Experiencer Types and the Psych-predicates in Amis[1]

Joy Wu
National Taiwan Normal University
jjwu@ntnu.edu.tw

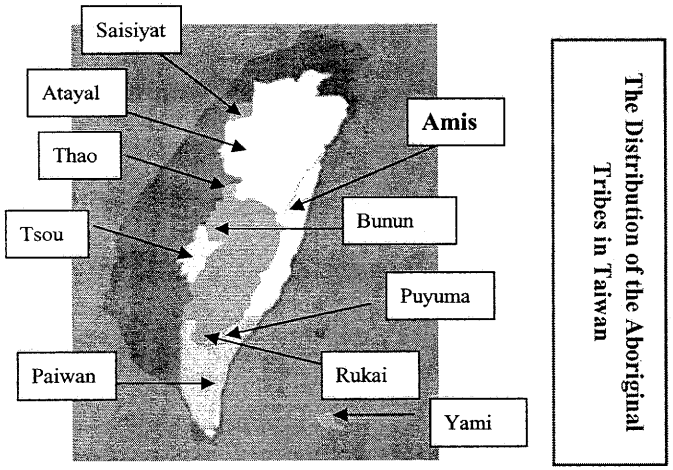
Outline of the Presentation

- Introduction
- The Framework
- The Analysis of the Voice Markers
- Psych-predicates in Amis
- Conclusion

Introduction

(1) Amis is a Formosan Austronesian language spoken in Taiwan (a.k.a. Formosa). It has the largest population of speakers (around 170,000 people) among all the Formosan languages.

(2) The Map of the Distribution of Some Indigenous Tribes in Taiwan



[1] I would like to thank the main 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-song Lin (Talod in Amis), and Ms. Jiun-jiu Lin (Ohay in Amis) for providing the data. This paper grew out from my doctoral dissertation submitted to the University at Buffalo, the State University of New York. I would like to thank my advisor Prof. Robert Van Valin for the guidance on the analyses, and her committee members Prof. Jean-Pierre Koenig and Prof. Matthew Dryer for the suggestions on the revision. All the remaining errors are my own responsibility.

(3) According to Tsuchida (1988), there are five major dialects of Amis: Sakizaya (or Sakiraya), Northern (or Nanshi Amis), Tavalong-Vataan, Central, (Haian Amis and Hsiukulan Amis excluding Tavalong-Vataan), and Southern (Peinan Amis and Hengchun Amis). The data analyzed in this study is mainly collected from Haian Amis (meaning Coastal Amis) of the Central dialect.

The Framework: Role and Reference Grammar (RRG)

(4) The General Structure of RRG (Van Valin and LaPolla 1997, Van Valin 2005)

SYNTACTIC REPRESENTATION

↑

Linking Algorithm

↓

SEMANTIC REPRESENTATION

DISCOURSE PRAGMATICS

- **Semantic Representation--Verb Classes**

(5) The semantic representations are built upon a theory of verb classification in which verbs are classified based on the aktionsart features (cf. Vendler 1967, Dowty 1979), as shown in the table below:

Classes	Aktionsart Features	English Examples
State	[+static], [-dynamic], [-telic], [-punctual]	*be tall, be dead, love, know, have*
Activity	[-static], [+dynamic], [-telic], [-punctual]	*walk, roll* (intransitive), *think, drink*
Achievement	[-static], [-dynamic], [+telic], [+punctual]	*pop, explode, collapse*
Semelfactive	[-static], [±dynamic], [-telic], [+punctual]	flash, cough, tap, glimpse
Accomplishment	[-static], [-dynamic], [+telic], [-punctual]	*melt, freeze, dry* (intransitive), *learn*
Active Accomplishment	[-static], [+dynamic], [+telic], [-punctual]	*drink the beer, walk to the park*

(6) These verb classes can be identified through a set diagnostic tests that are designed based on the lexical aspect features. (See Van Valin and LaPolla (1997) and Van Valin (2005) for more details.) The lexical representation of different verb classes are give in (7)

(7) The lexical representations of different verb classes:

Verb Class	Logical Structure (LS)
State	**predicate'** (x) or (x, y)
Activity	**do'** (x, [**predicate'** (x) or (x, y)])
Achievement	INGR **predicate'** (x) or (x, y), *or* INGR **do'** (x, [**predicate'** (x) or (x, y)])
Semelfactive	SEML **predicate'** (x) or (x, y), *or* SEML **do'** (x, [**predicate'** (x) or (x, y)])
Accomplishment	BECOME **predicate'** (x) or (x, y), or BECOME **do'** (x, [**predicate'** (x) or (x, y)])
Active Accomplishment	**do'** (x, [**predicate$_1$'** (x) or (x, y)]) & INGR **predicate$_2$'** (z, x) or (y)
Causative	α CAUSE β, where α, β are LSs of any type

(8) The notion "agency" is not necessarily lexically marked (Van Valin and Wilkins 1996). The operator DO only shows up in the logical structure for the verbs with lexicalized agency such as English *murder* (DO' (x, [**do'** (x, [**kill'** (x, y)])])) (compared with *kill*: **do'** (x, [**kill'** (x, y)])).

■ Semantic Representation--Semantic Roles

(9) Two types of semantic roles are posited in RRG: **thematic roles** and **macroroles** (generalized semantic roles).

(10) Thematic roles are defined based on **the position of an argument in the logical structure** (LS), so totally there are **five** possible positions, as shown below. Each position subsumes a set of thematic relations.

Arg of DO	1st arg of **do'** (x, ...	1st arg of **pred'** (x,y)	2nd arg of **pred'** (x,y)	Arg of state **pred'** (x)
AGENT	EFFECTOR	LOCATION	THEME	PATIENT
	MOVER	PERCEIVER	STIMULUS	ENTITY
	ST-MOVER	COGNIZER	CONTENT	
	L-EMITTER	WANTER	DESIRE	
	S-EMITTER	JUDGER	JUDGMENT	
	PERFORMER	POSSESSOR	POSSESSED	
	CONSUMER	EXPERIENCER	SENSATION	
	CREATOR	EMOTER	TARGET	
	SPEAKER	ATTRIBUTANT	ATTRIBUTE	
	OBSERVER	IDENTIFIED	IDENTITY	
	USER	VARIABLE	VALUE	
			PERFORMANCE	
			CONSUMED	
			CREATION	
			LOCUS	
			IMPLEMENT	

Thematic Relations Continuum in Terms of LS Argument Positions

(11) Unlike thematic roles, only **two** macroroles are postulated in RRG, namely, **Actor and Undergoer**. The selection of macrorole is bases on the Actor-Undergoer Hierarchy in (12) and a set of principles in (13).

(12) **Actor-Undergoer Hierarchy**

ACTOR → ← UNDERGOER

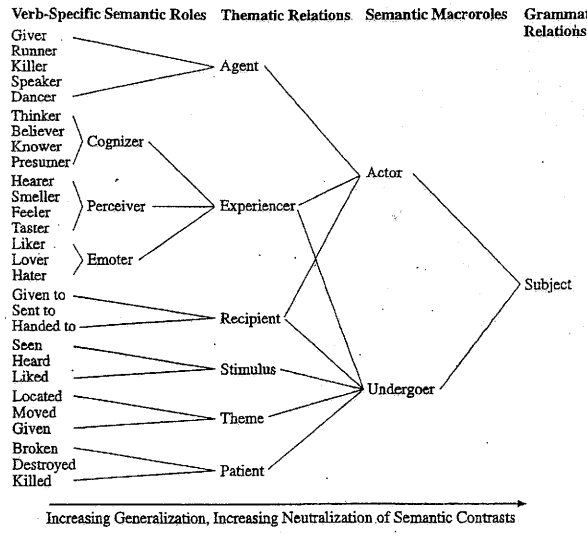
Arg of DO	1st arg of **do'** (x,....	1st arg of **pred'** (x, y)	2nd arg of **pred'**(x, y)	Arg of **pred'** (x)

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

(13) 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 logical structure
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.

act – actor
noact – undgr

(14) Continuum for Verb-specific Semantic Roles to Grammatical Relations



(15) The transitivity in RRG is defined by **the number of macroroles** that a verb takes (i.e. **M-transitivity**). It is possible that a verb with two core arguments (i.e. semantic valence =2) has only one macrorole and thus is treated as (M-)intransitive. The maximum number of macrorole that a verb can take is two.

	Semantic Valence	Macrorole Number	M-transitivity
snow	0	0	Atransitive
die	1	1	Intransitive
drink [ACT]	1 or 2	1	Intransitive
drink[ACTACC]	2	2	Transitive
kill	2	2	Transitive
set	3	2	Transitive
send	3	2	Transitive

The Voice System in Amis

(16) The "voice" affix on the verb indicates the semantic role of the noun that is marked by the nominative case, which is assumed to be the grammatical subject in quite a few previous studies. A typical set of examples is given in (17).[2]

(17) a. **Actor Voice**

Mi-adup	∅-ci	mama	t-u	fafuy	n-u	lutuk.
AV-hunt	NOM-PPN	father	DAT-CN	pig	GEN-PPN	mountain

'Father is hunting mountain pigs.'
'Father is going to hunt mountain pigs.'

b. **Undergoer Voice**

Ma-adup	n-i	mama	k-u	fafuy	n-u
UV-hunt	GEN-PPN	father	NOM-CN	pig	GEN-PPN

lutuk.
mountain
'Father hunted the mountain pig.'
'The mountain pig was hunted by Father.'

[2] The following abbreviations and symbols are used in the gloss:

1/2/3S: first/second/third person singular		1/2/3P: first/second/third person plural		ASP: Aspect
AV: Actor Voice	CAU: Causative	DAT: Dative	GEN: Genitive	INCL: Inclusive
InA: Instrument Applicative	LNK: Linker	LA: Locative Applicative		NCM: Noun Class Marker
NEG: Negative Verb	NOM: Nominative	PREP: Preposition	RED: Reduplication	
UV: Undergoer Voice		<>: Angle brackets enclose infixes in transcription		

c. **Instrument Voice**

Sa-pi-adup	n-i	mama	t-u	fafuy	n-u	lutuk
InA-PI-hunt	GEN-PPN	father	DAT-CN	pig	GEN-CN	mountain
k-u	iduc.					
NOM-CN	spear					

'Father hunts mountain pigs with the spear.'
'The spear is what Father hunts mountain pigs with.'

d. **Locative Voice**

Pi-adup-**an**	n-i	mama	t-u	fafuy	k-u-ni
PI-hunt-LA	GEN-PPN	father	DAT-CN	pig	NOM-CN-this
a	lutuk.				
LNK	mountain				

'Father hunts mountain pigs in this mountain.'
'This mountain is where Father hunts (mountain) pigs.'

(18) Previous studies tend to place the four voices under a single system, as illustrated below:
The Voice System of Amis Proposed in Previous Studies (revised from Liu 1999:19)

Actor Voice (AV) Markers	*mi-*	*-um-*	*ma-*
Undergoer Voice (UV) Markers	*ma-*	*ma-...-um-...*	*ma-ka-*
	mi-...-an		*ka-...-an*
	-en		
Instrument Voice (InV) Markers	*sa-*		
Locative Voice (LV) Markers	*-an*		

(19) A new analysis of the voice system (Wu 2007:116)

Actor Voice (AV)				*mi-*	*-um-*	*ma-*
Undergoer Voice (UV)	Plain			*ma-* *-en*	*ma-...(-um-)* *-en*	*ma-ka-* *ka-...-en* *-en*
	Applicative	Instrument (InA)[3]		*(ma)-sa-* *sa-...(-en)*		
		Locative (LA)	Goal-Locative	*mi-...-an*	----	----
			Patient-Locative	*mi-...-an*	*-um-...-an*	*ka-...-an*
			Location-Locative	*pi-...-an*	*ka-...-um-...-an*	*ka-...-an*

(20) Verb Types and the Semantic Role of the PSA (a term roughly analogous to subject)

Verb Types		Macrorole of the PSAs	Affixes
Intransitive Verbs		Unspecified (glossed as neutral voice)	*mi-, ma-, -um-*
Actor Voice Verbs		Actor	*mi-, ma-, -um-*
Undergoer Voice Verbs	Plain	Undergoer (unmarked choice)	*ma-, ma-...-um-, ma-ka-, -en*
	Applicative	Undergoer (marked choice)	*sa-, -an*

[3] Notice that the co-occurring affixes of the applicative constructions such as *pi-* and *ka-* are left out in the role of instrument applicative but are retained for the locative applicative constructions, as for the latter, these co-occurring affixes will affect the types of the semantic roles of the applied argument. For example, *pi-...-an* indicates a different semantic role from *mi-...-an*.

(21) There are three forms in the AV set, and the choice among them often results in different verb types. AV markers have been frequently regarded as indicators for verb classification (cf. Huang 1998, Yan 1992). Wu (2006, 2007) argues that these voice markers can be further decomposed and represented in the logical structures based on the RRG model

(22) a. The logical structure of *mi-*:
mi-: **do'** (x , [**go'** (x)]) & INGR **be-at'** (z, x)) PURP) **do'** (x, [**pred'** (x, y)])
b. The logical structure of *-en*
-en: DO' (x, [**do'** (x, [**pred'** (x, (y))])]) ....BECOME (**pred'** (x, y))

(23) Classes of *Ma-* Verbs

"voice" affixes	Logical Structures	Examples
ma-1 (AV or Neutral)	**do'** (x, [**pred'** (x, (y))] *(activity)*	*ma-tayal* 'work' *ma-lingad* 'plow'
ma-2 (AV or Neutral)	(INGR/BECOME) (**pred'** (x, (y)) *(result state)*	*ma-ruhem* '(become) ripe' *ma-icang* '(become) dry'
ma-3 (UV)	**do'**(x, [**pred'** (x, y)])...BECOME **pred'** (y) *(active or causative accomplishment)*	*ma-palu* 'beat and become beaten' *ma-fa'det* 'heat and become heated up'
ma-4 (AV or Neutral)	**pred'** (x, (y)) *(state)*	*ma-hemek* 'happy' *ma-ulah* 'like'

psych today

(24) Amis Verb Classes Differentiated by *mi-, ma-, and -en*

Marking	verb types	*mi-* form interpretation	*-en* form interpretation
mi-	potentially agentive activity	progressive or motional/purposive	agentive active accomplishment
-um-	potentially agentive activity	motional/purposive	agentive active accomplishment
ma-1	non-agentive intransitive activity	motional/purposive	agentive active accomplishment
ma-2	result state	causative accomplishment or achievement	agentive causative accomplishment
ma-3	active/causative accomplishment	activity or causative accomplishment	agentive active accomplishment
ma-4	non-attribute state	causative accomplishment	agentive causative accomplishment

(25) As argued in Wu (2006), the AV verbs in Amis are all **M-intransitive**, regardless of the number of the core arguments they take; one of the macroroles (i.e. undergoer) has been deprived of its macrorolehood through voice mechanism. In other words, only UV verbs have two macroroles. Wu's analysis is summarized in the table below:

Transitivity and Case Patterns: An Ergative Pattern (Wu 2006:451)[4]

AV Case Pattern	Nominative-Dative (actor) (non-macrorole argument)	M-intransitive	**Nominative**-Dative S_A - Non-macrorole argument
UV Case Pattern	Genitive-Nominative (actor) (undergoer)	M-transitive	Genitive-**Nominative** A_T U_T

[4] Other linguists such as Huang (2005) also have similar analyses regarding transitivity of the AF clauses in the Formosan languages they investigate, though their discussions are based on different frameworks.

The Discussion of Psych-Predicates

■ Common Features of the Psych-predicates

(26) These verbs are all marked by *ma-* and can be represented by the same logical structure [**pred'** (x, (y))]. These verbs only have **one macrorole** as they follow the AV case marking pattern.

(27) They all have *ma-ka-* and *ka-...-en* UV forms which are not found with every *ma-* verb. However, the interpretation of these forms is somewhat heterogeneous.

The Meaning of *ma-* and *ma-ka-* Psych-predicates

ma- (AV or neutral)	*ma-ka-* (UV)
ma-ulah 'like'	*ma-ka-ulah* 'like'
ma-fanaq 'know'	*ma-ka-fanaq* 'know; discover'
ma-tawa 'smile; laugh'	*ma-ka-tawa* 'laugh at'
ma-ngudu 'humbled; embarrassed; respect'	*ma-ka-ngudu* 'embarrass; respect'
ma-inal 'envious'	*ma-ka-inal* 'envy'
ma-hemek 'happy'	*ma-ka-hemek* 'praise'

■ **Two sub-sets of the Psych-predicates**

(28) Psych-predicates can be further divided into two groups based on:
a. how the psych-state is achieved: internally motivated vs. externally triggered
b. the number of the core arguments they can possibly take: possibly two vs. usually one
c. their interpretation when being affixed by *mi-*: motional-purposive vs. causative readings
d. their interpretation when being affixed by *-en*: agentive accomplishment vs. impossible to be attached with *-en*
e. the possibility to form a *pa-ka-* causative form: yes vs. no

(29) The Analysis: Two types of experiencer (i.e. the x argument in **pred'** (x, (y))

Experiencer	Examples	reading of *mi-*	*-en*	*pa-ka-*	*ma-ka-ka-...-en*
Actor	*ma-ulah* 'like'	motional/purposive	Yes	Yes 'reward'	Yes
	ma-fanaq 'know'	motional/purposive	Yes	Yes 'inform'	Yes
	ma-tawa 'smile; laugh'	motional/purposive	Yes	Yes 'make laugh'	Yes
	ma-ngudu 'respect; be polite to; embarrassed'	motional/purposive	Yes	Yes 'disgrace'	Yes
	ma-inal 'envious'	motional/purposive	Yes	Yes 'make envious'	Yes
Undergoer	*ma-lanang* 'annoyed by noise'	causative	No	No	Yes
	ma-'esam 'annoyed'	causative	No	No	Yes

(30) Reading of *mi-* verbs of **actor-experiencer** psych-predicates: Motional/Purposive Reading
a. Mi-ulah Ø-ci aki ci dongi-an.
AV-like NOM-PPN Aki PPN Dongi-DAT
'Aki is going to express his love to Dongi.'

b. Mi-ngudu cingra t-u lafang.
AV-humbled 3S.NOM DAT-CN guests
'He will behave himself in front of the guests (to show the respect to them).'

c. Mi-inal kaku mi-sanga t-u tafolud.
AV-envious 1S.NOM NEUT-make DAT-CN bag
'I feel envious (to someone's bag) so I (also) make the same bag.'
(I made the bag out of the envious feeling.)

(31) Reading of *mi-* verbs of **undergoer-experiencer** psych-predicates: causative reading
a. Mi-'esam k-u-ni a lalangaw (t-u tamdaw)
AV-irritated NOM-CN-this LNK fly DAT-CN people
'This fly is irritating (people).'

b. Mi-lanang k-u suni takuwanan.
AV-annoyed.by.noise NOM-CN sound 1S.DAT
'The sound is annoying me.'

(32) Reading of *-en* verbs of **actor-experiencer** psych-predicates: agentive reading
a. Ulah-en cingra!
like-UV 3S.NOM
'(You must) love him!'

b. Ngudu-en k-u singsi!
humbled-UV NOM-CN teacher
'Respect the teacher!'

c. Inal-en aku cingra.
envious-UV 1S.GEN 3S.NOM
'I will follow him (because of my envious feeling to him.)

(33) Reading of *pa-ka* verbs of **actor-experiencer** psych-predicates: ~~agentive reading~~
a. Pa-ka-inal k-u tafulod aku t-u tao.
CAU-KA-envious NOM-CN bag 1S.GEN DAT-CN others
'My bag made other people feel envious.'

b. Pa-ka-ngudu kaku t-u singsi.
CAU-KA-humbled 1S.NOM DAT-CN teacher
'I made the teacher feel ashamed.' (i.e. I disgrace the teacher.)

(34) Further Analysis

Experiencer	Psych-predicate	reading of *mi-* (strong agentive implicature)	*-en (truly agentive)*	*pa-ka (adding an external causer)*
Actor	internally motivated	motional/purposive	Yes	Yes
Undergoer	externally triggered	causative	No	No

(35) Implication of the analysis
a. The single argument of intransitive verbs should be further differentiated.
b. It is possible to assign the single macrorole of a state predicate an actor instead of an undergoer.

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