friend-1S.POSS 3** FUT AV-invite Ayu
'Three of my friends will invite Ayu.'

(13) Javanese: OV
**Konco-ku *telu** ate di-ja' ambe' Ayu.
**friend-1S.POSS *3** FUT PASS/3-invite by Ayu
(Intended: 'Ayu will want to invite three of my friends.)

(14) Indonesian: AV
**Kawan-nya *dua** sudah meng-irim-i dia hadiah.
**friend-3.POSS *2** PERF AV-send-APPL 3SG gift
(Intended: 'Two of his friends have sent him gifts.')

(15) Indonesian: OV
**Sepeda-nya *dua** sudah aku per-baik-i.
**bicycle-3.POSS *2** PERF 1SG CAU-good-APPL
(Intended: 'I have fixed two of his bicycles.')

**7. Conclusion.** Javanese pivots are best analyzed as Ā-topics that occupy an Ā-position above the subject, whereas Indonesian pivots show the hallmarks of a genuine subject – as traditionally assumed. Balinese and Acehnese, on the other hand, could be analyzed as lacking a clear A/Ā-distinction synchronically. This new locus of variation indicates that surface-level typological traits, such as basic word order, presence or absence of overt voice morphology, or number of voice distinctions, do not constitute reliable indicators of a language's underlying syntax. This observation from western Austronesian thus reinforces the importance of approaching conventional typological classification with caution.

## Jens Hopperdietzel

### Change-of-state in Daakaka: A type-shifting account

**Overview.** Daakaka (Central Vanuatu, Oceanic) lacks designated causative morphology to derive causative verbs from intransitive stative predicates (Hopperdietzel 2021, 2020). Instead, causative semantics must be expressed by either periphrastic causative constructions or in combination with a manner verb in resultative serial verb constructions (RSVCs). In this talk, I demonstrate that inchoative semantics shows a similar distribution, as it is not introduced by designated morphology but requires the presence of additional eventive material (cf. state/change-of-state lability; Koontz-Garboden 2007). As a result, morphosemantic operations that introduce change-of-state semantic appear to be absent in the language.

**Proposal.** To account for the restricted distribution of change-of-state semantics in Daakaka, I adopt Smith et al's (2013) type-shifting analysis of state/change-of-state lability, according to which change-of-state semantics is introduced at the semantic level to resolve type-mismatches between stative and dynamic predicates in the absence of change-of-state morphology. Applying this analysis also to causative predicates, I sketch out a unified analysis of both phenomena, building on the contextual sensitivity of Voice semantics to the semantic type of the *v*P (Alexiadou & Oikonomou 2022, Wood 2016).

**State/change-of-state lability.** Stative verbs in Daakaka show properties of state/change-of-state lability in that no surface morphophonological distinction is made between stative verbs and their change of state counterparts (1) (von Prince 2015; cf. Krajinovic 2020, Koontz-Garboden 2007). However, in the absence of a rate adverbial like *ma perper* 'quickly' or other material requiring a dynamic event predicate, e.g. the progressive marker *bwe* (3), no change of state meaning is present (1a/2a).

**Categorial restrictions.** Notably, state/change-of-state lability is sensitive to the lexical category of the stative expression (cf. Koontz-Garboden et al. 2023 for a typological overview). Daakaka exhibits two classes of stative lexemes that can be distinguished by the obligatory presence of the copula *i* in predicative contexts (1-2) (von Prince 2015). Like other stative verbs, copula constructions encode inchoative semantics in the presence of a rate adverbial (2b). In nominalizations however, where the copula is disallowed, only verbal (4a) but not adjectival predicates (4b) can express change-of-state semantics.

**Partial vs. full change.** Inchoative expressions are known to vary regarding the type of change involved, i.e. whether they denote a partial or full change-of-state (cf. Bochnak 2023). In Daakaka, the type of change is determined by the properties of the stative *v*P: If the stative *v*P appears in the positive form, the corresponding change is full, i.e. it entails positive semantics (1); if the stative *v*P appears in the comparative, the corresponding change can be partial (5). Therefore, Daakaka inchoatives resemble periphrastic *become*-inchoatives in English, which show a parallel contrast.

**Causative Shift.** To account for the distribution of change-of-state semantics, I adopt a type-shifting analysis of state/change-of-state lability, as proposed by Smith et al. (2023). According to this analysis, such lability arises via a type-shifting operation that applies to stative verbs and returns an event predicate to resolve type-mismatches in the absence of respective morphosemantic processes (6), as illustrated in (7). In particular, the operation closes the state argument and introduces a causative operation between an event and a state (cf. Alexiadou et al. 2006, Kratzer 2005 on CAUSE = BECOME), obeying the monotonicity principle by preserving the properties of the stative verb (cf. Koontz-Garboden 2012). As type-shifting operations are understood to be last resort operations, Causative Shift is not freely available but requires the presence of material that requires a dynamic predicate, e.g. rate adverbials.

**Periphrastic inchoatives.** Although Daakaka lacks morphological inchoatives, it still exhibits periphrastic inchoatives derived by the inchoative verb *me* which can embed either stative verbs or copula constructions (9) (von Prince 2015). While the co-occurrence of Causative Shift and inchoative verbs seems to be unexpected as morphosemantic alternatives should block its application (Chierchia 1998), Smith et al. (2023) argue that periphrastic inchoatives only block type-shifting if they count as structural alternatives (in the sense of Katzir 2007). As the inchoative verb *me* embeds the copula *i*, periphrastic inchoatives are more complex than type-shifted VPs and therefore do not block Causative Shift (8).

**Serializing causatives.** As inchoatives resemble causatives in their requirement of additional eventive material, morphosemantic processes that introduce change-of-state meaning appear to be absent in Daakaka. The distribution of causative semantics is however even more restricted, as it only occurs in the context of agent-introducing means adjuncts in RSVCs (10) (Hopperdietzel 2021). Adopting the view that Voice semantics is subject to contextual allosemy (Alexiadou & Oikonomou 2022, Wood 2016), the introduction of agentive semantics on the external argument-introducing head Voice are conditioned by the properties of the embedded *v*P. Thus, Causative Shift alone may not satisfy the spell-out conditions for agentive Voice but requires additional agentive material, i.e. the means adjunct.

**Examples.**

(1) a. *Adam ma mese.*
Adam REAL be.sick
'Adam is sick.'

b. *Adam ma mese ma perper.*
Adam REAL be.sick REAL be.fast
'Adam got sick quickly.

(2) a. *Adam mw=i tamyes.*
Adam REAL=COP fat
'Adam is fat.'

b. *Adam mw=i tamyes ma perper.*
Adam REAL=COP fat REAL be.fast
'Adam got fat quickly.'

(3) a. *Adam bwe mese.*
Adam PROG be.sick
'Adam is getting sick.'

b. *Adam bwe i tamyes.*
Adam PROG COP fat
'Adam is getting fat.'

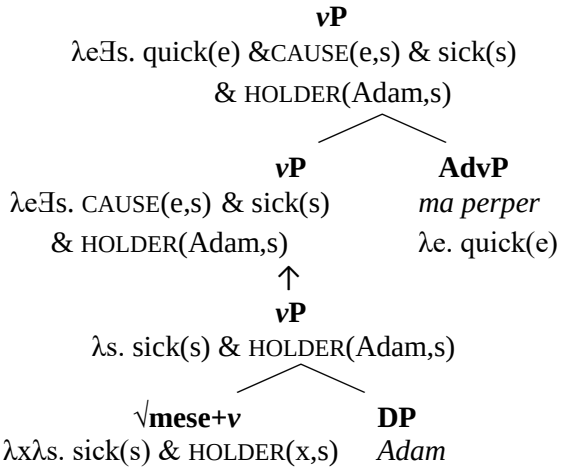
(4) a. *Mese perper an ma sanga.*
be.sick be.fast ART REAL be.bad
'Getting sick quickly is bad.'

b. * *Tamyes perper an ma sanga.*
fat be.fast ART REAL be.fast
Intended: 'Getting fat quickly is bad.'

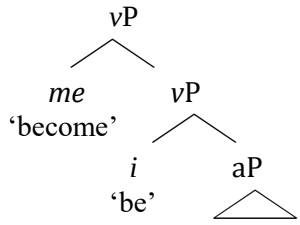
(5) *Adam ma mese perper save Angela.*
Adam REAL be.sick be.fast EXCEED Angela
'Adam got quickly sicker than Angela.'

(6) **CAUSATIVE SHIFT** (Smith et al. 2023)
For a verbal constituent V of type <s,t>, SHIFT(V) = λeƎs. CAUSE(e,s) & V(s)

(7)




(8)




(9) a. *Adam mwe me mese.*
Adam REAL INCH sick
'Adam got sick.'

b. *Adam mwe me i tamyes.*
Adam REAL INCH COP fat
'Adam became fat.'

(10) *Bong ma *(ta) mwelili-ane lee.*
Bong REAL cut be.small-TR tree
'Bong made the tree small *(by cutting)'

b. * *Adam ma mwelili-ane lee ma perper.*
Adam REAL be.small-TR tree REAL be.fast
Intended: 'Adam made the tree quickly small.'

(11) Voice ↔ λeλx. AGENT(x,e) / __ (agentive *v*P)
↔ λeλx. HOLDER(x,e) / __ (stative *v*P)
↔ $\lambda P_{<s,t>}$. P / __ elsewhere (Wood 2016: 18)

**References.** Alexiadou & Oikonomou. 2022. Voice syncretism cross-linguistically. *Philosophies* 7, 19. • Chierchia. 1998. Reference to kinds across languages. *Natural Language Semantics* 6, 339-405. • Hopperdietzel. 2021. A manner condition on causatives. *Proceedings of SuB25*, 412-429. • Katzir. 2007. Structurally-defined alternatives. *Linguistics & Philosophy* 30, 669-690. • Koontz-Garboden. 2007. Aspectual coercion and the typology of change-of-state predicates. *Journal of Linguistics* 43(1), 115-152. • Koontz-Garboden,. et al. 2023. Verbhood and state/change-of-state lability across languages. Ms. • Smith, et al. 2023. From state to change of state by type-shift. Paper presented at CLS59. • von Prince. 2015. *A grammar of Daakaka*. de Gruyter Mouton. • Wood. 2016. How roots do and don't constrain the interpretation of Voice. *Working Papers in Scandinavian Syntax* 96, 1-25.

**David Medeiros**

**Embedded Imperatives in Hawaiian**

This paper is concerned with imperative-marked clauses in Hawaiian (Eastern Polynesian), which are allowed in both main-clause and embedded contexts. After providing a description of imperatives in this language, I situate the analysis into the growing literature on the licensing conditions for embedded imperatives. According to Medeiros (2015), free embedding of imperative clauses is allowed only in languages with rich imperative inflection. Following Massam's (2020) analysis of the related language Niuean, I argue that there is no IP domain in this language, such that this selection condition cannot apply; with no restriction in place, imperative clauses have the same distribution as finite clauses.

Hawaiian is a VSO language which expresses TAM distinctions via preverbal particles. According to Elbert & Pukui's (1979) standard reference grammar (EP henceforth), the preverbal particle *e* is an 'imperative/intentive' marker, such that $2^{nd}$ person imperatives are "a direct command," with a tendency to express the subject (though not always, as Hawaiian is a pro-drop language more generally). The same grammatical particle has a use which EP label 'intentive' when used with the first and third persons; according to Aikhenvald (2010), intention and request for permission are common readings of $1^{st}$ and $3^{rd}$ person imperatives for those languages that have them.

(2) illustrates main clause examples (unless otherwise labelled, Hawaiian examples and translations are drawn from EP, with glosses provided by the author.) Strong evidence that *e* should be treated on a par with imperative morphology in more extensively-studied languages comes from the fact that a separate preverbal particle, *mai*, is required for imperatives with sentential negation (3), parallel to restrictions on imperative negations found in many Indo-European languages (see e.g. Zanuttini 1994 and Rivero & Terzi 1995).[1]

Clauses introduced by imperative *e* have the same distribution as the finite clauses in (4). EP discuss the lengthy example (1), illustrating two instances of embedded *e* (boldfaced); EP comment that this "is an example of mid-utterance *e (verb) ai*, with *e* the imperative/intentive." Given their focus on translation, EP note that *e* is translated by 'would' and 'should,' respectively.

Under the analysis of imperatives in Kaufmann (2012), main clause imperatives have two elements: i) a modal element which accounts for the range of imperative interpretation (command, request, ect.), and ii) a presuppositional element which encodes directive force. The variable modal readings of embedded imperatives as in (1) would be expected if the modal element and force element were separate, with ForceP absent in embedded clauses (see also Oikonomou 2022). To conclude the description of Hawaiian, (5) and (6) illustrate embedded 1p and 3p imperatives, respectively (the main-clause subject in (6) is an omitted expletive; translations reflect constraints against free embedding of imperatives in English).

Kaufmman (2014) and Kaufmann & Stegovec (2015) develop a typology of embedded imperatives. According to this typology, Hawaiian would be be in the least restricted category, because i) imperatives are allowed in relative clauses, and ii) the main clause and embedded imperative subject may differ (both properties exemplified in (1)). Medeiros (2015) argues that only languages with 'rich' (1p and/or 3p in addition to 2p) imperative paradigms allow this type of embedding.

However, this selection-based model does not apply for Hawaiian; according to Massam (2020), because languages like Hawaiian have no inflectional verbal morphology in any tense/mood, IP & TP are eliminated from the clausal architecture, with case marking dependent on properties of $v/vP$. In absence of TP, imperatives should i) not have person restrictions, and ii) embed freely, both of which apply to Hawaiian. At the same time, I adopt a more articulated view of the left-periphery of imperatives as compared to Kaufamnn (2012) and Medeiros (2015), such that Kaufmann's directive force is situated in ForceP (restricted to main clauses) with the modal element in a (high) ModalP. Under this view, selection conditions on imperative clauses for languages with inflection are still in force: rich imperative inflection licenses embedding (via case-marking). However, selectional conditions do not apply for languages that entirely lack inflection, resulting in the typology in (7), which informs broader debates about inflection, defectivity, and the distribution of non-finite clauses.

[1] Note that *mai* is homophonous with a common directional particle.

(1) Lilo ia hala no Paiʻea [**e make ai** iā ʻUmi i ka wā [**e puni ai** ʻo
become it fault of Paiʻea IMP kill RESPRO by ʻUmi at the time IMP conquer RESPRO SUBJ
Hawaiʻi iā ʻUmi.]]
Hawaiʻi by ʻUmi.
'This became a fault for Paiʻea for which ʻUmi would kill him when ʻUmi should have conquered Hawaiʻi.'

(2) a. E hele ʻoe!
IMP go you
'Go!/You should (must, ought to) go!'

b. E hana pono.
IMP work honestly
'Be honest.' (lit. work honestly)

c. E lilo ʻoe i kumu.
IMP become you PREP teacher
'Become a teacher'

(3) a. Mai uwē ʻoe.
IMP cry you
'Don't cry.'

b. Mai lilo ʻoe i ʻaihue.
IMP become you PREP thief
'Don't become a thief.'

c. Mai hoʻopā ʻoe i ka lāʻau pālau.
IMP touch you PREP the wooden club
'Don't touch the club.'

(4) Ua noʻonoʻo ʻo Kekoa [ke ʻai poi nei ʻo Noelani]
SC think SUBJ Kekoa [PRES eat poi DIR SUBJ Noelani
'Kekoa thought that Noelani is eating poi.' (Medeiros 2013)

(5) Makemake au [e hele.]
want I IMP go
'I want to go.'

(6) e pono [e make lāua i ka wana'ao.]
IMP must IMP die they PREP the dawn
'they must die at dawn' (Hawkins 1979)

(7) a. Imperative typology with respect to overt verbal inflection
b. Inflected language & imperative paradigm is richly inflected: free embedding allowed
c. Inflected language & imperative paradigm is poorly inflected: free embedding not allowed
d. Language has no inflection (in any tense/mood): free embedding allowed

**Selected References:**

Elbert, Samuel, and Mary K. Pukui (1979). *Hawaiian Grammar*. University of Hawaiʻi Press: Honolulu.

Kaufmann, Magdalena (2012). *Interpreting Imperatives*. Springer: Dordrecht.

Massam, Diane (2020). *Niuean: Predicates and Arguments in an Isolating Language*. Oxford University Press: Oxford.

Medeiros, David J. (2015). Embedded Ancient Greek Imperatives: A Feature Transfer Analysis. *Syntax*, 18 (2), 124–156.

**Matthew Maddox**

# From subject marker to personal article: Hawaiian *'o* and its Polynesian cognates

**Introduction:** The pre-nominal Hawaiian particle *'o* is often labelled by grammarians as a subject marker because it frequently precedes subject pronouns (1) and subject NPs (2). However, this is not its only function. This Hawaiian Subject Marker (HSM) has two main functions per Elbert & Pukui (1979): a) to introduce the first NP in equational sentences; b) to precede nouns in apposition (3). Cook (2002) observes a "tendency" for HSM to occur with proper nouns (4) but not with common nouns (5); HSM can also occur with locative nouns (6). Carter (1996) and Cook (2002) consider HSM either a copular verb, a determiner, or a preposition, but do not present a formal analysis. In this study, I compare the HSM *'o* with its Niuean and Māori cognate *ko*. Massam et al (2006) give a unified analysis of Niuean *ko* as an expletive preposition in all contexts, but I propose, given the differences in distribution, that there are two distinct HSM elements. One is a preposition heading phrases in the left-periphery; the other is a determiner on par with the so-called personal article that exists in Niuean and Māori.

**Niuean *ko*:** Massam et al (2006) identify nine contexts for *ko*: focus structures (7), topicalization, predicate nominals, equatives, apposition (8), wh-questions/isolation (9), aspectual *ko*, and double *ko* constructions. Massam et al (2006) account for these constructions by assuming *ko* to be an expletive preposition that marks a nominal as a non-argument. On their analysis, *ko* is sister to a copular light verb, $v_{BE}$. Niuean basic word order is VSO derived by *v*P moving to Spec,T or Spec,Pred and the subject remaining in situ. *Ko* also moves as sister to *v*, resulting in its sentence initial position. When *ko* occurs with focused phrases, it still moves to Spec,Pred but then again to Spec,Foc. For predicate nominal *ko*, *v*P moves to Spec,Pred and the subject is an absolutive Kase Phrase in situ. In topicalization constructions, *ko* heads the a phrase base-generated in Spec,Top.

**Hawaiian *'o*:** Though their distribution is not identical, HSM does occur in some of the same constructions as Niuean *ko*; i.e., focus (10), topicalization, equatives (11), isolation (12), apposition (13), and wh-questions (14). Example (15) below may be similar to Niuean double *ko* where the particle precedes a pronoun and then an NP and the reading is equative. Crucially, HSM can occur with arguments in transitive clauses as in (1) and (2) above, while *ko* always accompanies non-arguments (Massam et al 2006). Another difference is a coordinating use as in (16) below where there are two occurrences of *'o* + NP separated by the third-person dual pronoun *lāua*.

**Analysis**: While the Massam et al (2006) analysis might be extended to HSM in topicalization, focus, equative, and other A'-position contexts, it cannot account for *'o* + NP in argument position, as in (1), (2) and (6), on the assumption that it is an expletive preposition that accompanies non-arguments. Thus, a unified analysis for HSM is not possible. Rather, I posit two distinct elements, each one realized phonetically as *'o*. The first is an expletive preposition parallel to Niuean *ko*. Per Massam et al (2006), it merges as sister to $v_{BE}$ and is then subject to movement leftward resulting in VSO order, or topicalization and wh-question structures. The other type of *'o* is a personal article that marks nominal arguments, as in Māori, which also has *ko* and a personal article *a* (17). One might analyze Māori *a* as a nominative case marker but (17b) clearly shows it to be associated with a direct object and thus nominative case is not necessarily implicated. Why does Hawaiian have one form *'o* for the contexts where Māori has two, *ko* and *a*? I propose that in Old Hawaiian there was a personal or proper article cognate with Māori *a* but it was lost. *'O* was reanalyzed as the personal article. This is supported by indirect evidence. First, a personal article **a* has been reconstructed for Proto-Polynesian per Clark (1976). Second, other Polynesian languages still have personal articles, including Māori (17), but Niuean as well, as in (18). Additionally, the Hawaiian object marker *i* becomes *iā* before pronouns (19a) and proper nouns (19b). This *ā* may be a remnant of the original personal article cognate with the Māori and Niuean personal article *a*.

The Māori personal article precedes pronouns after the object marker (20) and can cooccur with *ko* as in (21). The inventory of Māori articles is nearly identical to that of Hawaiian except for the putative personal article, **a*. Given the comparative evidence from Māori and Niuean, we may conclude that at some earlier stage, Hawaiian lost the personal article and replaced it with the subject marker. This raises the question: why would the subject marker replace the personal article rather than some other particle? First, because sentential subjects are often also the topic or focus, which would already be marked by *'o*. Second, there would occur frequent strings of HSM plus personal article plus noun: [*'o* **a* + N]. This juxtaposition of HSM with proper nouns would encourage reanalysis of it as the de facto personal article. When HSM occurs before nouns in an argument position, it is a personal article, a D-head. In A'-positions, *'o* is an expletive preposition like Niuean *ko*.

(1) Ua ai mua 'o ia ma ka hale.
PERF eat already 'o he at the house
'He ate at home already.' (Hopkins 1992:125)

(2) Ho'omākaukau 'o Pāpā i ka palaoa palai...
prepare 'o Papa OBJ the bread fry
'Papa prepares pancakes...' (Hopkins 1992:38)

(3) ka hale o ke ali'i 'o 'Umi.
the house of the chief 'o 'Umi
'the house of the chief, 'Umi.' (E&P 1979:151)

(4) Nani 'o Moloka'i.
beautiful 'o Moloka'i
'Moloka'i is beautiful.' (Cook 2002:96)

(5) Kuke ke wahine i ka mea 'ai.
cook the woman OBJ the thing eat
'The woman cooks the food.' (Cook 2002:93)

(6) Uwā 'o uka.
shout 'o inland
'Those inland shouted.' (Cook 2002:98)

(7) Ko e tama fifine fulufuluola ne lagomatai e ia.
ko C child girl beautiful Nfut help ErgC 3PS
'It is the beautiful girl that he helped.'

(8) he ha laua a matua ko Tihamau.
LocC GenP they Lig father ko Tihamau
'to their father, Tihamau.'

(9) a. Ko hai ne pā e gutuhala?
ko who Nfut shut AbsC door
'Who shut he door?'

(9) b. Ko Daisy.
ko Daisy
'Daisy.'

(10) 'O ke ali'i ka mea i 'oki i ke kaula.
'o the chief the thing PERF cut OBJ the string
'It was the chief who cut the string.' (Hawkins 1975:64)

(11) 'O ka hale-kula kēlā.
'o the school that
'That is the school.' (Hopkins 1992: 13)

(12). a. A he aha ka nui o kou kāma'a?
and a what the size of your shoe
'What is your shoe size?'

(12) b. 'O ka helu 'umi.
'o the number ten
'Size ten.' (Hopkins 1992:91)

(13) ka hale o ke ali'i 'o 'Umi.
the house of the chief 'o 'Umi
'the house of the chief, 'Umi.' (E&P 1979:151)

(14) 'O wai kou inoa?
'o what your name
'What is your name?'

(15) 'O wau nō 'o Para'o.
'o I INT 'o pharoah
'I am Pharoah.' (Genesis 41:44)

(16) 'O ke kumu lāua 'o Kalau
'o the teacher they-two 'o Kalau
'The teacher and Kalau.' (Hopkins 1992:34)

(17) a. Kāhore **a** Hōne i patu i te poaka. (Chung 1978:142, cited in Pearce 2021:218)
NEG PERS Hōne TAM kill OBJ the pig
'Hōne didn't kill the pig.'

b. Kua kore te ika e ngau i **a** Hōne. (Hohepa 1969b:22, cited in Pearce 2021:246)
TAM NEG the fish TAM bite OBJ PERS Hōne
'The fish doesn't bite Hōne.'

(18) Hāhā he tau motu he Pasifika e tau tala kehekehe ki **a** Maui.
LOC in PL island GEN Pacific AbsC PL tale various GOAL PERS Maui
'Throughout the Pacific Islands there were various legends of Maui.' (Massam et al 2006:7)

(19) a. E hō'au'au aku au **iā** ia.
IMPERF bathe DIR I OBJ him
'I'll bathe him.' (Hopkins 1992:142)

(19) b. Ua 'ike 'o ia **iā** Maui.
PERF see 'o he OBJ Maui
'He saw Maui.' (Hawkins 1982:56)

(20) I kite ahau i **a** ia.
TAM see I OBJ PERS him
'I saw him.'

(21) **Ko** Ponga, i noho hāngū tonu mai anō hoki **a** ia...
ko Ponga TAM stay silent CONT hither again also PERS 3S
'As for Ponga, he had also remained silent...' (Bauer 1997)

**Select References:** Clark, Ross. 1976. *Aspects of Proto-Polynesian*. Auckland: Linguistic Society of New Zealand. Cook, K.W. 2002. The case markings of Hawaiian locative nouns and placenames. In Giovanni Bennardo (ed.), *Representing space in Oceania: Culture in language and mind*, 91-104. Canberra: Pacific Linguistics. Elbert, S.H. & Mary Kawena Pukui. 1979. *Hawaiian Grammar*. Honolulu: University of Hawaii Press. Hopkins, Alberta Pualani. 1992. *Ka lei ha'aheo: Beginning Hawaiian*. Honolulu: University of Hawaii Press. Massam, Diane, Josephine Lee & Nicholas Rolle. 2006. Still a preposition: The category of ko. *Te Reo* 49:3-37. Pearce, Elizabeth. 2021. Preverbal subjects and preverbal particles: Components of the left periphery in Māori. In Lauren Clemens & Diane Massam (eds.), *Polynesian syntax and its interfaces*, 216-252. Oxford:UP.

# SUNDAY, 22 OCTOBER 2023

09:00 – 09:45 **Luané Lennox, Victoria Chen, & Eric Potsdam**
*The Javanese free exceptive and its implication for ellipsis constraints in Austronesian*

09:45 – 10:15 **Saurov Syed, Catherine Lee, & Magdalena Covarrubias**
***ONLINE*** *Phrasal movement in the Rapa Nui DP*

10:15 – 10:30 COFFEE BREAK

10:30 – 11:00 **Rebecca Woods, Jozina Vander Klok, & Johannes Heim**
*Javanese discourse particles: Interlocutor perspective is in the syntax,* kok!

11:00 – 11:30 **Hero Patrianto & Victoria Chen**
*Crossed control as an illusion: Insights from Javanese*

11:30 – 11:45 BREAK

11:45 – 12:15 **Jozina Vander Klok**
*Accounting for two types of extraction asymmetries in Javanese applicatives*

12:15 – 12:45 **Jian Cui & Jack Isaac Rabinovitch**
***ONLINE*** *Indices in the voice domain: A unified analysis of Javanese passives*

12:45 – 14:15 LUNCH (H135A)

14:15 – 14:45 **Henrison Hsieh & Michael Yoshitaka Erlewine**
*Interpreting clitic adverb combinations in Tagalog*

14:45 – 15:15 **Benjamin Macaulay**
*Breaking the cycle: Two pathways for clitics in Formosan*

15:15 – 15:30 COFFEE BREAK

15:30 – 16:00 **Anastasia Tsilia**
***ONLINE*** *Dispositional 'will' is 'want' in Colloquial Jakarta Indonesian*

16:00 – 16:30 **Wenjiu Du**
*The syntax of* bagi *'give' constructions in colloquial Malay: In favor of a generalized ditransitive analysis*

16:30 – 17:00 **Victor Bogren Svensson & Johan Blomberg**
*Takitiduh Bunun and motion typology*

Online and hybrid presentations:
https://tinyurl.com/afla30

**Luané Lennox, Victoria Chen, & Eric Potsdam**

## Javanese free exceptives and their implication for Javanese voice

**1. Introduction.** Much recent work has argued that English free exceptives such as (1) are essentially reduced clauses (e.g., Potsdam & Polinsky 2019; Vostrikova 2019, 2021).

(1) Nobody left **except Mary** [~~left~~].

In this paper, we argue for the same analysis for Javanese, a Malayo-Polynesian language with a typical Indonesian-type voice system. Javanese uses *kecuali* as an exceptive marker for **free exceptives** (2).

(2) Ben are' ngguyu wingi **kecuali Hasan**.
every youngster AV.laugh yesterday **except Hasan**
'Every boy laughed yesterday except Hasan.'

Drawing on primary fieldwork on East Javanese, we demonstrate that Javanese free exceptives such as *kecuali Joko* 'except Joko' in (2) are essentially elided clauses, as in (3).

(3) Kabeh are' cili' iku nangis, **kecuali Hasan** ~~sing~~ ~~gak~~ ~~nangis~~.
all youngster little DEM AV.cry **except Hasan** ~~SING~~ ~~NEG~~ ~~AV.cry~~
'All the children are crying, except Hasan ~~is one who is not crying~~.'

We then highlight an understudied asymmetry in ellipsis constraints between English and Austronesian. In English, voice mismatch in exceptives or sluicing yields ungrammaticality (4) (Merchant 2013).

(4) a. *Everyone helped.$_{\text{ACT}}$ me except ~~(I was not helped$_{\text{PASS}}$)~~ by Mary.
b. *I was helped.$_{\text{PASS}}$ by everyone except Mary ~~(did not help.$_{\text{ACT}}$ me)~~.

Voice mismatch in Javanese exceptives, however, are grammatical. Javanese possesses a three-way voice system consisting of the actor voice (AV), the object voice (OV), and the so-called passive. As (5) shows, ellipsis of a passive (*di*-marked) clausal exceptive may co-occur with an AV-marked main clause, demonstrating the lack of constraint on voice mismatch, contra (4a–b).

(5) Are'-are' iku **ny**olong kabeh permen-e **kecuali permen kojek** ~~sing~~ ~~gak~~ ~~**di**-colong~~.
child-RED DEM **AV**.steal all sweet-DEF **except sweet lollipop** ~~SING~~ ~~NEG~~ ~~**PASS**-steal~~
'The children stole all the sweets except lollipops ~~weren't stolen (by the children)~~.'

We discuss how the absence of this constraint demonstrates that Javanese passives and Javanese voice, in general, cannot be analyzed the same way as English passives and English voice, which has remained a point of contention in the literature.

**2. Evidence for Javanese phrasal free exceptives as clausal.** Support for Javanese's free exceptives as underlyingly clausal comes from new data on (i) ambiguity in slucing and (ii) island sensitivity.

**(i) Ambiguity in sluicing:** Following Stockwell & Wong (2020) and an earlier insight from Merchant (2001), we assume that ambiguity in sluicing constitutes evidence for the presence of a reduced exceptive structure. This is borne out in (6a–b), where the sluiced clause but I dont know why can take as its antecedent the whole main clause, (6a), or the clause that has been elided in the exceptive, (6b). The second meaning shows that there is a clause available in the exceptive phrase.

(6) Jaja-ne **di**-pangan ambe' de'e, kecuali kismis tapi aku gak ngerti opo'o
snack-DEF **PASS**-eat by 3SG, except raisins but 1SG NEG know why
'The snacks were eaten by him, except raisins, but I don't know why.'
a. ... but I don't know why **<all the snacks except the raisins** were eaten by him> (phrasal)
b. ... but I don't know why **<the raisins** weren't eaten by him> (clausal)

**(ii) Island sensitivity:** Elided clausal exceptives have been shown to be island-sensitive (Reinhardt 1991; Potsdam 2019), unlike regular sluicing. Island sensitivity is attested with Javanese's free exceptives, illustrated below with adjunct islands (7)–(8) – while the exceptive phrase 'that boy' may be interpreted as a connected exceptive ('everyone except that boy') inside the adjunct island (7), it cannot surface as a free exceptive outside the adjunct island ('because I slapped everyone') (8).

(7) Bapa'-ku mangkel [soale sopo ae ta'**=tapu'** kecuali are' iku].
father-1POSS angry [because who AE 1SG**=OV**.slap except youngster DEM yesterday].
'My father was angry [ because I slapped everyone except that boy yesterday ].'
No clausal interpretation: 'My father was angry because I slapped everyone except [my father was not angry that I slapped that boy].

(8) #Bapa'-ku mangkel [ soale sopo ae ta'=**tapu'** wingi ] kecuali are' iku.
father-1POSS angry [ because who AE 1SG=**OV**.slap yesterday ] except youngster DEM
(intended: 'My father was angry because I slapped everyone yesterday except [my father was not angry that I slapped that boy].')

**3. Clausal exceptives as pseudo-clefts.** The missing clause in an exceptive must be a pseudo-cleft structure, as shown by examples in which the missing clause is spelled out (compare (3) with (9)):

(9) *Kabeh are' cili' iku nangis **kecuali** Hasan gak nangis.
all youngster little DEM AV.cry **except** Hasan NEG AV.cry
(Ungrammatical with intended meaning:) 'All the children cried except Hasan did not cry.'

Because pseudo-clefts involve A' movement and Javanese A' movement is subject to a pivot-only restriction, the exception must correspond to the pivot of the missing exceptive clause, as seen in (3) and (5) with 'Hasan' and 'lollipop', respectively (see Potsdam 2007, 2018 for this claim in Malagasy). Consequently, this leads to voice mismatch when the associate in the main clause is a non-pivot argument.

**3. Voice mismatch in Javanese exceptives.** Contra English and German (Merchant 2013), Javanese allows voice mismatch in ellipsis. As long as an exception is identified with the pivot of the presupposed clause, ellipsis is possible even with mismatch between the voice type of the main clause and that of the presupposed clause (10). Like the exceptives, sluicing in Javanese also allows voice mismatch (11).

(10) Kopi-ne **di**-ombe are'-are' kecuali Hasan (~~sing~~ ~~ngombe~~ ~~kopi-ne~~).
coffee-DEF [**PASS**]-drink child-RED except Hasan (SING AV.drink coffee-DEF)
'The coffee was drunk by the youngsters except Hasan ~~(is one who did not drink the coffee)~~.'

(11) Apel-e Hero **di**-pangan (ambe' wong) tapi de'e gak n-delo' sopo ~~**m**angan~~ ~~apel-e~~
apple-3.POSS Hero [**PASS**]-eat by person but 3SG NEG [AV]-see who ~~AV.eat~~ ~~apple-DEF~~
'Hero's apple was eaten (by someone) but he didn't see who ~~ate it~~.'

This observation yields two important implications. **First**, the *di*-construction in Javanese (10)–(11) would be structurally different from the English passive, which cannot license ellipsis under voice mismatch (4a–b). This follows from recent reanalyses of the *di*-construction (Patrianto & Chen 2023) and similar constructions in Balinese and Besehma (McDonnell 2016; Nomoto 2019). **Second**, Javanese voice would be more similar to Philippine-style voices, such as that of Malagasy (12) (Potsdam 2007 et seq.) and Tagalog (primary data), both allowing voice mismatch in exceptives (12) and sluicing (13).

(12) Mihinana ny voankazo rehetra Rasoa, **afa-tsy** ny akondro ~~no~~ ~~**hanin**~~ ~~dRasoa~~.
eat.[**AV**] DET fruit all Rasoa, **except** DET banana FOC eat.[**PV**] Rasoa
'Rasoa eats all fruits except bananas ~~(are not eaten by Rasoa)~~.' (Malagasy)

(13) Nandoko zavatra i Bao fa hadinoko hoe inona ~~no~~ ~~nolokoin'~~ ~~i Bao~~.
paint.[**AV**] thing Bao but forget.PV.1SG COMP what PRT paint.[**PV**] Bao
'Bao painted something but I forget what ~~(was painted by Bao)~~.' (Malagasy)

**Conclusion.** The possibility of voice mismatch in Javanese exceptives thus suggests that Javanese voice may be more similar to Philippine-type voice, where voice alternation has been argued to have no correlation with argument structure alternation (Rackowski 2002; Pearson 2005; Chen 2017), contra English voice (4). Given the ongoing debate on whether Indonesian-type passives are more similar to English-type or Philippine-type patient voice (Legate 2014; Nomoto 2019; Patrianto & Chen 2022), the exceptive provides an argument for the latter.

**Selected References.** •Merchant, J. 2001. *The syntax of silence.* Oxford: OUP. •Merchant, J. 2013. Voice and ellipsis. *Linguistic Inquiry 44*(1), 77-108. •Patrianto, H., & Chen, V. 2022. Two sides to the same coin: Reappraising Indonesian-type passive and object voice in Javanese. *AFLA 29*, 59–74. •Potsdam, E. 2018. In S. Hucklebridge and M. Nelson (eds.), *NELS 48*(1), 259–268. Amherst, Ma.: GLSA. •Potsdam, E. 2019. Exceptives: An under-appreciated ellipsis construction. In E. Ronai, L. Stigliano & Y. Sun (eds.). *CLS54,* 435-450. •Potsdam, E. & Polinsky, M. 2019. Clausal and phrasal exceptives. *GLOW 42*.

**Saurov Syed, Catherine Lee, & Magdalena Covarrubias**

## Phrasal movement in Rapa Nui DP

Rapa Nui is an endangered language spoken on Easter Island (Rapa Nui/Isla de Pascua), and is severely understudied. There are only several descriptions of the language (Du Feu 1987, 1996; Kieviet 2017a,b), and no formal accounts exist. This paper explores patterns within the nominal domain of Rapa Nui, and argues that the varying orders of quantifiers with respect to other elements like noun, determiners, adjectives, and plural markers are evidence of phrasal movement inside the Rapa Nui DP. We present a formal analysis of the nominal structure involving such elements in Rapa Nui, and derive the attested patterns in terms of phrasal movements. Such an account contributes to our understanding of the nominal structure in an endangered language, as well as provides an window to cross-linguistic variation.

**Patterns**: A quantifier (Q) can precede as well as follow the noun (N). When Q precedes the N, it generates the order: **Q N**. If a plural marking (PL) is present, it is always pre-nominal. In the Q N order, it is possible to mark the noun with plural, generating the order: **Q PL N**. Adjectives (A) are always post-nominal, and in the presence of a quantifier generates the order: **Q N A**. When the determiner 'te' is present, with respect to the prenominal Q, we get the orders: **Det Q N** and **Det Q PL N**. In addition to these pre-nominal occurences, Q can also occur post-nominally. In presence of the determiner 'te', we see patterns such as: **Det N Q** and **Det PL N Q**.

**Analysis**: Following Cinque (2000) and Pearce (2005) for Maori, we argue that the Rapa Nui patterns can be accounted for in terms of phrasal movement of the NP. Our specific proposals are as follows. We argue that adjectives are always post-nominal because the NP moves to the higher than the adjective. The technical implementation of this is along the lines Pearce (2005) who follows Cinque (2000), Kayne (1994), Koopman and Szabolsci (2000) and Shlonsky (2000). The main idea is that there is an X-head that hosts AdjP in its specifier, and this X takes NP as its complement. The head X raises to create a new projection WP that provides a landing site for the NP-movement. This derives the order **N Adj**.

(1) $[_{WP}\ [_{NP}\ N]\ W\ [_{XP}\ [_{AdjP}\ ADJ]\ X\ [_{\sout{NP}}\ \sout{N}]]]$

We also argue that the Plural marker in Rapa Nui is a pro-clitic, which is cliticized to the N. The PL is thus part of the NP, and undergoes movement with the NP. This derives the order **PL N Adj**.

(2) $[_{WP}\ [_{NP}\ PL\ N]\ W\ [_{XP}\ [_{AdjP}\ ADJ]\ X\ [_{\sout{NP}}\ \sout{PL\ N}]]]$ **Surface order**: PL N ADJ

The Q is merged as the head of QP, and the determiner 'te' is merged as the head of DP. The structure that is generated gives the order DET Q N, DET Q N A (when an adjective is present), DET Q PL N (when an adjective as well as a plural marker is present). A representative illustration is given below.

(3) $[_{DP}\ te\ [_{QP}\ Q\ [_{WP}\ [_{NP}\ PL\ N]\ W\ [_{XP}\ [_{AdjP}\ ADJ]\ X\ [_{\sout{NP}}\ \sout{PL\ N}]]]]]$ **Surface order**: DET Q PL N ADJ

Given that this is phrasal movement of NP, the question arises if Rapa Nui also allows for *iterative phrasal movement* of the NP as argued for another Polynesian language Māori (see Pearce 2005). We argue that it does, and it is this *iterative phrasal movement* that derives the postnominal occurence of Q. More specifically, we argue that the NP undergoes further phrasal movement to SpecQP, as illustrated below in (4)-(6). In (4), an ADJ as well as PL are present, while in (5), there is no PL and in (6) there is no ADJ. We found occurences of (5) and (6), showing our analysis is on the right track. We also predict (4) to be attested, and currently awaiting to confirm it with speakers.

(4) $[_{DP}\ te\ [_{QP}\ [_{NP}\ PL\ N]\ Q\ [_{WP}\ \sout{[_{NP}\ PL\ N]}\ W\ [_{XP}\ [_{AdjP}\ ADJ]\ X\ [_{\sout{NP}}\ \sout{PL\ N}]]]]]$ **Surface order**: DET PL N ADJ Q

(5) $[_{DP}\ te\ [_{QP}\ [_{NP}\ N]\ Q\ [_{WP}\ \sout{[_{NP}\ N]}\ W\ [_{XP}\ [_{AdjP}\ ADJ]\ X\ [_{\sout{NP}}\ \sout{N}]]]]]$ **Surface order**: DET N ADJ Q

(6) $[_{DP}\ te\ [_{QP}\ [_{NP}\ PL\ N]\ Q\ [_{WP}\ \sout{[_{NP}\ PL\ N]}]]]$ **Surface order**: DET PL N Q

**Data**

**Q N**

tētahi kona
some place
'some place'

**Q PL N**

Kē ngā poki
Different PL child
'different children'

**Q N A**

pura kahu teatea
only clothes white
'only white clothes'

**Te Q N**

te ta'ato'a henua
Det all land
'all the land'

**Det Q PL N**

te ta'ato'a ngā poki
DET all PL child
'all the children'

**Te N Q**

Te nūna'a ta'ato'a
Det group all
'all the people'

**Te PL N Q**

te ngā poki ta'ato'a
DET PL child all
'all the children'

**Javanese discourse particles: interlocutor perspective is in the syntax, *kok*!**

**Rebecca Woods, Jozina Vander Klok, & Johannes Heim**

**Introduction:** *Kok* is a Javanese discourse particle used across all speech levels, in mixed Javanese-Indonesian utterances (Errington 1998: 40) and borrowed into Indonesian (Karaj 2021). It may occur utterance-initially, -medially or -finally [exs 1-3] in declaratives, interrogatives and imperatives, as well as fragment utterances [ex. 4] (cf. Wedhawati et al. 2006). *Kok* contributes the speaker's perspective to the utterance in two different ways depending on its position in the clause. Initial and medial *kok* "express[es] surprise toward an unexpected circumstance" (Widhyasmaramurti 2008: 55). In contrast, final *kok* "emphasizes a speaker's […] concern that [a state of affair's] truth or relevance be recognized by the addressee" (Errington 1998: 102) or "remind[s] the hearer of [something] they should know" (SEAlang Library). Though these descriptive facts have been covered in the works cited above (also Krauße 2017), a formal analysis of the syntax and pragmatics of *kok* is yet to be attempted.

**Proposal:** In this paper, we propose that *kok* is a single discourse particle whose interpretation is modulated by syntactic and pragmatic operations. We analyse *kok* as a head (see Haegeman 2014) merged in a high discourse related position in the left periphery. We assume the following syntax for the left periphery, which builds on work by Hill (2007a,b), Krifka (2015, 2021) and Woods (2021), i.a.:

(1) [SpeechAct Phrase [PerspectiveP [CP [TP … ]]]]

We propose that *kok* is merged in PerspectiveP, which hosts material conveying the attitude of some relevant interlocutor. In contrast, SpeechActP hosts material that restricts possible continuations of the discourse. This predicts that some discourse particles in Javanese/Indonesian can appear to the left of *kok*, i.e. merged in SpeechAct Phrase, which is the case, e.g. Indonesian *lha* and Javanese *lho* [ex.5]. Where *lha/lho* relate to/comment on previous/future utterances in the discourse, looking outside the utterance (justifying their position in a discourse-focused SpeechAct Phrase), *kok* comments on the propositional content of the utterance in which it is found. However, in PerspectiveP, *kok* is syntactically above such propositional content, hence it is not truth-evaluable and cannot be embedded [ex.6]. In the case of initial-*kok*, the structure is linearised and pronounced as in (2, cf. [1]).

(2) [$_{SAP}$ [$_{PerspP}$ [*kok*] [$_{CP}$ ibumu kok-terake mulih maneh]]]

Medial-*kok* contributes the same meaning as initial-*kok,* but some element of the propositional content is focused as a particular source of surprise, i.e. is subject to narrow focus. This element is fronted over *kok*, we assume to a high Focus phrase, resulting in the structure in (3, cf. [2]). Note that both initial and medial *kok* initiate rise-fall contours associated with focus (Wedhawati et al 2006: 405):

(3) [$_{SAP}$ [$_{FocusP}$ iki [$_{PerspP}$ [*kok*] [$_{CP}$ ~~iki~~ larang]]]]

In the case of final *kok*, we propose that a slifting (e.g. Ross 1973) operation takes place where the entire CP is fronted over the discourse particle. Anti-locality is not violated as vocatives follow final *kok* [ex. 7], which we assume are hosted in a functional phrase that may be active even if the vocative is not pronounced (cf. Haegeman 2014 on clause-final discourse particles in West Flemish). Independent support for this movement also is suggested by the fact that sentence-final *kok* is a separate Intonational Phrase preceded by falling intonation (Wedhawati et al. 2006: 406).

(4) [$_{SAP}$ [$_{FocusP}$ kuwi piyé [$_{PerspP}$ [*kok*] [$_{VocP}$ bu [$_{CP}$ ~~kuwi piyé~~]]]]]

Why, though, should *kok* receive a different interpretation in (2-3) compared with (4)? We propose that the (informal) core meaning of *kok* is that it is surprising in this discourse context that, of all the possible alternatives in the world of the discourse, the proposition expressed in CP should be the case. Note that this means that *kok* can be interpreted as surprising to any or all participants; the latter reading obtains in [ex.8]. Taking inspiration from work on English slifting (e.g. Simons 2007, Haddican et al 2014) we claim that when *kok* precedes or intervenes in the proposition, the speaker commits to its core meaning, but when *kok* follows the proposition, speaker commitment to the core meaning of *kok* is weakened in comparison, as their assertion of the proposition is made syntactically prominent (as in our syntactic analysis). Therefore, the generally reported interpretation of final-*kok* as expressing speaker concern that the addressee should believe the proposition falls out as follows: given that the strength of the speaker's commitment to *kok* is modulated by its syntactic position, addressees may employ scalar reasoning when they hear *kok* finally. They then interpret it as expressing potential surprise on the part of the addressee rather than speaker surprise, precisely because the speaker *could have* pronounced it initially/medially if speaker surprise were the intended reading. Then, given that the speaker is also asserting some new, focused proposition, the addressee must interpret *kok* as speaker expectation that addressee will accept the proposition, despite the speaker also expecting them to be surprised.

**Javanese discourse particles: interlocutor perspective is in the syntax, *kok*!**

**Data** NB: Many examples contain elements from both Javanese and Indonesian (5b is all Indonesian, save the discourse particles *lho* and *kok*), as is typical for speakers of Javanese in many day-to-day contexts. Javanese also has a homophonous 2nd person clitic *kok*, ex. 1.

[1] **Kok** ibumu kok-terake mulih maneh
DM mother-2.SG-POSS 2.SG-take.someone.to-BEN go.home again
"(Why did) you return your mother to the home again?!" Widhyasmaramurti 2008: 55

[2] Iki **kok** larang
This DM expensive
"Why, this is expensive!" Errington 1998: 40

[3] Dhèwèké ora turu, **kok**.
"He/She is actually not asleep [you know]". Wedhawati et al. 2006: 406

[4] kok loro?!
DM two
"Only two?!" Adapted from Errington 1998: 101

[5] a. **Lha kok** isá mempengaruhi seluruh badan?
"So how can it affect the entire body?" Errington 1998: 11
b. Seharusnya kan gitu. Cuman ini orang yang dimintain tolong itu **ló kok** pergi.
Well, it should be like that. But it's just that the person I asked for help just went away.
Krauße 2017: 4

[6] Kowe ngucap kok-pangan pitik kok
You say 2sg-eat chicken DM
"You really said chicken (#really) was eaten by you!" Norwanto p.c.

[7] Kuwi piyé **kok bu.** Prosesnya itu gimana tá?
"How is that, **Bu**? How about that process?" Errington 1998: 110

[8] A: Wés tak Ø-garap sampèk bab 3, ló di-kongkon ng-ganti, ndhut.
already 1SG.PROCL PV-make until chapter three DM PASS-order AV-change tubby
"I already wrote it up to chapter 3, and was then forced to change it, Tubby."
B: Léh lapo di-kongkon ng-ganti. Èd<i>an **kok** gak dari awal ng-omong-é.
DM do.what PASS-order AV-change crazy<INT> **DM** NEG from beginning AV-say -DEF
"Why were you forced to change it? It's just crazy that he didn't say it from the beginning."
Krauße 2017: 28

**Selected References**


Errington, J. Joseph. 1998. *Shifting languages.* Cambridge: CUP

Haddican, Bill, Anders Holmberg, Hidekazu Tanaka and George Tsoulas. 2014. Interrogative slifting in English, *Lingua* 138, 86-106

Haegeman, Liliane. 2014. West Flemish verb-based discouse markers and the articulation of the speech act layer, *Studia Linguistica* 68(1), 116-139

Krauße, Daniel. 2017. *A description of Surabayan Javanese with special reference to its linguistic etiquette.* MA Thesis, Goethe Universität Frankfurt am Main.

SEAlang Library. http://sealang.net/java/dictionary.htm [accessed 28 Apr 23)

Wedhawati, Nurlina, Wiwin Erni Siti, Setiyanto, Edi, Marsono, Sukesti, Restu, and Baryadi, I. Praptomo 2006. *Tata Bahasa Jawa Mutakhir* [Contemporary Javanese Grammar]. Yogyakarta: Penerbit Kanisius.

Widhyasmaramurti. 2008. '*Tak' and 'kok' in Javanese Language*. MA Thesis: Utrecht University.

Woods, Rebecca. 2021. Towards a model of the syntax-discourse interface: a syntactic analysis of *please*, *English Language and Linguistics* 25(1), 121-153

**Hero Patrianto & Victoria Chen**

# Crossed control as an illusion: Insights from Javanese

Javanese displays a phenomenon known as "crossed control" traditionally described with three traits: (i) absence of overt voice-marking on a control/restructuring-type verb, (ii) overt non-actor-voice-marking on the embedded verb, and (iii) a *by*-phrase agent that linearly follows the embedded verb being interpreted as the matrix agent (1a). Where the *by*-phrase is interpreted as a run-of-the-mill embedded agent, the sentence receives a distinct reading and is commonly described as the standard control, as in (1b).

(1) Joko arep di=Ø-tendang (ambè') Ali. (Javanese)
Joko want 3SG=OV-kick by Ali
a. Crossed control (CC) reading: 'Ali wants to kick Joko.'
b. Standard control (SC) reading: 'Joko wants to be kicked by Ali.'

A similar phenomenon in Malay/Indonesian has received various analyses: backward control (Polinksy and Potsdam 2008), restructuring (Kroeger & Frazier 2019; Jeuong 2020; Paul et al. 2021), and reverse restructuring (Berger 2019), with the general consensus that CC is linked to control/restructuring verbs.

**1. Main claim.** We demonstrate that (i) Javanese CC is not linked specifically to control or restructuring verb, but a phenomenon attested with any verb that allows both **finite CP complementation** (which yield SC reading) and **infinitival VoiceP complementation** (which yield CC reading) and (ii) Javanese CC has nothing to do with long-distance passivization or long object movement, but an illusion created by the traditional passivization analysis of the Javanese *di*-construction. An alternative topicalization approach to Javanese voice offers a straightforward account for the phenomenon of "CC".

**The structure of the "SC"** We show that the "SC" reading (1b) is linked to the structure in (2a), characterized by (i) optionally overt matrix voice-marking and free voice alternation (AV vs. OV), (ii) an optional complementizer, and (iii) a finite CP complement that allows free voice alternation and permits (but does not require) one of its arguments to be coindexed with the matrix DP as a PRO or an overt resumptive pronoun *de'e*. Where the finite embedded clause is in NAV with an embedded DP realised as a PRO, the "standard control" reading is in place, as illustrated in (2b).

(2) a. CP complement [ T (AUX) $DP_1$ $V_{1(\{AV/OV\})}$ $[_{CP}$ (C) $V_{2\{AV/OV\}}$ $DP_2$ $DP_3$ ] ]
b. $Joko_j$ (ng-)arep [ (ne') { $(de'e)_j$ / Sari } $di_k$=Ø-ambung (ambè') $Maria_k$ ].
Joko (AV-)want [ (C) { (3SG) / Sari } 3SG=OV-kiss by Maria ]
'J. wants {(for himself) / Sari} to be kissed by Maria.' (lit. $J_j$ wants that M kisses {$him_j$/S.}.

**The structure of the "CC"** We argue that the "CC" reading (1a) is linked to the structure in (3a), characterized by (i) obligatory null matrix voice-marking, (ii) absence of embedded C, and (iii) dependent embedded voice – the embedded voice must be in concord with the matrix voice, which is obligatorily null but inferable from the semantic role of $DP_1$. Where the null matrix voice is underlyingly NAV, (i) the preverbal DP is interpreted as a theme pivot and (ii) the *by*-phrase is flexible in word order and cross-references the 3rd-person matrix external argument (3b). Where the *by*-phrase surfaces clause-finally, the word order triggers an illusion in which an embedded agent controls the matrix theme, hence the misleading term "CC." We will present specific evidence for the agent being matrix-oriented.

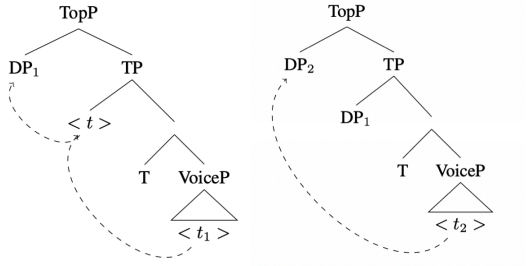
(3) a. VoiceP complement [ T (AUX) $DP_1$ $V_{1\{(null:\ AV/OV)\}}$ $[_{VoiceP}$ $V_{2\{voice\ concord\}}$ $DP_2$ ] ]
b. Joko Ø-arep ((ambè') Maria) (*ne') di=Ø-ambung ((ambè') Maria).
Joko want by Maria (*C) 3SG=OV-kiss by Maria
'He/she/Maria wants to kiss Joko.'

Support for Javanese CC as not tied to control/restructuring verbs comes from data from four speakers, which reveal that any verb allowing both CP and VoiceP complementation yields CC/SC ambiguity (4).

(4) Bambang { males / sempet } di=Ø-undang ambe' Sari.
Bambang { reluctant / have.the.opportunity } 3=OV-invite by Sari
Standard control reading: 'Bambang {was reluctant / had a chance} to be invited by Sari.'
Crossed control reading: 'Sari {was reluctant / had a chance} to invite Bambang.'

**2. Javanese voice as topicalization.** We assume (i) voice alternation in Javanese indexes subject ("AV") vs. nonsubject topicalization ("OV") and (ii) the alleged passive essentially involves topicalization of a nonsubject (5b) with a 3rd-person subject realized as subject agreement (*di-*) (Patrianto & Chen 2023).

(5) a. "AV" (subject topic) b. "OV/*di*-construction" (nonsubject topic)




This analysis predicts that the so-called "CC" (3a) contains no long-object movement, but Ā-movement to [Spec, TopP], as borne out by **binding and scopal facts** – the theme pivot in a CC does *not* scope over the agent and can surface as a reflexive (6) and not a binder (7), contra the prediction of the passivization analysis that the theme would function as a binder and not a bindee and may scope over the agent.

(6) Awa'-e dewe arep di-Ø-krawu' ambe' Ayu
body-3.POSS self want.(OV) 3-OV-scratch by Ayu
"Crossed control": Herself, Ayu wanted to scratch.

(7) *Ayu arep di-Ø-krawu' ambe' awa'-e dewe.
Ayu want.(OV) 3-OV-scratch by body-3.POSS self
(Intended CC: 'Ayu wanted to be scratched by herself.')

Further support for the current analysis comes from an asymmetry in **pre-auxiliary quantifier float (QF)** between CC and its AV counterpart. Where $V_2$ is in AV (which we assume to indicate AV in the matrix), QF of the pivot in the pre-auxiliary field is considered highly natural, suggesting the presence of subject-to-topic movement (5a). Where $V_2$ is in NAV, pre-auxiliary QF becomes unacceptable. This supports the view that the theme pivot in (9) is a nonsubject topic that Ā-moves from its $\theta$-position to [Spec, TopP] (5b). This voice-based asymmetry is left unexplained under the passivization approach to the *di*-construction, which assumes pivots invariably land in [Spec, TP] in all voices.

(8) Konco-ku (lima) ate arep nge-ja' (*lima) Ayu.
friend-1S.POSS 5 FUT want AV-invite 5 Ayu
'Five of my friends will want to invite Ayu.' (AV)

(9) Konco-ku (*lima) ate arep di-Ø-ja' (lima) ambe' Ayu.
friend-1S.POSS 5 FUT want 3-OV-invite 5 by Ayu
"Crossed control": Ayu will want to invite five of my friends. (OV)

Additional support for (5a–b) comes from **PP's eligibility to surface in the pivot position in CC** (10). Given Javanese's strict definiteness constraint on pivots, it can be inferred that the preverbal definite PP (and not the postveral indefinite theme) is the pivot. The fact that a PP can constitute the pivot in CC thus argues against a long-passive analysis, as PPs cannot satisfy the EPP and be promoted to subject.

(10) **Nang warung *(iku)** arep (*ne') di-Ø-dol buku ambe' Hero.
P **stall that** want C 3-OV-sell book by Hero
"Crossed control": Hero wants to sell books in that stall.

**3. Conclusion.** Javanese "CC" may be viewed as an illusion resulted from (i) the passive analysis of the *di*-construction (which assumes long object movement) and (ii) the fact that many control/restructuring verbs allow both CP and VoiceP complementation.

**Accounting for two types of extraction asymmetries in Javanese applicatives**

**Jozina Vander Klok**

**Background**. Javanese has two applicative constructions, which are in complementary distribution in terms of which semantic role is introduced as the applied argument (Sofwan 2010; Nurhayani 2014). The suffix *-no* licenses a beneficiary with transitive predicates or a theme with ditransitive predicates as the applied argument; henceforth the 'benefactive' applicative. (Other forms across dialects are *ake/-ke/-aken/-nang*; Adelaar 2011). The suffix *-i* licenses a location/goal/recipient across all predicate types; henceforth the 'locative' applicative. In this paper, I focus on a productive class of applicativized transitive predicates, which result in a derived ditransitive. In these cases, the applied argument can be a direct object as an NP, located immediately post-verbal, as in (1a) for the beneficiary *Duriati* or (2a) for the recipient *Zumaroh*, and the verbal object is also an NP; i.e., in a double object construction (DOC). Alternatively, the applied argument can remain headed by a PP, located following the NP direct object *surat* 'letter' post-verbally, as in (1b) or (2b). I take the PP to be an argument of the applicativized predicate because it is necessarily semantically interpreted when it is non-overt. (1) and (2) show that this NP/PP and word order alternation is possible across benefactive and locative applicatives in Javanese (and is more widely found in western Indonesian languages; Truong & McDonnell 2022).

**The puzzle**. With these 'derived ditransitive' applicatives, a contrast arises in the possibility of passivization, indicated morphologically with *di-* in Javanese. In the benefactive applicative with *-no*, passivization can occur with either the applied object (beneficiary *Duriati* in (3a)) or the verbal object (theme *surat iku* 'that letter', as in (3b)). However, in the locative applicative with *-i*, passivization can only occur with the applied object (recipient *Zumaroh*, (4a)). The verbal object (theme *surat* 'letters') cannot be passivized, (4b), (or relativized). This asymmetry (8b) has not yet been discussed or analyzed.

**Proposal. A. Structure of applicatives with NP+NP postverbal order.** I argue that Javanese benefactive and locative applicative constructions are both LOW APPLICATIVES (see (5)) because the DOC of both applicative types is asymmetric (8a). That is, passivization or relativization is only allowed for the applied object (beneficiary or recipient, as in (3a) or (4a)) (cf. Sofwan 2010). For instance, passivization of the verbal object from a DOC results in ungrammaticality, as shown by the requirement of the overt preposition embedding Dur in (3b), showing that the base structure of (3b) is necessarily (1b) with $NP_{Theme}$ $PP_{Ben}$ post-verbal word order, and not (1a) with $NP_{Ben}$ and $NP_{theme}$. Passivation (or relativization) of the theme from a DOC with locative applicatives is always ungrammatical (cf. (4b)), regardless of an overt preposition or the position of the agent. The account in (5) supports the data in Nurhayani (2014), who shows that both types of Javanese applicatives exhibit properties that cross-cut the account by Pylkkänen (2008), where benefactives are classified as high applicatives, relating an individual to an event, while locatives are classified as low applicatives, relating two individuals. Nurhayani (2014) illustrates that both applicative types allow for unergatives, e.g., *nguyuhi* 'urinate on sth', *ndongake* 'pray for s.o.' (associated only with high applicatives); and both can involve transfer of possession, e.g., *ngeteri* 'deliver to s.o. sth', *nggaweake* 'make for s.o. sth' (associated typically only with low applicatives; Pylkkänen 2008). These traits are no longer associated with high vs. low structures in Jerro (2021) because any thematic role can semantically occur in a high or low structure. Rather, object asymmetry of both applicative types shows that both have a low applicative structure, whereby anti-locality prevents the lower verbal object from moving across the higher applied object since they are in the same projection (e.g., Jeong 2017). **B. Structure of applicatives with NP+PP postverbal order.** I propose that benefactive and locative applicative structures diverge when the applied argument is headed by a PP. Benefactives allow for the theme verbal object to be in Spec,LApplP, and selects for a beneficative PP, (6), thereby maintaining that the benefactive PP is part of the applicativized argument structure. This structure allows for the theme to extract for passivization (e.g., 3b). Moreover, this structure reflects that Javanese speakers also allow the postverbal word order $NP_{(verbal\text{-}obj)}$+$NP_{(applied\text{-}obj)}$, assuming that the PP is null in this case (cf. 1c). The account in (5) and (6) is similar to the structure proposed for Indonesian *-kan* by Son & Cole (2008) with NP+NP and NP+PP orders like Javanese. Here, the LApplP would correspond to their ResultP, but my account avoids having a selection of a null PP as in Son & Cole in the case of (5) (for 1a, 2a). For locative applicatives, I propose that the applied argument is always introduced in the Spec,LApplP. In this case, it can be introduced as headed by a PP, (7). In Javanese, like in Balinese (Arka 2019), PPs must always follow NPs in internal argument structure. I suggest that phonological linearization amends this ungrammatical word order to NP+PP. The structure in (7) ensures that the theme cannot extract because the movement violates anti-locality (cf. Jeong 2007). Further, it reflects that Javanese speakers never allow the theme to be immediately postverbal as $NP_{(verbal\text{-}obj)}$+$NP_{(applied\text{-}obj)}$ with locative applicatives, (cf. 2c).

**Accounting for two types of extraction asymmetries in Javanese applicatives**

(1) a. Nunung nules-**no** Duriati surat.
Nunung AV.write-**APPL** Duriati letter
'Nunung wrote a letter for Duriati.'

b. Nunung nules-**no** surat gawe Duriati.
Nunung AV.write-**APPL** letter for Duriati
'Nunung wrote a letter for Duriati.'

c. Nunung nules-**no** surat Duriati

(2) a. Wanan nules-**i** Zumaroh surat.
Wanan AV.write-**APPL** Zumaroh letter
'Wanan wrote Zumaroh a letter.'

b. Wanan nules-**i** surat neng Zumaroh
Wanan AV.write-APPL letter to Zumaroh
'Wanan wrote a letter to Zumaroh.'

c. *Wanan nules-**i** surat Zumaroh.

(3) a. Duriati **di**-tules-**no** Nunung surat.
Duriati PASS-write-APPL Nunung letter
'Duriati was written a letter for by Nunung.'

b. Surat iku **di**-tules-**no** Nunung *(gawe) Dur.
letter DEM PASS-write-APPL N. for D.
'That letter was written for Dur by Nunung.'

(4) Zumaroh **di**-tules-**i** Wanan surat.
Zumaroh PASS-write-APPL Wanan letter
'Zumaroh was written letters to by Wanan.'

b. *Surat **di**-tules-**i** Wanan (neng) Zumaroh
letter PASS-write-APPL Wanan to Zumaroh
('Letters were written to Zumaroh by Wanan.')

(5) $[_{VoiceP}$ SUBJ Voice$^0$ $[_{VP}$ V$^0$ $[_{LApplP}$ NP$_{(applied\text{-}obj)}$ LAppl$^0$ $[_{NP}$ N$_{(verbal\text{-}obj)}$ ]]]]

| | | | | |
|---|---|---|---|---|
| Nunung | nules-**no** | Duriati | ~~**no**~~ | surat (cf. 1a) |
| Wanan | nules-**i** | Zumaroh | ~~**i**~~ | surat (cf. 2a) |

(6) $[_{VoiceP}$ SUBJ Voice$^0$ $[_{VP}$ V$^0$ $[_{LApplP}$ NP$_{(verbal\text{-}obj)}$ LAppl$^0$ $[_{PP}$ P $[$NP$_{(applied\text{-}obj)}]]]]]$

| | | | | |
|---|---|---|---|---|
| Nunung | nules-**no** | surat | ~~**no**~~ | gawe Duriati (cf. 1b) |

(7) $[_{VoiceP}$ SUBJ Voice$^0$ $[_{VP}$ V$^0$ $[_{LApplP}$ PP$_{(applied\text{-}obj)}$ LAppl$^0$ $[_{NP}$ N ]]]]

| | | | | |
|---|---|---|---|---|
| Wanan | nules-**i** | neng Zumaroh | ~~**i**~~ | surat (cf. 2b) |

Linearization: *Wanan nules-i* ~~*<neng Zumaroh>*~~ *surat neng Zumaroh*

(8) a. **Asymmetry 1**. Only the applied object can be extracted from a DOC applicative construction.
b. **Asymmetry 2**. With NP+PP post-verbal word order, only the theme verbal object from a 'benefactive' applicative construction can be extracted.

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**References**.


Arka, I W. 2019. Grammatical relations in Balinese. In *Argument selectors: A new perspective on grammatical relations.* Amsterdam: John Benjamins.

Adelaar, A. 2011. Javanese *-aké* and *-akən*: a short history. *Oceanic Linguistics* 50(2), 338–50.

Jeong, Y. 2007. *Applicatives: Structure and interpretation from a minimalist perspective*. Amsterdam:John Benjamins.

Jerro, K. 2021. Applied Objects and the Syntax–Semantics Interface. *J. of Linguistics* 57, 1-39.

Nurhayani, I. 2014. *A unified account of the syntax of valence in Javanese*. New York: Cornell University PhD dissertation.

Pylkkänen, L. 2008. *Introducing arguments*. Cambridge: MIT Press.

Sofwan, A. 2010. Applicative Constructions in Javanese. *Language Circle Journal of Language and Literature* 5. 1–26.

Son, M. & P. Cole. 2008. An Event-based account of *-kan* constructions in Standard Indonesian. *Language* 84:120-160.

Truong, C. & B. McDonnell. 2022. Neglected functions in western Indonesian languages. In *Applicative Morphology: Neglected functions.* Mouton de Gruyter, 405-36.

**Jian Cui & Jack Isaac Rabinovitch**

**Indices in the Voice Domain: A Unified Analysis of Javanese Passives**

**Introduction:** In the Surakarta dialect of Javanese (Austronesian), there are two 'passive voice' constructions in addition to the actor voice: a *tak-/kok*-passive and a *di*-passive. The *tak-/kok*-passive is restricted to first and second person singular Agents, and is formed via the proclitics *tak-* (1SG) and *kok-* (2SG), as in (1a). This kind of passive is incompatible with coexistent Agent-denoting bare DPs or by-phrases (1b). In the *di*-passive construction, the Agent is realized as either a by-phrase, which is available for Agents with all person and number features (2), or a postverbal bare DP, which is available for all Agents except 1SG and 2SG (3). When there is no bare DP or by-phrase present, the *di*-passive construction contains an implicit Agent, which, unlike the implicit Agents of typical passive constructions cross-linguistically, can be bound by higher quantifiers (4), being treated like a pronoun — a configuration impossible in English without an overt by-phrase. The full paradigm of passive constructions in Surakarta Javanese is schematized in (5). In this talk, we will propose an analysis that accounts for the co-existence of two passive constructions and their corresponding properties.

**Questions:** Why are the *di*-passive with a bare DP Agent and the *tak-/kok*-passive in complentary distribution, conditioned by the person of Agents? What allows implicit Agents to be bound by quantifiers in Javanese passives?

**Proposal:** We argue that both *tak-/kok*-passives and *di*-passives are formed via insertion of a pronominal Agent-introducing $v$-head, which can be bound by quantifiers. The use of by-phrases, bare DPs, or proclitics is tied to the presence of an optional Voice projection on top of the $v$-head, which abstracts over the pronominal Agent introduced by $v$ and introduces an overt DP Agent argument in Spec,VoiceP.

**Analysis:** We follow Harley (2013) and Privoznov (2022) in assuming that the encoding of voice is decomposed into $v$ and Voice projections. We assume that the verbalizing head $v$ is mandatory, whereas the Voice projection is optional. First, motivated by the availability for implicit Agents to be bound by higher quantifiers in Javanese passives, we propose an indexed version of $v$ (6c), which is spelt out as *di-* by default. We take this insight from Privoznov's (2022) treatment of implicit causees in Buryat, which are also found to be pronominal, that is, they can be bound by higher quantifiers. As a result, the verbalizing head $v$ introduces an indexed Agent, modelling the pronominal nature of the implicit Agent in Javanese. Second, we argue that Javanese passives with bare DPs should be syntactically distinguished from the ones with PP by-phrases by the presence/absence of a projected VoiceP. Simply put, bare DPs and by-phrases occupy two different syntactic positions.

When the Agent is realized as a DP, we assume that there is an additional VoiceP projection above $v$P. The Voice-head functions as an abstractor over assignment functions (6d), and merges with the $v$P via intensional function application, opening an entity argument which binds the Agent. This argument is then manditorily saturated and bound by the bare DP in SpecVoiceP (6a-i). When a first or second person singular pronoun is merged in SpecVoiceP, the SpecVoiceP, Voice, and $v$ form a span (Svenonius 2019) spelled out as the proclitics *tak-/kok-* (6a-ii). The necessity of span formation for *tak-/kok-* therefore results in the complementary distribution between *tak-/kok-* and bare DP di-passives. When the Agent is realized as a PP by-phrase, no VoiceP is projected; the index of v must undergo predicate abstraction at some point in the structure in order to allow for reference — this can be done either through the optional by-phrase PP, or through binding by a quantifier higher in the structure (6a-iii). We follow Privoznov (2022) in assuming that when no overt binder appears, as in passives with implicit agents, the index is existentially closed at the root clause.

Our analysis leads to a subcategorization of Javanese passives based on the presence or absence of a VoiceP. This subcategorization corresponds to general traits observed regarding Patient Voice and passive voice constructions in other Austronesian languages: constructions with a VoiceP require a bare DP Agent while still promoting the Patient argument, similar to Patient voice (Legate 2014; Wurmbrand 2021), while constructions without a VoiceP allow for binding via a by-phrase or an implicit Agent, similar to 'true' passive voice, except for the ability for binding by higher quantifiers. Such an analysis both expands the typology of passive voice while providing a clue to the diachronic origins of Javanese passive. The denotation of *di-* as an indexed $v$-head also provides an overt instance of indexed verbal morphology (see also Privoznov 2022), providing further evidence that functional heads may encode their own indexed arguments.

(1) a. *Surat-é { tak / kok }-tulis.*
letter-DEF { 1SG.CL / 2SG.CL }-write
'The letter was written by {me / you.SG}.'

b. * *Surat-é { tak / kok }-tulis (dening) { aku / kowe }.*
letter-DEF { 1SG.CL / 2SG.CL }-write by { 1SG / 2SG }

(2) a. *Surat-é di-tulis dening { Surti / dhèwèké sakloron }.*
letter-DEF PASS-write by { Surti / 3 two }
'The letter was written by { Surti / them two }.'

b. *Surat-é di-tulis dening { aku / kowe / aku sakloron }.*
letter-DEF PASS-write by { 1SG / 2SG / 1 two }
'The letter was written by {me / you$_{SG}$ / us two}.'

(3) a. *Surat-é di-tulis { Surti / aku saklorong }.*
letter-DEF PASS-write { Surti / 1 two }.
'The letter was written by {Surti / us two}.'

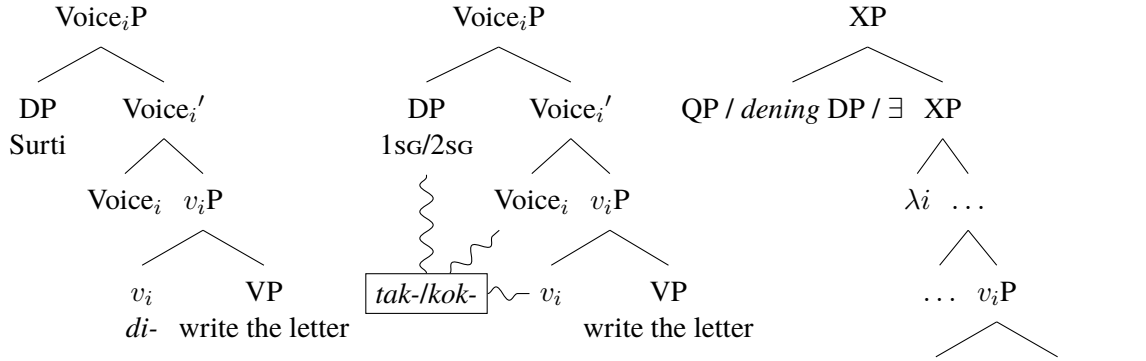
b. * *Surat-é di-tulis { aku / kowe }.*
letter-DEF PASS-write { 1SG / 2SG }
Intended: 'The letter was written by {me / you$_{SG}$}.'

(4) *Ora ana sing ngaku [ nèk surat-é wis di-tulis ].*
NEG there.is REL ACT.admit [ COMP letter-DEF PFV PASS-write ]
'No one$_i$ admits that the letter was written (by them$_i$)'

(5)

| Agent Realization | Agent Distribution | Morphology | Structure |
|---|---|---|---|
| Implicit Agent | — | *di*-passive | [$_{vP}$ $v$ VP ] |
| by-phrase (PP) | all person/numbers | | |
| Bare DP | all but 1sg/2sg | | [$_{\text{VoiceP}}$ Voice [$_{vP}$ $v$ VP ]] |
| proclitic *tak-/kok-* | 1sg/2sg | *tak-/kok*-passive | |

(6) a. i. **Bare DP (not 1SG/2SG)** ii. **Proclitic (1SG/2SG)** iii. **Implicit Agent/By-Phrase**




b. $[\![\text{VP}]\!]^{w,g} = \lambda e_v.\text{write}(e) \wedge \text{TH}(e) = \text{the letter}$

c. *di-* $= [\![v_i]\!]^{w,g} = \lambda P_{\langle v,t\rangle}\lambda e_v.P(e) \wedge \text{AG}(e) = g(i)$

d. $[\![\text{Voice}_i]\!]^{w,g} = \lambda F_{\langle s,\langle g,\langle v,t\rangle\rangle\rangle}\lambda x_e\lambda e_v.F(w, g[x/i], e)$

e. *n-* $= [\![v_{\text{Actor}}]\!]^{w,g} = \lambda P_{\langle v,t\rangle}\lambda x_e\lambda e_v.P(e) \wedge \text{AG}(e) = x$

## Bibliography


Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125:34–57.

Legate, Julie Anne. 2014. *Voice and v: Lessons from Acehnese*. Number 69 in Linguistic Inquiry Monographs. Cambridge, Massachusetts ; London, England: The MIT Press.

Privoznov, Dmitry. 2022. Causative, v and Agent in Buryat. In *Proceedings of the 15th Workshop on Altaic Formal Linguistics*. Lomonosov Moscow State University, Russia.

Svenonius, Peter. 2019. A span-based theory of words.

Wurmbrand, Susanne. 2021. A decomposed notion of Voice.

**Henrison Hsieh & Michael Yoshitaka Erlewine**

**Interpreting clitic adverb combinations in Tagalog**

Tagalog has a small set of second-position clitic adverbs such as *na* 'already,' *pa* 'still,' *lang* 'only,' and *din/rin* 'also.' Previous work on these clitics has investigated their syntax and semantics as individual particles (e.g., Schachter and Otanes 1972 = S&O). However, it is also common for these clitics to appear in combinations, with results that vary in the transparency or opacity of their resulting meanings.

In this talk, we offer the first description of the precise semantics/pragmatics of a number of such clitic adverb combinations and develop proposals for their compositional interpretation. We argue that such investigation can lead us to refine the formal semantic description of individual clitic adverbs themselves, as we illustrate here below. In this abstract, for space reasons, we concentrate on the case of *na lang*.

Interpreting *na lang*: *Na lang* (literally 'already only') often expresses a change in plan, inviting an English translation with 'instead.' See examples (3–4), which differ in their focus placement; focus fronting as in (4) is strongly preferred for focus on 'tomorrow.' An immediate puzzle for the compositional interpretation of *na lang* is the fact that it systematically lacks the temporal inference found with *na* by itself, as in (5) showing that *na* with a focused temporal expression strongly expresses that the described time is 'earlier than expected.' *Na lang* in contrast simply requires a change in plan as in (4).

Proposal: We argue that such change of plan uses of *na lang* can be interpreted compositionally, once we clarify and formalize the semantics of *na* as follows. S&O describe a number of uses for *na* (reviewed at the talk) which largely fall into two categories, which we informally describe as "change of state / non-scalar" and "earlier than expected / scalar" readings; see example (6), which allows for both uses. We propose to treat these two uses of *na* as synchronically homophonous but distinct lexical items, with presuppositions described informally in (1); both pass up their prejacents' at-issue meaning.

(1) a. $na_{\text{COS}}(p)$ presupposes that $p$ was recently false (based on Löbner 1989)

b. $na_{\text{SCAL}}(p)(C)$ presupposes that $p$ is "low" within $C$, as determined by the temporal order $<_C$

(1b) requires a contextually-determined set of alternatives $C$ which are temporally ordered by $<_C$ (see e.g. Krifka, 2000; Ippolito, 2007). (Where no constituent that supports a temporal scale is focused, we assume that the alternatives in $C$ vary in the value of a covert time variable, following Ippolito 2007.)

For *lang*, we adopt the semantics for English *only* and related particles in Coppock and Beaver 2014, informally in (2), which descriptively allows for both exclusive (e.g. 'solely') and scalar (e.g. 'merely') uses, depending on the contextually determined ordering of alternatives $>_C$.

(2) $lang(p)(C)$ presupposes that some true alternative in $C$ is at least as strong as $p$ ($\geq_C p$) and asserts that no true alternative in $C$ is stronger than $p$ ($>_C p$) (based on Coppock and Beaver, 2014)

Although prior work has concentrated on exclusive uses of Tagalog *lang*, we observe that scalar uses are also available; see (7). We furthermore observe that *lang* in *na lang* often involves such a scalar or rank-order use, expressing that the prejacent is somehow less desirable than the original plan; see (8).

Returning now to the contrast between *na lang* in (4) and *na* in (5), we propose that *na* in *na lang* must be $na_{\text{COS}}$ rather than $na_{\text{SCAL}}$ due to a focus intervention effect as in Beck 2006 and Bade 2016: evaluation of *lang* resets the focus alternative set $C$ for the complement of *na* at LF, allowing only for the use of $na_{\text{COS}}$ which does not refer to the focus alternative set $C$, unlike $na_{\text{SCAL}}$.

Other combinations: Other common particle combinations include *na rin* 'already also' and *pa lang* 'still only' (expressing what Neeleman and van de Koot 2022 calls "low progress" readings) with transparent interpretations, as well as the use of *pa rin* in certain counterexpectational environments as in (9), similar to English 'anyway.' We argue that additive *din/rin* 'also' in such examples is licensed by reference to the expectation that the same result would hold even if the preceding condition (here: that they helped) did not hold. Informally, (9) requires an expectation that if they had not helped, the patient would have died, and then asserts: in reality they *did* help the patient, but s/he still "also" died.

(3) Mag-lu~luto **na** **lang** ako bukas
AV-FUT~cook already only 1sg tomorrow
'I will [cook]$_F$ tomorrow instead.'

Sample context:
I was originally planning to eat out tomorrow.

(4) Bukas **na** **lang** ako mag-lu~luto.
tomorrow already only 1sg AV-FUT~cook
'I will cook [tomorrow]$_F$ instead.'

Sample contexts:
(i) ✓ I was originally planning to cook today.
(ii) ✓ I was originally planning to cook next week.

(5) Bukas **na** ako mag-lu~luto.
tomorrow already 1sg AV-FUT~cook
≈ 'I will cook already [tomorrow]$_F$.'

Sample contexts:
(i) # I was originally planning to cook today.
(ii) ✓ I was originally planning to cook next week.

(6) Naglu~luto **na** ako.
AV.IPFV~cook already 1sg

a. 'I cook now' (habitual) ⇝ I didn't cook before (change of state / non-scalar)
b. 'I'm already cooking' (present prog.) ⇝ earlier than expected (earlier / scalar)

(7) Context: Various kinds of people compete together in this race. There is a unique winner.
{ Di-kilalang tao / #Magaling na atleta } **lang** iyong nanalo sa karera.
unknown person skillful LK athlete only NOM won OBL race
'The winner of the race was only/merely an unknown person.' (scalar / #exclusive)

(8) { TA / #propesor } **na** **lang** ang mag-tu~turo ng klaseng ito.
TA professor already only NOM AV-FUT~teach GEN class this

a. '(The professor was supposed to teach this class, but now...) the TA will teach it instead.'
b. # '(The TA was supposed to teach this class, but now...) the professor will teach it instead.'

(9) T<in>ulung-an nila siya, pero na-matay **pa** **rin** siya.
<PFV>help-LV 3PL.GEN 3SG.NOM but PFV-die still also 3SG.NOM
'They helped him/her, but s/he died anyway.'

References


Bade, Nadine. 2016. Obligatory presupposition triggers in discourse: Empirical foundations of the theories Maximize Presupposition and Obligatory Implicatures. Doctoral Dissertation, Eberhard Karls Universität Tübingen.

Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14:1–56.

Coppock, Elizabeth, and David Beaver. 2014. Principles of the exclusive muddle. *Journal of Semantics* 31:371–432.

Ippolito, Michela. 2007. On the meaning of some focus-sensitive particles. *Natural Language Semantics* 15:1–34.

Krifka, Manfred. 2000. Alternatives for aspectual particles: Semantics of *still* and *already*. In *Proceedings of BLS 26*, 401–412.

Löbner, Sebastian. 1989. German *schon - erst - noch*: An integrated analysis. *Linguistics and Philosophy* 12:167–212.

Neeleman, Ad, and Hans van de Koot. 2022. The interpretation and distribution of temporal focus particles. *Natural Language & Linguistic Theory* 40:793–835.

Schachter, Paul, and Fe T. Otanes. 1972. *Tagalog reference grammar*. University of California Press.

**Benjamin Macaulay**

**Breaking the cycle: two pathways for clitics in Formosan**

Clitics have been of interest to linguists as they challenge the dichotomy between bound and free morphemes. Generally, clitics have been framed as something 'in-between' with features of both, and theories of diachronic syntax have positioned clitics as a transitory stage in the development of affixes from full words. However, new data from Formosan languages finds that some but not all clitics appear to be developing affix-like behavior. In some Formosan languages, clitics have instead developed unique behavior in intonational phonology that has led to a tripartite classification of morphemes, in which word ≠ clitic ≠ affix. This paper will present novel evidence of clitics as a unique morpheme class in three Formosan languages (Saaroa, Kanakanavu, and Isbukun Bunun), as well as propose an alternative diachronic pathway for clitics that does not end in clitics becoming more 'affix-like'.

**Background.** Since Givón's (1976) work on the development of agreement markers from nominal free morphemes, clitics have found their place as a transitory stage in the development of affixes from full (phonological) words. One major example is the Subject Agreement Cycle, summarized by van Gelderen (2011:38) as follows (emphasis mine):

(1) a. demonstrative > third person pronoun > **clitic** > agreement > zero
    b. noun/oblique/emphatic > first/second person pronoun > **clitic** > agreement > zero

This is not the only proposed diachronic pathway including clitics as a stage (cf. Jeffers and Zwicky, 1980). However, in general the clitic is not the proposed end stage of the pathway, and it is not predicted that clitics will develop features that are not shared with either bound or free morphemes.

**Data.** This paper presents novel data from a survey of prosody and intonation in 14 Formosan varieties: Mantauran/Budai Rukai; Saaroa; Kanakanavu; Pnguu Tsou; Tjaylaking/Piuma Paiwan; Isbukun Bunun; Southern Amis; PatRungan Kavalan; Tgdaya/Toda/Truku Seediq; and Pazeh. Acoustic data was elicited via translation tasks from Mandarin, of both words and longer utterances, analyzed as an Autosegmental-Metrical (Pierrehumbert 1980) model of intonational phonology.

**Clitics in Formosan.** Nearly all Formosan languages show syntactic evidence for a distinction between suffixes and enclitics, with the possible exception of Tsou (Zeitoun 2005). These enclitics fit into the stress assignment systems of Formosan languages in ways that mirror stages in the Subject Agreement Cycle: in some languages, clitics are more 'affix-like' and affect the position of stress directly; in others, clitics are more 'word-like' by building their own prosodic domain; and yet others are 'in between' and show variation between these two systems (see examples in Table 1). Not all properties of clitics in Formosan follow this 'word-like' to 'affix-like' progression, however. Some languages have developed behaviors in clitics that are common to neither affixes nor full phonological words, including:

- In Saaroa (and possibly Kanakanavu; Chen 2016), clitics are 'pre-accenting': their presence causes stress to surface on the final syllable of the stem, regardless of which syllable would otherwise be accented.
- In Kanakanavu and Bunun, word+clitic sequences show distinct pitch contours from words without enclitics. Kanakanavu clitics' pitch accents trigger downstep of following H tones, while Bunun word+clitic sequences show a unique 'high plateau' intonation.
- Both Kanakanavu and Bunun have separate pitch accent melodies for words vs. clitics: Kanakanavu L+H*L (word) vs. !H*L (clitic); Bunun {LH}* (word) vs. H* (clitic).

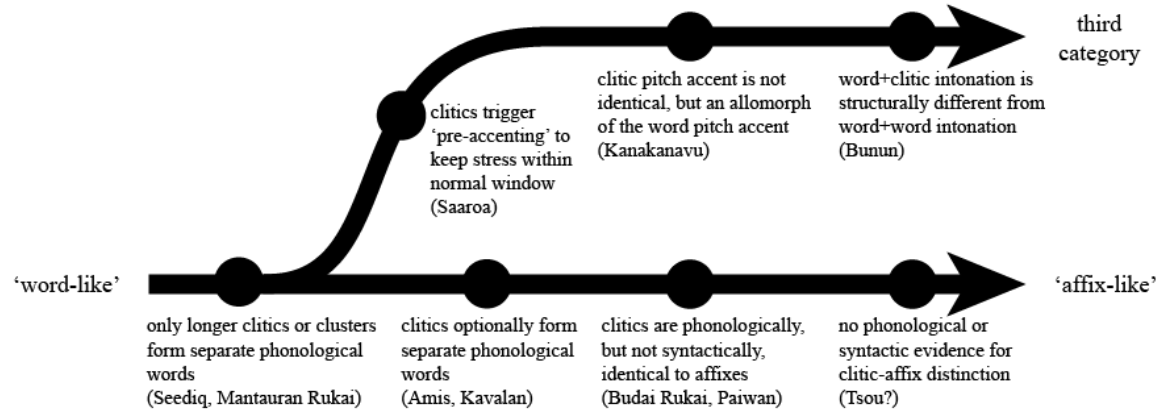
**Diachronic pathways.** The above patterns set clitics apart from both affixes and full phonological words in Saaroa, Kanakanavu, and Bunun, establishing clitics as a third category of morpheme alongside (rather than between) words and affixes. I argue that these languages are on a path that has diverged from the Subject Agreement Cycle, with various degrees of departure. The least radical is Saaroa, in which clitic pre-accenting maintains stress in its expected window (the ante/penult); while the most radical is Bunun, in which word+clitic sequences have a unique structure at both the UR and surface forms of its intonational phonology. The position of Formosan languages on the two pathways is shown in Figure 1, where the lower pathway (towards 'affix-like') represents the Subject Agreement Cycle, and the upper pathway represents the establishment of clitics as a third morpheme class.

**Table 1: Enclitics and stress assignment in Formosan languages**

| | Language | Bare form | With enclitic |
|---|---|---|---|
| Excluded | Mantauran Rukai (1/3) | *o*-[*lrího'o*]$_{Str}$ 'DYN.FIN-know' | *o*-[*lrího'o*]$_{Str}$[*=ká=li*]$_{Cl}$ 'DYN.FIN-know=NEG=1SG' |
| | Kanakanavu (anp/pen) | [*cucúru*]$_{Str}$ 'true' | [*cucúru*]$_{Str}$[*=kàra*]$_{Cl}$ 'true=2SG' |
| | Bunun (pen) | [*sa<i>dú-an*]$_{Str}$ '<PAST>see-LF' | [*sa<i>dú-an*]$_{Str}$[*=ìn*]$_{Cl}$ '<PAST>see-LF=PERF' |
| | Seediq (pen) | [*m-áha*]$_{Str}$ 'AF-go' | [*m-áha*]$_{Str}$[*=mían*]$_{Cl}$ 'AF-go=1PL.EXCL' |
| Optional | Kavalan (ult) | [*kapút*]$_{Str}$ 'friend' | [*kaput=kú*]$_{Str}$ or [*kapút*]$_{Str}$[*=kú*]$_{Cl}$ 'friend=1SG' |
| | Amis (ult) | *ma*-[*negnég*]$_{Str}$ 'AF-see' | *ma*-[*negneg=akó*]$_{Str}$ or *ma*-[*negnég*]$_{Str}$[*=akó*]$_{Cl}$ 'AF-see=1SG' |
| Included | Tsou (pen) (possibly suffix) | [*o.háe.va*]$_{Str}$ 'sibling' | [*o.hae.vá.(=)'u*]$_{Str}$ 'sibling(=)1SG' |
| | Paiwan (pen) | *ma*-[*léva*]$_{Str}$ 'AF-grateful' | *ma*-[*lev(a)=áken*]$_{Str}$ 'AF-grateful=1SG' |
| | Budai Rukai (anp/pen) | [*laímai*]$_{Str}$ 'clothes' | [*laimái=li*]$_{Str}$ 'clothes=1SG' |

**Key:** [ ]$_{Str}$ = domain of stress assignment; [ ]$_{Cl}$ = prosodic domain including enclitic material; anp/pen/ult = ante/pen/ultimate stress; underlined stress type = the type shown in the example.

**Figure 1: Two pathways for clitics in Formosan**




**Selected references:**


Chen, H.-j. (2016). *A study of Kanakanavu phonology: selected topics*. M.A. thesis, National Chi Nan University.

Givón, T. (1976). Topic, pronoun, and grammatical agreement. In C. N. Li (ed.), *Subject and topic*, 149-188. Academic Press.

Jeffers, R. J., & A. M. Zwicky. (1980). The evolution of clitics. In E. C. Traugoss, R. Labrum, & S. C. Shepherd (eds.), *Papers from the Fourth International Conference on Historical Linguistics, Stanford, March 26-30, 1979*, pp.221-231. John Benjamins Publishing Company.

Pierrehumbert, J. (1980). *The phonology and phonetics of English intonation*. Ph.D. dissertation, MIT.

Van Gelderen, E. (2011). *The linguistic cycle: Language change and the language faculty.* OUP.

Zeitoun, E. (2005). Tsou. In A. Adelaar, and N. P. Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, pp.259-290. Routledge.

# DISPOSITIONAL 'WILL' IS 'WANT' IN BAHASA INDONESIA

**Anastasia Tsilia**

**IN A NUTSHELL** Indonesian *mau* 'want' can also be used to mark the future. Future *mau* can have a purely temporal use, is compatible with inanimate subjects, and with the negation of *mau* meaning 'want'. However, interestingly, it cannot be negated. We propose that *mau* is the dispositional *will*, like Copley, 2002; unlike the latter, we argue that dispositional *mau* is not an instance of generic *will*. We propose a lexical entry for it, as well as argue that it cannot be directly negated, because it would be too under-informative.

**INDONESIAN FUTURE** Indonesian behaves like a tenseless language, since there is no tense morphology on the verb stem; the context disambiguates between a present and a past tense interpretation. As in many tenseless languages (Bochnak, 2019), the future is obligatorily marked either by *akan/bakal* 'will' or by *mau* 'want'.[1]

**EMPIRICAL PICTURE** Fact 1. *Mau* can have a purely temporal meaning like *bakal*, being compatible with the negation of 'want', as we can see in (3). Let's call this use of *mau* the *future mau*. Fact 2. Future *mau* cannot be directly negated; *nggak mau* can only have a 'not want' interpretation, not a 'will not' one (see (4)).[2] Thus, it is naturally incompatible with inanimate objects, which cannot have desires (see (5)). It is also incompatible with a negative quantifier, as in (6), and with implicit negation triggered by alternatives when 'only' is used as in (7) (Rooth, 1985). However, if the negation is in a higher clause, then it can target the future meaning of *mau* as in (8a), even when the subject is inanimate. It thus seems that we cannot negate future *mau* directly, but we can do so indirectly. Fact 3. Future *mau* is compatible with inanimates as seen in (9), even if the future event does not depend on the object's intrinsic characteristics (contra what Copley, 2002 would predict). Fact 4. We can also detect future *mau* in the expression *sudah mau* 'soon' (lit. 'already want'), as in (10). In this case, the presence of *sudah* forces a temporal/future reading of *mau*, and the expression denotes the proximate future. *Sudah mau* is also incompatible with negation (see (8b)), and can be used with inanimate subjects (10).

**THE ANALYSIS** We analyze future *mau* as dispositional *will* (Copley, 2002), meaning that *the subject is disposed to causing the eventuality of the verb*.[3] Following the 'will as modal' approach (Copley, 2002; Thomason, 1970 a.o.), the future meaning is contributed by a prospective aspect (Bochnak, 2019):

(1) a. …[bakal [PROSP[VP]]]

b. $[\![\ bakal\ ]\!] = \lambda P_{i,st}.\lambda t.\lambda w.\forall w \in \text{ACC}(w,t)[P(t)(w')]$

c. $[\![\ \text{PROSP}\ ]\!] = \lambda Q_{v,st}.\lambda t.\lambda w.\exists e[\tau(e) > t\ \&\ Q(e)(w)]$

We propose that *mau* is ambiguous between a 'want' $mau_1$ (also spelled out as *pengen*) and a dispositional *will* $mau_2$. Focusing on the latter, we propose that *mau*, which is also often grouped with modals (Sneddon, 2010), is a specification (a strict subset) of modal *will*:

(2) a. …[mau [PROSP[VP]]]

b. $[\![\ mau_2\ ]\!] = \lambda P_{i,st}.\lambda x.\lambda t.\lambda w.\forall w \in \text{ACC}(w,t)[P(t)(w')$ & a property of $x$ causes $P(t)(w')]$

What makes it dispositional is the second conjunct. For example, in (9), it's the accidental property of the book being at the edge of the bookshelf that will cause it to fall. How do we account for the incompatibility of dispositional *mau* with negation? Suppose *nggak* 'not' could directly compose with $mau_2$. Which conjunct would the negation target? The meaning of the unattested *nggak* $mau_2$ would be a disjunction of two negations: [the VP will not happen] OR [the VP will not be caused by a property of $x$ (and might still happen)]. We argue that this meaning would be too under-informative and is thus pragmatically ruled out.

**CONCLUSION** We have argued that *mau* can be used as dispositional *will* in Indonesian. We provided novel data from original fieldwork, identifying a puzzle with negation, which cannot target dispositional *mau*. Finally, we provided a novel analysis of dispositional *mau* and argued that negating it would be under-informative. Indonesian shows that 'want' can synchronically mean 'will', a change which is diachronically attested in many languages (Heine, 2017).

[1] There is another possibility, which we will set aside, namely to use a temporal phrase followed by *lagi* (roughly meaning 'from now') as in *empat tahun lagi* 'four years from now'.

[2] When we add *nggak* the sentence becomes ambiguous between a present and a past interpretation, as if there's no future (6).

[3] Contra Copley, 2002, we argue that dispositional *mau* is distinct from generic *will*, does not need a covert if-clause, as well as that any kind of property (accidental or inherent) of the subject can cause the VP (see Fact 3). We provide a novel analysis.

(3) Context: *We are at a party, but it's getting late. I need to leave.*
Sebenarnya aku nggak mau, tapi aku mau pulang sekarang ya.
actually I NEG WANT but I FUT go-home now ok
'I don't actually want to but I will go home now.'

(4) Context: *Will you be at the concert tomorrow?*
#Aku mau nggak ke konsernya.
I WANT NEG to concert.DEF
'I don't want to/*will not go to the concert.'

(5) Context: *We are preparing the room for an exam, and the clock is not working.*
*Jamnya nggak mau nunjukin waktu yang benar.
clock.DEF NEG want show time which correct
Intended: 'The clock will not show the correct time.'

(6) Context: *There is a faculty trip being organized, and no students are allowed to attend.*
#Nggak adeh mahasesua yang mau pargi.
NEG EXISTENCE student which want go
'No student wants/wanted to/#will go.'

(7) Context: *There is a faculty trip and one student representative is needed. One student got randomly selected to go, against their will.*
#Cuma mahasesua ini yang mau pargi.
only student this which want go
'Only this student wants/wanted to/#will go.'

(8) Context: *My colleague and I are preparing the room for an exam. I think the clock is about to stop, but my colleague reassures me it will not stop during the exam.*
   a. Aku nggak yalin kalo jamnya mau mati.
   I NEG think COMP clock.DEF FUT stop
   'I don't think that the clock will stop.'
   b. *Jamnya nggak sudah mau mati.
   clock.DEF NEG already FUT stop
   Intended: 'The clock will not stop soon.'

(9) Context: *The book is at the edge of the bookshelf, I am afraid it will fall.*
Mau jatoh bukunya.
FUT fall book.DEF
'The book will fall.'

(10) Context: *My phone's battery is dying.*
Baterenya sudah mau habis.
battery.DEF already FUT over
'The battery will soon die.'

**References** • **Bochnak, M. R.** (2019). Future reference with and without future marking. *Language and Linguistics Compass*, *13*(1). • **Copley, B. L.** (2002). *The semantics of the future* (Doctoral dissertation). MIT. • **Heine, B.** (2017). Grammaticalization. In *The Handbook of Historical Linguistics* (pp. 573–601). John Wiley & Sons, Ltd. • **Rooth, M. E.** (1985). *Association with focus (montague grammar, semantics, only, even)* (Doctoral dissertation). University of Massachusetts Amherst. • **Sneddon, J. N.** (2010). *Indonesian: A Comprehensive Grammar*. Routledge. • **Thomason, R.** (1970). Indeterminist Time and Truth-Value Gaps. *Theoria*, *36*(3), 264–281. •

**Wenjiu Du**

# The syntax of *bagi* 'give' constructions in colloquial Malay: In favor of a generalized ditransitive analysis

**Overview** It has been claimed that the counterparts of the verb 'give' are highly polysemous across various languages (Bouveret 2021). In colloquial Malay, as reported by Yap & Iwasaki (1998), the give-corresponding morpheme *bagi* can assume multiple uses, including dative, benefactive, permissive-causative, manipulative-causative, co-lexicalized causative, reflexive-causative, passive, and purposive. Their study, though offering a comprehensive account of the grammaticalization paths for *bagi* constructions, has not treated the syntactic category of *bagi* in each cases in much detail. In this study, I argue that *bagi* serves as a ditransitive verb throughout, thus licensing a generalized ditransitive analysis (Lin & Huang 2015) to capture the seemingly diverse functions of *bagi.*

**Justifying the verbal status of *bagi* in all instances** From a functionalist perspective, it might be argued that *bagi* is grammaticalized into a preposition-like morpheme or a coverb, a mixture of verb and preposition (Li & Thompson 1981; Bisang 1996) in its dative, benefactive, passive, and purposive uses. This argument is mainly motivated by the bleached semantics of the verb *bagi*. Using semantic criteria for grammatical categories, nevertheless, is somewhat arbitrary, which would end up with stretched and vague delimitation (Aarts 2001: 27). Thus, a far better approach is to characterize its part of speech employing formal criteria. Morphological and syntactic tests, however, reveal that *bagi* is granted verbal status in those cases. Morphologically, *bagi* can take the aspectual marker *meN-* (Soh & Nomoto 2009) in all scenarios. Syntactically, for one thing, the dative and the benefactive *bagi* fails to head a PP that is moveable (see (1)); for another, the passive and the purposive *bagi* can be modified by the negation marker *tidak* (see (2)).

(1) a. Dia dirikan se-buah rumah **bagi** aku.
3SG build one-CL house give 1SG
'S/he built a house for me.' **[Benefactive]**

b. ***bagi** aku, dia dirikan se-buah rumah
give 1SG 3SG build one-CL house
Intended: 'For me, s/he built a house.'

(2) a. Ikan emas (itu) **bagi** kucing makan.
fish gold that give cat eat
'The goldfish was eaten by the cat.' **[Passive]**

b. Ikan emas (itu) **tidak bagi** kucing makan.
fish gold that NEG give cat eat
'The goldfish was not eaten by the cat.'

**Towards a unified analysis of *bagi* constructions** I contend that the polysemy of *bagi* is triggered structurally rather than lexically. The verbal status of *bagi* allows for a uniformed syntactic account, i.e. a generalized ditransitive analysis. According to Lin & Huang (2015), while the verb 'give' has its transfer meaning weakened through generalization, the transfer event with a recipient is still encoded in the construction (cf. Goldberg 1995). Hence, various uses of 'give' can be derived from a Larsonian structure where 'give' as a ditransitive verb takes two internal arguments. I show that Lin & Huang's (2015) proposal can be extended effectively to *bagi* in colloquial Malay.

**In double object construction** [1], *bagi* as a main verb projects a VP, with the recipient as the Spec of VP and the theme as the complement of VP. The verb *bagi* is then moved to the head of upper light verb. **In preverbal uses**, *bagi* takes an IP-complement in all but co-lexicalized causative. It renders causative interpretations in a continuum ranging from strong manipulative [2] to medium permissive [3] to weak reflexive [5]. When the matrix subject in the causative cases is put into a caused or permitted event as an affected participant, it leads to the passive reading [6]. In the co-lexicalized use [4], *bagi* serves as the head of a verbal compound. **In postverbal domains**, the dative [7] and the benefactive [8] use can be derived from *bagi* as a main verb taking another VP (i.e., *kirim sepucuk surat* 'send one letter' in [7] and *dirikan sebuah rumah* 'build a house' in [8]) as its complement. The purposive *bagi* [9] is actually the causative *bagi* embedded in a clause.

**Examples** (adapted from Yap & Iwasaki 1998: 429 after checking with native speakers)

| | | |
|---|---|---|
| **Double object construction** | **Ditransitive** | [1] Dia **bagi** aku duit.<br>3SG give 1SG money<br>'S/he gave me money.' |
| **Pretverbal uses** | **Manipulative-causative** | [2] Dia **bagi** budak tu nangis.<br>3SG give child that cry<br>'S/he made the/that child cry.' |
| | **Permissive-causative** | [3] Aku nak tengok, dia **bagi** aku tengok.<br>1SG want look 3SG give 1SG look<br>'If I want to look, s/he will let me look.' |
| | **Co-lexcicalized-causative** | [4] Dia **bagi tumbang** tiang itu.<br>3SG give fall.over pole that<br>'S/he brought down the/that pole.' |
| | **Reflexive-causative** | [5] Dia$_i$ **bagi** aku nampak dia$_i$.<br>3SG give 1SG spot 3SG<br>'S/he let me spot her/him.' |
| | **Passive** | [6] Ikan emas (itu) **bagi** kucing makan.<br>fish gold that give cat eat<br>'The goldfish was eaten by the cat.' |
| **Postverbal uses** | **Dative** | [7] Aku kirim se-pucuk surat **bagi** dia.<br>1SG send one- CL letter give 3SG<br>'I mailed a letter to her/him.' |
| | **Benefactive** | [8] Dia dirikan se-buah rumah **bagi** aku.<br>3SG build one-CL house give 1SG<br>'S/he built a house for me.' |
| | **Purposive** | [9] Dia cerita **bagi** kita dengar.<br>3SG tell.story give 1PL listen<br>'S/he told a story for us to listen to.' |

**References**


Aarts, B. (2001). *English syntax and argumentation* (2nd edition). New York: Palgrave.

Bisang, W. (1996). Areal typology and grammaticalization: processes of grammaticalization based on nouns and verbs in East and mainland South East Asian languages. *Studies in Language, 20*(3), 519–597.

Bouveret, M. (ed.). (2021). *Give constructions across languages.* Amsterdam: John Benjamins.

Goldberg, A. E. (1995). *Constructions: A Construction Grammar approach to argument structure*. Chicago/ London: The University of Chicago Press.

Li, C. N., & Thompson, S. A. (1981). *Mandarin Chinese: A functional reference grammar.* Berkeley: University of California Press.

Lin, T. H. J., & Huang, Y. S. (2015). Structures of the Mandarin gei constructions. *Journal of East Asian Linguistics, 24*, 309-338.

Soh, H. L., & Nomoto, H. (2009). Progressive aspect, the verbal prefix meN-, and stative sentences in Malay. *Oceanic Linguistics, 48*(1), 148-171.

Yap, F. H., & Iwasaki, S. (1998). Give constructions in Malay, Thai and Mandarin Chinese: A polygrammaticization perspective. *Chicago Linguistics Society, 34*, 421-438.

**Victor Bogren Svensson & Johan Blomberg**

**Takituduh Bunun and Motion Typology**

*Motion* is a semantic domain that has received considerable attention, mainly due to the different patterns exhibited in languages. The variation has been assumed to fall into a binary division between "verb-" and "satellite-framed" languages (Talmy 1991). This is based on whether the semantic category Path is expressed in the main verb root or in a "satellite", encompassing constituents like particles and verbal prefixes claimed to stand in a "sister relationship to the main verb root" (Talmy 2000: 102). This is shown in the (1) below, with Swedish illustrating the satellite-framed type (1a) and French the verb-framed type (1b).

More variation than predicted by the binary typology has been found as more languages have been investigated (Levinson & Wilkins 2006; Zlatev et al. 2021). One language family that so far has received surprisingly limited attention in motion typology is Austronesian languages (cf. Huang & Tanangkingsing (2006); Rau et al. (2012) for two exceptions). We present novel data for the expression of translocative motion in Takituduh Bunun, showing that it makes use of poorly understood grammatical resources for encoding translocation motion while. We bring specific attention to the three following features:

1. The productive use of the allative verbalizer *un-*, which attaches both to prepositions (2a) and locative nouns (2b) to encode translocative motion. As such, we have instances of Region, Motion and Path being encoded by a verbalized preposition or verbalized locative noun, a type of mapping that has not been previous attested in the motion literature (references).

2. The combination of manner-of-motion verbs with morphologically derived Path verbs to form multiverbal predicates. In such clauses, the Manner-verb must be in the initial position (3a). However, Takituduh Bunun cannot be classified as an Equipollently-framed language where these verbs have equal syntactic status (Slobin 2004), since there is evidence in favor of such clauses consisting a hierarchically structured sequence of VPs, rather than a flat serial verb construction. In multiverbal Patient Voice clauses, only the first verb in a sequence hosts the distinctive voice morphology of the clause (3b), showing that the structure is hierarchically ordered, with the verb in the structurally highest verb phrase hosting the finite morphology of the clause. By analogy, we expect the initial verb in intransitive clauses to be the finite verb as well, even though there is not always overt morphological evidence indicating this. We have found clauses containing up to three motion verbs (3c).

3. Locative Voice for expressing Path (4b-c). The exact semantic interpretation of the nominative argument in translocative LV clauses is variable and is determined by the overall morphosyntactic context. In (4a), LV yields a locative interpretation, but in a different morphosyntactic context (4b), it instead yields a translocative interpretation. While similar patterns have been mentioned in passing for Tagalog (Fortis 2006), it remains a poorly understood grammatical resources for expressing translocation motion in need of further research.

With the help of these three features, we show that Takituduh Bunun fails to fall into any of the previously established prototypes in motion typolohgy, not only because it makes use of unique grammatical features, but also because it makes use of a unique combination of grammatical features to encode the common semantic features associated with translocative motion. This opens up the field even further and in particular necessitates the need for more research on Austronesian languages.

1a. Peter sprang in i rumm-et
Peter run.PST PRT PREP room-DEF
'Peter ran into the room'

b. Pierre est entré dans la piece en courant
Pierre AUX enter.PST.PRTC PREP DEF room PREP run.PRTC
'Pierre entered the room running'

2a. m-un-ca'an ca uvava'az cungus is sipulan
INTR.ALL.VBZ-at ABS children backyard GEN school
'The children went to the back of the school'

2b. m-u-kumbu ca uva'az (is) sipulan
INTR.ALL.VBZ-inside ABS child (poss) school
'The child entered the school'

3a. m-alalia ca uva'az m-un-caan kiukai
INTR-run ABS child INTR-ALL.VBZ-at church
'The child ran to the church

3b. uqtic-un cia p-in-dusa ca duun
cut-TR 3s.ERG CAU-inch-two ABS rope
'He cut the rope in two'

3c. malalia=k-ak laqai is quma m-un-haan sipulan
run=E-1s.ABS pass OBL field INTR-ALL.VBZ-at school
"I ran past the field to school'

4a. palalai-an nai ca hundul
run-LOC.APPL 3s.ERG ABS bridge
'They are running on the bridge'

4b. palalai-an nai ca hundul m-un-ca'an babalivan
run-LOC.APPL 3s.ERG abs bridge INTR-ALL.VBZ-atshop
'They ran across the bridge to go to the shop'

4c. lingku-an laqda ca tuszuq aiza
roll-LOC.APPL rock ABS hole dem
'The rock rolled into the hole'

**References**


Fortis, J-M. (2003). Voix et relation spatiales en Tagalog. *Bulletin de Société de linguistique de Paris* XCVIII: 455-484.

Huang, S. & Tanangkingsing, M. (2006). Reference to Motion Events in Six Western Austronesian Languages: Toward a Semantic Typology. *Oceanic Linguistics.*

Levinson, S. C. and Wilkins, D. P. (2006). *Grammars of Space: Explorations in Cognitive Diversity.* Cambridge: Cambridge University Press.

Rau, D. V., Wang, C.-C., & Chang, H.-H. A. (2012). Investigating Motion Events in Austronesian Languages. *Oceanic Linguistics*, *51*(1), 1–17.

Slobin, D. I. (2004). The many ways to search for a frog: linguistic typology and the expression of motion events. In S. Strömqvist and L. Verhoeven (eds.), *Relating Events in Narrative: Typological and Contextual Perspectives* (pp. 219-257). Mahway: Lawrence Erlbaum Associates.

Talmy, L. (1991). Path to realization: A typology of event conflation In L. A. Sutton, C.Johnson and R. Shields (eds.), *Papers of the Seventeenth Annual Meeting of the Berkeley Linguistics Society (pp. 480-520). Berkeley: Berkeley Linguistics Society.*

Talmy, L. (2000). *Toward a Cognitive Semantics.* Cambridge: MIT Press.

Zlatev, J., Blomberg, J., Devylder, S., Naidu, V. & van de Weijer, J. (2021). Motion event descriptions in Swedish, French, Thai and Telugu: A study in post-Talmian motion event typology. *Acta Linguistica Hafniensia*.