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# A SYNTACTIC APPROACH TO LEXICAL VARIATION IN THE MORPHOSYNTAX OF AMIS TRANSFER VERBS: A CASE STUDY OF *PA-FLI* ‘GIVE’ AND *PA-QACA* ‘SELL’

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In the generative literature, ditransitive verbs have been analyzed as having either an applicative structure or a causative structure. Amis, an Austronesian language spoken in Taiwan, is typologically intriguing, since its verbs of transfer (e.g., ‘give’, ‘sell’, ‘lend’) always carry the “causative” morpheme, and may allow further “applicativization.” Amis also distinguishes two types of transfer verbs based on their subject (i.e., absolutive argument) selection in transitive constructions: one that prefers a goal as the subject (e.g., ‘give’), and one that always selects a theme as the subject (e.g., ‘sell’). This paper provides a syntactic approach to this lexical variation and argues that that subject selection in both types of transfer verbs is determined by their syntactic structures, which are conditioned by three major factors: (a) the nature of the root, (b) the projection of the apparent causative marking, and (c) the structural position of the apparent applicative morpheme.

**1. INTRODUCTION.**<sup>1</sup> In the generative literature, ditransitive verbs have been analyzed as having either an applicative structure (Marantz 1993; Pylkkänen 2002) or a causative structure (Pesetsky 1995; Harley 2002). Similar analyses have been applied to the studies of Formosan triadic constructions. For example, the applicative analysis proposed by S. Chen (2007) for Atayal and by H. Chang (2011a) for Tsou demonstrates how the ‘give’ verb allows for different applied argument (e.g., theme or goal), according to the applicative marker. As for Amis, transfer verbs are analyzed as causative verbs by Wu (2006a), due to the obligatory involvement of the causative morpheme.

At first glance, the analyses on Formosan transfer verbs may appear straightforward, because of the presence of overt causative or applicative morphology. However, the analytical challenge lies in identifying the function of these two morphemes. Typically, a causative adds an external argument and, an applicative adds an internal argument to the verb (Dixon and Aikhenvald 2000). For example, for a typical transitive verb such as ‘hunt’, affixing the causative morpheme introduces a causer, whereas affixing the locative applicative morpheme introduces a location. If the same valency-increasing function applies to a transfer verb such as ‘give’, theoretically speaking, the causative would add an external argument as a fourth participant to the existing three-participant transfer event, while the applicative would add an internal argument. In the case of Amis transfer verbs, however, when the causative and applicative morphemes co-occur, the verbs normally still denote a three-participant event. This suggests that in these constructions, these morphemes may not serve the typical valency-increasing function. Careful examination is thus required to establish how transfer verbs are derived.

The purpose of this study is two-fold. First, I provide a descriptive analysis of Amis transfer verbs involving apparent causative and applicative morphology. I show that all Amis triadic transfer verbs, including ‘give’, require the causative morpheme *pa-*. I further identify two major types of transfer verbs, which differ not only in their subject (i.e., absolutive DP) selection in transitive constructions (Wu 2006a), but also in their subject selection in applicative constructions.

The second goal of this study is to provide a principled explanation for the difference in subject selection between these two types of transfer verbs. Within the generativist framework, I demonstrate how transfer verbs can be classified based on the nature of their root, the projection of the “causative” *pa-*, and the projection of the applicative morpheme (if involved). I argue that the subject selection of a transfer verb is motivated by its syntactic structure. I compare *pa-fli* ‘give’ and *pa-qaca* ‘sell’ to

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demonstrate how an NP with a particular thematic role is assigned structural Absolutive Case via a series of feature-checking operations within the minimalist framework.

This paper is organized as follows. Section 2 provides a basic morphosyntactic description of Amis verbal morphology, as well as some theoretical assumptions about Amis clause structure and Case assignment. Section 3.1 introduces two major types of Amis transfer verbs. Type I transfer verbs such as ‘give’ select the goal as the subject in plain transitive and locative applicative construction, and the theme as the subject in instrumental applicative construction. Type II transfer verbs such as ‘sell’ select solely the theme as the subject in both plain transitive and applicative constructions. Sections 3.2 and 3.3 establish the syntactic structure of ‘give’ and ‘sell’, respectively, by investigating the nature of their root, the projection of the *pa-* morpheme, and the projection of the applicative. Section 4 further elaborates on the syntactic “verb-sensitive” approach to transfer verbs by considering other members of Type I and Type II transfer verbs in Amis. Section 5 provides the concluding remarks.

**2. BASIC MORPHOSYNTAX OF AMIS AND SOME THEORETICAL ASSUMPTIONS.** Amis is a Formosan language spoken in eastern Taiwan by the Amis people. Among fourteen officially recognized peoples of Taiwan’s aborigines, Amis has the largest population. The data analyzed in this study were mainly collected from Haian (海岸) Amis (i.e., Coastal Amis), one of the Central Amis dialects spoken in the Changkuang (長光) Community at Changpin, Taitung County.

**2.1 ERGATIVE APPROACH TO THE WESTERN AUSTRONESIAN “VOICE” SYSTEM.** Like most Formosan languages, Amis is a predicate-initial language and has the Western Austronesian “voice” system, in which the verbal morphology correlates with the thematic role of the grammatically prominent NP. Traditionally, Amis is analyzed as having a four-way voice system, including actor voice (AV), patient voice (PV), locative voice (LV), and instrumental voice (IV). This study adopts an alternative approach, which considers what has been previously analyzed as PV and AV constructions to be canonical transitive and intransitive (antipassive), respectively (cf. Aldridge 2004, 2008; H. Chang 2011b; see also Starosta 1988). In this view, Amis demonstrates the ergative pattern of case marking. Consider the following examples:<sup>2</sup>

(1) Amis intransitive construction (= “AV”)

mi-la’up    ku    wacu    tu    wawa  
INTR-chase   ABS   dog    OBL   child  
‘The dog is chasing/will chase a child.’

(2) Amis transitive construction (= “PV”)

ma-la’up    nu    wacu    ku    wawa  
TR-chase    ERG   dog    ABS   child  
‘A dog chased the child.’

In (1) and (2), the traditional ‘AV/PV’ glossing is replaced by ‘INTR/TR’, respectively. The S argument (i.e., the subject of an intransitive clause) *wacu* in (1) and the O argument (i.e., the object of a transitive clause) *wawa* in (2) are both marked by the same marker *ku*, while the A argument (i.e., the subject of a transitive clause) *wacu* in (2) is marked by a different marker *nu*, showing an ergative pattern. The extended (E) argument *wawa* in (1) is marked with the oblique (OBL) marker.<sup>3</sup> The example also shows that the canonical order in Amis is VS(E) or V(E)S if intransitive, and VAO(E) if transitive.

The formal analysis in this study is based on the Minimalist Program (Chomsky 1995 and subsequent work). I adopt *v* as the external argument-introducing head, which selects VP as its complement. Following Y. Chang (2004) and Y. Chen (2008), I assume that the functional head that merges with *v*P is Modality-Aspect (Mod-Asp) instead of T, based on the observation that Amis may

<sup>2</sup> Glossing and abbreviation conventions follow those in the Leipzig Glossing Rules, except for the following: CAU, causative; INA, instrumental applicative; LA, locative applicative; LNK, linker; PPN, personal proper noun marker.

<sup>3</sup> The set of case markers *tu/ku/nu* is used restrictively for common nouns. A different set of markers (i.e., *ϕ-ci* ‘ABS’, *ni* ‘ERG’, and *ci...-an* ‘OBL’) is used for the proper nouns and person names.

not have any tense inflection. It is assumed that the predicate-initial order is derived by means of cyclic head movement of V to Mod-Asp.

As for Case assignment, I assume that ERG is an inherent Case assigned by  $v$  with the feature [+TR] to the agent/actor argument and that ABS is a structural Case assigned by Mod-Asp to the highest accessible argument inside  $vP$ . I propose that the intransitive voice marker *mi-* and transitive voice marker *ma-* are morphological realizations of  $v$ , with the feature [-TR] and [+TR], respectively.<sup>4</sup> I further propose that  $v$  with the feature [+TR] has a strong EPP feature that licenses the highest internal argument to move to its outer Spec, where it receives the [+specific] interpretation (cf. Rackowski and Richards 2005 on Tagalog). Following H. Chang (1997), and Y. Chang (2004), I assume that the specifier is generated to the right in Amis.<sup>5</sup> Examples (1) and (2), accordingly, have the following structures.

FIGURE 1. AMIS INTRANSITIVE CONSTRUCTION

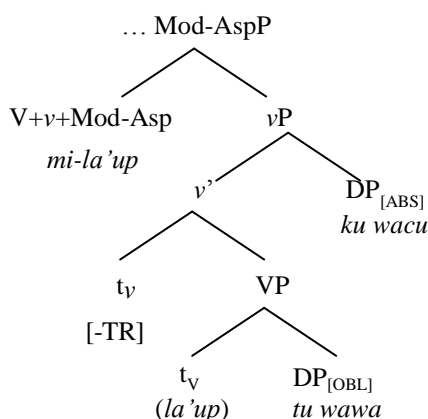


FIGURE 2. AMIS TRANSITIVE CONSTRUCTION

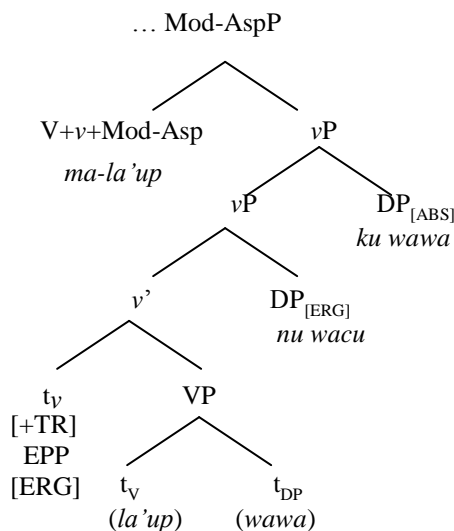


Figure 1 shows that in intransitive clauses, ABS is assigned to the actor/agent (i.e., *ku wacu*) in [Spec,  $vP$ ], which is the highest DP within  $vP$ , as the  $v$  head (i.e., *mi-*) with [-TR] lacks an EPP feature

<sup>4</sup> In fact, four intransitive voice markers are available in Amis. They are lexically conditioned allomorphs with the forms *mi-*, *ma-*, *<um>*, and *zero*. Here, I simply use *mi-* to demonstrate the nature of the transitivity feature carried by the intransitive voice marker.

<sup>5</sup> A potential problem is that this analysis predicts the VES order in figure 1. Here, I propose that the VSE order as observed in (1a) is a result of scrambling. Note that the “right-specifier” analysis is assumed in this study for the simplicity of exposition. The reader is referred to Lin 2013 and Aldridge to appear for alternative proposals for the derivation of predicate-initial Formosan languages, including Amis and Seediq.

that can license the movement of an internal argument to the outer Spec. The internal argument receives an inherent OBL case from V (i.e., *tu wawa*). Figure 2 shows that *v* (i.e., *ma-*) in plain transitive clauses has [+TR], which assigns inherent ERG to the agent DP (i.e., *nu wacu*), and raises the internal argument to the outer Spec. This internal argument thus becomes the highest accessible argument for Mod-Asp, and is therefore assigned ABS (i.e., *ku wawa*).<sup>6</sup>

**2.2 APPLICATIVE CONSTRUCTION.** Following Ross 2006, Wu 2006b, H. Chang 2009, among other works, I treat the remaining two constructions (LV and IV) as applicative constructions. The so-called LV morpheme *-an* and IV morpheme *sa-* are regarded as locative applicative (LA) and instrumental applicative (INA) morphemes, respectively. In applicative constructions, the applied argument is realized as ABS, with the actor/agent and the theme/patient in ERG and OBL, respectively. This is illustrated in (3).

(3) Amis applicative constructions

- a. *pi-adup-an*    *ni*            *mama*    *tu*    *fafuy*    ***kuni***    ***a***    ***lutuk***  
 TR-hunt-LA    ERG.PPN    father    OBL    pig    this.ABS    LNK    mountain  
 ‘Father hunts pigs in this mountain.’
- b. ***sa-pi-adup***    *ni*            *mama*    *tu*    *fafuy*    ***ku***    ***iduc***  
 INA-TR-hunt    ERG.PPN    father    OBL    pig    ABS    spear  
 ‘Father hunts pigs with the spear.’

Note that in (3) the applicative morpheme attaches to the transitive verb ‘hunt’. The peripheral argument (i.e., adjunct) of the ‘hunt’ verb, ‘this mountain’ in (3a) or ‘the spear’ in (3b), becomes the applied argument and receives ABS marking. Within the generative framework, the applicative phrase (ApplP) has been proposed to account for the introduction of an applied argument (Marantz 1993; Kratzer 1994). Furthermore, two types of applicative constructions have been identified (Pylkkänen 2002). The high applicative head relates the applied argument to the event described by the VP (i.e., individual–event), whereas the low applicative head relates the applied argument to the direct object (i.e., individual–individual), and is therefore commonly used to denote a transfer of possession. To represent this semantic difference, Pylkkänen argues that high ApplP attaches above VP, whereas low ApplP attaches below VP. The structure of (3a) is proposed in figure 3.

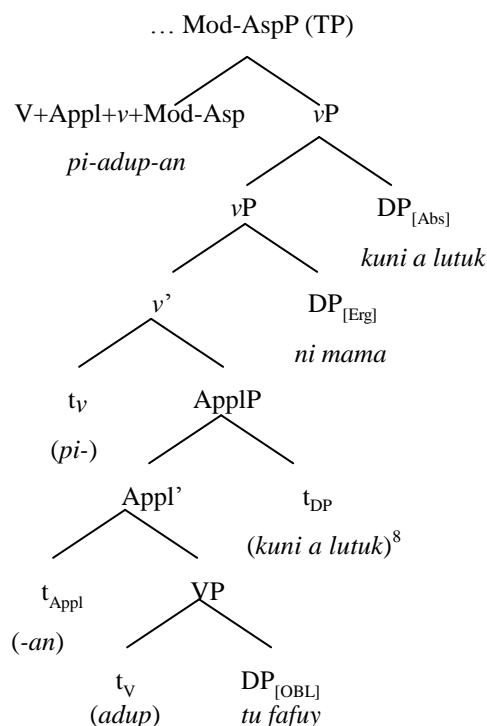
As shown in figure 3, I analyze (3a) as involving a high applicative phrase, since the applied location argument (*kuni lutuk* ‘this mountain’ relates to the entire hunting event, not to the individual (i.e., *fafuy* ‘pig’). The applicative morpheme *-an* serves as the head of ApplP and introduces the applied argument in Spec, Appl. This applied argument thus becomes the highest internal argument—it is above VP, whereas the patient *fafuy* ‘pig’ is VP-internal. Since applicative constructions are by definition transitive, I assume that *v* has a feature [+TR]. In most applicative constructions such as (3), this morpheme is realized as *pi-*.<sup>7</sup> This *v* assigns ERG to the agent ‘father’ in [Spec, *v*], and its EPP feature licenses the raising of the applied argument in [Spec, Appl] to the outer Spec of *v*P, where it receives the specific interpretation. As a result, the applied argument ‘this mountain’ becomes the highest accessible argument for Mod-Asp, and is therefore assigned ABS (i.e., *kuni lutuk*). The lower internal argument ‘pig’ receives inherent OBL from V (i.e., *tu fafuy*), as in plain transitive constructions.

I have used (3a) to demonstrate how the high applicative head can introduce a peripheral argument to the event to further become the grammatical subject. Likewise, the derivation of (3b) involves essentially the same process (except that *sa-* is the applicative head that introduces an instrument). Next I shall discuss transfer verbs in Amis.

<sup>6</sup> I need to assume that inherent OBL is not available for the complement of V in transitive constructions, admittedly an undesirable stipulation. It may be postulated that inherent OBL is assigned as a last resort (default) when a DP fails to receive a structural Case.

<sup>7</sup> The glossing of *pi-* as TR in (3) is chosen simply to highlight the transitive nature of the sentence. As a matter of fact, the *pi-* marking occurs in a variety of constructions, including applicatives, causatives, and imperatives. Wu (2006) treats it as a morphological variant of *mi-*. Y. Chen (2008) proposes the so-called Event phrase to account for the difference between *mi-* and *pi-*.

FIGURE 3. AMIS (LOCATIVE) APPLICATIVE CONSTRUCTION



**3. TRANSFER VERBS IN AMIS.** Transfer verbs in this study are defined as three-place predicates involving the agent of the transfer, the transported theme, and the goal (or recipient), to which the theme is delivered as a result of transfer. Amis transfer verbs can be classified into two major types, based on which thematic role is assigned to the grammatical subject (i.e., ABS argument) in various transitive constructions (including applicative constructions). Examples (4) and (5) demonstrate the difference in subject selection between *pa-fli* ‘give’ and *pa-qaca* ‘sell’.

- (4) The ABS selection pattern of *pa-fli* ‘give’
- a. **ma-pa-fli**    aku    tu    paysu    **ø-ci**    **kulas**    (TR: goal)  
 TR-PA-give    1SG.ERG    OBL    money    ABS-PPN    Kulas  
 ‘I gave the money to Kulas (already).’
  - b. **pa-fli-an**    aku    tu    paysu    **ø-ci**    **kulas**    (LA: goal)  
 PA-give-LA    1SG.ERG    OBL    money    ABS-PPN    Kulas  
 ‘I gave Kulas money.’
  - c. **sa-pa-fli**    aku    **ku**    **paysu**    ci    kulas-an    (INA: theme)  
 INA-PA-give    1SG.ERG    ABS    money    PPN    Kulas-OBL  
 ‘The money is for me to give to Kulas.’
- (5) The ABS selection pattern of *pa-qaca* ‘sell’
- a. **ma-pa-qaca**    aku    **ku**    **cudad**    ci    kulas-an    (TR: theme)  
 TR-CAU-buy    1SG.ERG    ABS    book    PPN    Kulas-OBL  
 ‘I sold the book to Kulas already.’
  - b. **pa-qaca-an**    aku    **ku**    **cudad**    ci    kulas-an    (LA: theme)  
 CAU-buy-LA    1SG.ERG    ABS    book    PPN    Kulas-OBL  
 ‘I sold the book to Kulas.’
  - c. **sa-pa-qaca**    aku    **ku**    **cudad**    ci    kulas-an    (INA: theme)  
 INA-CAU-buy    1SG.ERG    ABS    book    PPN    Kulas-OBL  
 ‘The book is for me to sell to Kulas.’

<sup>8</sup> *k-* is the absolutive case marking for the DP headed by a demonstrative (e.g., *uni lutuk* ‘this mountain’). ABS will be assigned only when the DP moves to the outer Spec of *vP*.

Note that the “causative morpheme” *pa-* is involved in both types of transfer predicates.<sup>9</sup> The function of this affix will be discussed in detail in subsequent sections. Here, I focus on the thematic role of the ABS argument. For transfer predicates such as ‘give’, the goal argument is assigned ABS in plain transitive and locative applicative constructions (e.g., *ci Kulas* in (4a-b)), while the theme ‘money’ is assigned ABS in instrumental applicative constructions (e.g., *ku paysu* in (4c)). For transfer predicates such as ‘sell’, there seems to be a “theme-only” constraint—the theme argument is assigned ABS in all types of transitive constructions (e.g., *ku cudad* in (5a-c)).

For the sake of illustration, in this paper these two types of transfer verbs are labeled as Type I and Type II. Type I transfer verbs have their goal as the ABS argument in plain transitive and locative applicative constructions, and their theme as the ABS argument in instrumental applicative constructions. Members of this type include *pa-fli* ‘give’, *pa-caliw* ‘lend’, and *pa-kawlah* ‘award’. Type II transfer verbs, on the other hand, have the “theme-only” constraint. These verbs can only have theme as the ABS argument in all types of transitive constructions. Members of this type include *pa-qaca* (or *pa-cakay*) ‘sell’ and *pa-qfer* ‘mail/post’. The difference in ABS selection patterns between Type I and Type II transfer verbs is summarized in the following table.

TABLE 1. ABS SELECTION PATTERNS IN AMIS TRANSFER VERBS

	Type I transfer verbs	Type II transfer verbs
Plain transitive	Goal <sup>10</sup>	Theme
Locative applicative	Goal	Theme
Instrumental applicative	Theme	Theme

The dichotomy observed here is an extension of Wu’s (2006a) observation, according to which the two types of Amis transfer verbs are identified based on the subject selection in plain transitive constructions. The remaining question is how to account for this lexical variation in the case marking of Amis transfer verbs. Wu’s analyses of Amis transfer verbs are primarily descriptive; thus no principled explanation is offered for the dichotomy. However, in her study Wu argues that the categories of the root for Amis *pa-* verbs in general play a significant role in their subject selection. Here, I embrace this idea by incorporating the root structure as one important factor resulting in the dichotomy of Amis transfer verbs.

In this paper, I propose a syntactic approach to this dichotomy within the minimalist framework and argues that the difference in ABS selection of transfer verbs is due to the difference in their syntactic structures. At least three important factors are established that affect the overall structure of Amis transfer verbs: (a) the nature of the root of the transfer verbs, (b) the projection of the omnipresent “causative” *pa-* morpheme, and (c) the structural position of the applicative morpheme. In the following sections, analyses of Amis ‘give’ and ‘sell’ are proposed to demonstrate how these three factors result in the structural difference between Type I and Type II transfer verbs.

### 3.1 PROPOSED ANALYSIS FOR TYPE I *PA-FLI* ‘GIVE’

**3.1.1 THE STRUCTURE OF *PA-FLI* ‘GIVE’.** In most Formosan languages, the notion ‘give’, as the most prototypical three-place predicate, does not involve causative morphology. Amis is typologically unique in that the apparent causative marker *pa-* is obligatory for the triadic ‘give’ verb. This has been observed in transitive and applicative ‘give’ verbs in (4). Here, I shall briefly introduce the typical function of the causative morpheme *pa-*. In Amis, the *pa-* morpheme attaches to a root or a stem to derive a causative verb. This is illustrated in example (6).

<sup>9</sup> The morpheme *pa-* is glossed as PA and CAU in (4) and (5) to indicate that this form plays different roles in two types of transfer verbs.

<sup>10</sup> Some informants allow the theme argument to become the subject in plain transitive constructions. However, there seems to be a preference of selecting goal over theme, as reported by Wu (2006a).



(6) Amis ‘drink’ versus ‘cause to drink’

a. **mi-nanum ku wawa**

INTR-drink ABS child

‘The child is drinking (water).’

b. **∅-pa-nanum ∅-ci kulas tu wawa**

INTR-CAU-drink ABS-PPN Kulas OBL child

‘Kulas made the child drink (water)/I gave the child water to drink.’

Example (6) contains a pair of intransitive sentences involving the ‘drink’ verb. (6a) shows that before causativization, the Agent argument of ‘drink’ is assigned ABS (i.e., *ku wawa* ‘the child’).<sup>11</sup> In (6b), the *pa-* morpheme enables an additional argument Causer to participate in the drinking event. (6b) further shows that the causativized verb in an intransitive construction has the Causer (i.e., ‘Kulas’) as the ABS argument, whereas the Agent of the original verb (i.e., ‘child’) becomes the OBL argument.

Now we turn to examine the function of *pa-* in ‘give’. Consider the following intransitive constructions that denotes transfer events via the root *fli*.

(7) Intransitive (antipassive) constructions of Amis ‘give’

a. **∅-pa-fli kaku ci kulas-an tu paysu**

INTR-PA-give 1SG.ABS PPN Kulas-OBL OBL money

‘I am going to give Kulas money.’

b. **mi-fli kaku tu paysu**

INTR-give 1SG.ABS OBL money

‘I am going to give/giving money’ (with an implicit goal)

c. **mi-fli kaku ci kulas-an**

INTR-give 1SG.ABS PPN Kulas-OBL

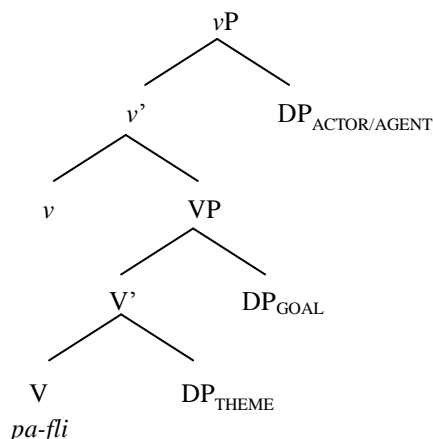
‘I am going to give/giving Kulas’ (with an implicit theme)

Examples (7a) and (7b-c) provide two types of intransitive ‘give’ sentences, respectively. In (7a), *pa-fli* is able to introduce all three participants of the transfer event. In (7b-c) the *pa-*less *mi-fli* only introduces two overt DPs, but the third participant is implied. The function of the *pa-* morpheme in the ‘give’ verb is dubious. Unlike in (6), the *pa-* morpheme here does not add a causative meaning—*pa-fli* in (7a) denotes the same ‘give’ meaning (instead of ‘cause to give’) as *mi-fli* in (7b-c) does. While it is true that *pa-fli* allows for three participants, it is not the Causer that is introduced to the ‘giving’ event in (7a). With respect to Case assignment, the Agent of ‘give’ is assigned ABS (i.e., *kaku* ‘I’), whereas the rest of the internal arguments are assigned OBL (i.e., *ci kulas-an* ‘Kulas’; *tu paysu* ‘money’).

Although the *pa-* morpheme does not contribute to the meaning of ‘give’, it is *pa-fli* in (7a) that serves as the three-place predicate, as opposed to *mi-fli* in (7b-c). Another intriguing finding about *mi-fli* is that either of the internal arguments (i.e., Goal and Theme) of the transfer event can be absent when it is inferred by context. The ability for *pa-*less *mi-fli* to select either Theme or Goal suggests that the root *fli* itself selects two internal arguments. Combining the “null” meaning of *pa-* and the nature of the root *fli*, we propose in figure 4 the structure of *pa-fli* with associated thematic roles.

Figure 4 indicates that the *pa-* morpheme in *pa-fli* is not a causative head, but is generated as part of the V head. The presence of this *pa-* morpheme may be viewed as an instance of analogical leveling, i.e., overgeneralization based on the fact that all triadic transfer predicates in Amis require this morpheme. This claim is in line with Wu’s (2006b:261) proposal that its idiosyncrasies suggest that *pa-fli* might be an instance of lexicalization. For example, unlike other action-denoting verbs, which generally has the transitive marker *pi-* in its locative applicative form (e.g., *pi-adup-an* ‘hunt (LA)’ in (3a)), the ‘give’ verb maintains the *pa-* form (e.g., *pa-fli-an* (\**pi-fli-an*) in (4b)).

<sup>11</sup> The ‘drink’ verb in Amis actually derives from the nominal root *nanum* ‘water’. In other words, the intransitive voice marker serves as a verbalizer; hence the notion of ‘drink’ is derived. The derivation also explains why ‘water’ is the implicit Theme argument in (6) when no overt Theme participant is involved.

FIGURE 4. THE STRUCTURE OF *PA-FLI* ‘GIVE’

**3.1.2 THE ABS SELECTION.** With the structure proposed above, this subsection explains the ABS selection of *pa-fli* ‘give’ (i.e., goal in plain transitive and locative applicative; theme in instrumental applicative, as shown in (4)). For the plain transitive, *v* (i.e., *ma-*) with the feature [+TR] licenses the raising of the highest internal argument. As shown in figure 4, the goal DP is higher than the theme DP in the structure of *pa-fli*, and is therefore raised to the outer Spec, where it receives ABS from Mod-Asp. As for the remaining arguments, the agent DP is assigned inherent ERG Case by *v* with the feature [+TR], and the theme DP receives inherent OBL from V.

The applicative constructions of transfer verbs require more caution. Typical applicative morphemes add an argument to the verb. In section 2.2, we introduce *-an* and *sa-* as high applicative heads above VP. For (*pa-*)*fli*, which by itself entails a third participant of the transfer event, the functions of the applicative morpheme appear to be different, despite the fact that the same morphological form *-an* or *sa-* is involved. While applicative constructions typically function as transitivizing or valency-increasing, cross-linguistic studies show that sometimes the applicative morpheme may simply result in rearrangement of argument structure (Peterson 2006:2; see also Dixon and Aikhenvald 2000). Along these lines, I propose that the applicative morphemes *-an* and *sa-* for ‘give’ are low applicative heads, which do not add an additional argument to the three-place predicate *pa-fli*, but rearrange the relative hierarchical position of two internal arguments, based on their thematic roles. Locative applicative *-an* introduces the goal of transfer, as an extension of “location,” to [Spec, Appl], a position higher than the theme DP. The instrumental applicative *sa-*, on the other hand, targets the theme. The reason why the instrumental applicative morpheme is sensitive to the theme of a transfer event is argued by Huang (2005), who suggests that a transported theme can be metaphorically conceived as an instrument with which the causation of change of location (or possession) is accomplished. Therefore, the theme argument is reintroduced into [Spec, Appl], a position higher than the goal DP.

Although *pi-* is not involved in the applicative constructions of ‘give’ (e.g., (4)), I still postulate the feature [+TR] for *v*, since applicative constructions are by definition transitive. This [+TR] feature, as mentioned previously, targets the highest internal argument and raises it to the outer Spec. In locative applicative construction the goal becomes the highest accessible argument, whereas in instrumental applicative construction the theme becomes the highest. There is therefore no “theme-only” constraint for the ‘give’ verb, since either of its internal arguments has the opportunity to be assigned ABS from Mod-Asp.

### 3.2 PROPOSED ANALYSIS OF TYPE II *PA-QACA* ‘SELL’

**3.2.1 THE STRUCTURE OF *PA-QACA* ‘SELL’.** Unlike the ‘give’ verb, the ‘sell’ verb in Amis contains a root that has a different meaning as opposed to its *pa-* form. The following example clearly indicates that *pa-* in this case involves causativization.

(8) Intransitive constructions of Amis ‘sell’ and ‘buy’

- a.  $\emptyset$ -pa-qaca       $\emptyset$ -ci      kulas      tu      cudad      takuwanan  
 INTR-CAU-buy    ABS-PPN    Kulas    OBL    book    1SGOBL  
 ‘Kulas is going to sell me books.’
- b. mi-qaca      kaku      tu      cudad  
 INTR-buy    1SG.ABS    OBL    book  
 ‘I am buying books.’
- c. \*mi-qaca      kaku      ci      kulas-an  
 INTR-buy    1SG.ABS    PPN      Kulas-OBL  
 Intended for ‘I am buying for Kulas/I am buying from Kulas.’

Example (8) presents three syntactically intransitive (or antipassive) constructions involving the *qaca* ‘buy’ root. In parallel with (7), the *pa-* morpheme here is required to ensure the presence of all three participants. In (8a), the agent *Kulas* of the selling event is assigned ABS, with the other two arguments ‘book’ and ‘me’ demoted as OBL. As opposed to *pa-qaca*, *mi-qaca* denotes a buying event. While *mi-qaca*, like *mi-fli*, is used as a two-place predicate, it only subcategorizes for the theme ‘book’, and the beneficiary is not implied (e.g., (8b)), but not for *Kulas*, intended as the potential source or benefactive argument of the transfer (e.g., (8c)). Example (9) further supports the claim that the ‘buy’ verb *mi-qaca* is bivalent. It cannot select two internal arguments (e.g., (9a)), and the presence of a third participant depends on other morphosyntactic devices. For example, (9b) shows that a source argument of the buying event can be introduced by genitive marking (i.e., *ni Kulas*), represented as the (original) possessor of the transported theme. (9c) shows that a benefactive argument can be introduced by means of the serial verb construction with an additional ‘give’ verb (i.e., *sa-pa-fli ci Kulas-an*).

(9) The bivalent nature of *mi-qaca* ‘buy’

- a. \*mi-qaca      kaku      tu      cudad      ci      kulas-an  
 INTR-buy    1SG.ABS    OBL    book      PPN    Kulas-OBL  
 Intended for ‘I am buying books for Kulas/from Kulas.’
- b. mi-qaca      kaku      tu      cudad      **ni**      **kulas**  
 INTR-buy    1SG.ABS    OBL    book    GEN.PPN    Kulas  
 ‘I am buying books from Kulas.’ (Lit. ‘I am buying Kulas’ books.’)
- c. mi-qaca      kaku      tu      cudad      **sa-pa-fli**      **ci**      **kulas-an**  
 INTR-buy    1SG.ABS    OBL    book    INA-PA-give    PPN    Kulas-OBL  
 I am buying the book to give it to Kulas.’

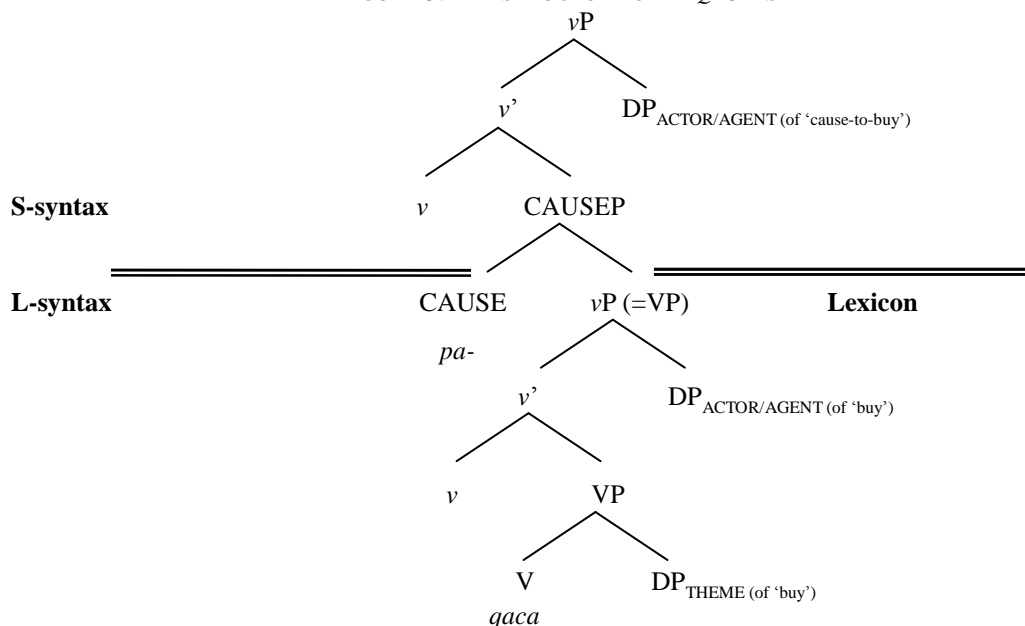
In some languages, causativization is commonly used as a tool to derive a transfer verb by changing the perspective on the event to source as initiator. In the case of *pa-qaca*, the meaning of ‘sell’ is interpretable in this manner. A selling event ‘Kulas **SELL** books to me’ is equivalent to ‘Kulas **CAUSE** me to **BUY** books’. Note that in this decompositional analysis, the seller ‘Kulas’ is introduced by means of causativization (i.e., *pa-*), and the remaining two participants ‘me’ and ‘books’ are selected by the *buy* root (i.e., *qaca*)—‘me’ as the agent and ‘books’ as the theme. The structure of *pa-qaca* ‘sell’ is provided in figure 5.

The comparison between figures 4 and 5 reveals two striking structural differences between ‘give’ and ‘sell’ verbs in Amis. First, the goal of ‘sell’ is structurally the agent of ‘buy’, introduced by the Spec of lower *v*. Second, *pa-* serves as the CAUSE head, since it is responsible for the causative meaning in this derivation process.<sup>12</sup> Furthermore, we argue that *pa-* is introduced/merged in the lexicon, i.e., lexical-syntax (L-syntax) in the sense of Hale and Keyser (1993, 2002). We propose that the *v*P complement of CAUSE (headed by *pa-*) is reanalyzed as VP when the CAUSEP is merged with *v* in S-syntax (see Travis’s (2010) discussion on lexical causative involving L-syntax in Tagalog and Malagasy). While the lower *v* still introduces the agent (of the ‘buy’ root), it is deflected after reanalysis; this can be supported by the fact that it does not contain transitivity feature. The

<sup>12</sup> Following Pytkänen 2002, I treat CAUSE as a functional head which does not introduce the external argument, but introduces a causing event to the semantics. As a result, a higher *v* is proposed to introduce the external argument of the causativized verb, i.e., ‘seller’.

transitivity feature is provided by the  $v$  in S-Syntax, not L-Syntax.

FIGURE 5. THE STRUCTURE OF *PA-QACA* ‘SELL’



Supporting evidence for treating *pa-* in the ‘sell’ verb as involving L-syntax comes from a comparison of various causative verbs. In Amis, causative verbs come in at least two morphological types: one which contains only *pa-* and the other in which *pa-* co-occurs with another prefix *pi-*. Wu (2006a, 2006b) observes the semantic difference between two types of causatives: one denotes direct causation and the other denotes indirect causation. This is shown in (10).

(10) Direct causation versus indirect causation in Amis

a.  $\emptyset$ -*pa-nanum*    *kaku*    *tu*    *kulong*  
 INTR-CAU-drink    1SG.ABS    OBL    water.buffalo  
 ‘I made the water buffalos drink (water)/I gave the water buffalos water to drink.’

b.  $\emptyset$ -*pa-pi-nanum*     $\emptyset$ -*ci*    *ina*    *ci*    *mama-an*  
 INTR-CAU-PI-drink    ABS-PPN    mother    PPN    father-OBL  
 ‘Mother asked Father to (go to) drink water.’

In (10), the causative morpheme can either directly attach to the root *nanum*, encoding only one event (i.e., ‘make sb. drink (water)/give (water) for sb. to drink’ in (10a)), or attach to the *pi-nanum* (> *mi-nanum*), encoding two events (i.e., ‘ask sb. to drink water’ in (10b)). The mono-eventive causative is a lexical causative, whereas the bi-eventive causative productively applies to almost all verbs. Transfer verbs such as ‘sell’ (*pa-qaca*; \**pa-pi-qaca*), therefore, are instances of the lexical causative.

**3.2.2 THE ABS SELECTION.** Now, the “theme-constraint” on the ABS selection pattern of Amis ‘sell’ verb can be accounted for as follows. In both plain transitive and applicative constructions,  $v$  in the S-Syntax has the feature [+TR], which targets the highest internal argument. Here, I propose another characteristic of [+TR]. Since [+TR] targets the highest among “internal arguments,” this feature can be argued to be “insensitive” to the agent thematic role, which is typically VP-external. As illustrated in figure 5, the (S-synatctic) VP in Amis ‘sell’ contains two arguments: the agent and the theme. This agent argument (of the ‘buy’ root) is conceptualized as the goal of the ‘sell’ verb. To account for the “theme-only” constraint, I stipulate that the [+TR] feature is insensitive to the agent thematic role in mono-eventive causatives such as ‘sell’.<sup>13</sup> As a result, the theme is the only candidate that can be

<sup>13</sup> Such a stipulation is necessary since mono-eventive causative and bi-eventive causative has different ABS selection. Compare the following examples involving plain transitive constructions:

(i) a. *ma-pa-qaca*    *aku*    **ku**    **cudad**    *ci*    *kulas-an*  
 TR-CAU-buy    1SG.ERG    ABS    book    PPN    Kulas-OBL  
 ‘I sold the book for Kulas already.’

licensed by [+TR] in either plain transitive or applicative constructions, and therefore it is assigned ABS. The highest agent DP, introduced by *v* in S-Syntax, is assigned inherent ERG Case by [+TR], and the lower agent DP is assigned inherent OBL Case by V. This also suggests that the applicative morphemes *-an* or *sa-* in the ‘sell’ verb neither increase valency nor rearrange the hierarchical position of VP-internal arguments.<sup>14</sup>

**4. DISCUSSION: A “SYNTACTIC” VERB-SENSITIVE APPROACH TO AMIS TRANSFER VERBS.** The proposed analyses for Type I *pa-fli* ‘give’ and Type II *pa-qaca* ‘sell’ have demonstrated how the structure of a transfer verb determines its ABS selection pattern. It should be noted, however, that this paper does not argue that every member of the same type has a uniform syntactic structure. For example, Type I transfer verbs include *pa-fli* ‘give’, *pa-caliw* ‘lend’, and *pa-kawlah* ‘award’, whereas Type II transfer verbs include *pa-qaca* (or *pa-cakay*) ‘sell’ and *pa-qfer* ‘mail/post’. Here, I demonstrate how the syntactic structure might differ among members of the same type by providing semantic/syntactic information about the root. For example, within Type I, *kawlah*, unlike the trivalent *fli* ‘give’, is a nominal root, meaning ‘award (n.)’. Within Type II, *qfer* denotes the monovalent activity ‘fly’, unlike the bivalent *qaca* ‘buy’. These roots by themselves do not entail transfer, but transfer verbs derive from them by means of causativization. The importance of identifying components involving apparent “causative/applicative” morphemes, in addition to the root of transfer verbs, has been demonstrated in section 3. It is therefore argued that this kind of decompositional analysis can be applied to all Amis transfer verbs to account for their ABS selection patterns.

This study has some implications for the typology of transfer/ditransitive verbs. In the literature, Croft et al.’s (2001) ditransitivity hierarchy (i.e., ‘give’ < ‘send’ < ‘throw’) is often adopted to account for lexical variation in the encoding of transfer verbs across languages. Inspired by the hierarchy, Rappaport Hovav and Levin (2008) (henceforth RH&L) propose the “verb-sensitive approach” to dative verbs, arguing that the syntactic behaviors may be basically semantically-motivated. In their framework, the *give*-type verbs entail change of possession (i.e., caused possession) but not change of location, while the *send*- and *throw*-type verbs entail change of location (i.e., caused motion) but not change of possession (ibid.:135). The semantic nature of these verbs explains the intralinguistic variation in ditransitive constructions. For example, if a language allows the double-object construction to occur for *throw*-type verbs, it must allow this construction to occur for *give*-type verbs (e.g., English), but not vice versa (e.g., Chinese) (Machukov et al. 2010; see also Levin 2008).

RH&L’s (2008) framework cannot be directly applied to Amis or other Formosan languages, since this approach focuses on verbs where no derivational morphology is involved (compare English *give/sell* and Amis *pa-fli/pa-qaca*). However, this paper embraces the “verb-sensitive” nature of this approach, which highlights the semantic decomposition of transfer verbs. While transfer verbs in Amis always involve the apparent causative morpheme *pa-*, they may derive from a range of roots that semantically and syntactically differ from one another. They include a trivalent transfer root (e.g., *fli* ‘give’), a bivalent transaction-denoting root (e.g., *qaca* ‘buy’), a monovalent activity root (e.g., *qfer* ‘fly’), and an entity-denoting root (e.g., *kawlah* ‘award’). Amis, in this sense, is extremely “verb-sensitive”—even verbs of the same “type” (i.e., the same subject-selection pattern) may have different underlying structures, depending on their root and the projection of “causative/applicative.” This study intends to show that the semantic differences proposed in RH&L’s verb-sensitive approach may be syntactically represented in L-Syntax within the generativist framework. Such a syntactic approach has been practiced by Li (2009) for the analysis of some causativized triadic verbs

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b. ma-pa-pi-nengneng aku      ø-ci      kulas    tu    wacu  
 TR-CAU-PI-see    1SG.ERG    ABS-PPN    Kulas    OBL    dog  
 ‘I asked Kulas to watch the dog.’

For a plain transitive construction involving mono-eventive causative, the agent DP introduced by the root (i.e., ‘Kulas’) cannot serve as the ABS argument, as repeated in (ia). For a plain transitive construction involving bi-eventive causative, the ABS selection is exactly the opposite: only the agent DP introduced by the root (i.e., ‘Kulas’), instead of the theme DP (i.e., ‘dog’), can be assigned ABS.

<sup>14</sup> I have explained why the theme argument of ‘sell’ is always assigned ABS based on its structure. However, I do not fully understand what motivates a native speaker’s choice among these constructions. This is a separate issue that awaits further research.

in a number of Formosan languages.

**5. CONCLUSION.** This paper introduces two major types of Amis transfer verbs based on their ABS selection patterns. Type I transfer verbs (e.g., *pa-fli* ‘give’) can either select goal or theme as the ABS argument, given the corresponding voice/applicative marking, whereas Type II transfer verbs (e.g., *pa-qaca* ‘sell’) are constrained in that only the theme can serve as the ABS argument in all transitive constructions. This is summarized in table 1. Furthermore, a principled explanation for the difference in subject selection is provided. Three important factors that determine the overall structure of a transfer verb are identified: (a) the nature of the root, (b) the projection of the causative *pa-*, and (c) the structural position of the applicative morpheme.

‘Give’ and ‘sell’ verbs are used as examples to demonstrate how the assignment of structural ABS Case is still governed by the feature-checking operations within the minimalist framework. In section 3.2, Amis ‘give’ is identified as involving trivalent transfer root; thus the apparent causative *pa-* does not serve as the CAUSE head. In plain transitive constructions, the goal, as the highest internal argument (see figure 4), is licensed by [+TR] and therefore assigned ABS. As for the applicative constructions of ‘give’, it is argued that these applicative morphemes do not introduce an additional argument, but rearrange the relative hierarchical position between goal and theme. Given the right applicative construction, the corresponding thematic role (i.e., goal or theme) can become the highest accessible argument within *vP* and thus receive ABS. Section 3.3 reveals the bivalent nature of ‘buy’. The agent argument of the ‘buy’ verb in the L-syntax stands for the “goal” argument of the ‘sell’ verb by means of causativization. As the feature [+TR] is insensitive to this agent DP, it targets the sole internal argument, namely the transported theme. Therefore, Type II transfer verbs always have the theme as the grammatical subject in all transitive constructions.

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