"Absolutive" marks agreement, not Case: against the syntactic ergative analysis for the Austronesian-type voice system*

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1. Introduction

Whether Philippine-type languages are ergative, accusative, or exhibiting a typologically unique alignment has been a long-standing issue in Austronesian syntax. The ergative approach to such languages is built on the assumption that Actor voice (AV) clauses (1a) are antipassive constructions, while Patient voice (PV) clauses (1b) are basic transitives.

(1) a. mi-kalat ku wacu tu pusi. [*Amis*]
AV-bite [PIVOT dog] Y cat
'The dog bit the cat.' [AV]

b. ma-kalat nu wacu ku pusi.
PV-bite X dog [PIVOT cat]
'The dog bit the cat.' [PV]

To remain theory neutral, we use the abstract labels X, Y, and Pivot to refer to the morphological marking on the external argument of a PV clause, the internal argument of an AV clause, and the sole phrase eligible for A'-extraction in a clause, respectively, throughout the paper. Under the ergative analysis, the external argument of AV clauses (1a) receives structural Case from T (namely, Pivot marks absolutive), with the internal argument non-structurally licensed, whereby AV clauses are structurally intransitive with "demoted" oblique objects (e.g. Payne 1982; Mithun 1994; Aldridge 2004 et seq.). Patient voice (PV) clauses (1b), on the other hand, are claimed to possess inherently Case-licensed external arguments, leaving absolutive Case available to the internal argument; PV objects thus share the same morphological marking with the external

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arguments of AV clauses (1). The well known A'-extraction asymmetry in Philippine-type languages is therefore attributed to the crosslinguistic generalization that in syntactically ergative languages, only absolutive-marked phrases can be A'-extracted.

The main goal of this paper is to demonstrate that Philippine-type AV clauses are not antipassives but true transitives, based on novel evidence from raising-to-object (§3), syntactic causative (§4), and restructuring (§5) constructions across ten Philippine-type Formosan languages. We argue accordingly that the voice system reflected in (1) does not exhibit morphological/syntactic ergativity, and is better accounted for by treating Pivot-marking and Case separately. We present a nominative-accusative analysis for Formosan languages and an A'-agreement analysis for Pivot-marking with supporting evidence from restructuring-under-causative constructions (§6).

2. Formosan basics

Formosan languages occupy the majority of Austronesian primary branches and preserve an elaborate case distinction between non-Pivot external arguments and non-Pivot internal arguments (i.e. X/Y in (1)) that has been lost in many Philippine-type languages. In the following, we present novel data from Puyuma, Amis, and Seediq, with consistent evidence from seven other languages based on secondary data: Paiwan, Tsou, Saaroa, Atayal, Bunun, Saisiyat, and Kavalan. Each of these languages exhibits a Philippine-type voice system with a "Pivot-only" constraint in A'-extractions. Together, they represent seven out of ten Austronesian primary branches, and therefore provide significant clues to how a prototypical Philippine-type voice system works.

3. Raising-to-object

Under the antipassive approach to Austronesian Actor voice, Y-marked objects (1a) are analyzed as non-structurally licensed. A well received account for this is that Y realizes lexical Case from the verb that thematically licenses the internal argument (Y-marked object) (e.g. Aldridge 2004 et seq.). In this section, we begin with data from raising-to-object constructions in nine Formosan languages and demonstrate that they are incompatible with a lexical Case analysis for Y-marking.

Raising-to-object (RTO) refers to a family of phenomena in which a constituent that is thematically linked to the embedded predicate (XP) can *optionally* surface outside of the embedded clause and show typical behaviors of a matrix object. RTO constructions are attested across nine Philippine-type Formosan languages, and are characterized by having knowledge/perception verbs in the matrix clause with finite CP complements, optional presence of an XP outside of the embedded CP, and no voice-type restriction on either the matrix or the embedded verb (Chen and Fukuda 2016).[2]

[2] Specific sources for RTO in each language are as follows: Paiwan (Wu 2013); Kavalan (Chang 2000); Bunun (Zeitoun 2000); Saisiyat (Yeh 2000); Atayal (Liu 2011); Tsou (Liu 2011).

Across the nine languages, the case-marking on the XP is conditioned by the matrix voice type. As shown below, although the XPs in (2)-(4) are thematically linked to the null embedded agent (2), null embedded patient (3), and null embedded agent (4), respectively, when the matrix verb is in AV, all XPs bear Y-marking; when the matrix verb changes to PV, all XPs bear Pivot-marking instead.

(2) a. abalru=ku kan isaw [dra tu=trakaw-aw nu=paysu]. [*Puyuma*]
forget.AV=1SG.PIVOT SG.Y Isaw [C 3.X=steal-PV 2SG.POSS.PIVOT=money]
'I forgot that Isaw stole your money.' AV-RTO

b. ku=abalru-ay i isaw [dra tu=trakaw-aw nu=paysu].[3]
1SG.X=forget-PV SG.PIVOT Isaw [C 3.X=steal-PV 2SG.POSS.PIVOT=money]
'I forgot that Isaw stole your money.' PV-RTO

(3) a. ma-fana' kaku ci-Sawmah-an [Ø ma-palu ni Kulas]. [*Amis*]
AV-know 1SG.PIVOT PN-Sawmah-Y [C PV-beat X Kulas]
'I know that Sawmah was beaten by Kulas.' AV-RTO

b. ma-lemed aku ci-Sawmah [Ø ma-palu ni Kulas].
PV-dream 1SG.X PN-Sawmah.PIVOT [C PV-beat X Kulas]
'I dreamt that Sawmah was beaten by Kulas.' PV-RTO

(4) a. me-'isug=ku ∅ iming [Ø s<m>ipaq ∅ huling=mu]. [*T.Seediq*]
AV-fear=1SG.PIVOT Y Iming [C beat<AV> Y dog=1SG.POSS]
'I fear that Iming will beat my dog.' AV-RTO

b. kela-un=mu ka iming [Ø s<m><n>ipaq ∅ huling=mu].
know-PV=1SG.X PIVOT Iming [C beat<AV><PRF> Y dog=1SG.POSS]
'I know that Iming beat my dog.' PV-RTO

Given the absence of a case connectedness effect on the XPs in (2)-(4), we assume that the XPs receive Case from the appropriate matrix Case-licenser. Therefore, under the antipassive analysis, the XP in the AV-marked RTOs ((2a), (3a), and (4a)) would be analyzed as receiving lexical Case from the matrix verb.

Now, recent studies have revealed that crosslinguistic RTO constructions fall into two major subtypes: one that involves an XP undergoing actual syntactic movement from the embedded clause to the matrix clause (either from its theta position or the left periphery) (5a) (e.g. Tanaka 2002; Alboiu and Hill 2013), and another that involves an XP base-generated at the "raised" position (5b) (e.g. Davies 2005; Kurniawan 2011).

(5) *Types of RTO and the syntactic status of the XP*

a. V_{Matrix} XP_i [CP/IP (C) V …… $<t_i>$]

b. V_{Matrix} XP_i [CP/IP (C) V…… ec_i]

[3] Note that in Puyuma, some verbs employ lexical gaps between PV and LV and adopt the LV form for PV function, such as the LV-marked '*abalru-ay'* in (2). For the sake of simplicity, I gloss such verbs as PV.

Under the movement analysis of RTO (5a), the XP is analyzed as receiving its theta role from the embedded predicate. Therefore, the matrix Case assigned to the XP in (2)-(4) can only be structural. Under a base-generated approach to RTO (5b), the Y-marking on the XP is incompatible with a lexical Case analysis as well, as one would be forced to make an undesirable assumption that the matrix predicate assigns a theta-role to the XP.

In short, neither of the existing analyses of RTO is compatible with the lexical Case analysis of the Y-marking on the XP in RTO.

4. Syntactic causative

Syntactic causatives present further evidence against the lexical Case analysis for Y-marking. In Formosan languages, causativization is formed by affixal morphology on the verb that freely combines with different voice markers. Like RTO, syntactic causatives across seven Formosan languages show voice type conditioned case alternation on the arguments. When a causative is marked in AV, the Causee carries Y-marking; when it is marked in PV, the Causee carries Pivot-marking, as in (6)-(8).[4]

(6) a. ∅-pa-karatr=ku kana suwan kan pilay. [*Puyuma*]
AV-CAU-bite=1SG.PIVOT [DF.Y dog] SG.Y Pilay
'I made the dog bite Pilay.' AV-causative

b. ku=pa-karatr-aw na suwan kan pilay.
1SG.X=CAU-bite-PV [DF.PIVOT dog] SG.Y Pilay
'I made the dog bite Pilay.' PV-causative

(7) a. ∅-pa-pi-nengneng kaku ci-panay-an tu siasin. [*Amis*]
AV-CAU-PI-look 1SG.PIVOT [PN-Panay-Y] Y photo
'I made Panay look at the picture.' AV-causative

b. pa-pi-nengneng-en aku ci-panay tu siasin.
CAU-PI-look-PV 1SG.X [PN-Panay.PIVOT] Y photo
'I made Panay look at the picture.' PV-causative

(8) a. ∅-p-hanguc=ku ∅ robo ∅ rodux. [*D.Seediq*]
AV-CAU-cook=1SG.PIVOT [Y Robo] Y chicken
'I made Robo cook the chicken.' AV-Causative

b. p-hanguc-un=mu ∅ rodux ka robo.
CAU-cook-PV=1SG.X Y chicken [PIVOT Robo]
'I made Robo cook the chicken.' PV-causative

[4] Such a case pattern is shared by at least the following Philippine-type languages: Tsou (Lin 2009), Paiwan (Chang 2006), Bunun (Zeitoun 2000), and Saisiyat (Zeitoun 2015), as well as Tagalog (Rackowski 2002), Ilocano (Silva-Corvalán 1978), and Cebuano (Tanangkingsing 2009).

First of all, under the lexical Case analysis of Y-marking, one would be forced to make an undesirable assumption that the productive causative morpheme *pa-* is a lexical verb. Even if this issue is set aside, the distributions of Y-marked phrases are predicted to be restricted to internal argument positions. However, in the AV-marked causatives in (6a), (7a), and (8a), the Y-marked Causee appears to be the external argument of the transitive base verbs 'bite', 'look', and 'cook'. That Causees in AV-causatives are licensed as external arguments is further evidenced by (i) quantifier binding, in which a Y-marked quantifier Causee can bind into a pronominal Theme with bound variable reading obtained, suggesting that the Causee c-commands the internal argument (9a), as well as the availability of (ii) agent-oriented adverbs (9a), independent temporal adjuncts (9b), and the adverb of frequency 'again' (9c) that modify the caused event.

(9) a. ∅-pa-pukpuk=ku kana walak driya pakirep kantu=suwan. [*Puyuma*]
AV-CAU-beat=1SG.PIVOT [DF.Y child every] rigorously 3.POSS.Y=dog
'I asked every child_i to beat his_{i/j} dog rigorously.'

b. ∅-pa-pi-qaca kaku ci-mayaw-an tuna cudad anucila. [*Amis*]
AV-CAU-PI-buy 1SG.PIVOT [PN-Mayaw-Y] Y.that book tomorrow
'I asked Mayaw to buy the book tomorrow.'

c. ∅-p-pahu=ku ∅ temi dungan ∅ lukus. [*D.Seediq*]
AV-CAU-wash=1SG.PIVOT [Y Temi] again Y clothes
'I asked Temi to wash the clothes again.' (Temi washed the clothes again.)

The above observations strongly suggest that AV-causatives are bi-eventive and involve an embedded VoiceP with an agentive Causee. That Y-marked Causees are introduced as external arguments indicates that Y-marking cannot be analyzed as lexical Case.

5. Restructuring

Restructuring constructions in Formosan provide an additional argument against the lexical Case analysis for Y-marking. Across nine Formosan languages, restructuring constructions share the following properties: (i) obligatory clitic climbing, (ii) voice-marking restrictions on the embedded verb, (iii) TAM-deficiency inside the restructuring infinitives (RIs), and (iv) "long-distance" case-licensing of internal arguments inside RIs. As shown below, when a restructuring predicate is in AV (henceforth AV-restructuring), the object inside the RI must bear Y-marking ((10a), (11a), (12a)); when it is in PV (henceforth PV-restructuring), the object must bear Pivot-marking ((10b), (11b), (12b)).[5]

(10) a. talam=ku salem [dra pangudral.] [*Puyuma*]
<AV>try=1SG.PIVOT <AV>grow [ID.Y pineapple]
'I tried to grow pineapples.' AV-restructuring

[5] Specific sources for restructuring in each language are as follows: Atayal (Chen 2011), Bunun (Wu 2011), Tsou (Chang 2014), Saaroa (Li 2009), Paiwan (Wu 2013), and Kavalan (Chang 2000).

b. talam-ay aku salem na pangudral.
try-PV 1SG.X AV-cook DF.PIVOT pineapple
'I tried to grow pineapples.' PV-restructuring

(11) a. mi-tanam kaku mi-tangtang tu titi. [*Amis*]
AV-try 1SG.PIVOT AV-cook Y pork
'I tried to cook pork.' AV-restructuring

b. tanam-en aku mi-tangtang ku titi.
try-PV 1SG.X AV-cook PIVOT pork
'I will try to cook pork.' PV-restructuring

(12) a. ququ=ku m-imah ∅ sino nii. [*D.Seediq*]
AV.try=1SG.PIVOT AV-drink Y alcohol this
'I tried to drink the alcohol.' AV-restructuring

b. ququ-un=mu m-imah ka sino nii.
try-PV=1SG.X AV-cook PIVOT alcohol this
'I tried to drink the alcohol.' PV-restructuring

The case alternation on the internal argument between AV- and PV-restructuring is problematic for the lexical Case analysis of Y-marking: if the Y-marking is licensed by the embedded lexical verb, a lexical Case (i.e. Y) should always be available to the internal argument regardless of the voice marking on the matrix restructuring verb. Therefore, under the lexical Case analysis for Y, we have no way of accounting for the structurally conditioned Y-Pivot case alternation on the embedded internal argument.

In the discussion so far, we have demonstrated that the lexical Case analysis for Y-marking arguments fails to account for the distributions of Y-marked phrases in RTO, syntactic causative, and restructuring constructions. Therefore, we conclude that a non-structural analysis for Y-marking is untenable for the voice system of Philippine-type Formosan languages. In what follows, we propose an alternative analysis for Y-marking, according to which AV clauses are transitive with structurally licensed internal arguments.

6. Proposal

6.1 An accusative analysis for Philippine-type voice systems

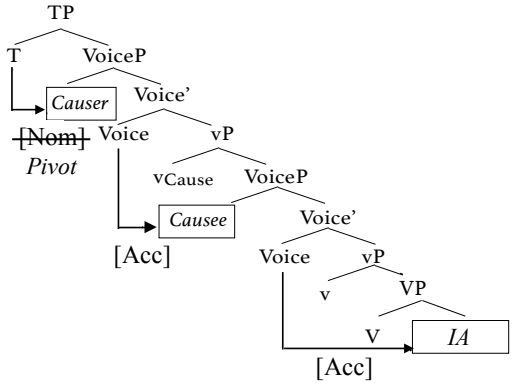
We argue that the distributions of Y-marked phrases can be straightforwardly captured under the analysis that AV clauses are transitive, with Y-marking realizing structural accusative Case available to AV objects. In other words, Formosan languages are nominative-accusative, rather than ergative. Under this analysis, the morphological markings X and Y realize nominative and accusative Case from finite T and Voice, respectively. We further argue that Pivot is a marking of the information structure status (topic/focus) of a constituent, which is independent of Case. The selection of Pivot-marked

phrase is morphologically indexed by agreement morphology on the verb, conventionally called "voice affix," which realizes an obligatory Agree relation between an A'-head and the goal in each CP. A phrase that enters into the Agree relation carries obligatory Pivot-marking, under the assumption that *Pivot-marking overrides morphological case*.

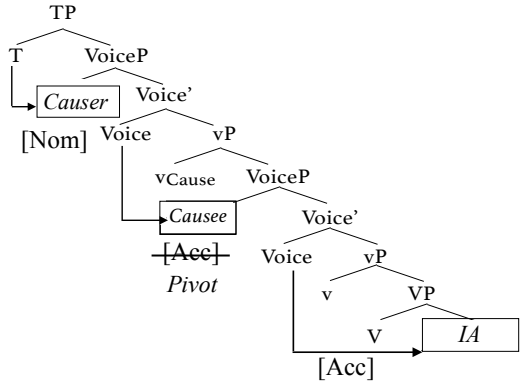
The present analysis correctly predicts the distributions of Y-marked phrases in the three constructions discussed above. First, for RTO constructions, an accusative analysis for Y-marking is compatible with either a movement or base-generation analysis of the XP (5). In RTO with an AV matrix verb, the XP is structurally Case-licensed by accusative Case, as morphologically realized as Y ((2a), (3a), and (4a)). In RTO with a PV matrix verb ((2b), (3b), and (4b)), the XP receives structural accusative Case from the matrix clause as well, while the accusative-marking is overridden by Pivot-marking.

The accusative analysis for Y-marking also offers a simple account for the case pattern in syntactic causatives. Given the observation that Formosan causatives involve the embedding of a VoiceP as the caused event (§4), the Y-marking on the external-argument Causees in AV-causatives ((6a), (7a), and (8a)) can be straightforwardly captured under an ECM analysis, whereby the Causee and the Theme of the caused event receive structural accusative Case from the matrix and embedded Voice, respectively (13a). We further propose that the same Case-licensing pattern holds for PV-causatives (13b); the only difference between AV- and PV-causatives is that Pivot-marking falls on the matrix external argument in the former (13a) and on the direct object (i.e. Causee) in the latter. Thus, in (13b), Pivot-marking overrides the accusative-marking on the Causee, resulting in a Y-Pivot case alternation between AV- and PV-causatives (6)-(8).

(13) a. *AV-causative*



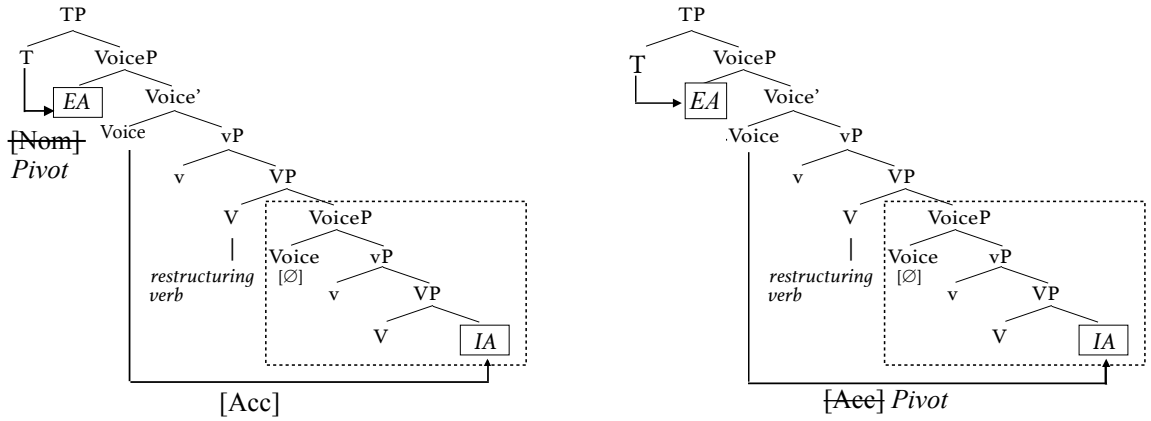
b. *PV-causative*



Finally, this analysis also correctly predicts the structurally conditioned case alternation on the internal argument inside restructuring infinitives (10)-(12). Here, we follow the proposal that restructuring infinitives involve a deficient Voice that lacks a structural Case licensor (Wurmbrand 2013), as illustrated below. Thus, in both AV-marked and PV-marked restructuring, the internal argument inside the RI is Case-licensed by accusative Case from the matrix Voice (14a)-(b). The Y-Pivot alternation on the internal argument therefore follows from the analysis that Pivot-marking falls on the external

argument in AV-restructuring (14a) and on the internal argument in PV-restructuring (14b), just as in simple clauses (1), RTO (2)-(4), and syntactic causative (6)-(8).

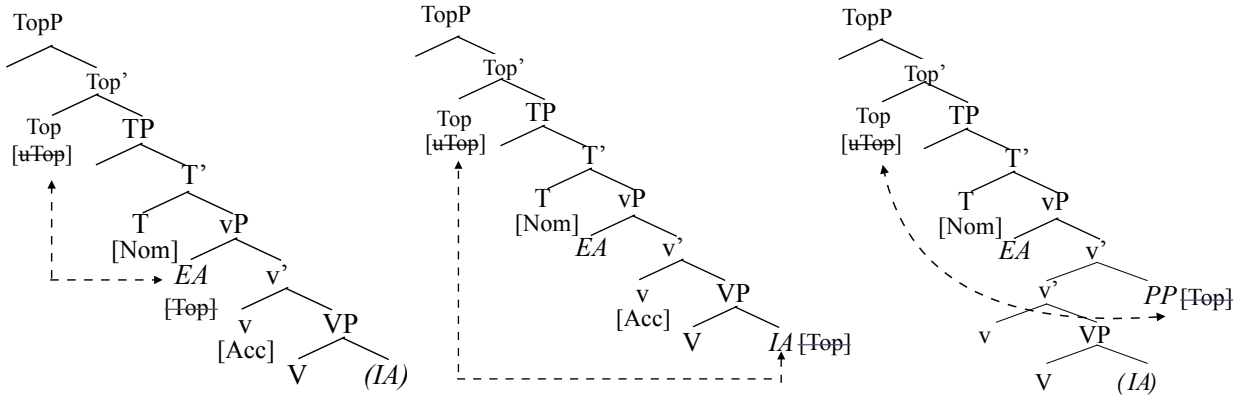
(14) a. *Restructuring under matrix AV verb* b. *Restructuring under matrix PV verb*



6.2 Pivot as a marker of information-structure status

Under the present analysis, in an AV clause, the *subject* bears a topic/focus feature and enters into Agree relation with the Topic/Focus head (labeled Top in (15)). Therefore, the nominative (X)-marked phrase in a clause receives Pivot-marking, with the internal argument carrying overt accusative (Y) case (15a). In a PV clause, it is the *direct object* that bears a topic/focus feature and enters into Agree relation with the Topic/Focus head. Therefore, the highest accusative-marked phrase in a clause receives Pivot-marking, with the external argument nominative (X)-marked (15b). This proposal correctly predicts an important fact across Philippine-type languages, that patient-like unaccusative *subjects* cannot be licensed with a PV affix. Finally, in an LV/CV clause, a specific temporal/ spatial adjunct (LV) or an indirect object/non-core phrase (CV) bears a topic/focus feature and agrees with the Topic/focus head. Thus, this "non-core" phrase receives Pivot-marking, with the external and internal arguments (if any) carrying their morphological case, nominative (X) and accusative (Y), respectively (15c).

(15) a. *"AV-agreement"* b. *"PV-agreement"* c. *"LV/CV-agreement"*



The advantages of the current analysis are demonstrated through a specific construction shared by Puyuma, Amis, and Seediq, where the restructuring verb 'try' combines with the causative prefix to form the structure, as shown for Puyuma in (16).[6]

(16) a. ∅-pa-talam=ku [tenun kan akang dra katring]. [*Puyuma*]
AV-CAU-try=1SG.PIVOT [weave<AV> SG.Y Akang ID.Y pants]
'I made Akang try weaving pants.' [AV]

b. ku=pa-talam-aw [tenun i akang dra katring].
1SG.X=CAU-try-PV [weave<AV> SG.PIVOT Akang ID.Y pants]
'I made Akang try weaving pants.' [PV]

c. ku=pa-talam-anay [tenun kan akang na katring].
1SG.X=CAU-try-CV [weave<AV> SG.Y Akang DF.PIVOT pants]
'I made Akang try weaving pants.' [CV]

As shown in (16a-c), when the matrix "voice affix" appears as AV, PV, and CV, Pivot-marking targets the Causer, Causee, and the Theme of the caused event, respectively. The case pattern in (16c) is particularly important and relevant to the current discussion, in which the matrix CV affix indicates the Pivot status of the internal argument inside the embedded complement. Such a case pattern is consistent with the agreement analysis for "voice affix," which predicts that a "voice affix," as the morphological reflex of an A'-Agree relation, can specify the Pivot status of any phrase inside a CP. Under the current proposal, CV-agreement targets an indirect object in a clause. Thus, the appearance of the CV affix to indicate the agreement relation with the embedded object is expected, as it is when the deepest embedded phrase enters into the Agree relation with the A'-head. On the other hand, such a case pattern is difficult to account for under the ergative analysis, according to which a CV affix is the morphological reflex of a high applicative head that licenses a specific non-core phrase as an applied object (Aldridge 2004 et seq.). The fact that the Pivot-marked phrase in (16c) is the object of the embedded complement, rather than a phrase selected by the matrix CV verb, indicates that the applicative analysis for the matrix CV affix is untenable.

Finally, the present analysis for "voice affix" suggests a simple solution to the well known noun/verb homophony in Philippine-type languages, in which the "voice affixes" in verbal environments share the same form with corresponding "nominalizers" in nominal environments (relative clauses/pseudo clefts), as shown in the Seediq data (17).

(17) a. puq-un na laqi ka sari.
eat-PV X child PIVOT taro
'The child will eat the taro.'

b. [$_{DP}$ sari/∅ [$_{CP}$ Op$_i$ puq-un na laqi <t$_i$>]]
[$_{DP}$ taro/∅ [$_{CP}$ Op$_i$ eat-PV.NMZ X child <t$_i$>]]
'the taro/the thing that the child will eat'

[6] Based on comparative evidence, we propose that a prototypical LV affix realizes an Agree relation with temporal/spatial adjuncts, while a CV affix realizes an Agree relation with other types of indirect objects/adjuncts (Instrument, Benefactor, Transported theme in ditransitives, and the Theme of causatives.)

Under the agreement approach to voice affixes, the homophony between (17a) and (17b) follows straightforwardly from the analysis that they both realize the A'-agree relation inside a CP: when a CP is embedded under a D-shell, the morphological reflex of the Agree relation is conventionally described as a nominalizer.

7. Conclusion

In this paper, we present novel evidence against the antipassive analysis for Austronesian Actor voice based on raising-to-object (§3), syntactic causative (§4), and restructuring (§5) data from ten Philippine-type Formosan languages. We argue that the case patterns in these three constructions follow straightforwardly from an accusative analysis for the Case assigned to Actor-voice objects, according to which Philippine-type Actor voice clauses are true transitives with structurally licensed internal arguments. Following this analysis, we propose an A'-agreement analysis for Pivot-marking that is in line with previous proposals for Chamorro and Malagasy (Chung 1994; Pearson 2005). Last, we point out that the present analysis offers a simple account for the well known noun/verb homophony in Philippine-type languages, in which both Philippine-type "voice affixes" and "nominalizers" realize an A'-agree relation obligatory in each CP (§6).

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