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PREFACE

Although the Austronesian Formal Linguistics Association (AFLA) has been holding annual meetings since 1994, until now it has had no consistent approach to the publication of its Proceedings. Papers from AFLA 2 and AFLA 14 were published as edited volumes; in other years the local organizers published the Proceedings in their Department’s Working Papers series; in still other years no Proceedings was published. The 16th annual meeting of AFLA was held May 1-3, 2009, at the University of California, Santa Cruz. During the business meeting, the idea was floated that the Proceedings henceforth be published electronically, in a consistent format, at the AFLA website (http://ling.uwo.ca/afla/), which is generously hosted by the University of Western Ontario. The initial result is this volume, which has emerged very quickly indeed—less than six months after AFLA 16 was held. Our hope is that on-line publication of this and future volumes of the Proceedings of AFLA will enable research on the formal linguistics of Austronesian languages to reach as wide a readership as possible.

We want to thank UCSC’s Linguistics Department and its Linguistics Research Center for hosting AFLA 16, the authors for submitting their papers so efficiently, and the University of Western Ontario for hosting the website at which this volume is posted. We also wish to acknowledge the precedent set by the Proceedings of AFLA 12, which was published on-line as UCLA Working Papers in Linguistics No. 12, and whose stylesheet heavily influenced the stylesheet we constructed for the Proceedings of AFLA.

Sandra Chung
Daniel Finer
Ileana Paul
Eric Potsdam
This paper shows that there are two types of $\Theta$-agreement mismatches in Paiwan causative constructions. I argue that Paiwan has two types of VP configurations: one requires Theme DP to c-command the Goal DP and the other projects a Goal complement and a Theme specifier. I show that agreement mismatches have a connection with VP-internal structures. Adopting Chang’s (2008, 2009) Split Voice Hypothesis, I propose that in Paiwan the PV-applicative head probes for the (higher) DP at [Spec, VP], which is in turn attracted to the subject position, whereas the IV/BV-applicative head, equipped with the [EPP] feature, searches for the lower DP at [Comp, VP] and triggers this argument to leapfrog over the higher (object) DP to the Spec of TP. Consequently, the lowest object argument will surface as the highest ‘applied subject’ in Paiwan, without violating Minimal Link Condition. Accordingly, the locality and agreement mismatch puzzles will be solved.

1. Introduction

Formosan languages, western Austronesian languages spoken in Taiwan, are famous for their complex voice system: Actor Voice (AV) and Undergoer Voices (UVs), the latter of which in turn include Patient Voice (PV), Locative Voice (LV) and Instrument/Beneficiary Voice (I/BV). The relationship between voices and grammatical subject has been an attractive and a controversial issue (see Blust 2002 and Himmelmann 2002 for detailed overview). For example, voice affixes on a verbal predicate may vary according to different semantic roles of grammatical subjects, as illustrated below with Paiwan examples. As we can see in (1a), the

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* I wish to thank Henry Yungli Chang as well as the audience of AFLA XVI for their valuable comments. The financial support of this research was funded by a NSC grant 97-2628-H-001-068. All errors are my own.

1 Abbreviations used in this paper follow the Leipzig Glossing Rules with some additions: AV/AF, Actor Voice/Actor Focus; COS, Change of Situation; Lnk, Linker; LV/LF, Locative Voice/Locative Focus; PROG Progressive; PV/PF, Patient Voice/Patient Focus; Red Reduplication; UV, Undergoer Voice; - indicates a prefix or suffix; <> indicates an infix.
Actor argument *Camak* agrees with the AV head *m*, and then it serves as the grammatical subject. Similarly, as (1b) shows, the Theme subject *aekeljen* ‘race’ triggers the PV realization <in>. Again, the Goal subject *karung* ‘keg’ in (1c) and the Beneficiary argument *Camak* in (1d) Θ-match with the LV head -an and the IV/BV head *si*, respectively.

(1) a. m-eke-ekelej ti camak.
   AV-Prog-run Nom Camak
   ‘Camak is running.’
   b. ku-in-ekelej=anga a icu a aekeljen..
   1Sg.Gen-Pfv.PV-run=COS Nom this Lnk race
   ‘I have run a race.’
   c. ku-p<-in>-i-tjaladj-an tua vava a kadrung.
   1Sg.Gen-Caus<Pfv>be.at-inside-LV Obl wine Nom keg
   ‘I poured the wine into the keg.’
   d. ku-s<in>i-ekelej ti camak.
   1Sg.Gen-I/BV<Pfv>run Nom Camak
   ‘I run for Camak.’

However, it has been observed that there exist agreement mismatches between voices and Θ-roles of grammatical subject in Paiwan causative verb constructions. As shown in (2a), the IV/BV marker *si* does not agree with the Instrumental/Beneficiary subject. In contrast, the Goal DP *kadrung* ‘keg’ is selected as the subject. Similarly, the Theme subject *paisu* ‘money’ in (2b) triggers the IV/BV morphology. Obviously, there exist agreement mismatches between voice morphology and subject selection.

(2) a. ku-si-lui tua zaljum a kadrung.
   1Sg.Gen-I/BV-fill Obl water Nom keg
   ‘I filled water into the keg.’
   b. ku-si-pa-vai tjanusun a paisu.
   1Sg.Gen-I/BV-Caus-get 2Sg.Obl Nom money
   ‘I gave you money.’

I will show that the mismatch puzzle bears a deep connection with the interaction between voice projections and argument structure. Drawing evidence from incorporation patterns of morphological causatives (henceforth MCs), binding conditions and reconstruction effect, I show that Paiwan has two types of VPs: one requires Theme DP to
c-command the Goal DP and the other projects a Goal complement and a Theme specifier. Furthermore, I argue that agreement mismatches are closely correlative with VP-internal structures: the PV head agrees with DP at Spec of VP while the IV/BV head probes for DP at Comp of VP. Adopting Chang’s (2008, 2009) Split Voice Hypothesis, I further propose that Paiwan UV projections license different Applicative projections. The PV-applicative head probes the (higher) DP at [Spec, VP], which is in turn attracted to the subject position. In contrast, the I/BV-applicative head, equipped with the [EPP] feature, searches for the lower DP at [Comp, VP] and triggers this argument to leapfrog over the higher (object) DP to the outer edge of Applicative projection. The lowest object argument will in turn surface as the highest ‘applied subject’ in Paiwan, without violating Minimal Link Condition. Consequently, the locality puzzle will be solved.

The organization of this paper is as follows: Section 2 shows two types of causative constructions in Paiwan. First, I show that Type-I and Type-II MCs occur in complementary distribution. Second, the IV/BV head si- agrees with the Goal subject in Type-I causative verb constructions while the same voice marker selects the Theme subject in Type-II causative verb constructions. In section 3 I argue that the Type-I causative predicates can be decomposed into a CAUSE head and a LOCATE head whereas the Type-II causative predicates comprise of a CAUSE head and a HAVE head. In light of such predicate decomposition, a generalization follows: IV/BV agrees with the lowest object DP and on the other hand PV matches with the higher object DP. I adopt Split Voice Hypothesis to solve the locality problem. Finally, section 4 is the conclusion.

2. Two Types of Causative Constructions in Paiwan

2.1. Morphological Causatives and Argument Structure

I argue that there are two types of MCs in Paiwan. First, the Type-I MC p-i- ‘put’ involves two heads: a causative prefix pa- and a bound location verb i- ‘be at’. As shown in (3a), the Goal argument cukui ‘table’ is incorporated into Type-I MC, and the oblique case-marked Theme argument hung ‘book’ occurs outside the verb complex. Moreover, the Theme argument agrees with the Patient Voice, and it is selected as a subject; cf. (3b).

(3) a. na-p-i-cukui=anga=(a)ken tua ku-hung.
Pfv-AV.Caus-be.at-table=COS=1Sg.Nom Obl 1Sg.Gen-book
‘I put my book on a table.’
Second, the Type-II MC comprises a causative prefix pa- and an affixal possession verb u- ‘have’. As illustrated in (4a), the MC p-u- ‘cause to have’ incorporates the Theme argument makalilaw ‘fabric’ rather than the Goal argument ‘erengan ‘bed’. As we can see in (4b), the MC verb complex occurs in Patient Voice (but) with the Goal subject.

Moreover, the Type-I MC p-i- differs from the Type-II MC p-u- in two respects. First, as illustrated in (5a-b), the former can incorporate an oblique case marker tua while the latter cannot (see Chang and Wu (2005) for details of Paiwan incorporation analysis). Second, as illustrated in (6a), the Theme argument occurs ‘atia ‘salt’ outside the Type-I deverbal nominal papizuan ‘container’. In contrast, the Theme argument must occur within the Type-II deverbal nominal pu’atian ‘salt container’, as shown in (6b).

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Teng (2007) also recognizes two types of verbal affix pu- in Puyuma. One type is attached onto a Location NP while the other type is attached onto a Theme NP, as in (7a-b).

(7) a. p-u-Takuban Da lalak na ma’idangan.
   Caus-Mot-youth.house Id.Obl child Def.Nom elder
   ‘The elders sent the children into Takuban.’

b. pu-a-bini’ i uma’ na babayan.
   put-Prog-seed Loc farm Df.Nom woman
   ‘The woman was sowing the seeds in the farm.’

Here I reanalyze the former as the Type-I MC and the latter the Type-II MC. As shown in (8a), the Type-I MC p-u- ‘cause to move to’ incorporates a Goal argument dare ‘ground’, and the Theme argument akanan ‘food’ in turn occurs outside the Type-I verb complex p-u-dare ‘put onto the ground’. In addition, the Patient Voice head -aw rather than the Locative Voice head -ay promotes the Theme argument akanan ‘food’ as the grammatical subject (cf. 8b).

(8) a. p-u-dare=ku dra a-kan-an.
   AV.Caus-move.to-ground=1Sg.Nom Obl Red-eat-Nmlz
   ‘I put (some) food down.’

   1Sg.Gen=Caus-move.to-ground-PV/*LV Nom Red-eat-Nmlz
   ‘I put the food down.’

By contrast, the Type-II MC p-u- ‘cause to have’ incorporates the Theme argument enai ‘water’ whereas the Goal argument aputr ‘flower’ appears outside the verb complex, as we can see in (9a). As illustrated in (9b), the verb complex must be inflected by Locative Voice with the Goal subject.

(9) a. p-u-a-enai=ku dra aputr.
   AV.Caus-have-Prog-water=1Sg.Nom Obl flower
   ‘I am sprinkling water on the flowers.’

b. ku=p-u-enai-ay/(*-aw) na aputr.
   1Sg.Gen=Caus-have-water-LV/*PV Nom flower
   ‘I sprinkled the water on the flowers.’

To sum up, in Paiwan the Type-I MC p-i- ‘cause to be at’ differ Type-II MC pu-
‘cause to have’ in that (i) the former incorporates a Goal argument while the latter a Theme argument; (ii) the same UV head <in> selects different types of subject; (iii) the former can incorporate a case marker while the latter cannot; (iv) the Type-I MC adopts phrasal nominalization strategy whereas the Type-II MC employs lexical nominalization strategy. Second, in Puyuma Type-I MC incorporates a Goal argument while the Type-II a Theme argument. On the other hand, the Theme subject agrees with the PV head -aw in Type-I MC, whereas Type-II MC verb complex appears in LV with the Goal subject.

2.2. Causative Predicates and Subject Selection in Paiwan

Here I show that there exist two types of Θ-agreement mismatches between voices and grammatical subject in Paiwan causative constructions. First, Type-I mismatch is observed in the causative location constructions. As illustrated in (10a), the causative location verb padjekedjekc ‘lodge’ appears in AV form, with the matching Actor subject =aken ‘I’. As shown in (10b-c), this causative verb occurs in PV and IV/BV, but the Goal argument tjara ‘ring’ and the Theme argument ata ‘(lazurite) bead’ are selected as the grammatical subjects. Clearly, Type-I mismatch concerns the dissociation between (i) PV and the Goal subject and between (ii) IV/BV and the Theme subject.

(10) a. pa-djeke-djekc=aken tua ata p-i tua tjara.
   AV-Caus-Red-rice=1Sg.Nom Obl bead Caus-at Obl ring
   ‘I am lodging a bead in a ring.’

b. ku-pa-djekc en a tjara tua 'ata.
   1Sg.Gen-Caus-rice-PV Nom ring Obl bead
   ‘I lodge a bead in the ring.’

c. ku-si-pa-djekc a ata tua tjara.
   1Sg.Gen-IV-Caus-rice Nom bead Obl ring
   ‘I lodge the bead in a ring.’

The second type of Θ-mismatch appears in the causative possession verbs. As we can see in (11a), the causative possession verb pavai ‘give’ appears in a null AV affix with an Actor subject =aken ‘I’. By contrast, as shown in (11b), this verb is inflected by a PV infix <in> but with a Goal subject =sun ‘you’. Again, the Theme subject triggers the IV/BV rather than PV morphology, as illustrated in (11c). As we can see, the Type-II involves the Θ-agreement mismatches between (i) PV and the Goal/Recipient subject and between (ii) IV/BV and the Theme subject.
3. VP Structure, Undergoer Voices and Agreement Mismatches

3.1. Lexical-syntax (L-syntax) and Morphological Causatives

In this paper I adopt Hale and Keyser’s (1993, 2002) Lexical-syntax (L-syntax) framework to explain the morphosyntactic behaviors of two types of MCs. First, under a Lexicalist approach as in (12), it is not clear why only the Goal argument cukui ‘table’ rather than a Theme argument hung ‘book’ can be incorporated into Type-I MC p-i- ‘put’, and on the other hand only the Theme argument makalilaw ‘fabric’ but not the Goal argument ‘erengan ‘bed’ can be incorporated into Type-II MC p-u- ‘cause to have’ in Paiwan.

(12) a. ku-p<in>-i-cukui a hung.
   1Sg.Gen-Caus<Pfv.PV>-be.at-table Nom book
   ‘I put the book on a table.’ (=3b)

b. [[Act (ku-, hung,)] CAUSE [BECOME [BE.AT (hung, cukui)]]]

c. ku-p<in>-u-zaljum a su-hana.
   1Sg.Gen-Caus-have<Pfv.PV>-water Nom 2Sg.Gen-flower
   ‘I spread a fabric on your flower.’

d. [[Act (ku-, makalilaw,)] CAUSE [BECOME [HAVE (\'erengan, makalilaw)]]]

By contrast, in light of structural hierarchy, one can correctly predict which argument can be incorporated into MCs. In particular, we argue that the incorporation patterns are subject to a well attested syntactic constraint. As Baker (1988) argues, head movement must obey ECP and therefore only the complement NP rather than the specifier NP can move into a head in order for the trace to be properly governed. Accordingly, only the Goal argument is allowed
to head-move into Type-I MC \( p-i \) ‘put’ whereas the Theme argument, on the other hand, could be incorporated into Type-II MC \( p-u \) ‘cause to have’. The syntactic derivations of Type-I and Type-II MCs are shown in (13-14).

Second, I argue that the above incorporation operation is syntactic because it respects the Head Movement Constraint (15) (cf. Travis 1984, Roberts 2000). Recent research on the extended projection of spatial PP, e.g. prepositions, postpositions, circumpositions, particles, and etc., has paid much attention to the universal hierarchy of spatial heads (cf. den Dikken 2006, Koopman 2000, Svenonious 2007, to appear). For example, Svenonious (to appear) proposes the following cartographic structure of spatial PP as in (16).

Now let us turn back to Paiwan Type-I MC. Assuming that the Ax(ial)Part Projection is also higher than the Determiner/Nominal Projection in Paiwan, one will predict that the location verb \( i \) ‘be at’ must attract the closer head, namely, the AxPart head \( tjaladj \) ‘inside’ instead of the nominal head \( kadrung \) ‘keg’. The prediction is confirmed in (17a, b). The syntactic derivation is illustrated in (17c).

\[
\text{(13)} \quad \text{[VoiceP Subj [Voice} ^0 <_{\text{tr}}> [vP DP}_{\text{Act}} [v^0 pa^0 [vP DP}_{\text{Theme}} [V^0 p^0 [...N^0_{\text{Goal cukdu}}]]]]]
\]

\[
\text{(14)} \quad \text{[VoiceP Subj [Voice} ^0 <_{\text{tr}}> [vP DP}_{\text{Act}} [v^0 pa^0 [vP DP}_{\text{Goal}} [V^0 u^0 [...N^0_{\text{Theme zaljum}}]]]]]
\]

\[
\text{(15) Head Movement Constraint (Roberts 2000:113)}
\]

Head movement of X to Y cannot “skip” an intervening head Z.

\[
\text{(16) \quad [PP P} ^0 [DegP Deg} ^0 [DeixP Deix} ^0 [PathP Path} ^0 [PlaceP Place} ^0 [AxPartP AxPart} ^0 [KP K} ^0 DP]]]]]
\]

Now let us turn back to Paiwan Type-I MC. Assuming that the Ax(ial)Part Projection is also higher than the Determiner/Nominal Projection in Paiwan, one will predict that the location verb \( i \) ‘be at’ must attract the closer head, namely, the AxPart head \( tjaladj \) ‘inside’ instead of the nominal head \( kadrung \) ‘keg’. The prediction is confirmed in (17a, b). The syntactic derivation is illustrated in (17c).

\[
\text{(17) a. ku-p<in>-i-tjaladj \quad i- kadrung a \quad inepic.}
\]

\[
\text{1Sg.Gen-Caus<Pfv.PV>-be.at-inside \quad be.at-keg \quad Nom \quad pencil}
\]

‘I put the pencil into the keg.’

\[
\text{b. *ku-p<in>-i-kadrung \quad i-tjaladj a \quad inepic.}
\]

\[
\text{1Sg.Gen-Caus<Pfv.PV>-be.at-keg \quad be.at-inside \quad Nom \quad pencil}
\]

c. \ldots[vP V^0 i- ‘be at’ [AxPartP AxPart} ^0 tjaladj ‘inside’ \ldots[NP N^0 kadrung ‘keg’]]
\]
As I have shown, the MCs in Paiwan respect syntactic conditions. We finally come to the question: why is such a derivation viewed as L-syntactic process? I suggest that this derivation may take place in the lexicon in that it exhibits some characteristic of lexical rules, i.e. phonological idiosyncrasy, as shown in (18).

\[(pa- + i-) \rightarrow [p-i-] / [pa- + u-] \rightarrow [p-u-] \]

3.2. VP Shell, Argument Structure, and Θ-Agreement

Drawing evidence from reflexive binding, variable binding, NPI licensing, reconstruction effect and the like, some structural asymmetries between a Theme argument and a Goal argument has been observed in Double Object Constructions (DOCs) cross-linguistically (cf. Barss and Lasnik 1986, Larson 1988, Harley 2002, Marantz 1993, Takano 1998, Pylkkänen 2002, and etc.). Applying these diagnostics to Paiwan causative verb constructions, I argue that the Goal argument always c-commands the Theme argument in the causative possession verb constructions, whereas the Theme DP occupies in a higher position than the Goal DP in the causative location verb constructions.

The first piece of evidence involves variable binding. As illustrated in (19a), the Goal DP *maciticitil ninpu* ‘every worker’ binds the Theme DP *kinitjanan niamadju* ‘his payment’, which indicates the former is structurally higher than the latter. The structure of the example (19a) is schematized in (19b).

(19) a. ru=pa-vai=aken tua ma-citicitil ninpu1 tua kinitjanan
    Irr=AV.Caus-get=1Sg.Nom Obl Clf-each.one worker Obl payment
    niamadju1, 3Pl.Gen
    ‘I gave every worker his payment.’

b. …[\(\text{VP}_{\text{Actor}} = \text{aken} \) ‘I’ [ \(\text{V}^0\) pa- ‘cause’ [\(\text{VP}_{\text{Goal}} \text{maciticitil ninpu}_1\) ‘every worker’ [\(\text{V}^0\) vai ‘get’ [\(\text{DP}_{\text{Theme}} \text{kinitjanan niamadju}_1\) ‘his payment’]]]]]

The second piece of evidence concerns binding condition and reconstruction effect. As we can see in (20a), the R-expression *Camak* co-indexes with the genitive pronoun *nimadju* ‘his’. Only under the syntactic configuration \(\text{DP}_{\text{Goal}} > \text{DP}_{\text{Theme}}\) (where the notation ‘>’ indicates asymmetrical c-command), the R-expression *Camak* (i.e. the \(\text{DP}_{\text{Goal}}\)) can c-command the genitive pronoun *padung nima* ‘his stick’ (i.e. the \(\text{DP}_{\text{Theme}}\)). The VP-internal structure is given in (20b).
Moreover, the binding condition C will be observed in UV constructions when reconstruction effect occurs. As shown in (21a), the R-expression Camak within the DP\text{Theme} cannot co-index with the pronoun madju 'he' (i.e., the DP\text{Goal}) and thus the Binding Condition C will not be violated. On the other hand, as shown in (21b), the R-expression Camak is promoted as the highest subject DP. In this case, this R-expression seems not to fall under the binding domain of the Goal DP madju 'he', which in turn seems to be c-commanded by the R-expression John. However, it is surprising that they are forbidden co-indexing with each other. Here the reconstruction effect occurs: the Theme DP padung nimadju 'his stick' must be reconstructed back to the tail position of an A-chain (i.e., [Comp, VP]). Accordingly, the R-expression will be bound (at LF) and therefore the co-indexation is prohibited, as shown in (21c).

(21) a. pa-tavelak=aken     tjay camak1  tua padung nimadju1/2.
    AV.Caus-receive=1Sg.Nom  Obl  Camak  Obl stick  3Sg.Gen
    ‘I passed Camak his stick.’

b. …[\text{VP} \text{DP}_{\text{Actor}} =aken ‘I’ [\text{V}^0 \text{pa- ‘cause’} [\text{VP} \text{DP}_{\text{Goal}} \text{Camak}_1 ‘Camak’ [\text{V}^0 \text{tavelak ‘receive’} [\text{DP} \text{DP}_{\text{Theme}} \text{padung nimadju}_{1/2} ‘his stick’]]]]]

c. …[\text{VP} \text{DP}_{\text{Goal}} \text{madju}_1 ‘him’ [\text{V}^0 \text{tavelak ‘receive’} [\text{DP} \text{DP}_{\text{Theme}} \text{padung nimadju}_{1/2} ‘Camak’s stick’]]]

On the other hand, I argue that the Theme argument occupies a higher position than the Goal argument in Paiwan causative location constructions. Tang (1999) argues that the linker a in Paiwan serves as a nonfinite complementizer. If her analysis is on the right track, the Goal argument kadrum ‘keg’ in the embedded complement must be lower than the Theme argument zaljum ‘water’. This prediction is confirmed by the evidence from the binding condition B, as shown in (22a) and schematized in (22b).
Having classified the VP structures of Paiwan causative constructions, I will now show the structural implications of voice heads on agreement mismatches. In particular, I show that the PV head agrees with the DPs at the position of [Spec, VP] whereas the IV/BV head probes the DPs occupying at the complement position of VP in Paiwan (Holmer (1999) observes the same agreement patterns in Seediq causative and ditransitive constructions). As shown in (23a), the IV/BV always agrees with the lowest Theme argument in Paiwan causative possession constructions, and it matches the deepest Goal argument in Paiwan causative location constructions (see 23b). The syntactic derivations are illustrated in (24).

(23) a. ku-si-pa-tavelak a padung tjay camak.  
1Sg.Gen-IV/BV-Caus-receive Nom stick Obl Camak  
‘I passed Camak the stick.’  
b. ku-si-lui tua zaljam a kadrung.  
1Sg.Gen-IV/BV-fill Obl water Nom keg  
‘I filled the keg with water.’

(24) a. ...[VoiceP DPTheme padung [Voice0 si- ...[VP DPGoal Camak [V0 DPTheme padung]]]]

b. ...[VoiceP DPGoal kadrung [Voice0 si- ...[VP DPTheme zaljum [V0 DPGoal kadrung]]]]

Now a problem immediately arises: the syntactic derivations in (24) obviously violate the locality requirement. How do we solve this problem? In the next section I will adopt a Split Voice Hypothesis (Chang 2008, 2009) to solve this problem.

3.3. Split Voice Hypothesis and EPP

Chang (2008, 2009) proposes the Split Voice Hypothesis (henceforth SVH), as given in
(25a). In Tsou a morphological Non-Actor/Undergoer Voice affix can be decomposed into two syntactic heads: one is lower applicative head and the other is a higher voice head.

(25) The Split Voice Hypothesis (SVH)
Non-Actor Voices are an amalgam of a voice head and an applicative head.

I argue that on a par with the Undergoer Voices (UVs) in Tsou, the UV heads in Paiwan can license an applicative projection. As (26a) shows, the AV unergative verb *mekelj ‘run’ can take only the Actor argument. By contrast, an additional Theme argument *aekljen ‘race’ is introduced into the argument structure when the verb root occurs in the PV infix <in> (cf. 26b). Similarly, an IV head *si-takes an extra Instrument subject *kucu *a tkuligagici ‘high-heeled shoes’ (see 26c). Clearly, Paiwan UV heads contain not only a Voice projection but an Applicative projection.

(26) a. *mekelj=aken (*tua aekljen/ *tua kucu *a tkuligagici).
   AV-Red-run=1Sg.Nom Obl race Obl shoe Lnk high.heels
   ‘I am running.’
 b. ku-<in>ekelj=anga a icu a aekljen.
   1Sg.Gen-<Pfv.PV>-run=COS Nom this Lnk race
   ‘I have run this race.’
 c. ku-si-ekelj a kucu a tkuligagici.
   1Sg.Gen-IV/BV-run Nom shoe Lnk high.heels
   ‘I run with the high-heeled shoes.’

Furthermore, I propose that the different UV license different Applicative head. Specifically, the PV-applicative head, without the [EPP] feature, targets at the argument at the [Spec, VP]. Consequently, the causative possession predicate *patavelak ‘pass’ appears in PV with a Goal subject (see. 27a). On the other hand, the IV/BV-applicative head, which is equipped with the [EPP] feature, probes for the argument at [Comp, VP]. Accordingly, the predicate occurs in IV/BV with a Theme subject (cf. 27b). The syntactic representations of (27a-b) are given as ((28a-b) respectively.

(27) a. *patavelak=tua camak tua padung.
   1Sg.Gen-Caus<Pvf.PV>-receive Nom Camak Obl stick
   ‘I passed Camak a stick.’

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2 In this paper the terms *voice* and *focus* are interchangeable.
b. ku-si-pa-tavelak a padung tjay camak.
   1Sg.Gen-IV/BV-Caus-receive Nom stick Obl Camak
   'I passed Camak the stick.'

(28) a. Agree
   [VoiceP Camak [Voice0 [ApplP Camak [Appl0 ... [VP Camak [V0 padung]]]]]]

b. Agree
   [VoiceP padung [Voice0 [ApplP padung [Camak [Appl0 ... [VP Camak [V0 padung]]]]]]]

As (28a) shows, since the applicative head selected by the PV <in> does not bear an [EPP] feature, the closest DP for the PV-applicative head will be the DP argument generated at the specifier of VP. Accordingly, the Goal argument Camak (cf. 27a) serves as the subject. On the other hand, as illustrated in ((28b), the [EPP] feature on the applicative head selected by the IV/BV si- triggers the lowest Theme DP at [Comp, VP] to leapfrog over the higher Goal DP to the outer edge of ApplP. Next, this Theme argument padung ‘stick’ (see 27b) in turn be attracted to the Spec of VoiceP to appear as the subject.

Now let us see Paiwan causative location constructions, as in (29). The PV predicate linui ‘fill (into)’ in (29a) selects a Theme subject while the IV/BV predicate silui ‘fill (with)’ takes a Goal argument as the subject (cf. 29b).

(29) a. ku-l<in>ui a zaljum (a) p-i tua kadrung.
   1Sg.Gen-fill<Pfv.PV> Nom water Lnk Caus-be.at Obl keg
   'I filled the water into a keg.'

b. ku-si-lui tua zaljam a kadrung.
   1Sg.Gen-IV/BV-fill Obl water Nom keg
   'I filled the keg with water.'

As illustrated in (30a), because the PV-applicative head does not bear any [EPP] feature, the higher Theme DP (at the Spec of VP) zaljum ‘water’ will cyclically move into the Spec position of VoiceP, which in turn serves as the subject (cf. 29a). By contrast, as we see in ((30b), the IV/BV-applicative head contains an edge feature [EPP] and as a consequence the lowest Goal DP (at the Comp of VP) kadrung ‘keg’ leapfrogs to the Spec of ApplP. Next, this Goal argument in turn agrees with the Voice head to check the uninterpretable [UV] feature. Finally, the Goal DP is attracted to [Spec, TP], serving as the subject.
4. Conclusion

In this paper I argue that there exist two types of MCs in Formosan languages: (i) the causative prefix + bound location verbs, and (ii) the causative prefix + prefixal possession verb. Second, I also show that there exist agreement mismatches between voices and semantic roles of grammatical subjects in Paiwan causative verb constructions: the first involves with the argument structure where the Goal DP asymmetrically c-commands the Theme DP. The second concerns the syntactic configuration which requires the Theme DP to asymmetrically c-command the Goal DP. Finally, I offer a ‘Split VoiceP’ explanation toward the agreement mismatch puzzle in Paiwan (cf. Chang 2008, 2009).

References


Chang, Henry Yungli. 2008. Focus marking and phrase structure in Tsou. Lecture given at the National Tsing Hua University, Hsinchu.


