

## Restructuring in Formosan languages and their implications for object Case-licensing

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**Introduction:** This paper presents novel data on restructuring phenomena in three Formosan languages, Seediq, Puyuma, and Amis, and argues that these data, together with an analysis of the restructuring phenomena that they motivate, suggest a reconsideration of the *intransitive* analysis of Actor Voice (AV) clauses with inherently Case-licensed internal arguments (e.g., Chang 2011, 2014 for Tsou; Aldridge 2014 for Puyuma). We first present novel empirical arguments showing that the two distinct restrictions on voice markers observed inside the restructuring infinitives (RIs) among Formosan languages, **AV-only** and **obligatory voice marker concord**, do not necessarily correlate with the putative size difference, VP and vP, respectively, by showing that RIs in three AV-only restructuring languages, Seediq, Amis, and Puyuma, are best analyzed as vPs. We then argue that a closer look at the Case-licensing of the internal argument under AV verbs in restructuring vs. non-restructuring environments in Formosan languages leads to a conclusion that what has been standardly analyzed as lexical Oblique (OBL) Case assigned to AV objects in those languages should be analyzed as structural Accusative Case. A crucial implication from this proposal is that Formosan languages either (a) exhibit split-ergativity between AV and NAVs, or (b) should not be analyzed as syntactically ergative.

**Two voice marking restrictions ≠ two different sizes of RI:** Past studies have revealed that RIs in Formosan languages can be divided into two types based on their restrictions on voice marking. Type I restructuring has **Actor voice** as the only available voice type within the RIs (1); Type II restructuring, on the other hand, requires obligatory **voice concord** between the matrix voice type and that of the RIs (2).

- (1) ku=talam-ay [(adri t<em>aranapaw) s<em>alem/\*-ay na/\*dra ladru ]. [PUYUMA]  
 1SG.ERG=try-LV [ NEG carefully grow.AV/\*LV ABS/\*OBL mango]  
 'I tried to grow the mango; I tried (not) to grow the mango (carefully).' [TYPE I]
- (2) tanam-un=as Dahu [tu pazikpik-un/\*<um> \*suu ]. [ISBUKUN BUNUN]  
 try-PV=2SG.ABS Dahu.ERG [LK cheat-PV/\*AV \*2SG.OBL]  
 'Dahu tried to cheat you.' (Wu 2013:76; glosses mine) [TYPE II]

Some previous studies have implicitly drawn a connection between the two distinct restrictions on embedded voice marking and the size of the RIs. Chen T.-C. (2012, 2013) argue that Type I RIs in Atayal disallow embedded negation as they are bare VPs, while Chang (2004, 2014) argue that Type II RIs in Tsou allow both embedded negation and agent-oriented adverbials, suggesting that they are as big as vPs. Under these proposals, the **AV-only** restriction in Type I is associated with the lack of v<sup>0</sup> inside the RI, while the **voice concord** in Type II is connected to the presence of v<sup>0</sup> within the RI. However, the novel data from Amis, Puyuma and Seediq reveal that the hypothesized correlation between the *voice-marking restrictions* and *the size of RIs* is untenable. While all these three languages employ Type I RIs, their RIs are fully compatible with embedded negation and agent-oriented adverbials ((1), (3)-(4), (5)), with negators always preceding agent-oriented adverbials ((1), (3)-(4)), unlike Atayal RIs, which have been argued to disallow negation (Chen T.-C. 2013) (5).

- (3) tanam-en aku [ca'ay padeteng pi-keter/\*-en ku/\*tu wawa aku]. [AMIS]  
 PV.try 1SG.ERG [NEG deliberately IRR.AV-scold/\*PV ABS/\*OBL child 1SG.POSS]  
 'I tried not to scold my child deliberately.' [TYPE I]
- (4) spung-un=mu [adi q<em>lahang m-qeriq/\*-en ka/\*∅ tederuy]. [SEEDIQ]  
 try-PV=1SG.ERG [NEG carefully AV-drive/\*PV ABS/\*OBL car ]  
 'I tried not to drive the car carefully.' [TYPE I]

(5)

Element inside Type I RI	Amis	Puyuma	Seediq	Atayal
Aspect marking	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i> (Chen T.-C. 2013)
Negation inside RI	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>no</i> (Chen T.-C. 2013)
Agent-oriented adverbial	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i> (Wu 2014)

We propose that RIs in Amis, Puyuma, and Seediq all involve a  $vP$  (Wurmbrand 2013; Chung 2004), under the assumptions that (i) agent-oriented adverbials require the presence of an external argument introduced by  $v^0$ , and (ii) negators in these languages are base-generated below  $T^0$ , which is occupied by an aspect marker, and above  $vP$ . We further assume that the long-distance ABS-licensing observed with RIs is due to *the lack of local structural Case-licenser* within Type I RIs (Wurmbrand 2001, 2013). Thus, we propose (6) as the underlying structure of RIs in Seediq, Amis, and Puyuma, according to which the  $v^0$  inside the RI lacks structural Case (6).

$$(6) \quad [T^0 \quad \underbrace{DP_{[ERG]} \quad v^0_{TR}} \quad V^0 \quad ([NegP]) \quad [vP \quad v^0_{[\emptyset]} \quad \dots \quad V^0 \quad \underbrace{DP_{[ABS/*OBL]}]}]$$

**Object Case-licensing in Formosan A(ctor) V(oice):** In non-restructuring environments, the internal argument under an AV verb in some Formosan languages has been analyzed as receiving an inherent OBL Case from  $V^0$  (7) (Chang 2011, 2014 for Tsou; Aldridge 2014 for Puyuma).

$$(7) \quad [T^0 \quad \underbrace{DP_{[ABS]}} \quad v^0_{INTR[AV]} \quad \underbrace{V^0 \quad DP_{[OBL]}}]: \text{non-restructuring (Aldridge 2014; Chang 2014)}$$

However, the analysis of the long-distance ABS-licensing in (6) is in a direct conflict with the *inherent OBL Case analysis* of the internal argument in AV sentences in non-restructuring environment in (7)—under the assumption that the internal argument receives inherent Case and inherent Case is provided by a lexical head ( $V^0$ ) through  $\theta$ -assignment (Woolford 2006; Aldridge 2012, 2014) prior to the licensing of structural Cases (Woolford 2007; Preminger 2011), it should never ‘disappear’ in restructuring environments. The fact that the “OBL” Case on the internal argument under an AV-verb disappears in the restructuring environments (e.g., (1)-(4)) in at least seven Type I-restructuring Formosan languages (*Amis*, *Puyuma*, *Seediq*, *Atayal* (Chen T.-C. 2013), *Paiwan* (Wu 2013), *Saaroa* (Li 2009), *Kavalan* (Lin 2014), and *Takibakha Bunun* (Shi 2014)) and two Type II-restructuring Formosan languages (*Isbukun Bunun* (Li 2013) and *Tsou* (Chang 2014)) strongly suggests that the “lexical” OBL case in AV clauses in these languages is in fact a structural Case provided by a  $v^0$ .

**Proposal:** Given the above observations and additional arguments from other constructions, we argue that bivalent AV constructions in Formosan languages are best analyzed as *transitive*, in which a finite  $T^0$  assigns ABS Case to the subject and a transitive  $v^0$  assigns ACC to the internal argument (8).

$$(8) \quad [T^0 \quad \underbrace{DP_{[ABS]}} \quad \underbrace{v^0_{TR[AV]} \quad V^0 \quad DP_{[ACC]}}]$$

Under (8), the long-distance ABS-licensing in Type I-restructuring (6) follows straightforwardly as a consequence of the  $v^0$  in RIs lacking structural Case. Independent evidence for the proposed structural analysis for the Case on AV objects comes from Raising-to-Object-out-of-CP (ROC) constructions from the same languages, in which a non-thematic phrase base-generated in the matrix domain (XP) that is thematically linked to the embedded CP obligatorily receives “OBL” Case from the matrix clause (Chen V. 2014). Under the adopted definition of lexical Case above, the “OBL” Case assigned to the XP in base-generated ROC constructions cannot be lexical, as the XP cannot be analyzed as  $\theta$ -licensed by the matrix  $V^0$ . This indicates that either (i) “OBL” is licensed by a silent preposition (P), or (ii) “OBL” is a structural Case. We further present novel evidence that CPs in the three Formosan languages receive the appropriate Case (ABS or OBL) under different syntactic contexts, as previously claimed for Chamorro (Chung 1991, 1994, 1998) and Tagalog (Rackowski & Richards 2005). We argue that the availability of “OBL” on CPs argues against the “OBL as a silent P” analysis and lends further support for the structural Case analysis of OBL Case on AV objects.

**Implications:** A crucial implication of the present transitive analysis of bivalent AV constructions is that the Case-licensing mechanism in AV across *nine* Formosan languages is essentially a *nominative-accusative* pattern. This points to two possible consequences: (a) Formosan languages exhibit a split-ergative system between AV and NAVs or (b) Formosan languages are not syntactically ergative languages (see Chen T.-C. 2013 for a related claim for Atayal). Specifically, our proposal calls for reconsideration of the claims that *Tsou* and *Puyuma* are fully ergative languages with intransitive/antipassive (AP) AVs (Chang 2011, 2014 for Tsou; Aldridge 2014 for Puyuma).

**Selected References:** Aldridge, E. 2014. Ergativity from subjunctive in Austronesian languages. Paper presented at IsCLL-14. Taipei, June 4-6, 2014. Chang, H. 2014. Restructuring and long-distance transitivity agreement in Tsou. Paper presented at AFLA21. Honolulu, May 23-25, 2014.