# Tagalog Voice as Four Bundles of Agree Relations: Insights from Binding

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## 1. Introduction

A central question in Austronesian syntax concerns a typologically unusual four-way voice system found in Tagalog and similar languages. In these languages, a change in verbal morphology correlates with a distinct argument-marking pattern and Ā extraction restriction. With verbal morphology altering between *Actor Voice* (AV), *Patient Voice* (PV), *Locative Voice* (LV), and *Circumstantial Voice* (CV), the sole phrase in the clause eligible for Ā extraction shifts from the external argument (1a) to the internal argument (1b) and different types of adjunct-like phrases (1c-d), respectively. This syntactically pivotal phrase bears a distinct marker, labeled as PIVOT in this paper.

(1) a. B⟨**um**⟩ili si AJ ng keyk mula kay Lia para kay Joy.
buy⟨**AV**⟩ [PN.PIVOT AJ] ID.CM$_2$ cake P$_1$ PN.CM$_2$ Lia P$_2$ PN.CM$_2$ Joy
'*AJ* bought cake from Lia for Joy.' (ACTOR VOICE)

b. Bi-bilih-**in** ni AJ ang keyk mula kay Lia para kay Joy.
CONT-buy-**PV** PN.CM$_1$ AJ [PIVOT cake] P$_1$ PN.CM$_2$ Lia P$_2$ PN.CM$_2$ Joy
'AJ will buy *cake* from Lia for Joy.' (PATIENT VOICE)

c. Bi-bilih-**an** ni AJ ng keyk si Lia para kay Joy.
CONT-buy-**LV** PN.CM$_1$ AJ ID.CM1 cake [PN.PIVOT Lia] P$_2$ PN.CM2 Joy
'AJ will buy cake from *Lia* for Joy.' (LOCATIVE VOICE)

d. **I**-bi-bili ni AJ ng keyk mula kay Lia si Joy.
**cv**-CONT-buy PN.CM1 AJ ID.CM2 cake P$_1$ PN.CM2 Lia [PN.PIVOT Joy]
'AJ will buy cake from Lia for *Joy*.' (CIRCUMSTANTIAL VOICE)

Under the traditional view, voice alternation in (1) correlates with a change in argument structure, enabling phrases of different types to access the edge of VoiceP and participate in Ā extraction. On this assumption, the four verbal affixes in (1) have been claimed to instantiate *valency-indicating morphology* that realizes different flavors of Voice and applicative heads (Aldridge 2004), or *agreement morphology* that inflects for the case of the phrase occupying the VoiceP phase edge (Rackowski & Richards 2005)[1].

In this paper, I demonstrate instead that the voice alternation in (1a-d) has no correlation with argument structure alternation; nor does it manifest case inflections hosted within VoiceP. Instead, the alternation indicates a change in *topic selection*, whereby (1c) and (1d) are clauses that contain an adjunct topic, rather than applicative constructions that feature different types of applied object. Support for this view comes from previously overlooked evidence from Tagalog's three-place constructions, which reveals (i) voice alternation in Tagalog does not trigger a change in binding relations, and (ii) CM$_1$ and CM$_2$ show the hallmarks of nominative and accusative case, respectively, whereas PIVOT is a topic

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[1]List of abbreviations: CONJ: conjunction; CONT: contemplated aspect; DF: definite; DOM: diffrential object marking; ID: indefinite; P: preposition; PN: personal name; PRF: perfective; RED: reduplication; REFL: reflexive.

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marker independent of case and overrides morphological case. Following (i)-(ii), Tagalog's four-way voice morphology is best analyzed as the spell-out of *four different bundles of abstract Agree relations* that probe the topic (i.e. PIVOT-marked phrase) of a clause. This analysis is summarized in (2).

(2)
| | | |
|---|---|---|
| a. | ACTOR VOICE: | spell-out of the bundle of topic agreement and subject agreement |
| b. | PATIENT VOICE: | spell-out of the bundle of topic agreement and object agreement |
| c. | LOCATIVE VOICE: | spell-out of the bundle of topic agreement and locative agreement |
| d. | CIRCUMSTANTIAL VOICE: | spell-out of topic agreement |

Under the current view, Tagalog 'voice' indexes four types of topics: (i) subject topics (1a), which constitute the shared goal of [u$\phi$] and [uTOP] on a distinct functional head, (ii) direct object topics (1b), which constitute the shared goal of [u$\phi$] on matrix Voice (i.e. trigger of object agreement) and [uTOP]; (iii) locative topics (1c), which agrees both with [uTOP] and with a locative-selecting preposition, $P_{LOC}$, and (iv) topics that agree only with [uTOP] and not any other probes (1d). Accordingly, Tagalog constitutes a typical topic-prominent *discourse configurational language* as per Li & Thompson (1985), É. Kiss (1995), and Miyagawa (2010).

This paper is structured as follows. In section 2, I lay out basic facts of Tagalog syntax and review two recent approaches to its unusual voice system. Section 3 presents previously overlooked binding facts in three understudied constructions, which undermine both approaches introduced in section 2. Sections 4 and 5 demonstrate how these facts motivates the current proposal outlined in (2). Section 6 summarized concludes. Except where otherwise indicated, the data presented in this paper come from primary fieldwork with five speakers of Manila Tagalog.

## 2. Previous accounts of Tagalog voice

### *2.1. Tagalog voice basics*

Tagalog syntax is crosslinguistically unusual in several regards. First, with appropriate verbal morphology, phrases ranging from core arguments to adjunct-like phrases may render the syntactic pivot of the clause and bear PIVOT-marking, resulting in a typologically rare case pattern, (3).

(3)
| | a. AV | b. PV | c. LV | d. CV |
|---|---|---|---|---|
| EXTERNAL ARGUMENT | **PIVOT** | $CM_1$ | $CM_1$ | $CM_1$ |
| INTERNAL ARGUMENT | $CM_2$ | **PIVOT** | $CM_2$ | $CM_2$ |
| LOCATIVE | $P_1$ | $P_1$ | **PIVOT** | $P_1$ |
| INSTRUMENT/BENEFACTOR | $P_2$ | $P_2$ | $P_2$ | **PIVOT** |

Second, it exhibits a fluid extraction constraint known in the literature as 'PIVOT-only,' whereby all non-pivot-marked phrases are banned from $\bar{A}$ extraction (relativization). Third and most importantly, the mapping between voice-marking and pivot selection in this language cannot be attributed to any single condition such as the thematic role or the case status of the pivot phrase. Rather, the mapping roughly reflects the relative structural height of the pivot with other arguments in the same clause: AV ⟩ PV ⟩ LV ⟩ CV (high to low), as seen in (3). For instance, possible pivots in AV include not only external arguments (4a), but also themes of unaccusatives (4b); on the other hand, not all external arguments are eligible for pivot-marking under AV morphology. AV-marked productive causatives, for example, allow only the causer and not the causee to carry PIVOT-marking, as seen in (5), despite both phrases being agentive and encoded as external arguments (see §3.2).

(4) a. K⟨um⟩anta **si Aya**.
sing⟨AV⟩ **PN.PIVOT Aya**
'Aya sang.'

b. D⟨um⟩ating/*⟨in⟩ **si Aya**.
arrive⟨AV⟩/*⟨PV⟩ **PN.PIVOT Aya**
'Aya arrived.'

(5) **Nag**-pa-basa **si Aya** {kay/*si} Pedro ng libro.
**AV**-CAU-read **PN.PIVOT Aya** {PN.$CM_2$/*PN.PIVOT} Pedro ID.$CM_2$ book
'Aya made Pedro read a book.'

Given the facts above, any successful account of Tagalog's voice system should answer three questions: the nature of PIVOT, $CM_1$, and $CM_2$, the nature of the four voice affixes, and the mechanism of voice alternation. In the next subsection, I review two well-adopted approaches to these questions.

### *2.2. Two previous approaches to Tagalog voice*

To address the three questions above, a key question must first be answered – are the adjunct-like pivots in LV/CV clauses (e.g. (1c-d)) adjuncts or arguments? If PIVOT realizes a type of structural case, these phrases must render as *arguments*, (i.e. applied objects). If, however, they remain as an adjunct in LV/CV clauses, we can conclude that PIVOT-marking does not mark case – given that it is compatible with both arguments (3a-b) and adjuncts (3c-d). In what follows, I review two recent approaches to Tagalog voice that build on the first assumption.

Under the syntactically ergative approach to Tagalog, PIVOT marks absolutive case from T assigned to the highest caseless DP. Accordingly, the adjunct-like pivot phrase in LV/CV clauses is an absolutive-marked applied object base-generated in the highest internal argument position, from where it is eligible for object shift and accessible to the edge of VoiceP. On this assumption, LV/CV morphology realizes the applicative head that licenses the applied object pivot (Aldridge 2004, 2012, 2017; see also Payne 1982, Mithun 1994, and Maclachlan 1996 for a similar analysis.)

On this account, Tagalog's voice affixes are *valency-indicating morphemes* that promote different types of phrases to the edge of VoiceP: "AV" is the morphological reflex of an intransitive Voice head, whereas "PV" is the spell-out of a transitive Voice head. The "LV" and "CV" affixes each realize a high applicative head, which introduces the pivot as an applied object. Accordingly, the case-marking $CM_1$ and object shift are assumed to be present only in PV/LV/CV clauses, on assumption that all AV clauses are syntactically intransitive, lacking ergative case ($CM_1$) and an EPP feature on Voice (which triggers object shift) (e.g. Aldridge 2004, 2012, 2017).

(6) THE ERGATIVE APPROACH TO TAGALOG VOICE

| | | | |
|---|---|---|---|
| PIVOT | ABS from T | AV AFFIX | reflex of intransitive Voice |
| $CM_1$ | ERG from transitive Voice | PV AFFIX | reflex of transitive Voice [with EPP on Voice] |
| $CM_2$ | OBL from V | LV AFFIX | reflex of high APPL [with EPP on Voice] |
| | | CV AFFIX | reflex of high APPL [with EPP on Voice] |

The case agreement approach to Tagalog voice (Rackowski & Richards 2005) argues instead that Tagalog possesses an accusative case system with two types of inherent cases – dative and oblique – assigned by low and high applicative head, respectively. On this assumption, Tagalog's four voice affixes are *case agreement morphology* that inflects for four possible cases borne by the DP occupying the VoiceP phase edge, which agrees with Voice: *nominative* ("AV") (1a), *accusative* ("PV") (1b), *dative* ("LV") (1c), and *oblique* ("CV") (1d). The proposed mechanism of voice alternation goes as follows: whenever object shift does not occur, the nominative external argument controls the agreement with Voice, with the Agree relation realized as "AV" morphology; whenever object shift occurs, either the accusative object or an applied object (inherently case-licensed with dative or oblique) raises to the outer Spec,VoiceP, whose Agree relation with Voice inflects for the case status of the DP, spelled out as "PV," "LV," or "CV" morphology, respectively. This analysis is summarized in (7).

(7) THE CASE AGREEMENT APPROACH TO TAGALOG VOICE

| | | | |
|---|---|---|---|
| PIVOT | marker on the DP that agrees with Voice | AV AFFIX | Voice agreement with NOM phrase |
| $CM_1$ | NOM from T | PV AFFIX | Voice agreement with ACC phrase |
| $CM_2$ | ACC from Voice | LV AFFIX | Voice agreement with DAT applied object |
| | | CV AFFIX | Voice agreement with OBL applied object |

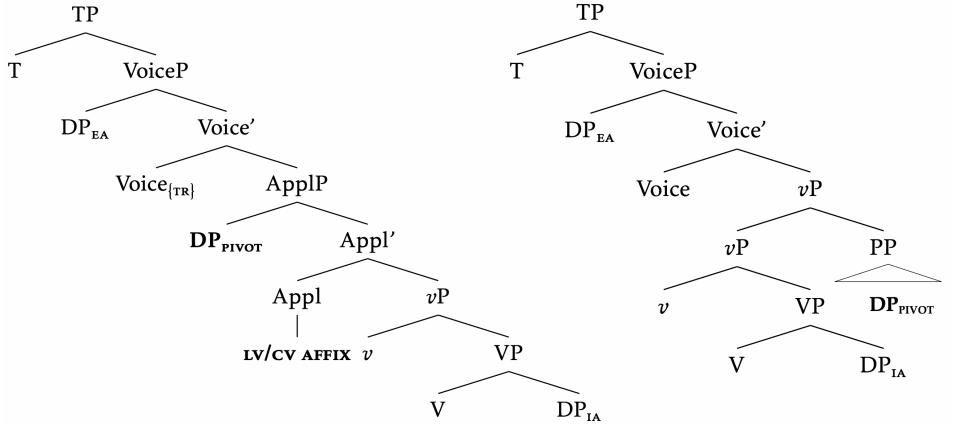
## 3. Against previous approaches to Tagalog voice

Contra the key assumption of these two approaches, the pivot phrase in LV/CV clauses does not behave like an applied object. In this section, I show that such phrases range from adjuncts adjoined to VoiceP to DPs that are not the highest internal argument. Support for this claim comes from previously overlooked binding facts in Tagalog's three-place constructions: clauses with an adjunct-like pivot (3.1), causatives (3.2), and ditransitives (3.3).

### *3.1. Transitive clauses with an adjunct-like pivot*

If LV/CV morphology indeed indexes the presence of an applied object in the highest internal argument position, the pivot phrase in LV/CV clauses should asymmetrically c-command the theme, manifesting the binding relation schematized in (8a). Alternatively, if the pivot phrase remains as an adjunct adjoined to VoiceP, as shown in (8b), the theme may bind into the pivot, as these two phrases are in sisterhood within the same phase (Bruening 2014).

(8) a. LV/CV PIVOT AS AN APPLIED OBJECT b. LV/CV PIVOT AS AN ADJUNCT




Quantifier-variable binding tests indicate that the applicative account (8a) is untenable. As (9a-b) show, in both LV and CV constructions, a quantificational theme may bind into a pronominal pivot with the latter interpreted as a bound variable. Contra previous assumptions, this indicates that the pivot is not base-generated in the highest internal argument position (8a), and may instead remain as an adjunct adjoined to VoiceP (8b).[2]

(9) a. Ni-lutu-an=ko [ng isda ng bawat babae] [ang kanyang kawali].
PRF-cook-LV=1S.CM$_1$ [ID.CM$_2$ fish LK every woman] [PIVOT 3P.POSS pot]
'I cooked every woman's$_{\langle j\rangle}$ fish in her$_{\langle j/k\rangle}$ pot.' (LOCATIVE VOICE)

b. I-p⟨in⟩ampalo=ko [ang kanyang pamalo] [ng bawat bata].
CV-hit⟨PRF⟩ = 1S.CM$_1$ [PIVOT 3S.POSS hiting.stick] [ID.CM$_2$ every child]
'I hit every child$_{\langle j\rangle}$ with their$_{\langle j/k\rangle}$ stick.' (CIRCUMSTANTIAL VOICE)

[2]Rackowski and Richards (2005:578) argues for the applicative analysis of LV/CV clauses drawing on one CV example where a quantificational theme fails to bind into the pivot. According to my consultants, the unacceptability of that example has to do with the low frequency of the verb (*bantay* 'watch') in CV form, i.e. *ibinatay*). Moreover, a non-pivot internal argument can freely bind the pivot as long as the verb allows an LV/CV form under an appropriate context. For more discussion of the binding fact, see Chen (2017) for details.

### *3.2. Productive causatives*

Productive causative constructions provide another ideal testing ground for examining the applicative approach to Tagalog LV/CV constructions. As seen in (10), all three nominals in a causative of transitive may render the pivot phrase with appropriate voice-marking. AV morphology correlates with a pivot-marked causer; PV morphology correlates with a pivot-marked *causee* (10b); CV morphology correlates with a pivot-marked *theme* (10c).

(10)

| | a. AV | b. PV | c. CV |
|---|---|---|---|
| CAUSER | **Pivot** | $CM_1$ | $CM_2$ |
| CAUSEE | $CM_2$ | **Pivot** | $CM_2$ |
| THEME | $CM_2$ | $CM_2$ | **Pivot** |

If CV morphology indeed indiates the presence of a high applicative head, as assumed in previous work (6)-(7), the pivot theme in CV-marked causatives (10c) should be licensed an applied object base-generated in the highest internal argument position *above* the causee. Alternatively, if LV/CV causatives do not involve applicativization of the pivot phrase, the pivot-marked theme in (10c) should remain as an internal argument – as it normally is in causative constructions across languages.

Reflexive binding tests show that the second hypothesis is correct: regardless of voice-marking, a causee can consistently bind into the theme even when the latter is PIVOT-marked (11c). This is in line with two observations from §3.1: (a) LV/CV morphology has nothing to do with applicativization of the pivot, and (b) voice alternation in Tagalog does not correlate with a change in argument structure.

(11) a. Nag-pa-pa-ligo=ako kay Maria **ng sarili niya**.
AV-CAU-RED-bathe=1S.PIVOT PN.$CM_2$ Maria **$CM_2$ REFL 3S**
'I made *Maria* bathe *herself*.' (ACTOR VOICE)

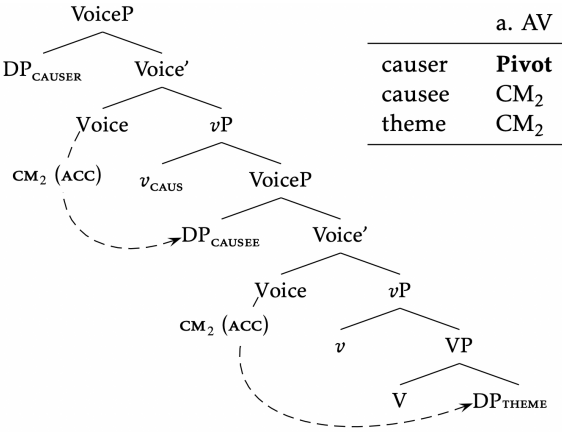
b. P⟨in⟩a-pa-ligo=ko si Maria **ng sarili niya**.
CAU-PRF.**PV**-RED-bathe=1S.$CM_1$ PN.PIVOT Maria **$CM_2$ REFL 3S**
'I am making *Maria* bathe *herself*.' (PATIENT VOICE)

c. **I**-p⟨in⟩a-li-linis=ko kay Sue **ang sarili niya**.
**CV**-CAU⟨PRF⟩RED-clean=1S.$CM_1$ PN.$CM_2$ Sue **PIVOT REFL 3S**
'I made *Sue* clean *herself*.' (CIRCUMSTANTIAL VOICE)

This conclusion is reinforced by one other observation: regardless of voice type, the causee in Tagalog causatives (10a-c) behaves consistently like an external argument (and not a *by*-phrase or an applicative phrase). This generalization obtains from the construction's compatibility with agent-oriented adverbs and the adverb of frequency 'again' in all possible voice types, exemplified with the CV example (12). This indicates that the caused event in all three types of causatives (10a-c) is encoded as an independent active VoiceP with the causee introduced as an external argument, as in (13). The fact that it may bind into the theme regardless of voice (11a-c) follows from this analysis. Note, additionally, that the fact that $CM_2$-marking may appear on the external-argument causee (see (13)) lends novel empirical support against analyzing this marker as the reflex of lexical oblique case and lends support to an alternative accusative analysis, as the distribution of the former should be restricted to internal argument positions.

(12) **I**-p⟨in⟩a-li-linis=ko (ulit) kay Sue **ang kanyang sarili** (nang palihim).
**CV**-CAU⟨PRF⟩-RED-clean=1S.$CM_1$ (again) PN.$CM_2$ Sue **PIVOT 3S REFL** (CONG secretly)
'I made **Sue$_k$** clean herself **(again$_k$) (secretly$_k$)**.' (CIRCUMSTANTIAL VOICE)

(13)




| | a. AV | b. PV | c. CV |
|---|---|---|---|
| causer | **Pivot** | $CM_1$ | $CM_1$ |
| causee | $CM_2$ | **Pivot** | $CM_2$ |
| theme | $CM_2$ | $CM_2$ | **Pivot** |

### *3.3. Ditransitives*

Ditransitive constructions provide another ideal environment for examining the applicative analysis of Tagalog LV/CV constructions. As in causatives, PIVOT-marking in this construction alters between different types of nominals following voice alternation, summarized in (14). Note, however, that PV morphology is not an option for ditransitives. I will revisit this asymmetry in section 5.

(14)

| | a. AV | b. LV | c. CV |
|---|---|---|---|
| AGENT | **Pivot** | $CM_1$ | $CM_1$ |
| RECIPIENT | $CM_2$ | **Pivot** | $CM_2$ |
| THEME | $CM_2$ | $CM_2$ | **Pivot** |

If LV/CV morphology indeed indexes applicativization of the pivot, as argued in previous work, the fact that PIVOT-marking falls on the *recipient* in LV ditransitives (14b) and the *theme* in CV ditransitives (14c) entails that these two constructions possess distinct structures and binding relations. If, however, voice alternation has no impact on argument structure, as observed earlier in §3.1-2, the binding relation between the recipient and the theme should remain the same.

Quantifier-variable binding tests show that the second scenario is correct. As seen below, regardless of voice alternation, the recipient and the theme can mutually bind into each other.

(15) a. **I**-b⟨in⟩igay ni Joy kay Lia **ang sarili niyang larawan**.
**CV**-give-PRF PN.$CM_1$ Joy PN.$CM_2$ Lia **PIVOT self 3S.POSS picture**
'Joy⟨j⟩ gave Lia⟨k⟩ a picture of herself⟨j/k⟩.' (CIRCUMSTANTIAL VOICE)

b. **I**-b⟨in⟩igay=ko [sa kanilang nanay] [ang sweldo ng bawat manggagawa].
**CV**-give-PRF=1S.$CM_1$ [DOM.$CM_2$ 3P.POSS mother] [PIVOT wages LK every laborer]
'I gave their⟨j⟩ mother every laborer's⟨j/k⟩ wages.' (CIRCUMSTANTIAL VOICE)

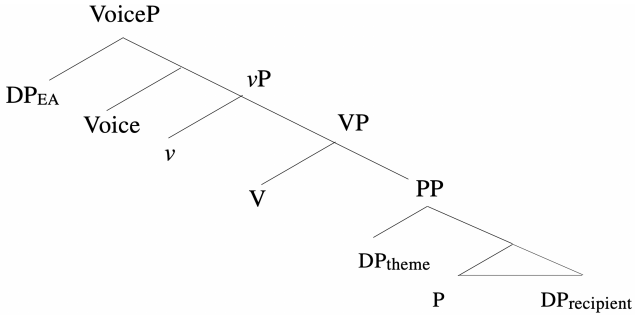
(16) a. B⟨in⟩igy-**an** ni Joy si Lia **ng sarili niyang larawan**.
give-PRF-**LV** PN.$CM_1$ Joy PN.PIVOT Lia **ID.$CM_2$ self 3S.POSS picture**
'Joy⟨j⟩ gave Lia⟨k⟩ a picture of herself⟨j/k⟩.' (LOCATIVE VOICE)

b. B⟨in⟩igy-**an**=ko [ang kanilang nanay] [ng sweldo ng bawat manggagawa].
give-PRF-**LV**=1S.$CM_1$ [PIVOT 3P.POSS mother] [ID.$CM_2$ wages LK every laborer]
'I gave their⟨j⟩ mother every laborer's⟨j/k⟩ wages.' (LOCATIVE VOICE)

The observed binding relation suggests that Tagalog ditransitives are invariably *prepositional datives*, whereby the recipient and the theme c-command each other, schematized in (17) (e.g. Hoekstra & Mulder 1990; Den Dikken 1995; Harley 1997, 2002). This is in line with the observations from §3.1

and §3.2 that Tagalog voice alternation is not accompanied by argument structure alternation, reinforcing the current claim that the applicative approach to LV/CV morphology (6)-(7) is incorrect.[3]

(17)




## 4. The nature of PIVOT, $CM_1$, and $CM_2$

We have seen in section 3 that possible pivots in Tagalog LV/CV constructions range from adjuncts adjoined to VoiceP (8b) to DPs that are not the highest internal argument (e.g. theme in productive causatives (13)) and DPs embedded inside a PP (e.g. theme in prepositional datives (17)). This, along with the voice-insensitive binding facts discussed in §3 enables three generalizations. First, PIVOT does not mark absolutive case (or any type of structural case), as absolutive case assignment should respect locality and be restricted to DPs. Second, neither the ergative nor the case agreement approach is ideal for the analysis of Tagalog voice, as both approaches rely crucially on the applicative analysis of LV/CV clauses, which has been shown untenable.

Now, a question that remains unanswered is the nature of PIVOT, $CM_1$, and $CM_2$. Given that PIVOT-marking is compatible with either arguments or adjuncts, we can first conclude that it does not mark case, and is likely to be a marker associated with certain informational structure status. Following previous analyses (Schachter 1976; Shibatani 1998; Richards 2000, Chen 2017 a.o), I argue that PIVOT is best analyzed as a topic marker that overrides morphological case, with $CM_1$ and $CM_2$ realizing nominative and accusative case, respectively. This analysis is illustrated in (18).

(18)

| | a. AV | b. PV | c. LV | d. CV |
|---|---|---|---|---|
| EXTERNAL ARGUMENT | ~~NOM~~ **topic** | NOM | NOM | NOM |
| INTERNAL ARGUMENT | ACC | ~~ACC~~ **topic** | ACC | ACC |
| LOCATIVE | $P_1$ | $P_1$ | ~~$P_T$~~ **topic** | $P_1$ |
| INSTRUMENT/BENEFACTOR | $P_2$ | $P_2$ | $P_2$ | ~~$P_2$~~ **topic** |

This analysis allows for two testable predictions. First, the pivot phrases should behave like *topics* and not *subjects*. Second, $CM_1$ should show typical behaviors of nominative case (structural case from C/T). The first prediction is borne out by the binding facts discussed in section 3, which show that the pivots behave consistently as a topic, manifesting reconstruction effects and being interpreted in their theta position (see (9), (11), (15)). In addition, as (19) shows, the pivot phrase in LV/CV clauses manifests Weak Crossover effects (Lasnik & Stowell 1991), whereby a quantificational benefactive/instrument may bind into a theme with marginal acceptability only when it renders the pivot (topic).

(19) I-p⟨in⟩ag-luto=ko [ang bawat bata] [ng kanilang isda].
CV-PAG⟨PRF⟩-cook=1S.$CM_1$ [PIVOT every child] [ID.$CM_2$ 3PL.POSS fish]
'I cook their$_{\langle k \rangle}$ fish for every$_{\langle j/??k \rangle}$ child.'

Consistent with the observation above that pivots behave like topics and not *subjects*, $CM_1$ does show the hallmarks of structural nominative case, as seen in (i) its compatibility with both the highest external

[3]Tagalog ditransitives show one other hallmark of prepositional dative: regardless of voice, the goal can be an inanimate locative NP, which is crosslinguistically incompatible with double-object constructions.

arguments and unaccusative themes (20), (ii) its distribution as unique per CP, and (iii) its unavailability to external arguments in nonfinite clauses, such as the causee in causatives (10).

(20) K⟨in⟩amatay-an {**ni/*kay**} Raul ang eskuwelahan.
die⟨PRF⟩-**LV** {**PN.NOM/*PN.ACC/*PN.DAT**} Raul PIVOT school
'Raul died in the school.' (LOCATIVE VOICE)

See §3.2 for specific evidence for the accusative case analysis for $CM_2$.

## 5. Tagalog voice as the spell-out of four bundles of Agree relations

The observations so far enable five generalizations, supplemented with the table in (22).

(21) a. Voice-marking roughly reflects the relative structural height between the pivot and other phrases in the clause: AV ⟩ PV ⟩ LV ⟩ CV (with AV indicating that the pivot is the *highest* DP); it is, on the other hand, not conditioned by the *thematic role* or *case* of the pivot.
b. Possible pivots in AV are equivalent with *subjects* in accusative languages (e.g. external argument in unergatives/transitives; internal argument in unaccusatives) (22a).
c. Possible pivots in PV are consistently the *second highest DP* in the clause (e.g. causee in causatives; theme in simple transitives) (22b).
d. Possible pivots in LV include both locative adjuncts and the recipient/goal in prepositional datives (22c).
e. Possible pivots in CV range from DPs that are structurally low (e.g. theme in causatives) t0 DPs embedded inside a PP (e.g. theme in prepositional dative) and adjuncts (e.g. instrument, benefactor) (22d).

(22) MAPPING OF VOICE-MARKING, CLAUSE TYPE, AND PIVOT SELECTION IN TAGALOG

| | a. AV | b. PV | c. LV | d. CV |
|---|---|---|---|---|
| UNERGATIVES | EA | * | $PP_{locative}$ | $PP_{benefactor/instrument}$ |
| UNACCUSATIVES | **IA** | * | $PP_{locative}$ | $PP_{benefactor/instrument}$ |
| TRANSITIVES | EA | IA | $PP_{locative}$ | $PP_{benefactor/instrument}$ |
| DITRANSITIVES | EA | * | $PP_{goal}$ | $IA_{theme}$ |
| CAUSATIVES | $EA_{causer}$ | $\mathbf{EA_{causee}}$ | * | $IA_{theme}$ |

These generalizations reveal several important traits of Tagalog voice. First, the distribution of AV morphology patterns consistently with that of *subject agreement* (i.e. abstract Agree relation between [u$\phi$] on T and the closest DP) – both targeting the highest DP. Second, the distribution of PV morphology patterns consistently with *object agreement* (i.e. abstract Agree relation between [u$\phi$] on matrix Voice and the closest DP). Both target the highest DP *below* the matrix voice and are (i) unique per clause, (ii) sensitive to phase-like conditions and cannot agree with PPs, and (iii) restricted to the *causee* and not the *theme* in productive causatives (e.g. Baker 2012; Amberber 2002; Deal 2019). Third, possible triggers of LV morphology are unitarily locative phrases, including locative adjuncts (1c) and the goal/recipient in prepositional datives (14). Finally, the trigger of CV morphology ranges from non-locative adjuncts to DPs that are not the highest below the matrix Voice.

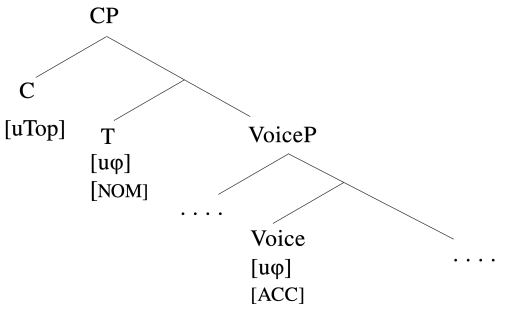
Accordingly, I argue that Tagalog's four-way voice morphology is best analyzed as the spell-out of *four different bundles of abstract Agree relations* that probe the topic/pivot of a clause. This analysis is illustrated in (23).

(23)

| | PIVOT | CONDITION |
|---|---|---|
| AV AFFIX | highest DP | [uTOP] and [u$\phi$] on T targeting the same goal |
| PV AFFIX | 2nd high DP | [uTOP] and [u$\phi$] on matrix Voice targeting the same goal |
| LV AFFIX | locative phrase | [uTOP] and [u$\phi$] on $P_{LOC}$ targeting the same goal |
| CV AFFIX | anything else | the goal of TOP-agreement not under any other Agree relation |

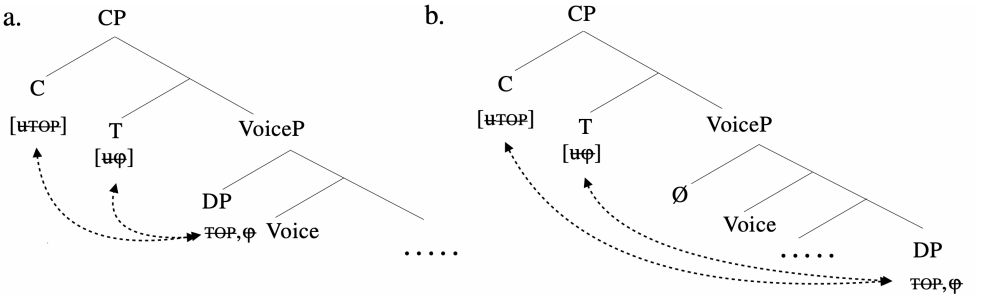
Under (23), Tagalog constitutes a topic-prominent accusative language with a TOPIC-probe hosted in the C domain and a $\phi$-probe on both T and matrix Voice, schematized in (24).

(24)




Under (24), "AV" morphology (spell-out of the bundle of abstract topic agreement and abstract subject agreement) indicates that the highest DP (*subject*) of a clause is simultaneously the *topic*, as seen in (22a). The facts that possible pivots in AV clauses exclude agentive causee in productive causatives (22e) while include the theme in unaccusatives (25b) follow from this analysis.

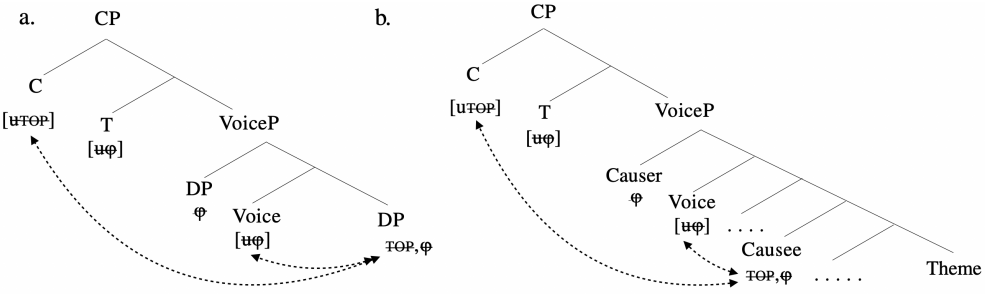
(25)




"PV" morphology (spell-out of the bundle of abstract topic agreement and abstract object agreement), on the other hand, indicates that the highest DP *below* the matrix Voice (i.e. goal of object agreement) is simultaneously the topic, as seen in (22a). This analysis captures correctly two important traits of Tagalog voice. First, in productive causatives, PV morphology patterns only with a pivot *causee* and not a pivot *theme* (which pairs only with CV morphology, see (22d)). Second, PV morphology is not applicable in ditransitives (see (14)).

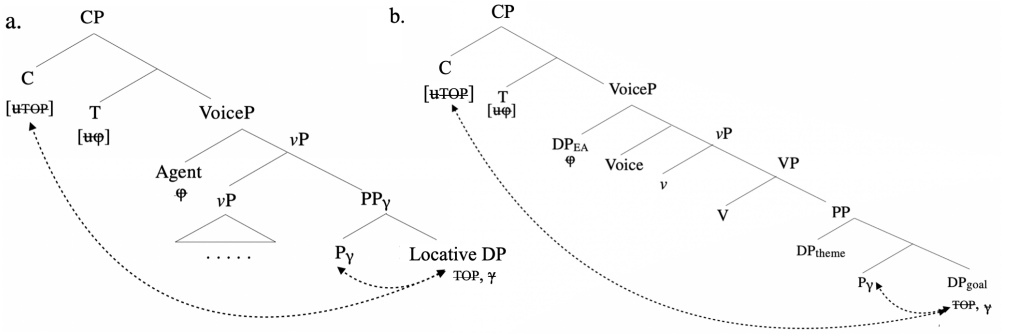
Under the account in (23), the fact that the theme in productive causatives cannot trigger PV morphology follows straightforwardly from the fact that it is not *the highest DP below matrix Voice* – which constitutes the only eligible trigger of object agreement across languages (Baker 2012; Deal 2019). PV morphology's incompatibility with Tagalog ditransitives, on the other hand, follows from the conclusion in §3.3 that Tagalog ditransitives are prepositional datives. As both the theme and the goal in a prepositional dative are embedded inside a PP (17), this construction is predicted to be unable to trigger object agreement, as object agreement cannot probe into PPs (Baker 2012).

(26)



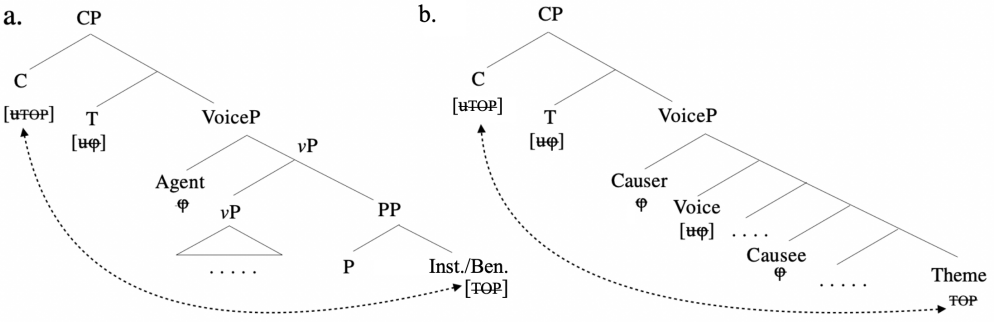
Under the current account, LV morphology (spell-out of the bundle of abstract topic agreement and abstract locative agreement) indicates that the goal of [uTOP] is simultaneously the goal of a locative-selecting preposition, $P_{LOC}$, which agrees with its DP complement. This analysis offers a simple account for the fact that the presence of LV morphology as consistently associated with the presence of a pivot-marked locative phrase, such as locative adjuncts (27a) or the goal in prepositional dative (27b).

(27)

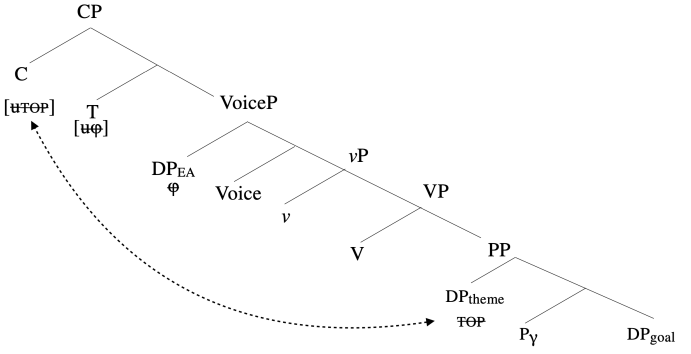



Finally, when the goal of [uTOP] is *not* under Agree relation with any other probe, the Agree relation between [uTOP] and its goal (the topic) is spelled out as CV morphology. This analysis correctly predicts that possible triggers of CV morphology ranging from DPs that are structurally low, DPs embedded inside a PP, to non-locative adjuncts, such as non-locative adjuncts (benefactor, instrument, reason, purpose) (28a), theme in causatives (28b) and theme in prepositional datives (29).

(28)




(29)




Not only does the current analysis successfully capture the absence of the voice-conditioned argument structure alternation in Tagalog (§3), but it also reveals an under-explored syntactic variation between Western Austronesian and Western Nilotic. Both groups of languages have been reported to display topic-indicating 'voice'/agreement morphology and a corresponding fluid $\bar{A}$ extraction constraint (van Urk 2015; Chen 2017; Chen & McDonnell 2019). However, while the pivots in Tagalog show typical behaviors of topic but not subject (analyzed as the outcome of [uTOP] and [u$\phi$] as located on two distinct heads) (§4), in the Western Nilotic language Dinka (van Urk 2015), the pivot phrases (i.e.

trigger of verbal agreement) have been shown to behave both like subject and topic (analyzed as the outcome of [uTOP] and [u$\phi$] clustering on the same head), resulting in a binding parameter distinct from that observed in Tagalog.

## 6. Conclusion

Previously overlooked binding facts in Tagalog's three-place constructions indicate that Tagalog's typologically rare four-way voice morphology is best analyzed as the spell-out of four bundles of abstract Agree relations that probe the topic of a clause, rather than *valency-indicating morphology* (Mithun 1994; Aldridge 2004, 2017) or *case agreement morphology* (Rackowski & Richards 2005). Under the current view, Tagalog constitutes a topic-prominent discourse configurational language (Li & Thompson 1985; É. Kiss 1995; Miyagawa 2010), similar to Dinka (van Urk 2015), Kilega (Miyagawa 2010), Ripano (D'Alessandro 2020), and San Martın Peras Mixtec (Ostrove 2018).

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