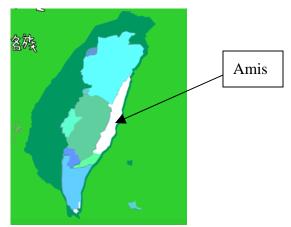
The Analysis of Pa- Verbs in Amis*

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Abstract

This paper examines the *pa*- causative verbs in Amis within the framework of Role and Reference Grammar (RRG, Valin and LaPolla 1997; Van Valin 2005). The following observations and analyses are proposed in this paper. First, *pa*- causative predicates can be further differentiated into "cause to have", "cause to become (for somebody)", and "cause to do", depending respectively on the meaning of the attached roots as objects, result states, and activities. Second, the simple *pa*- causative verb involves a more direct and stronger causation, compared with its *pa-pi*- counterpart. It is argued that the jussive or weak causative sense carried in *pa-pi*- is due to the semantics of *pi*-, which originates from *mi*- '(go to) do...'. This prefix enhances the agentivity of the causee and thus decreases the controlling sense from the causer. Third, for three-place *pa*- predicates, the undergoer (i.e. the O argument) selection varies among the predicates. This indicates that Amis displays a mixed type of direct object and primary object (Dryer 1984) languages, and both Principle A and Principle B of undergoer selection based on the Actor-Undergoer Hierarchy in RRG are needed to fully account for the patterns in Amis. However, the primary object pattern seems more common.



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^{*}Amis is spoken in the east coast of Taiwan. It has the largest population of speakers (around 130,000) among all the Formosan languages (i.e. Austronesian languages spoken in Taiwan). According to Tsuchida (1982), Amis has five major dialects: Sakizaya (or Sakiraya), Northern (or Nansh i Amis), Tavalong-Vataan, Central, (Haian Amis and Hsiukulan Amis excluding Tavalong-Vataan) and Southern (Peinan Amis and Hengchun Amis). The data discussed in this paper was collected from Haian Amis (i.e. Coastal Amis), one of the Central dialects spoken in Changpin, Taitung County. The author would like to thank the major Amis informants Ms. Jin-Mei Li (Panay in Amis), Mr. Jin-long Chen (Ofad in Amis), Ms. Hsiu-mei Lin (Ngaday in Amis), Mr. Wan-shuey Lin (Talod in Amis), and Ms. Jiun-jiu Lin (Ohay in Amis) for providing the data. This paper is a preliminary report for an on-going research project granted by National Science Council, ROC (93-2411-H-003-073-). The author would like to thank NSC for the financial support on the Amis fieldwork.

Introduction

- (1) The prefix pa- can derive at least the following three readings when attaching to different types of roots:
 - (a) cause to have: pa-nanum 'provide water' > nanum 'water'
 - (b) cause to do: pa-rakat 'drive' > rakat 'walk'
 - (c) cause to become: pa-keced 'cause to become smaller' > keced 'shrunk'
- (2) Simple *pa* verbs involve a stronger degree of causation than *pa-pi* verb¹:
 - a. Pa-rakat-en cingra/k-u-ni a paliding! CAU-walk-UV 3S.NOM/NOM-NCM-this LNK car 'Walk with him!' (The causee is a little child.) 'Drive this car!'
 - b. Pa-pi-rakat-en cingra/* k-u-ni a paliding! CAU-PI-walk-UV 3S.NOM/NOM-NCM-this LNK car 'Ask him to go to walk!'

 *'Ask this car to go to walk!'
- (3) The reassignment of case relation of *pa*-verbs:

Starosta (1974) and Chen (1987) claim the causative construction (i.e. the *pa*-construction) adds an Agent case relation to the source verb. If the source verb has already has an agent, then this agent will be assigned to Patient, and the original Patient, if there is one, becomes the Locative. From this perspective, this new Patient should become the grammatical subject in Patient Focus (or Undergoer Voice in my discussion), and it is true for the PF (or UV) form *pa-pi-...-en* or *ma-pa-pi-*. However, for simple *pa*- causative verbs, the situation is not so straightforward. There is more than one possibility to choose a certain argument to become a grammatical subject in the UV sentences.

- (4) Purpose of this paper: Examining the following issues in the framework of Role and Reference Grammar (RRG, Van Valin and LaPolla 1997, Van Valin 2005)
 - (a) Examine the interaction of pa- and the classes of the root forms.
 - (b) Examine the difference between *pa* and *pa-pi* verbs and explain the jussive sense in *pa-pi* verbs.
 - (c) Examine the selection of the grammatical subject in three-place pa- UV verbs.

¹ The following abbreviations and symbols are used in the gloss:

ASP: Aspect **DAT:** Dative AV: Actor Voice CAU: Causative **GEN**: Genitive InA: Instrument Applicative IMP: Imperative INCL: Inclusive LA: Locative Applicative NEG: Negative Verb LNK: Linker NCM: Noun Class Marker NOM: Nominative PREP: Preposition **RED**: Reduplication UV: Undergoer Voice

1/2/3S: first/second/third person singular 1/2/3P: first/second/third person plural

Theoretical Framework: Role and Reference Grammar (RRG)

(5) The decompositional model in the semantic representation of RRG is adopted here. Predicates are classified based on their properties of lexical aspects, and each class is represented with a logical structure.

Aktionsart Classes, their Features, and Logical Structures

Aktionsart Class	Features	Logical Structures
State	[+static], [-dynamic], [-telic], [-punctual]	predicate' (x) or (x, y)
Activity	[-static], [+dynamic], [-telic], [-punctual]	do' $(x, [predicate'(x) \text{ or } (x, y)])$
Achievement	[-static], [-dynamic], [+telic], [+punctual]	INGR predicate' (x) or (x, y), or
		INGR do' $(x, [predicate'(x) or (x, y)])$
Semelfactive	[-static], [±dynamic], [-telic], [+punctual]	SEML predicate' (x) or (x, y), or
		SEML do' $(x, [predicate'(x) or (x, y)])$
Accomplishment	[-static], [-dynamic], [+telic], [-punctual]	BECOME predicate' (x) or (x, y), or
		BECOME do' (x, [predicate' (x) or (x, y)])
Active	[-static], [+dynamic], [+telic], [-punctual]	do' (x, [predicate ₁ ' (x) or (x, y)]) &
Accomplishment		INGR predicate ₂ ' (z, x) or (y)
Causative		α CAUSE β , where α , β are LSs of any type

(6) Agency is not treated as an inherent lexical property for most verbs, but rather an implication (Van Valin & Wilkins 1996). The operator DO only shows up in the logical structure for the verbs with lexicalized agency such as English *murder*. Compare:

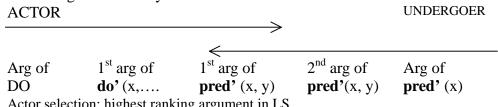
(a) kill:
$$[\mathbf{do'}(\mathbf{x}, \emptyset)]$$
 CAUSE [BECOME **dead'**(y)] $(x = effector)$ (b) murder: DO $(\mathbf{x}, [\mathbf{do'}(\mathbf{x}, \emptyset)]]$ CAUSE [BECOME **dead'**(y)]) $(x = agent)$

(7) The logical structure for **three-place** predicate: [do'(x, Ø)] CAUSE [BECOME predicate'(y, z)]

(8) Semantic Macrorole:

Macrorole roles are generalized semantic roles across the thematic relations. There are only two such roles in RRG: actor (i.e. the A argument) and undergoer (i.e. the O argument). The assignment of a macrorole to a given argument is subject to the hierarchy in (9).

(9) Actor-Undergoer Hierarchy



Actor selection: highest ranking argument in LS.

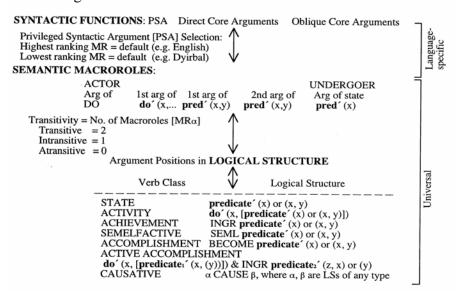
Undergoer selection:

Principle A: lowest ranking argument in LS (default) Principle B: second highest ranking argument in LS

- (10) Default Macrorole Assignment Principles
 - a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS:
 - 1. If a verb has two or more arguments in its LS, it will take **two** macroroles.
 - 2. If a verb has one argument in its LS, it will take one macrorole.
 - b. Nature: for verbs which take one macrorole:
 - 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 - 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

→ Three-place predicates can only have two macroroles at most.

- (11) An English example of macrorole selection:
 - a. [do'(Pat, Ø)] CAUSE [BECOME have'(Chris, book)]
 - b. Pat [actor] gave the book [undergoer] to Chris. → Principle A
 - c. Pat [actor] gave Chris [undergoer] the book. → Principle B
- (12) Principle A characterizes the pattern found in direct object languages (Dryer 1986) such as English, while Principle B is commonly adopted in primary object languages. However, Guerrerro Valenzuella and Van Valin (2004) claim that the contrast between direct object and primary object languages is not absolute; it is one of degree, and that is why two principles of undergoer selection are necessary in order to adequately describe such variability of undergoer selection, language-internally and/or cross-linguistically.
- (13) The Linking in RRG



(14) In Amis, only macroroles can serve as the grammatical subject (the one that is marked by **nominative** case) in the sentences; in other words, only undergoer can be the grammatical subject in the UV sentences. In this paper, I am going to use two undergoer voice constructions: *pa-...-en* or *ma-pa-* to examine the undergoer selection for three-place *pa-* verbs; the selected undergoer will be marked by the nominative case in these undergoer voice constructions.

The Interpretation of pa- and the Categories of the Root

(15) The Categories of the Roots (Wu 2005a)

Wu (2005a) proposed a preliminary classification of the root forms in Amis based on the structure of the ideophone-forming construction (sa)-X sa:

Category of the Roots ²	X only	sa-X
Object (Nominal)	No	Yes
rayaray 'row'		'in the manner of forming/creating sth.'
State (attribute)	Yes	Yes
harakat 'fast'		'in an intensified manner'
State (transitory/result)	Yes	No
(ma-)lasang 'drunk'		
Activity	Yes	No
(mi-)celiq 'shout'		

(16) There are at least three possible readings of the derived *pa*- form, depending on the categories of the roots: cause to have (with roots denoting objects), cause to become (with roots denoting states), and cause to do (with roots denoting activities):

Root Type	Root	pa-Root interpretation	examples
Object	nanum 'water'	1	pa-nanum 'give/add water'
	fali 'wind'		pa-fali 'inflate' (cause to have air)
	kilang 'tree'		pa-kilang 'chop the woods and give the
			woods to sb.'
Attribute	miming 'small'	cause to have (in order	pa-mingming-en (*pa-mingming) 'give
		to become)	sb. a small portion'
			pa-kuhting 'add black color'
			pa-takaraw-en 'stuff something under to
			make taller)
Transient or	su'su' 'fat'	cause to become (in	pa-su'su' 'put on weight
Result State	lasang 'drunk'	order for sb. to have)	pa-lasang 'cause to become drunk by
	keced 'shrunk'		offering more wine'
	cinas 'torn'		pa-keced 'alternate the size to become
			smaller'
			pa-cinas 'tear something and give the
			torn portion to someone'
Activity	rakat 'walk'	cause to do	pa-rakat 'drive; walk with'
	nginguy 'bath'		pa-nginguy 'help (the baby) bath'

The Analysis of Pa-pi-...(-en)

(17) As mentioned in Starosta (1974), the form pa-pi-...(-en) appears with a higher frequency than the simple pa- form. A semantic feature of pa-pi- causatives is that they all have a jussive reading that involves with weak causation, as seen in (18).

 2 The terms are adopted from Jan Allen (p.c.) in her discussion of parts of speech in Kankanaey, a Philippine language.

- (18) a. Pa-pi-nanum Ø-ci ina ci mama-an.

 CAU-PI-water NOM-NCM mother NCM father-DAT

 'Mother asked Father to drink water.'
 - b. Pa-pi-kaen-en aku Ø-ci panay t-u pawli. CAU-PI-eat-UV 1S.GEN NOM-NCM Panay DAT-NCM banana I asked Panay to eat banana.'
 - c. Pa-pi-cikay kaku ci panay-an CAU-PI-run 1S.NOM NCM Panay-DAT 'I ask Panay to join a race.'
 - d. Pa-pi-cikay-en aku Ø-ci panay-an CAU-PI-run-UV 1S.GEN NOM-NCM Panay-DAT 'I will definitely ask Panay to run.'
 - 'I will definitely make Panay join the race.'
- (19) Compare the *pa* verbs and their *pa-pi* versions in (20). We can see that the causee in *pa*-verbs is not as "agentive" as the one in *pa-pi* verbs. The causee in *pa-pi* has to have the ability and volition to perform the caused action by himself/herself; this self-independent ability is not found with the causee in *pa* causatives.
- (20) a. Pa-cumud-en k-u haku. CAU-enter-UVNOM-NCM box 'Bring the box in!'
 - b. Pa-pi-cumud-en k-u wawa/*haku! CAU-PI-enter-UV NOM-NCM child box 'Bring the child/*box in!'
 - c. Pa-rakat-en cingra/k-u-ni a paliding!
 CAU-walk-UV3S.NOM/NOM-NCM-this LNK
 'Walk with him!' (The causee is a little child.)
 'Drive this car!' (i.e. 'Make this car run!)
 - d. Pa-pi-rakat-en cingra/* k-u-ni a paliding! CAU-PI-walk-UV 3S.NOM/NOM-NCM-this LNK car 'Ask him to go to walk!'

 *'Ask this car to go to walk!'
- (21) Starosta (1974) analyzes the form pa-pi- as a combination of pa-+mi-; that is, pi- is a reflex of mi-.
- (22) Wu (2003, 2005b), based on RRG framework, proposed the following decompositional analysis for *mi*-; in this analysis, *mi* gives an optional motional/purposive reading: **mi**-: (**do'** (x [**go'** (x)]) & INGR **be-at'** (z, x)) PURP) **do'** (x, [**pred'** (x, y)])

- (23) If we incorporate the LS of *mi* into the LS of *pa-pi* as in (24), then we can have a natural account for the difference illustrated in (20); the motional/purposive activity component in *mi* gives the *pa-pi* predicate a 'CAUSE DO' (i.e. the causee is a true agent) instead of a 'CAUSE **do'**' (i.e. the causee is just an effector).
- (24) The logical structure of pa-pi: [do' (x, \emptyset)] CAUSE [DO (y, [do' (y, ... (y = agent)
- (25) In (24), the y argument has to be agentive; that is, this argument is volitional. The increased agentivity of the causee weakens the control from the causer and thus derives the jussive reading of *pa-pi* verbs.

The Undergoer Selection Patterns of Pa- Verbs

- (26) Both Starosta (1974) and Chen (1987) agree that the causative construction adds an Agent case relation to the source verb, and if the source verb has an Agent in the case frame, the old agent will be assigned with an Experiencer (Starosta 1974:285) or a Benefective (Starosta 1974:307), or a Patient in Chen (1987) in Chen (1987:256), and it is the argument that is marked by the nominative case in the passive construction -en (my UV construction). In terms of the RRG macrorole terminology, it will be saying that the causer in the causative construction will be the actor while the reassigned experiencer/benefective/patient will be the undergoer (and hence, the grammatical subject in -en sentences). That is, Amis follows Principle B in choosing second-highest ranking argument on the Actor-Undergoer Hierarchy as the undergoer.
- (27) Starosta's (1974) and Chen's analysis only holds true for *pa-pi-...-en* verbs, as illustrated in (28)
- (28) a. Pa-pi-nengneng-en n-i ina **k-u wawa** t-u CAU-PI-see-UV GEN-NCM mother NOM-NCM child DAT-NCM wacu.

 dog

 'Mother will ask the child to watch the dog.'
 - b. *Pa-pi-nengneng-en n-i ina t-u wawa **k-u**CAU-PI-see-UV GEN-NCM mother DAT-NCM child NOM-NCM
 wacu.
 dog
 'Mother will ask the child to watch the dog.'
- (29) However, for other *pa* verbs, the situations are not as straightforward. Some *pa* verbs, especially simple *pa* verbs, may have the theme participant (i.e. the lowest ranking argument in the LS) as the undergoer, as illustrated by *pa-cakay/pa-aca* 'sell' in (30):
- (30) a. Pa-aca kaku t-u cudad i/*t-u wawa CAU-buy 1S.NOM DAT-NCM book PREP/DAT-NCM child 'I am going to the child's place to sell the book.'

 'I sell the book to the child.'

- b. Pa-aca kaku t-u cudad i ci aki-an
 CAU-buy 1S.NOM DAT-NCM book PREP NCM Aki-DAT
 'I sold the book to Aki.'
- c. Ma-pa-cakay n-i aki **k-u futing** ci ofad-an. UV-CAU-buy GEN-NCM Aki NOM-NCM fish NCM Ofad-DAT 'Aki sold (other people's) fish to Ofad.'
- c'. *Ma-pa-cakay n-i aki t-u futing **Ø-ci ofad**. UV-CAU-buy GEN-NCM Aki DAT-NCM fish NOM-NCM Ofad 'Aki sold (other people's) fish to Ofad.'
- d. Ma-pa-aca n-u-ra wawa **k-u hana**UV-CAU-buy GEN-NCM-that child NOM-NCM flower

t-u-ra kaying.

DAT-NCM-that young.lady
'That child sold flowers to that lady.'

- d'. *Ma-pa-aca n-u-ra wawa t-u hana
 UV-CAU-buy GEN-NCM-that child DAT-NCM flower
 k-u-ra kaying.
 NOM-NCM-that young.lady
 'That child sold flowers to that lady.'
- (31) Some *pa* verbs such as *pa-fli* 'give' and *pa-caliw* 'lend' in (32) and (33) can have both possibilities, though the recipient/beneficiary seems to be the default choice:
- (32) a. Pa-fli Ø-ci mayaw ci aki-an t-u paysu give NOM-NCM Mayaw NCM Aki-DAT DAT-NCM money 'Mayaw is going to give money to Aki.'
 - b. Ma-pa-fli aku t-u paysu **Ø-ci mayaw**UV-CaU-give 1S.GEN DAT-NCM money NOM-NCM Mayaw
 'I gave the money to Mayaw already.'
 - c. Ma-pa-fli aku **k-u payau** *(i) ci mayaw-an. UV-CAU-give 1S.GEN NOM-NCM money PREP NCM Mayaw-DAT 'I gave the money to Mayaw.'
 - d. Aka pa-fli-en **k-u wawa**NEG.IMP CAU-give-UV NOM-NCM child
 'Don't give the child!'
 - f. *Aka pa-fli-en **k-u waneng**NEG.IMP CAU-give-UV NOM-NCM sugar
 'Don't give the candy!'

- (33) a. Pa-caliw Ø-ci panay ci aki-an t-u
 CAU-borrow NOM-NCM Panay NCM Aki-DAT DAT-NCM
 paliding.
 car
 'Panay lent the car to Aki.'
 - b. Ma-pa-caliw n-i kacaw **k-u singsi** t-u UV-CAU-borrow GEN-NCM Kacaw NOM-NCM teacher DAT-NCM paysu.

 money
 'Kacaw lent the teacher money.'
 - c. Ma-pa-caliw ni kacaw **ku paysu** i singsi. UV-CAU-borrow GEN-NCM Kacaw NOM-NCM money PREP teacher 'Kacaw lent the money to the teacher.'
 - d.* Ma-pa-caliw n-i kacaw t-u singsi **k-u**UV-CAU-borrow GEN-NCM Kacaw DAT-NCM teacher NOM-NCM **paysu.**money
- (34) So far, we have seen two possibilities of choosing the grammatical subject for the UV paverbs. One follows Principle A based on the Actor-Undergoer Selection Principle of RRG, while the other can take both principles. The first pattern is exemplified by pa-aca/pa-cakay 'sell', while the second one is illustrated by pa-fli 'give', and pa-caliw 'lend'. The above discussion indicates that Amis, similar to many languages discussed in Guererro Valenzuela and Van Valin (2004), exhibits a mixed type regarding the undergoer (i.e. the O argument) selection and will need more than one principle or rule to account for the patterns discussed above.
- (35) Nevertheless, given such flexibility in choosing an undergoer, the recipient/beneficiary seems to a favored choice for many *pa* verbs. The data given in (36) to (38) illlustrate this preference when *pa* attaches to different types of root:

(36) pa- + a root that denotes an object

The beneficiary/recipient argument is the preferred choice of the undergoer.

- a. Ma-na'ay kaku pa-nanum t-u/i sayta.
 MA-reluctant 1S.NOM CAU-water DAT-NCM/PREP soda
 'I don't want to add water into the soda.'
 * 'I don't want to add soda (to something).'
- *Ma-pa-nanum ci b. n-i ina mama-an tu **UV-CAU-water ASP GEN-NCM** mother **NCM** father-DAT k-u sayta. NOM-NCM soda 'Mother gave soda for Father to drink.'

c. Ma-pa-nanum ina k-u savta tu n-i i **UV-CAU-water ASP GEN-NCM** mother NOM-NCM **PREP** soda wawa. child 'Mother gave soda for the child to drink.'

(37) pa- + a root that denotes an activity

The effector/experiencer/beneficiary argument is the preferred choice of undergoer:

- a. Pa-neneneng kaku t-u-ni-ni a tilid ci
 CAU-see 1S.NOM DAT-NCM-this-RED LNK letter NCM sawmah-an.
 Sawmah-DAT
 'I am going to show the letter to Sawmah.'
- b. Pa-nengneng-en **kaku** t-u-ni impic! CAU-see-UV 1S.NOM DAT-NCM-this pencil 'Let me see the pencil!'
- c. *Pa-nengneng-en **k-u-ni impic**!
 CAU-see-UV NOM-NCM-this pencil
 'Let see the pencil!'

(38) pa- + a root denoting a result state:

As demonstrated in the examples, when there is **beneficiary** in the sentence, it will be the preferred undergoer choice.

- a. Pa-cinas-en Ø-ci aki t-u kami. CAU-tear-UV NOM-NCM Aki DAT-NCM paper 'Tear the paper apart and give Aki a portion!'
- a'. ??Pa-cinas-en **k-u kami** ci aki-an. CAU-tear-UV NOM-NCM paper NCM Aki-DAT 'Tear the paper apart and give a portion to Sawmah.'
- b. Pa-cinas-en **k-u kami!**CAU-tear-UV NOM-NCM paper
 'Tear the paper!'
- c. Pa-pecih-en **k-u wawa** t-u mantu. CAU-break.into.half-UV NOM-NCM child DAT-NCM steamed.bun 'Break the steam bun into halves and give one half to the child.'
- c'.? Pa-pecih-en t-u wawa **k-u mantu**.

 CAU-break.into.half-UV DAT-NCM child NOM-NCM steamed.bun
 'Break the steam bun into half and give one half to the child.'

Conclusion

- (39) The interpretations of pa- + a root is subject the categories of the root form. This claim shows another piece of evidence, in addition to Wu (2005a), for that the roots in Amis are categorical.
- (40) The weakened causation of *pa-pi* predicates is resulted from the agentivity of the causee argument, which is required by the affix *pi* (a reflex of *mi*-), and the whole derived *pa-pi*-verb has the decomposed structure:
 - $[\mathbf{do'}(x,\varnothing)]$ CAUSE $[DO(y, [\mathbf{do'}(y, ...$
- (41) The undergoer selection patterns (the O argument selection patterns) are much more complicated than the analyses proposed in Starosta (1974) and Chen (1987). There is more than possibility to choose an undergoer (the O argument) for some three-place *pa*-predicates, which indicates that both undergoer selection principles based on the Actor-Undergoer Hierarchy in RRG are operating in Amis. However, the primary-object pattern seems more common or unmarked.

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