

Chapter 1

Introduction

This dissertation explores the following three issues related to the syntax and semantics of Amis, an Austronesian language spoken in Taiwan: verb classification, case marking, and grammatical relations. These issues have been explored with various degrees of thoroughness in some of the prior studies of Amis grammar. The prominent three of such studies are Chen (1987), Huang (1988), and Yan (1992),¹ all of which are mainly about verb classification, and among them, Chen (1987), Huang (1988), and Yan (1992) also discuss the case relations in Amis within different frameworks. Compared with the issues of verb classification and case marking, grammatical relations are not discussed with the same depth in the former research. This dissertation will examine the three named issues within the framework of Role and Reference Grammar (RRG hereafter), presented in Van Valin and LaPolla (1997) and Van Valin (2005), which are respectively referred to as VVLP (1997) and VV (2005) in the following discussion. These three issues are put together in this research not only because of their close interaction in Amis grammar but also because of the theoretical interest. As laid out in VVLP (1997) and VV (2005), lexical decomposition of different types of verbs (or predicates) plays an extremely important role in the theoretical construction of RRG. Other components of a grammar such as case marking and syntactic functions crucially refer to the decomposition-based logical structures of a verb/predicate. Hence, it will be interesting to explore these three issues and account for their interaction in the grammar of Amis from the RRG perspective.

¹ Tsukida's (2005b) manuscript is also related to the verb classification of Amis. This work is included in the literature review section.

There are seven chapters in this dissertation. Chapter 1 provides a general introduction to the Amis language, including the geographical distribution and sub-grouping information. In this chapter, works that are related to research issues of this dissertation will also be reviewed. Among these works, Chen (1987) will receive special attention due to its similarity with this dissertation in terms of research focus and scope. Chapter 2 gives an overview of the RRG framework, especially those parts that will be employed in the discussion. Chapter 3 presents a grammatical sketch of the Amis language. Chapters 4 to 6 discuss the three main issues of this work: verb classification and the logical structure of different verb types (Chapter 4), semantic roles and case marking (Chapter 5), and grammatical relations (Chapter 6). Finally, a conclusion is provided in Chapter 7.

1.1 A General Introduction to Amis

Amis is an Austronesian language spoken in Taiwan. Like almost all other Austronesian languages spoken in this area (Yami excluded),² Amis belongs to the Formosan group of the Austronesian Family. According to Blust (1999), the exact number of Formosan languages is unknown. The distribution of the Formosan languages can be found on the map in Figure 1.1.³ As shown on the map, Amis is mainly spoken in the east coast area of Taiwan, stretching from Hualien County to Taitung County and including a small part in Hengchun, Pingtung County in southern Taiwan.

² Yami belongs to the Philippine sub-group; it shares a closer relationship with the languages spoken on the Batanes Islands of the Philippines.

³ As shown on the map, there are two groups of the indigenous peoples: the plain group and the mountain group. The former is generally located in the plain areas in western and northern Taiwan and has been assimilated to the Han people to a great extent. Their languages have either died out or gradually become moribund. As for the mountain group, its people live in the mountainous areas in central and eastern Taiwan, as well as the coastal areas in eastern Taiwan. Unlike the plain peoples/tribes, the cultures of this group are still well-maintained and the languages mostly remain actively spoken in their communities.

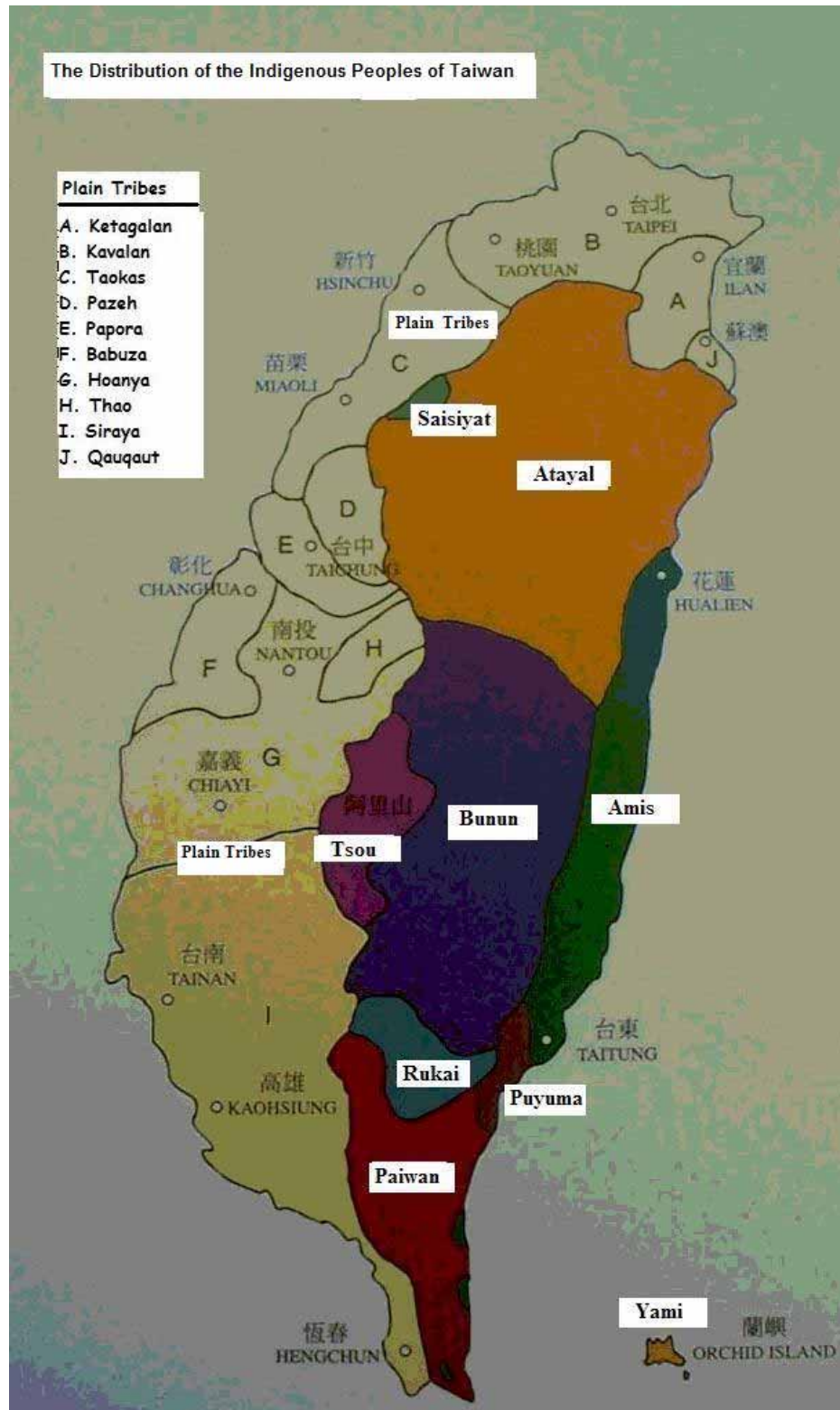


Figure 1.1 The Distribution of The Indigenous People of Taiwan
 (Adapted from: <http://www.construction.tpc.gov.tw/wulia/about/other5.htm>)

Among all the Formosan languages, Amis is known to have the largest population of speakers (around 170,000 people, according to the statistics published by the Council of the Indigenous Peoples, Executive Yuan, ROC in July 2005). According to Tsuchida (1988), there are five major dialects of this language: 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).⁴ The data analyzed in this dissertation was mainly collected from Haian Amis (meaning Coastal Amis), one of the Central dialects, focusing on the one spoken in the Changkuang Community at Changpin, Taitung County. Tables 1.1 and 1.2 display the names and ages of the language consultants/informants (“*” indicates the main consultants):⁵

Table 1.1 Amis Informants Currently Living in Changpin, Taitung County

Chinese Name/Amis First Name	Gender	Birth-year
*Jin-mei Li/Panay	Female	1945
*Jyun-jyu Lin/Osay	Female	1947
*Wan-song Lin/Talod	Male	1949
*Hsiou-mei Lin/Ngaday	Female	1956
Hsiang-chun Shr/Lakaw	Female	1928
Der-sheng Lin/Akih	Male	1926
Ma-yao Kao/Mayaw	Male	1934
Huei-min Chang/ Dongi	Female	1949

Table 1.2 Amis Informants Currently Living in Taipei

Chinese Name/Amis First Name	Gender	Birth-year
*Jin-long Chen/Ofad	Male	1955
Afan Lekal (Amis full name)	Female	1973

⁴ According to Li (1994), the Central dialect is the one that is the most commonly used, while the Sakizaya dialect retains more older characteristics of the Amis language (Tsuchida 1988).

⁵ These two groups of consultants show slight variation concerning the judgment of the grammaticality of some expressions. It is found in my observation that consultants who immigrated to Taipei at early ages have higher flexibility regarding such judgment and higher tolerance for some seemingly innovative forms. Besides the consultants from Changpin, I also collected a few examples from Mr. Shuang-rung Chen (Mayaw in Amis, born in 1942), who speaks the dialect of Yu-li, Hualien County, which also belongs to the Central dialects.

The map in Figure 1.2 shows the distribution of the Amis dialects.⁶

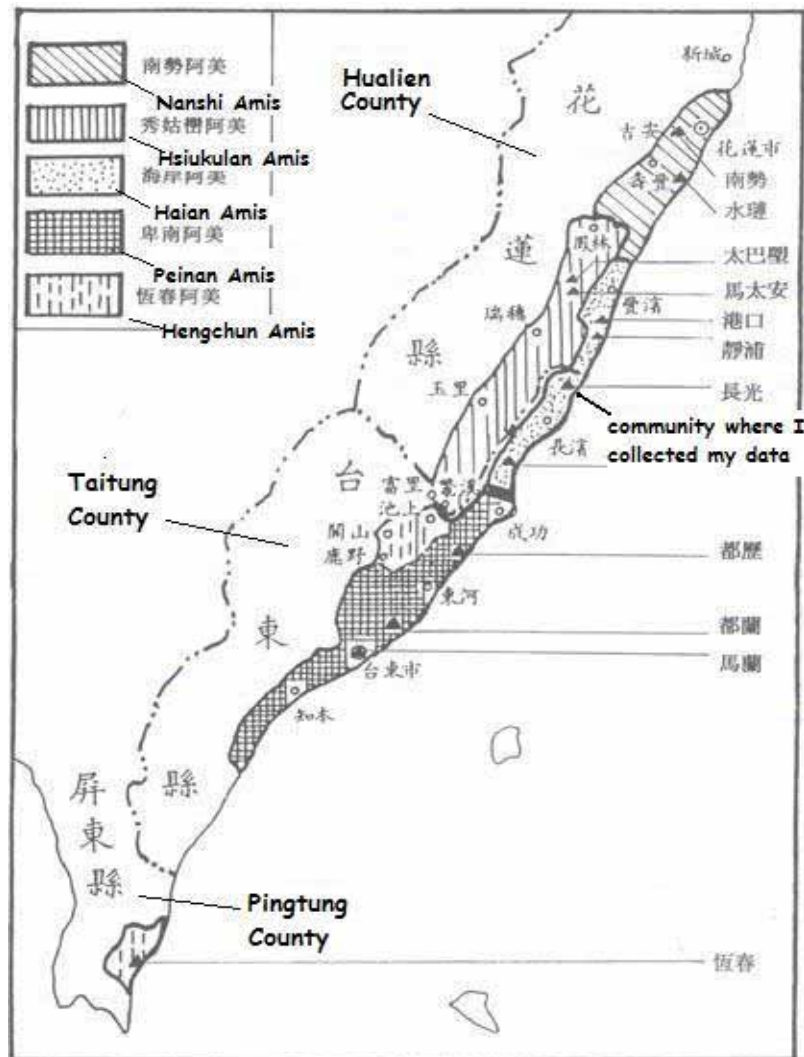


Figure 1.2 The Distribution of Amis Dialects

(Adapted from: http://tcemap.gcc.ntu.edu.tw/sub_2/ethno_theme.htm#)

Although almost all of the Austronesian linguists acknowledge the great diversity existing among the Formosan languages and regard Taiwan as the dispersal center of the Austronesian languages, they do not agree among themselves regarding whether these languages constitute a subgroup in the Austronesian family or not. Nevertheless,

⁶ Notice that on this map, only three dialectal groups are mentioned: Northern (listed as Nanshi Amis), Central (listed as Hsiukulan Amis and Haian Amis), and Southern (listed as Peinan Amis and Hengchun Amis). The Tavalong-Vataan dialect is treated as a part of Central dialect, while Sakizaya is not mentioned on this map. Sakizaya is mainly spoken in northern Hualien, close to the communities of Nashi Amis.

compared with this disagreement, the internal sub-grouping of the Formosan languages appears even disputable. Blust (1999) illustrates the striking disagreements with the position of Amis in the Formosan family and reports that “Amis has been classified in at least seven different groups of varying membership in which relationship is traced through a single node” (Blust 1999: 40). In addition to the seven taxonomic proposals, Blust also proposes a new class for Amis and other languages based on shared innovations. As the issue of sub-grouping is not the main concern of this dissertation, I will summarize these proposals based on Blust (1999) in Table 1.3 for the readers’ reference without going into the details of each proposal:

Table 1.3 A Summary of The Sub-grouping Proposals of Amis

Name of the Group	Other Members	References
East Formosan Hesion	Bunun, Paiwan, Thao	Dyen (1965)
Paiwanic II	Bunun, Kavalan, Siraya, Yami	Ferrel (1969)
Amis-Extra-Formosan	Malayo-Polynesian languages	Harvey (1982), Reid (1982)
Paiwanic	Bunun, Paiwan, Puyuma, Thao	Li (1985)
--	Kavalan	Li (1990)
Southern Formosan	Paiwan, Puyuma	Dyen (1990)
--	Paiwan	Starosta (1995)
East Formosan	Basay-Trobiawan, Kavalan, Siraya	Blust (1999)

As one can see from the table, the languages that might share a closer relation with Amis are Paiwan, Bunun, Kavalan, Puyuma, Thao, and Siraya.

1.2 Literature Review

Due to its relatively large population of speakers, Amis probably is the Formosan language that has been the most studied and documented. These studies cover a fairly wide range of topics, including phonology, lexicon, dictionary compiling, verbal semantics, and a general description of grammars. The following table lists some of the works that are relevant or cited in this dissertation. Some of these works will be reviewed in next section.

Table 1.4 Some of the Previous Works about Amis Morphosyntax

Author and Year	Description
Fey 1986	This is an Amis-English-Chinese dictionary which consists of approximately 4300 lexical entries collected from “Standard Central Dialect” spoken in the mountain areas from Fuyuan to Fuli in the valley of Hualien County and the coastal areas from Fengpin, Hualien County to Yiwan, Taitung County. In addition to definition and usage, she also discusses phonology, verbal affixation, and syntax of Amis. A dialectal comparison among lexicons is also provided.
Chen 1987	Reviewed in this chapter
Huang 1988	Reviewed in this chapter.
Yan 1992	Reviewed in this chapter.
Tsukida 1993 and 2005b	Tsukida (1993) is a journal paper that discusses the semantics of the suffix <i>-en</i> in Amis with great details. The author’s analysis will be referred to in this work. Tsukida (2005b) is a manuscript that deals with verb classes in Amis and Seediq. Her analysis of the Amis verb classes will be reviewed in this section.
Huang 1995	This is a typological survey of the nominal case marking system in some Formosan languages, including Amis.
Wu 1995, 2000	Wu (1995) is a master’s thesis that discusses the complex sentences in Amis. Her discussion of certain types of complex sentences such as relative clauses and sentences introduced to the quotative predicates <i>sa</i> and <i>han</i> will be referred to in this study. Wu (2000) is a reference grammar that describes the linguistic phenomena of the Amis dialect investigated in this dissertation.
Liu 1999	This is a master’s thesis discussing the cleft sentences in Amis in the formal grammarian framework. The author’s analysis of the case marking system will be discussed in this work.
Tsai and Tseng 1997	This is a descriptive grammar of one the Amis southern dialects. However, there is not much analysis and discussion in the book. Their description of one particular structure (i.e. the ideophone-forming construction <i>X sa</i>) will be referred to in this work.
Liu 2003	This is a master’s thesis that studies the modification and conjunction of Amis. The author’s sketch of the Amis grammar will be referred to, and her analysis of the <i>X sa</i> structure will be discussed in this dissertation.
Chu 2005	This is also a master’s thesis. It describes the grammar of Amis from an anthropological-cultural viewpoint. There is not much theoretical discussion, but this work provides many data for future studies.

Starting from the next section, I will review the following works that are, to various extents, pertinent to the research interests of this dissertation: Chen (1987), Huang (1988),

Yan (1992), Liu (1999), Liu (2003), Chu (2005), and Tsukida (2005b), especially the first three works and Tsukida's manuscript. The following review of these works mainly concerns their frameworks and analyses. Let us begin with Chen (1987).

1.2.1 Chen (1987)

Chen's work explores the verbal construction and verbal classification of Nataoran Amis, one of the northern dialects. Utilizing the framework of lexicase grammar developed by Starosta in the 1970s and in the 1980s,⁷ Chen has made a great contribution to the description of the case marking system, verb classes, and derivational processes in Amis.

1.2.1.1 The Framework

In the lexicase framework, words constitute the subject both the morphological and syntactic study, and the idiosyncratic information of words is stored in lexicon. The lexicon in this model consists of three basic types of lexical rules (i.e. subcategorization rules, redundancy rules, and derivation rules) and a list of lexical entries, each of which has a matrix of features that can neither be assigned by subcategorization rules nor can be predicated by redundancy rules. Such features include lexical category features, case relation features, case form features, contextual features, semantic features associated with syntactic or morphological consequence, morphological features, and other idiosyncratic features. For the present purpose, I will only discuss the following issues in the analysis: case relation, case form, and case frame (i.e. a type of contextual features).

⁷ According to Trask (1993:159), the most convenient introduction to this framework is Starosta (1988).

1.2.1.2 Case Relation and Case Forms

As defined by Chen (1987: 56), “Case relations are syntactically significant semantic relations between nominals and constituent heads. Case forms and localistic case form features are features introduced by lexicase to account for traditional grammatical subject and object as well as case inflection categories such as nominative, accusative, dative, and other cases...” While case relations and case forms are deemed as universal, case markers, the actual overt realizations of case relations and forms in a sentence are language specific.

Chen (1987:58) reports the existence of the following case relations in Amis, and each relation will be marked by a feature on the Amis nouns:

Table 1.5 The Case Relations of Amis (Chen 1987)

Feature	Case Relation	Feature	Case Relation
[+AGT]	Agent	[+PAT]	Patient
[+INS]	Instrument	[+PLC]	Place
[+LOC]	Locus	[+TIM]	Time

Among all case relations, Patient is regarded as the fundamental case relation in the lexicase framework. In other words, “if a verb has only one co-occurring nominal actant in the Nominative case form, it is always the Patient.” (Chen 1987:58). This assumption leads to a very important claim made in the lexicase grammar: the subject (i.e. the actant marked by the Nominative case form) of an intransitive verb must be Patient. Cases other than Patient are divided into two groups based on the immediacy of their relationship with the Patient: inner (or immediate) case relations, which include INS and LOC, and outer (or indirect) case relations, which include AGT, PLC, and TIM. In the lexicase framework, only inner case relations can subcategorize verbs, as we will see later in the table of verb classes. However, AGT appears to an exception, as Chen (1987)

uses this outer case to subcategorize verbs as well. She does not offer an explanation for such an exception.

The case relations are indicated by the case forms. Table 1.6 displays the case forms that Chen finds in Nataoran Amis. Note that not every form appears in every set of case-bearing element; for example, the forms for the determiner set are slightly different from those for personal pronouns, as illustrated in Figures 1.3 (Chen 1987:127) and 1.4 (Chen 1987:135) following the table:

Table 1.6 The Case Forms of Amis and the Sets of Case-marked Elements (Chen 1987)

Set Form	Determiner ⁸	Personal Pronoun	Interrogative Pronouns		Prepositions ⁹
			Personal	Impersonal	
Topic	√	√			
Neutral			√	√	
Nominative	√	√	√		
Genitive	√	√	√		
Accusative	√	√			
Locative	√	√	√	√	
Comitative ¹⁰					√
Benefactive			√		√
Source					√
Goal					√

⁸ This set covers case markers for demonstratives, personal nouns, and common nouns, which form an inflectional paradigm. (Chen 1987: 127).

⁹ According to Chen (1987: 128), the prepositions serve as case-like functions. I thus include them in the set of case forms as they are also specified by the case features in the framework of lexicase grammar. (Chen 1987: 140).

¹⁰ Comitative and Benefactive are realized by a preposition plus a determiner (Chen 1987:140).

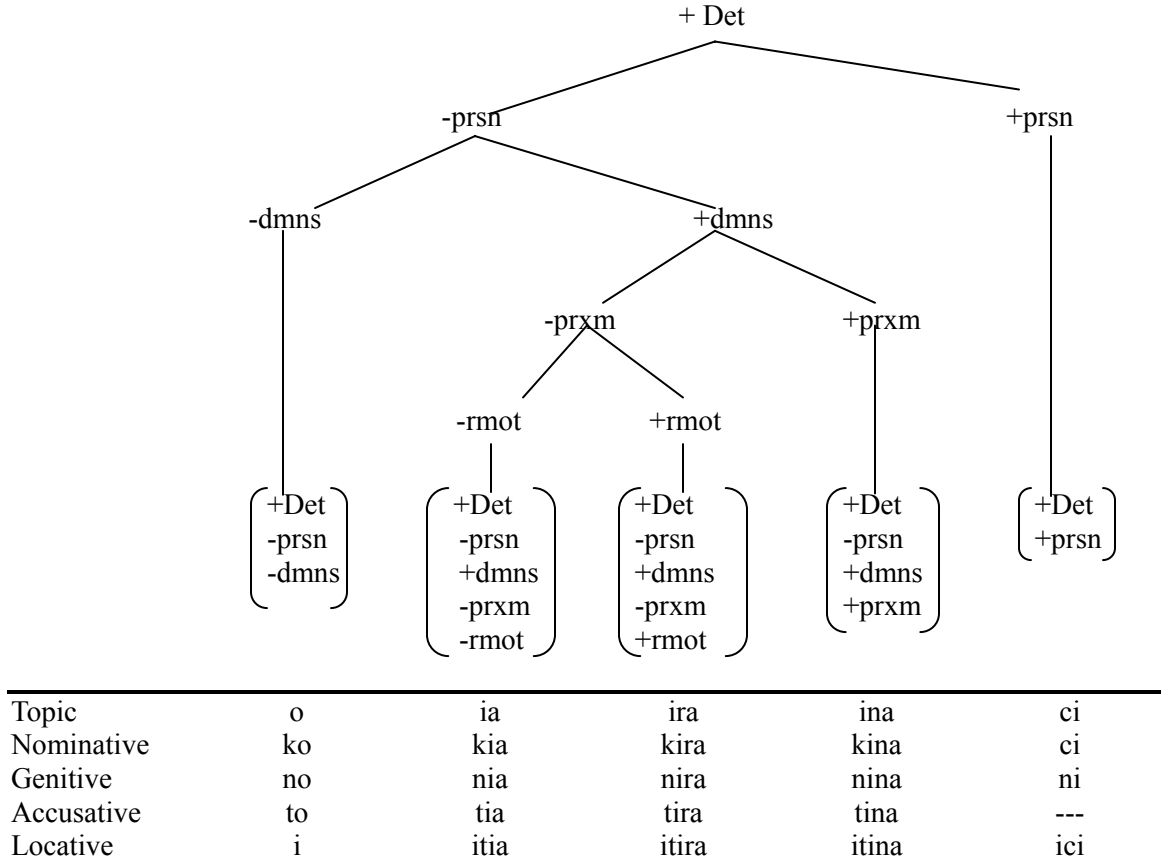


Figure 1.3 Feature Tree and Inflectional Paradigm of Amis Determiners (Chen 1987)

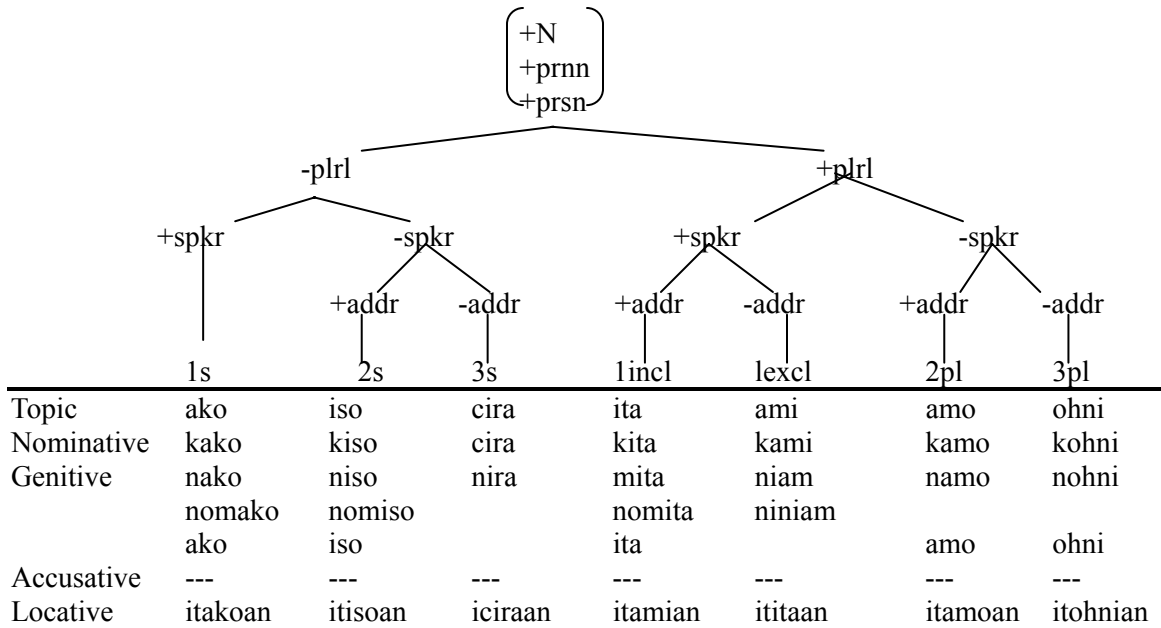


Figure 1.4 Amis Personal Pronouns (Chen 1987)

As shown from the above two figures, there is an accusative form in the determiner set, while the CF is not found in the personal pronouns. These two case forms are crucial in signaling whether a two-place predicate is (accusative) transitive or not in Chen's analysis. As the pronoun or the noun marked by the locative case form is not regarded as a PAT, two-place predicates with the second core argument marked by the locative case are not treated as transitive. We will see the examples later in the discussion of transitivity. The difference among the case forms is indicated by their composite features provided in Table 1.7 (Chen 1987:140):

Table 1.7 The Features of Each Case Form (Chen 1987)

Form	Feature
Neutral (Neu)	[+nmtv, +prdc]
Topic (Top)	[+nmtv, -prdc, +cntr]
Nominative (Nom)	[+nmtv, -prdc, -cntr]
Genitive (Gen)	[-nmtv, +drcn, +sorc]
Accusative (Acc)	[-nmtv, -drcn]
Locative (Lcv)	[-nmtv, +drcn, -sorc, -goal, -assn]
Comitative (Com)	[-nmtv, +drcn, -sorc, -goal, +assn]
Benefactive (Ben)	[-nmtv, +drcn, -sorc, +goal]

Note: [\pm nmtv]: Nominative, [\pm prdc]: predicative, [\pm cntr]: contrastive, [\pm drcn]: directional, [\pm sorc]: source, [\pm goal]: goal, [\pm assn]: association

The correspondence between case relations and cases from are given below in

Table 1.8 (Chen 1987:141):

Table 1.8 The Correspondence of Case Relations and Case Forms (Chen 1987)

CR \ CF	PAT	AGT	INS	LOC	PLC	TIM
Topic	+	+				
Nominative	+	+	+	?		
Genitive		+	+	(+)		
Accusative	+	(+)	+			+
Locative				+	+	+
Comitative	(+)	(+)	(+)			
Benefactive				+	?	

As seen in Table 1.8, Genitive Locus is placed in parentheses because this

In (1.1), the markers *ia* and *o* that precede *lomaq* and *ni-pa-ini-an* respectively can serve as a Topic case form and a neutral case form. However, only the NP preceding *iri* (the Topic marker, glossed as TM) is specified as Topic, while the NP following *iri* at the clause initial position is marked by the Neutral case form. As pointed out by Chen (1987:151), not all CF's and CR's can be "topicalized". As one can see from Table 1.8, only Patient and Agent can be topicalized. However, Chen further mentions that in most cases, a topic corresponds to the Patient subject of a verbal or a non-verbal construction.

1.2.1.3 Verb Classes

Chen's verb classes are primarily determined by different case frames, which are composed of case relations.¹¹ Seven primary verb classes are postulated, as seen in Table 1.9 (Chen 1987:172-173):

Table 1.9 Verb Classes in Nataoran Amis (Chen 1987)

Class	Label	Case Frame	Examples
I	Simple non-agentive	[+[PAT], -[+AGT], -[+LOC]]	<i>ma-orip</i> 'alive' <i>adada</i> 'hurt'
II	Intransitive locative	[+[PAT], -[+AGT], +[+LOC]]	<i>ta-ngasa</i> 'arrive' <i>ma-olah</i> 'love'
III	Simple transitive	[+[PAT], +[+AGT], -[+LOC], -[+INS]]	<i>taes-en</i> 'hit' <i>mi-kilim</i> 'seek'
IV	Transitive instrumental	[+[PAT], +[+AGT], -[+LOC], +[+INS]]	<i>tomes-en</i> 'fill'
V	Transitive locative	[+[PAT], +[+AGT], +[+LOC]]	<i>pabeli</i> 'give' <i>mi-palita</i> 'ask'
VI	Impersonal intransitive	[-[Nom], -[+AGT]]	<i>siqnaw</i> 'cold' <i>orad-an</i> 'rain'
VII	Impersonal transitive	[-[Nom], +[+AGT]]	<i>rakat-an</i> 'walk'

Perhaps the most peculiar classes in this table are the impersonal verbs (or subjectless verbs as also named by Chen (1987: 173)). These verbs do not have a Nominative CF in their case frame, and consequently, as argued by Chen, the fundamental CR, Patient, is absent from the case frame. Her reasoning for such a claim is given in (1.2) (Chen

¹¹ As mentioned earlier, the two outer case relations PLC and TIM cannot sub-categorize verbs. Hence, they are not included in the case frames in Table 1.9.

1987:173):

- (1.2) 1. These verbs are ergative.
2. Ergative verbs take only PAT subjects.
3. These verbs do not require the co-occurrence of the Nominative case form.
4. Therefore, there is no PAT in their case frame.

Examples of this class are given below:

- (1.3) a. Impersonal Intransitive (Chen 1987:208, original gloss)

siq naw	itini	a	remiad.
cold	this		day
$\left(\begin{array}{l} +V \\ -[Nom] \\ -[+PAT] \\ -[+AGT] \\ +phen \end{array} \right)$			$\left(\begin{array}{l} Lcv \\ +TIM \end{array} \right)$
'It is cold today.'			

- b. Impersonal Transitive (Chen 1987:209, original gloss)

rakat-an	no	matoas-ay
walk		old-one
$\left(\begin{array}{l} +V \\ -[Nom] \\ -[+PAT] \\ +[+AGT] \\ +trns \\ +ergv \\ +dlbr \end{array} \right)$	$\left(\begin{array}{l} Gen \\ +AGT \end{array} \right)$	
'the old man [deliberately] walked'		

As shown in these examples, Impersonal intransitive verbs denote meteorological phenomena (hence the feature +phen), while Impersonal transitive verbs are verbs designating deliberate action (hence the feature +dlbr).¹² These verbs can appear without a nominative argument (i.e. subject in Chen's term). Nevertheless, these verbs all have the possibility to be added a Patient CR, which will then become the subject.

An example is given below (Chen 1987:208, original gloss):¹³

¹² This feature might make the term "impersonal" sound odd, as deliberation is assumed to be a human property.

¹³ Chen does not give such examples for the impersonal transitive verbs. It seems that her *-an* is similar to the *-en* suffix in the dialect that I investigated, though Nataoran Amis also has the suffix *-en*.

- (1.4) siqnaw kina remiad.
 cold this day
 $\left[\begin{array}{c} +V \\ +[+PAT] \\ -[+AGT] \\ +phen \end{array} \right]$ $\left[\begin{array}{c} +PAT \end{array} \right]$ ^{Nom}
 ‘It is cold today.’

Using the case frames, Chen (1987) distinguishes transitive, intransitive, and ditransitive verbs as follows. Transitive verbs all have $+[+AGT]$ in the case frame, while intransitive verbs do not have a $+[+AGT]$. As for ditransitive, it implies the co-occurrence of a “direct object” and an “indirect object”. Hence, Class V verbs (i.e. the Transitive locative) are the only possible candidates for ditransitive verbs. These case frames also characterize the notions of transitivity and ergativity. That is, transitivity is defined by the co-occurrence of two case relations: PAT and AGT, and possibly PAT and INS. As for ergativity, it is defined by the association between case forms and case relations; in other words, it refers to the association of the Nominative CF with the Patient CR in transitive verbs, and the association of the Genitive CF with the Agent CR or Instrument CR. The co-occurrence restriction between the Nominative CF and all the CRs is termed as “subject choice”. As mentioned in (1.2), ergative verbs always have a Patient subject.

Based on the “subject choice” and other CF-CR mapping, the seven verb classes can be further subcategorized as Table 1.10:

Table 1.10 The Sub-categorization of Verb Classes (Chen 1987)

Class	Label	Subclass
I	Simple non-agentive [+[PAT], -[+AGT], -[+LOC]]	a. Non-agentive Simple Intransitive [+[PAT], -[+AGT], -[+LOC], -[+INS]] Nominative PAT Examples: <i>ma-orip</i> ‘alive’; <i>adada</i> ‘hurt’ b. Non-agentive Simple Transitive (= III c and III d)
II	Intransitive locative [+[PAT], -[+AGT], +[+LOC]]	Nominative PAT Locative LOC Examples: <i>ta-ngasa</i> ‘arrive’; <i>ma-olah</i> ‘love’
III	Simple transitive [+[PAT], +[+AGT], -[+LOC], -[+INS]]	a. Accusative Simple Transitive Nominative AGT, Accusative PAT Examples: <i>mi-kilim</i> ‘seek’; <i>mi-banaq</i> ‘notify’
		b. Ergative Simple Transitive Genitive AGT Nominative PAT Examples: <i>taes-en</i> ‘hit’; <i>ma-caliw</i> ‘borrow’
		c. Non-agentive Accusative Transitive [+[PAT], -[+AGT], -[+LOC], +[+INS], -ergv] Nominative INS, Accusative PAT Examples: <i>sa-pi-angang</i> ‘used for calling someone’; <i>mami-asik</i> ‘assigned to sweep’
		d. Non-agentive Ergative Transitive [+[PAT], -[+AGT], -[+LOC], +[+INS], +ergv] Genitive INS, Nominative PAT Examples: <i>ma-asek</i> ‘strike’; <i>ma-noang</i> ‘move, wave’
IV	Transitive Instrumental [+[PAT], +[+AGT], -[+LOC], +[+INS]]	a. Accusative Transitive Instrumental Genitive AGT, Nominative INS, Accusative PAT Examples: <i>mi-pinaro</i> ‘fill’; <i>sa-pi-angang</i> ‘use for calling’
		b. Ergative Transitive Instrumental ¹⁴ Genitive AGT, Nominative PAT, Accusative INS Examples: <i>temes-en</i> ‘fill up’
V	Transitive locative [+[PAT], +[+AGT], +[+LOC]]	a. Accusative Transitive Locative Nominative AGT, Accusative Patient, Locative LOC Examples: <i>pa-beli</i> ‘give’; <i>mi-caliw</i> ‘borrow’
		b. Ergative Transitive Locative Genitive AGT, Nominative Patient, Locative LOC Examples: <i>pa-pi-angang-en</i> ‘have X call Y’
VI	Impersonal intransitive [-[Nom], -[+AGT]]	Examples: <i>signaw</i> ‘cold’; <i>orad-an</i> ‘rain’
VII	Impersonal transitive [-[Nom], +[+AGT]]	Examples: <i>rakat-an</i> ‘walk’

As seen in the table, Class I covers a fairly wide range of verbs. Examples like

¹⁴ Chen (1987:84 and 197) provides an example where a Genitive instrument co-occurs with a Genitive AGT, as shown below:

ma-bahbah	kia	waco	no	lakaw	nia	tamdaw
drive-away		dog		stick		man
+V		Nom		Gen		Gen
+trns		+PAT		+INS		+AGT

‘the man drove the dog away with a stick’, or ‘the man’s stick drove the dog away’

Lit. the dog drove away by the man with a stick

However, a sentence like this can only be interpreted as ‘the dog was driven away by the man’s stick’ in the dialect where I collected my data.

t-em-ireng ‘stand’ and *ma-calibad* ‘angry’ all belong to the category.¹⁵ The only nominative actant always bears the PAT CR. Class I verbs are further classified into intransitive and transitive verbs by the feature $\pm[+INS]$, with the latter grouped under Class III (i.e. IIIc and IIIId). Moreover, in Chen’s work, this class of verbs is also subcategorized by semantic features such as $[\pm phen]$ (phenomenal) and $[\pm exst]$ (exist).¹⁶

Class II verbs are verbs requiring a location in the structure (e.g. locomotion verbs and existential verbs). Their transitive locative counterparts (i.e. Class V) are the causative verbs (verbs prefixed by *pa-*) with the causer as the AGT.

Class III verbs are composed of four sub-classes. As one may notice, one of the classifying criteria is the presence or absence of the AGT; when there is no AGT, it is the INS that takes up the nominative case in the accusative set and genitive case in the ergative set. The lexicase grammar makes a distinction between Agent and Instrument in the case relation in spite of the occasional ambiguity found in sentences like (1.5a); as mentioned earlier, the former is regarded as an outer CR, while the latter is treated as an inner CR based on their immediacy with the Patient. The ambiguity of (1.5a) is resolved in sentences like (1.5b).

- (1.5) a. The storm destroyed the tree house.
(storm: AGT or INS, tree house: PAT)
- b. The storm destroyed the tree house with a powerful gust of wind.
(storm: AGT, tree house: PAT, gust of wind: INS)

Class IV verbs are further sub-categorized by the feature $[\pm ergv]$. The accusative class (i.e. Class IVa) corresponds to the “instrumental focus” (or “instrumental voice”)

¹⁵ In other words, there is no actor-undergoer distinction in these intransitive verbs within a lexicase-based analysis.

¹⁶ Chen (1987:179-184) lists sixteen subcategories for Class I based on the intrinsic semantic features of the verbs.

verbs found in other works.¹⁷

Class Va verbs can be further subcategorized by the feature [\pm motn] (motion) into information verbs (e.g. *pa-sabanq* ‘tell’) and transportation verbs (e.g. *pa-ta-ra* ‘send’). Class Vb verbs are indirect causative verbs (morphologically marked by *pa-pi-...-en*).

Class VI and VII are impersonal verbs that I have briefly discussed. Their only difference lies the presence/absence of a [+AGT], which will be marked the Genitive CF if it shows up. Class VI verbs do not have [+AGT]; they are phenomenal verbs, which can be further classified based on the feature [\pm mbnt] (ambient), [\pm exst] (exist), and [\pm sttv] (stative).

1.2.1.4 Transitivity

We have mentioned that Patient is treated as the fundamental case relation in lexibase grammar; that is, if a verb has only one co-occurring core argument that bears the Nominative case, it must be [+PAT]. The Patient subject may correspond to different situational roles in a Fillmorean-type of analysis (Chen 1987:63).¹⁸ Moreover, transitive verbs are defined in terms of the co-occurrence of [[+PAT]] with either [[+INS]] or [[+AGT]] or both, while intransitive verbs exclude their co-occurrence (Chen 1987:77).

As seen in Table 1.10, in each transitive verb class, there is always an accusative-ergative distinction, which depends on whether the nominative case marks the Patient or not. Such a distinction also reflects Chen’s claim that Amis is a split-ergative language. In particular, she mentions that Amis has transitive verbs belonging to the ergative type

¹⁷ The “locative focus” or “locative voice” verbs are not included in Chen’s classification, as she mentions that she only has one example with a locative subject, and that is why she places a “?” in Table 1.8 for the Nominative locus grid.

¹⁸ It may correspond to Experiencer, Agent, Instrument, Time, and Locative. Please refer to Chen (1987:63) for the examples.

(e.g. *melaw-en* ‘watch’ and *ma-melaw* ‘see’) as well as the accusative (or non-ergative type) (e.g. *mi-melaw* ‘see’); the former type has a co-occurring Genitive AGT and a Nominative PAT, while the latter has a Nominative AGT or Nominative INS.¹⁹ As for intransitive verbs, the subject is always PAT.

1.2.1.5 Verbal Derivations

The derivation rules discussed in Chen’s (1987) work are mainly related to those that affect the case features; in other words, these derivations will “incorporate a case notion, delete a CR, add a CR, or reinterpret the CR’s of the source without adding or subtracting of the total number of the case role” (Chen 1987:237). In total there are 29 such derivational rules postulated in her study.²⁰ These rules can derive a verb from nouns, including deverbal nouns, and also derive a verb from other verbs by either adding or reinterpreting the case relations of the source verbs through processes such as transitivization, causativization, and passivization. I will only focus on the discussion of the derivation from verbs, as displayed in the following figure (Chen 1987:250):

verb class	VI	VII	I	II	III	IV	V
case frame	$\left\{ \begin{array}{l} -[+Nom] \\ -[+AGT] \\ -[+LOC] \\ -[+INS] \end{array} \right\}$	$\left\{ \begin{array}{l} -[+Nom] \\ +[+AGT] \\ -[+LOC] \\ -[+INS] \end{array} \right\}$	$\left\{ \begin{array}{l} +[+PAT] \\ -[+AGT] \\ -[+LOC] \\ -[+INS] \end{array} \right\}$	$\left\{ \begin{array}{l} +[+PAT] \\ -[+AGT] \\ +[+LOC] \\ -[+INS] \end{array} \right\}$	$\left\{ \begin{array}{l} +[+PAT] \\ +[+AGT] \\ +[+INS] \\ -[+LOC] \end{array} \right\}$	$\left\{ \begin{array}{l} +[+PAT] \\ +[+AGT] \\ -[+LOC] \\ +[+INS] \end{array} \right\}$	$\left\{ \begin{array}{l} +[+PAT] \\ +[+AGT] \\ +[+LOC] \\ +[+INS] \end{array} \right\}$
# of marked CRs	1	1	1	2	2	3	3
Derivational Process	(a)		(b) (c) (c') (h)	(d) (e) (f) (g)			

Figure 1.5 Derivational Processes Relating Amis Primary Verb Classes (Chen 1987)

¹⁹ Chen mentions that the accusative set obeys Fillmore’s subject choice hierarchy (Chen 1987:174).

²⁰ For a complete list of these rules, please refer to Chen (1987: 236-273).

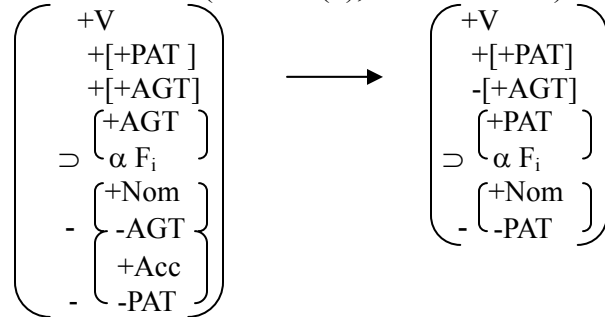
As one can see, these processes can add a CR (e.g. Processes (b), (c), (c'), (d), (e), and (f)), reinterpret the case frame without adding a CR (e.g. Processes (a) and (g)), or delete a CR (e.g. Process (h)). The first type includes transitivization that adds either an AGT or an INS to the source verb, and causativization that adds an AGT. As for the second type, these processes may reinterpret a PLC or a TIM as a PAT subject for the source verb that does not have one (i.e. impersonal verbs in Class VI). They may also derive a passive form for transitive accusative verbs,²¹ ergativize a transitive accusative verb, or detransitivize a transitive verb. These derivational processes may or may not be accompanied by morphological changes. For example, passivization is indicated by the suffix *-en*, but detransitivization does not involve any morphological change. Notice that these derivational processes reveal an important viewpoint of Chen (1987) that is rather different from Huang (1988), a work that will be reviewed next. That is, the focus or voice morphology is treated as derivational in Chen (1987), as these focus affixes (e.g. *mi-*, *ma-*, *-en*) are analyzed as morphemes indicating various derivational processes in this work, which I have just pointed out.

There are a few comments I would like to make regarding Chen's discussion of these derivational processes, especially those related to detransitivization. I have found some discussion that is rather confusing in this part. For example, she mentions that to undergo the process of ergativization, a transitive accusative verb has to undergo an intermediate stage of detransitivization through zero derivation, and then the detransitivized verb will serve as the input for ergativization (also a type of transitivization). The whole process is illustrated in (1.6a-b) followed by sentence

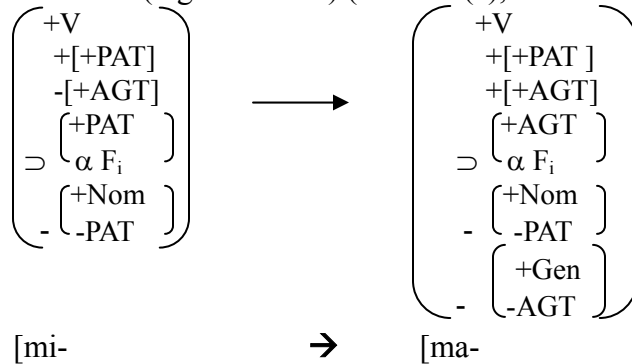
²¹ Chen (1987) analyzes the suffix *-en* as the passive form for *mi-* verbs, while the prefix *ma-* marks a true ergative verbs.

mine):

(1.6) a. Detransitivization (Process (h), Class IIIa → I)



b. Transitivity (ergativization) (Process (c), Class I → IIIb)



c.	mi-liakaway ₁	kako	tina	kawpir-an
	pick	1s	this	tender-leaves
	$\left[\begin{smallmatrix} +V \\ +trns \\ -ergv \end{smallmatrix} \right]$	$\left[\begin{smallmatrix} \mathbf{Nom} \\ +\mathbf{AGT} \end{smallmatrix} \right]$		$\left[\begin{smallmatrix} Lcv \\ +LOC \end{smallmatrix} \right]$
	I pick the tender leaves			

d. mi-liakaway₂ kami i lotok
pick 1s this hill
[+V] [Nom] [Lcv]
[-trns] [+PAT] [+PLC]
I pick the tender leaves

e. ma-liakaway₃ toay niam kira kawpir
 picked already 1s that tender-leaves
 $\left[\begin{smallmatrix} +V \\ +trns \\ -ergv \end{smallmatrix} \right]$ $[+Adv]$ $\left[\begin{smallmatrix} Nom \\ +AGT \end{smallmatrix} \right]$ $\left[\begin{smallmatrix} Nom \\ +PAT \end{smallmatrix} \right]$
 we have already picked the tender leaves
 Lit. The tender leaves already picked by us.

As exemplified above, in order to derive a form like *ma-liakaway* ‘picked’ from *mi-liakaway* ‘pick’, the source verb has to undergo detransitivization through zero derivation and becomes a verb like the one in (1.6d). Regardless of whether this detransitivization process is well justified or not, a rather confusing part in the discussion is that, the verb in (1.6c) is not a “transitive” verb based on Chen’s definition; a transitive verb has to have a +AGT and +PAT, but the one in (1.6c) only has +AGT. In fact, Chen actually specifies this verb as a specific-object intransitive that belongs to Class II. Nevertheless, for a typical Class II verb, Chen has analyzed the NP marked by the nominative case as +PAT, not +AGT, as shown in *kiso* and *kako* in (1.7) below (Chen 1987:188, original transcription and gloss, emphasis mine). This seems to be an example of self-contradiction in the analysis of the same type of verbs and the notion of transitivity:

- (1.7) a.

mi-angang	to	haw	kiso	iciraan?
call	already	QM	2s	3s
[+V	[+Adv]		[Nom	[Lcv
-trns			+PAT]	+LOC]
have you called him?				
- b.

ma-talaw	kako	tira	tamdaw-an
afraid-of	1s	that	man
[+V	[Nom		[Lcv
-trns	+PAT]		+LOC]
I am afraid of that man			

In addition to the detransitivization process in (1.6a) that deletes a CR from the source verb, Chen mentions that there is another type of detransitivization that simply involves reinterpretation of the case relations (i.e. Process (g) in Figure 1.5) without any deletion of CR.²² This process turns a Class IIIa verb (i.e. accusative simple transitive) into a

²² Chen emphasizes the importance of a step like detransitivization and regards it as “a bridge for the accusative system and the ergative systems of the language which do not mix” (Chen 1987:271).

corresponding specific-object intransitive verb via zero derivation. The relevant examples are given below (Chen 1987:271-272, original transcription and gloss, emphasis mine):

- (1.8) a. mi-kilim₁ cira to badal
 look-for 3s berry
 $\left[\begin{array}{c} +V \\ +trns \\ -ergv \end{array} \right]$ $\left[\begin{array}{c} 3s \\ Nom \\ +\mathbf{AGT} \end{array} \right]$ $\left[\begin{array}{c} Acc \\ +PAT \end{array} \right]$
 he is looking for berries
- b. mi-kilim₂ cira itisoan
 look-for 3s 2s
 $\left[\begin{array}{c} +V \\ -trns \end{array} \right]$ $\left[\begin{array}{c} Nom \\ +\mathbf{PAT} \end{array} \right]$ $\left[\begin{array}{c} Lcv \\ +LOC \end{array} \right]$
 he is looking for you
- c. ma-talaw₁ kako to kawas
 afraid-of 1s ghost
 $\left[\begin{array}{c} +V \\ +trns \\ -ergv \end{array} \right]$ $\left[\begin{array}{c} 1s \\ Nom \\ +\mathbf{AGT} \end{array} \right]$ $\left[\begin{array}{c} Acc \\ +PAT \end{array} \right]$
 I am afraid of ghosts
- d. ma-talaw₂ kako tira tamdaw-an
 afraid-of 1s that man
 $\left[\begin{array}{c} +V \\ -trns \end{array} \right]$ $\left[\begin{array}{c} Nom \\ +\mathbf{PAT} \end{array} \right]$ $\left[\begin{array}{c} Lcv \\ +LOC \end{array} \right]$
 I am afraid of that man

As exemplified in (1.8), the same verb forms receive different analyses regarding transitivity based on the different coding of the second argument; (1.8a) and (1.8c) are (accusative) transitive, while (1.8b) and (1.8d) are intransitive. However, this analysis is rather difficult to comprehend, as the second argument in the intransitive verb is a “specific object”, which seems to counter our intuition about an intransitive predicate. Moreover, the argument marked by the nominative case in (1.8a-b) and (1.8c-d) receives different case relation analysis (i.e. AGT vs. PAT), which seems strange and ad hoc, as we

do not see any difference of this argument in the two versions of the same verb.

From the above discussion, one can clearly see the importance of the notion case, or more specifically case relations, in Chen's analysis of Amis verb classification and verbal derivation. It is the case relations that categorize the verbs, define the transitivity, and formulate the derivational processes. In particular, the CR Patient is deemed as the fundamental relation in the lexicase framework utilized in her analysis; it is regarded as the only CR for intransitive predicates. Although case relations do play an important role in Amis grammar, and Chen is right that Amis does show split-ergative phenomena in its verbal morphology, I will show later in this dissertation that Amis exhibits ergative features in the case marking patterns and in the syntactic constructions that involve grammatical relations. I will argue that the accusative transitive sentences in Chen's analysis should be analyzed as syntactically intransitive. In the above review, I have also pointed out some apparently unnatural or even self-contradictory treatment in her discussion of the derivational processes and the notion transitivity. These two issues will also be examined with different perspectives in the later chapters of this dissertation.

1.2.2 Huang (1988)

Huang (1988) is a master's thesis about verb classification in Amis. She collected 490 verbs from the dialect spoken in Yiwan, Taitung County, which is also a Coastal Dialect.²³

1.2.2.1 The Framework

Huang's analysis basically follows the framework of Fillmore (1968) and Jeng

²³ Although the dialect investigated in Huang's (1988) thesis also belongs to the Central dialect group, there are some vocabulary differences between the dialect used in I-wan Area and Changpin Area. As remarked by my informants, some examples in Huang's (1988) collection are not used in the Changpin area.

(1977; 1981). She utilizes three transformational properties, causativization, imperativization, and the attachability of the prefix *mi-*, termed as the source-focusing marker in her study, to classify Amis verbs into three major classes and further sub-categorize them by the case frames specifying the co-occurrence of 19 case relations. These case frames are represented by a set of phrase structure rules.

1.2.2.2 The Analysis

Huang first classifies Amis verbs into three classes, given in Table 1.11, based on the test of the transformational properties mentioned earlier:

Table 1.11 Major Verb Classes of Central Amis (Huang 1988)

Class	Sub-types	causativization with <i>pa-</i>	command imperativization with <i>pi-</i> ²⁴	affixation with source-focus marker <i>mi-</i>
I	negation words, modals, adverbs,	No	--	--
II	stative verbs and some action verbs	Yes	No	No
III	action verbs	Yes	Yes	Yes

These three classes are further categorized based on their case frames, which state the co-occurrence of 19 case relations that are postulated based on the case marking properties, Fillmore's principle of one-instance-per-clause, syntactic and semantic contrasts, and the focus constructions within the question-word sentences, if the previous three criteria are insufficient. The case relations and their correspondence in Chen's (1987) case relations are given in Table. 1.12:

²⁴ Huang (1988) differentiates the imperatives in Amis into command imperatives and suggestion imperatives (Huang 1988:20); the former is either marked by *pi-*, the source-focusing marker, or *-en*, the goal-focusing marker, while the latter is marked by *ka-*. She claims that all the verbs can undergo suggestion imperativization. However, for action verbs, they have to undergo command imperativization first before they can be imperativized by *ka-*; the whole process is expressed by the form *ka-pi-*. As I will show later in my analysis, the prefix *ka-* is morphologically related to *ma-*, which is notorious for its complicated semantics and functions. One of its major functions is to mark a state predicate (cf. Zeitoun and Huang 2000), and this function may explain why it gives a suggestion tone in imperativization. Notice that, however, based on my investigation, the suggestion tone is only found in the combination *ka-pi-*, not a plain *ka-* imperative verb. Hence, it raises the possibility that there are two *ka-s* discussed here; one shows up in the imperative form for state predicates and action predicates which are not marked by *mi-*, and the other *ka-* carries suggestion tone for the imperativization.

Table 1.12 Case Relations in Central Amis (Huang 1988)

Abbreviations	Case Relation	Correspondence in Chen's (1987) Case Relation (Huang 1988: 145)
A	the agentive case	Agent; Patient
B	the benefactive case	Place
Ds	the dative case as source	Patient
Dg	the dative case as goal	Instrument; Patient
I	the instrumental case	Instrument
Ls	the locative case as source	Patient
Lg	the locative case as goal	Locus; Patient
Lnd	the non-directional locative case	Locus; Patient
Lds	the directional locative case as source	--
Ldg	the directional locative case as goal	Locus
Ldist	the spatial distance case	--
Os	the object case as source	Patient
Og	the object case as goal	Patient
Ts	the temporal case as source	Patient
Tg	the temporal case as goal	Patient
Tnd	the non-directional temporal case	Time
Tds	the directional temporal case as source	--
Tdg	the directional temporal case as goal	--
Tdur	the temporal period case	Time

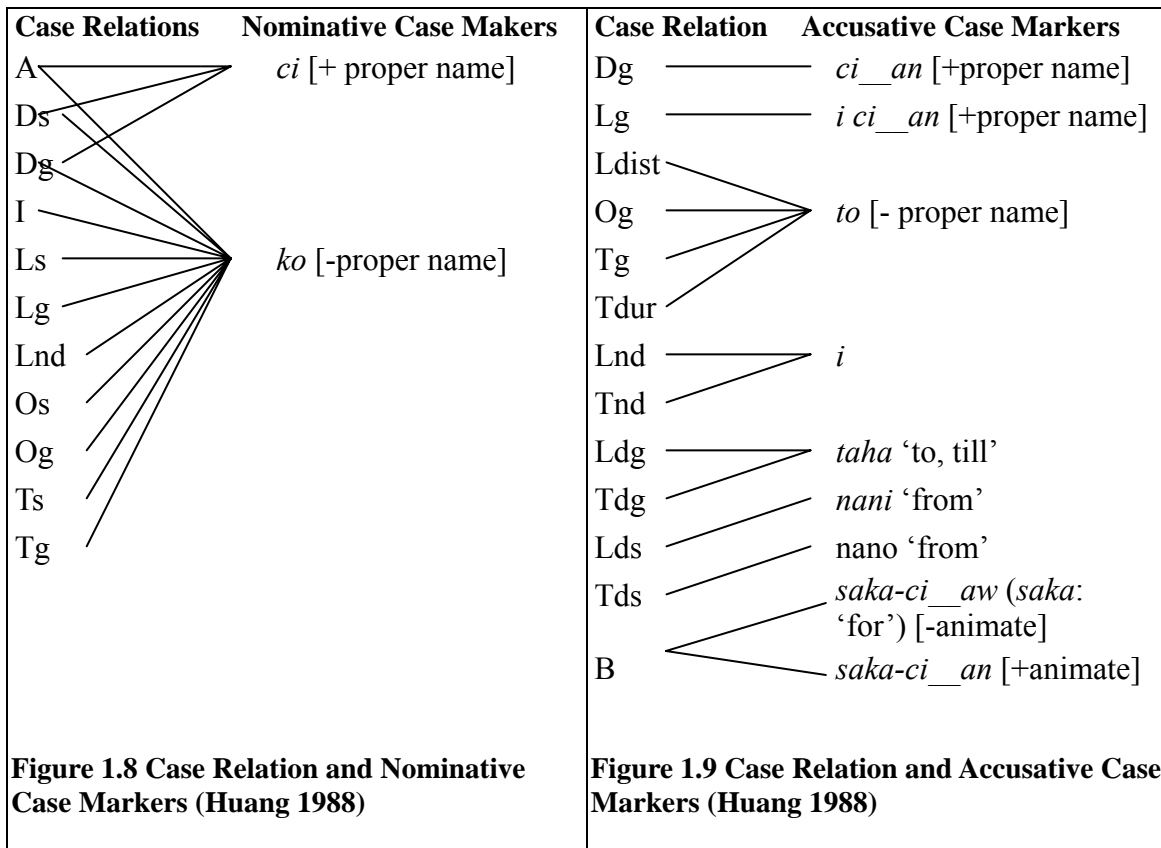
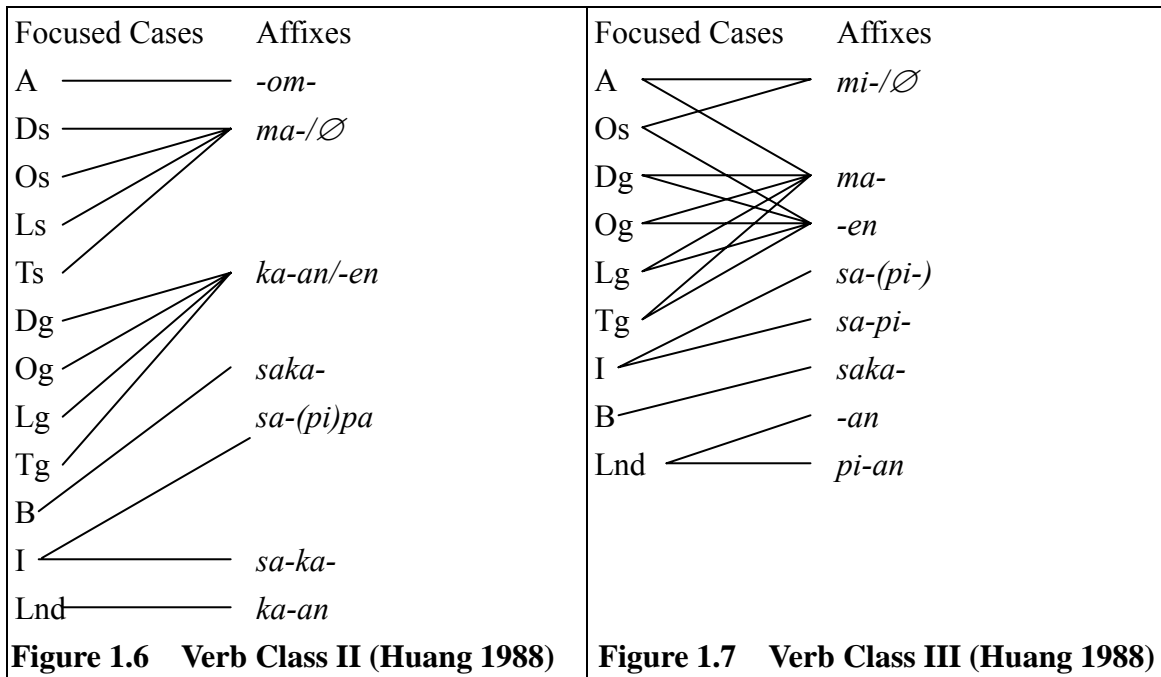
As shown on the table, Huang's case relations are much more in number than those postulated by Chen (1987). Huang further mentions that B, Lnd, Lds, Ldg, Ldist, Tnd, Tds, Tdg, and Tdur are peripheral cases, which are not found in her subcategorization of verb classes. Table 1.13 shows an example to illustrate how she utilizes the case frames to subcategorize Class II verbs:

Table 1.13 Some Classes and Examples in Huang's (1988) Verb Classification

Class	Sub-class	Case Frame	Examples (original transcription and gloss)
IIA		[_____ { A Os }]	a. t-om-erep ci dogi AF stop Dogi A 'Dogi is stopping.' b. t-om-erep ko kikay AF stop machine Os 'Dogi is stopping.'
	IIA2a	[_____ A]	c-om-ikay ci dogi AF run Dogi 'Dogi is running.'
	IIA2b	[_____ A + { Dg Og }]	k-om-aqen ci dogi to fotig/deteg AF eat Dogi fish / vegetable A Dg Og 'Dogi is eating the fish/vegetable.'
IIB		[_____ { Ds Os Ls Ts }]	a. 0-fagcal ci dogi DsF good Dogi Ds 'Dogi is good.' b. 0-fagcal ko nanom OsF good water Os 'The water is good.' c. 0-fagcal ko saqaniwan LsF good Saqaniwan 'Saqaniwan is good.' d. 0-fagcal ko dafak. TsF good morning Ts 'The morning is good.'

Note: AF: agent focus, DsF: dative case as source focus, OsF: object case as source focus,
LsF: locative case as source focus, TsF: temporal case as source focus

As seen in Table 1.13, these case relations overlap quite a bit in terms of morphological marking (e.g. marked by the same focus affixes on verbs or case marking particles before nouns). The following figures (Huang 1988:70-72) provide some examples to illustrate such overlapping. Figures 1.6 and 1.7 show the case relations and their corresponding verbal affixes, while Figures 1.8 and 1.9 display the case relations and their corresponding case marking particles.



The morphological overlapping exemplified in the figures above poses some serious

challenges to Huang's (1988) analysis. To begin with, the distinctions that she claims for the case relations do not show up morphosyntactically. In other words, the validity of such distinctions cannot be justified in the structure, and making so many distinctions also runs the risk of missing generalizations. Furthermore, as shown in those figures, there seem to be some asymmetries between these markers; while some of them (e.g. *ma-* and *-en* in Figure 1.6-1.7 and *ko* in Figure 1.8) can mark more case relations than others, others seem to have a more restricted function (e.g. *sa-* in Figure 1.6 and *nani* in Figure 1.9). Such asymmetries suggest that functionally speaking, these markers may not belong to the same category. For example, it is difficult to conceive *taha* 'till', *nani* 'from', and *nanu* 'from' in Figure 1.9 as accusative case markers.

Besides the above-mentioned inadequacy, there is another problem in Huang's (1988) proposal; that is, unlike Chen (1987), she treats focus marking as an inflectional phenomenon, not a derivational one. As I will argue in this dissertation, these focus or voice markers do have important derivational functions in addition to indicating which semantic role is chosen to be the grammatical subject, as the affixation of these markers will change the semantics of the verb. Finally, Huang (1988) does not particularly explore the issues of transitivity and ergativity. The only place that she makes a transitive/intransitive distinction among verbs is in her discussion of imperative sentences, in which she classifies the verbs into nine types, displayed in Table 1.14 below (Huang 1988:21):

Table 1.14 Imperative Focus Marking System Amis (Huang 1988)

		Imperative		Causativized Imperative	
		Source-Focus	Goal-Focus	Source-Focus	Goal-Focus
Intransitive State	1. <i>'onig</i> 'dirty'			<i>(pi-)pa-</i>	<i>pa-...-en</i>
	2. <i>ki'mel</i> 'powerful'	<i>ka-</i>		<i>(pi-)pa-</i>	<i>pa-...-en</i>
Transitive State	3. <i>fokil</i> 'not to know'				<i>pa-pi-...-en</i>
	4. <i>godo</i> 'respect'	<i>ka-</i>		<i>(pi-)pa-pi-</i>	<i>pa-pi-...-en</i>
Intransitive Action	5. <i>tomireng</i> 'stand'	<i>ka-</i>		<i>(pi-)pa-ka-</i>	<i>pa-ka-...-en</i>
	6. <i>powar</i> '(water) spring'			<i>(pi-)pa-</i>	<i>pa-...-en</i>
	7. <i>kcod</i> 'jump'	<i>(ka-)pi-</i>		<i>(pi-)pa-pi-</i>	<i>pa-pi-...-en</i>
Transitive Action	8. <i>lalad</i> 'creep'			<i>(pi-)pa-...-en</i> ²⁵	<i>pa-...-en</i>
	9. <i>kiskis</i> 'scrape'	<i>(ka-)pi-</i>	<i>-en</i>	<i>(pi-)pa-pi-</i>	<i>pa-pi-...-en</i>

Judging from the examples that she provides, she seems to treat verbs that can have two core arguments as transitive verbs. As for “ergativity”, she only makes the following brief comment without further explication:

It is suggested here that in the framework I adopted, ergativity in Amis is explained in terms of focus, which is a phenomenon of verbs inflecting with the same case-focusing affix for goal cases (including Dg, Og, Lg, and Tg) of action verbs and source verbs (including Ds, Os, Ls, and Ts) of stative verbs when are subjectivized. (Huang 1988:146)

1.2.3 Yan (1992)

Yan's (1992) work is also a master's thesis in which he classifies Amis verbs in terms the coding of event and participant. He collected his data from Peinan Amis, a Southern dialect²⁶ spoken in Chenkung, Taitung County.

1.2.3.1 The Framework

Unlike Chen (1987) and Huang (1988), which heavily rely on the notion of case frame in verb classification, Yan (1992) adopts a rather different approach. Taking a more functional perspective, he categorizes the Amis verbs based on their semantic features, different “agent focus” (“actor voice” in this dissertation) markers (i.e. *ni-*, *ma-*, *-um-*)

²⁵ The form *(pi-)pa-en* should not be analyzed as source focus marker. It is suspected that this may be a typo.

²⁶ Yan is a native speaker of that dialect.

that verbs can take, the number participants, and the acceptability of the attachment of *ni-*, one of the “agent focus” markers.²⁷ He further employs the transitivity parameters postulated in Hopper and Thompson (1980) to evaluate the degree of transitivity manifested by these focus affixes.

1.2.3.2 The Analysis

Yan’s taxonomy of Amis verbs can be roughly summarized as Table 1.15 with some examples from each verb type.²⁸ ‘

Table 1.15 Verb Classes in Peinan Amis (Yan 1992)

	Semantic Features	Number of Arguments	Attachability of <i>ni-</i> to enhance the transitivity	Examples	Notes
<i>ma- I</i>	phenomenal or meteorological human propensity physical property	1	No.	<i>ma-cidal</i> ‘sun rise’ <i>ma-fali</i> ‘wind blow’ <i>ma-laluk</i> ‘diligent’ <i>ma-su’su</i> ‘fat’ <i>ma-lales</i> ‘blunt (for knife)’	
<i>ma- II</i>	Involuntary behavior	1	O.K.	<i>ma-futi</i> ‘sleep’ <i>ma-klu</i> ‘dance’ <i>ma-patay</i> ‘die’	<i>mi-futi</i> ‘rape’ <i>mi-klu</i> ‘tease’ <i>mi-patay</i> ‘kill’
<i>ma- III</i>	emotion psychological state cognition	2	O.K. for some of them.	<i>ma-ulah</i> ‘like’ <i>ma-cter</i> ‘angry’ <i>ma-ngudu</i> ‘ashamed’ <i>ma-fana</i> ‘know’	<i>mi-ulah</i> ‘like (expressed in words or actions)’ <i>mi-fana</i> ‘learn’ <i>*mi-ngudu</i> ²⁹
<i>ma- IV</i>	result state	2	O.K.	<i>ma-sti</i> ‘(be) beaten’ <i>ma-ala</i> ‘(be) taken’	passive form of <i>mi-</i> verbs
<i>ni-</i>	telic activity; always transitive	2	N/A	<i>mi-sti</i> ‘beat’ <i>mi-ala</i> ‘take’	
<i>-um-</i>	simple activity without involving external argument	1-2	O.K. for some of them.	<i>k-um-aen</i> ‘eat’ <i>r-um-adiw</i> ‘sing’ <i>t-um-angic</i> ‘cry’ <i>t-um-ireng</i> ‘stand’ <i>r-um-akat</i> ‘walk’ <i>c-um-ikay</i> ‘run’ <i>s-um-uwal</i> ‘say’	<i>mi-kaen</i> ‘go to a feast’ <i>mi-radiw</i> ‘sing’

²⁷ The focus or voice system in Amis will be introduced in Chapter 3.

²⁸ The focus (or voice) marker in *ma-IV* verbs in Table 3 is a patient focus marker (or undergoer voice marker), not an agent focus (or actor voice) marker.

²⁹ This form is found in the dialect that I investigated.

From Table 1.15, we can see that there is a rough distinction between *ni-* and *-um-* verbs, and *ma-* verbs; the former two focus (or voice) markers tend to signal verbs that are more dynamic, while the latter tends to indicate verbs that are more stative. Based on Hopper and Thompson's (1980) transitivity parameters, Yan (1992) arranges these focus affixes into the following scale:³⁰

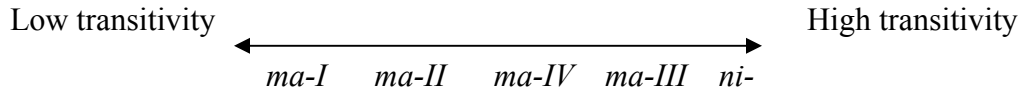


Figure 1.10 The Scale of Transitivity for Amis Verbal Affixes (Yan 1992)

As indicated on the scale, *ni-* verbs (roughly corresponding to the *mi-* verbs in the dialect I investigated) show the highest transitivity than the other types of verbs, and they are always transitive. A type of *ma-* verbs displays the lowest degree of transitivity.

Notice that the verbs affixed by *-um-* do not show up on the scale. As remarked by Yan (1992), *-um-* verbs are few in number and most of them are intransitive activity verbs. They probably are placed somewhere between *ma-III* and *ni-* on the scale.

Due to the limit of the research scope, there are some issues still unexplored in Yan's (1992) study. First, he does not particularly comment on the nature of the focus markers. It seems that he treats these markers as derivational morphemes, as he shows that the affixation of a certain affix (e.g. *ni-*) will change the meaning and the class of the verb. Second, certain types of verbs are left out in his discussion. For example, he does not discuss verbs that do not appear with any focus affix and verbs that are suffixed by *-en*. In fact, as I will show later in this dissertation, the suffix *-en* is an agentive marker, and *-en* verbs exhibit an even stronger degree of transitivity than *ni-* discussed on Yan's (1992)

³⁰ Notice that the notion transitivity discussed in Yan (1992) is different from Chen (1987) and Huang (1988). It is semantic transitivity discussed in the former, while the transitivity discussed in the latter is more syntactically oriented.

transitivity scale.

Besides proposing the verb classes for Amis, Yan (1992) also tries to represent the clause structure of Amis with what he calls as “prepositional circles” (Yan 1992: 103). Like Chen (1987) and Huang (1988), he also uses the case frame in the representation. Three case roles are particularly mentioned: Agent, Patient, and Dative (for three-place predicates). Within each prepositional circle, he makes the distinction between the core and the periphery. Only the participants that are marked by the nominative case and the accusative case are placed in the core of the circle. In other words, he does not treat the Agent or Actor that is marked by the genitive case in a patient focus (PF) or undergoer voice (UV) construction as a core argument; this participant is placed somewhere between the core and the periphery, analogous to an oblique core argument. Yan (1992) justifies his analysis by saying that in a PF or UV sentence, the argument marked by the genitive case can be omitted, but those marked by the nominative case and the accusative case have to show up.³¹ However, as I will show later, this argument plays an important role in control constructions, imperative sentences, and reflexivization. Its status is far more important than that acknowledged in Yan’s (1992) analysis.

Finally, Yan (1992) does not discuss ergativity in his work. Nevertheless, as he treats a type of *ma-* verb as the passive structure for *mi-* verbs, and he makes a tri-case distinction (nominative, genitive, and accusative) in his study, it seems that he regards Amis either as an accusative language or a split-ergative language.

1.2.4 Liu (1999)

Although Liu’s (1999) main concern is about the analysis of the cleft sentences in

³¹ Yan only cites PF verbs marked by *ma-* to illustrate the optionality of the Agent (or Actor) in such sentences.

Amis, she has some interesting discussion and findings regarding the case marking system and the voice/focus system in Amis.

To begin with, she is the first one who separates the noun classifiers from the case markers in the case marking system in Amis, following a similar proposal made in Chang et al. (1998) for the case markers in Kavalan. She removes the neutral case (cf. Chen 1987 and Huang 1995) from the case marking system, and instead treats the so-called neutral case marker as a common noun marker. Nevertheless, she still maintains the other three cases mentioned in Huang (1995) (i.e. nominative, genitive, and accusative/locative). Her analysis of case markers will be further discussed in Chapter 3 and Chapter 5.

She also reports some interesting observations in the voice system in Amis, especially regarding the asymmetry between the actor-voice (AV) and non-actor voice (NAV) sets. Such asymmetry is manifested in the following structures: word order and nominalization, which in turn is related to the formation of relative clauses, and cleft sentences.³² Issues related to this asymmetry will be further explored in Chapter 3 and Chapter 6.

Finally, Liu (1999) also comments on the issue of ergativity in Amis. She speculates that Amis is more like an ergative language than an accusative language in that:

“the subject of an AV making clause has the same case-marking with the patient of a non-actor voice (abbreviated as NAV henceforth) marking clause, And the agent of the NAV marking clause is marked by the genitive case. Also, the intransitive clause can only be attested in AV marking clause, which in turn is related to the characteristics of ergative language.” (Liu 1999:28).

³² Such an asymmetry actually has been reported in Wu (1995) regarding the marking of a verb in a relative clause in Amis; verbs affixed with Actor (or Agent) and Undergoer (or Patient) voice markers are coded differently from verbs taking Instrumental and Locative voice markers.


However, there are some problems in this statement. First, she does not mention whether the AV clause is always intransitive or not. In other words, the actor in an AV sentence is an S or an A. If it is always an S, the ergative analysis is well-supported. If it also has the possibility to be an A, then Amis should be treated as a split-ergative language, as there is more than one way to mark an A argument. However, since she also has an accusative case in her case marking system, it seems more likely that she treats Amis as a split-ergative language. Another problem in her analysis is that she regards all the intransitive clauses as AV-marking clauses; that is, the only argument in an intransitive clause is always an agent or actor. This seems irrelevant or even contradictory to the ergative nature of a language. Notice that this analysis contrasts with Chen (1987), in which the only argument of an intransitive clause is deemed as Patient.

1.2.5 Liu (2003)

Liu's (2003) work deals with the conjunction and modification constructions of Amis³³ in light of the neo-Davidsonian perspective (Parson 1990). In her section about a sketch of Amis grammar, she briefly gives a classification of Amis verbs. Liu (2003) follows the voice distinctions mentioned in Liu (1999) and Wu (2000) and proposes four major types of verbs based on their occurrence with voice affixes: *mi-* type, *ma-* type, *-um-* type, and \emptyset verbs (i.e. verbs taking covert voice affixes) (Liu 2003:8). Based on the case assignment properties and semantic nature, these classes of verbs can be further categorized. Liu's (2003:9) classification is shown in Table 1.16 (Liu 2003:9, original transcription and gloss).

³³ Both Liu (1999) and Liu (2003) collected their data from the same Amis community that I visited. Some of our language consultants are the same people.

Table 1.16 Verb Classes in Amis (Liu 2003)

Case-assignment properties	Affixial forms on the verb root	Examples	Semantic Properties
Accusative	mi-type	(1) activity verbs : <i>mi-kasuj</i> ‘chop wood’; <i>mi-futiN</i> ‘fish’; <i>mi-eadup</i> ‘hunt’; (2) cognitive verbs : <i>mi-neNneN</i> ‘look at’; <i>mi-harteN</i> ‘ponder’; <i>mi-nanam</i> ‘learn’	dynamic; volition 
	-um ₁ -type	(3) activity verb : <i>k<um>aqen</i> ‘eat’; <i>r<um>adiw</i> ‘sing’	
Unergative (Intransitive)	-um ₂ -type	(4) activity verb : <i>r<um>akat</i> ‘walk’; <i>t<um>aNic</i> ‘cry’; <i>t<um>ireN</i> ‘stand’; <i>c<um>ikaj</i> ‘run’	
None	φ ₁ -type	(5) movement verb : <i>tajra</i> ‘go’; <i>tajni</i> ‘come’	
Unaccusative Ergative	ma-type	(6) direction verb : <i>ma-qfer</i> ‘fly up’; <i>ma-lukulun</i> ‘go down’; <i>ma-sadak</i> ‘go out’ (7) perception verb : <i>ma-neNneN</i> ‘see’; <i>ma-harateN</i> ‘think of’; <i>ma-teNel</i> ‘hear’ (8) psyche-verb : <i>ma-ketereh</i> ‘angry/condemn’; <i>ma-’ulah</i> ‘like’; <i>ma-’ilul</i> ‘miss’; <i>ma-furaw</i> ‘hate’; <i>ma-talaw</i> ‘fear’ (9) stative verb : a. individual-level predicate : <i>ma-lahdaw</i> ‘extinct’ b. stage-level predicate : <i>ma-tueas</i> ‘old’; <i>ma-qukuk</i> ‘thin’	
Unergative (Intransitive)	φ ₂ -type	(10) stative verb : <i>eadadaq</i> ‘sick’; <i>ira</i> ‘be exist’; <i>faNcal</i> ‘good/beautiful’	stative

There are a few interesting observations that one can find from her classification. First, she places four types of verbs in a single *ma-* category, which is quite different from Yan’s (1992) analysis, where there are four types of *ma-* verbs. However, as she does not further discuss her sub-classification, it is not clear whether these subclasses really all belong to the same class. Second, she includes a dynamic/volition--stative scale in her classification, which is reminiscent of the analysis argued in Huang (2000) for the verbs in Atayal, another Formosan language. Huang (2000) also argues for the

existence of such a continuum for different verb classes in that language. Third, she proposes the distinction between individual-level and stage-level predicates for certain *ma-* verbs. However, she does not provide any evidence for such a distinction. According to my investigation, individual-level predicates tend to appear unaffixed; *ma-* verbs are more likely to be stage-level or result state predicates. Finally, like Yan (1992), she does not include *-en* verbs in her classification.

In addition to her verb classification that is relevant to the present research, Liu's (2003) analysis about a particular structure, which is termed ideophone-forming construction in this dissertation, will be further discussed and explored in Chapter 4. As we shall see in the discussion, the structural diversity of this construction can serve as a criterion in classifying the root forms in Amis, especially root forms carrying a stative meaning.

1.2.6 Tsukida (2005b)

Tsukida's (2005b) manuscript presents a comparative study of the verb classes of two Formosan languages: Amis and Seediq. Here I will only review her discussion of the Amis verbs. The Amis dialect that she investigated is the Fataan dialect spoken in the mountain area of Hualien County. She assumes the traditional treatment of four-voice distinctions in the Amis voice system, and she classifies Amis verbs based on the four types of conjugation (i.e. *mi-*, *ma-*, *-om-*, and \varnothing (zero)) that the Agent Voice takes. She further differentiates the verb types, presented in (1.9) and Table 1.17 (Tsukida 2005:3), in terms of the following three features [\pm state], [\pm affected], and [\pm control]:

(1.9) mi, ϕ -A	-state, -affected, +control
om	-state, +affected, +control
ma	\pm state, +affected, \pm control
ϕ -B	+state, -affected, -control

Table 1.17 Semantic Features of Each Conjugation in Amis (Tsukida 2005b)

	-state	+state
-affected	mi, ϕ -A (+control)	ϕ -B(-control)
+affected	om (+control), ma	ma

These features are defined in (1.10) (Tsukida 2005b:3):

- (1.10)a. \pm state indicates whether the situation denoted by the verb is state or not.
- b. \pm affected indicates either whether or not the verb expresses such a situation where the subject is the most affected entity, or whether or not the situation is caused through being affected by other entity.
- c. \pm control refers to whether or not the Actor controls the situation denoted by the verb, as the situation might be instigated voluntarily or involuntarily, intentionally or unintentionally.³⁴

As one can see from the above analysis, unlike *mi*- and *-om*- verbs which can be categorized by a definite value of the features (i.e. either plus or minus), *ma*- verbs apparently exhibit more uncertainty. In fact, Tsukida further subcategorizes *ma*- verbs into the following sets:

Table 1.18 The Subcategories of *ma*- Verbs (Tsukida 2005b)

The subcategories of <i>ma</i> - verbs	Examples (original transcription and gloss)
Non-stative control verbs	a. <i>ma-fkac</i> ‘run’, <i>ma-’fer</i> ‘fly’, etc. b. non-emotional reciprocal verbs
Non-stative non-control verbs	a. <i>ma-fa’sig</i> ‘to sneeze’, <i>ma-tlook</i> ‘to hiccup’, etc. b. weather verbs
Stative agentive verbs	verbs expressing a stative situation that Actor controls such as cognition, emotion, or behavior patterns, and their reciprocal verbs, e.g. <i>ma-fana</i> ‘to know’ and <i>ma-foti</i> ‘to sleep’
Stative non-control verbs	verbs of non-controllable physical states not-controllable, e.g. <i>ma-pawan</i> ‘to forget’, <i>ma-lcad</i> ‘the same’

Besides *ma*- verbs, ϕ verbs are also subcategorized into two classes, as we have seen

³⁴ As remarked by Tsukida, the feature control is irrelevant to *ma*- verbs.

in (1.9). Generally speaking, ϕ -A verbs are motion verbs (e.g. *ta-ira* ‘to go’) and morphologically causative verbs that are prefixed with *pa-* (e.g. *pa-fli* ‘give’), while ϕ -B verbs are mainly inherent or permanent states (e.g. *fa’cal* ‘good’) and state verbs that are derived from attaching other affixes (e.g. *ci-gagan* ‘famous (i.e. have-name)’).

After postulating verb classes based on the features mentioned above, Tsukida (2005b) further compares the semantic differences among the verb types, and she shows that such differences can be described via the features that she utilizes to classify the verbs. Details of these differences will be referred to in later chapters when necessary.

Another major part in Tsukida’s (2005b) paper is the discussion of the case frames of *mi-* and *ma-* verbs. In particular, she points out the potential problem of regarding *ma-* verbs with a Genitive-Nominative case frame as a type of Goal Voice (or patient focus/voice in other studies); that is, there will be an imbalance of the GV construction for *mi-* and *ma-* non-GV verbs. This imbalance is illustrated by the following table (Tsukida 2005b:13):

Table 1.19 The Imbalance Caused by Regarding *ma-* Form as GV (Tsukida 2005b)

	<i>mi</i> with the case frame NOM A (OBL P)		<i>ma</i> with the case frame NOM A (OBL P)
AV	<i>mi-patay</i> NOM A (OBL P). A kills P.		<i>ma-fana’</i> NOM A (OBL P) A knows P.
GV	<i>patay-en</i> GEN A NOM P. A will surely kill P. A definitely killed P.	<i>ma-patay</i> (GEN C) NOM T. T is dead (of C). C killed T.	<i>ka-fana’-en</i> GEN A NOM P. A surely knows P

As shown in Table 1.19, while *mi-* verbs can have two corresponding GVs (i.e. *-en* and *ma-*), *ma-* verbs can only have *-en*. To resolve such an imbalance, she proposes that so-called *ma-* GV forms are derivational, not inflectional. In other words, they should be treated as another verb type instead of a GV form of *mi-*. Thus, *mi-* verbs only have one GV form, the *-en* form. This claim is very similar to the one proposed by Chen

(1987), in which *-en* is treated as a passive form of *mi-*. However, Chen (1987) still regards *-en* passivization as a kind of derivation, not inflection. This is different from what Tsukida (2005b) has claimed in her paper.

In the conclusion of her paper, Tsukida (2005b) draws an analogy between traditional split-intransitivity (cf. Van Valin (1990) and the *mi-/ma-* distinctions for intransitive stems in Amis. She notes that the former is like the A-marking verbs while the latter is like the P-marking verbs. Her claim is shown in the following table (Tsukida 2005b:24):

Table 1.20 Traditional Split Intransitivity and Verb Classification in Amis (Tsukida 2005b)

	intransitive	transitive		intransitive
Amis	<i>mi</i> -verb NOM S	<i>mi</i> -verb NOM A (OBL P)	<i>ma</i> -verb (GEN A) NOM P	<i>ma</i> -verb NOM S
Traditinal	A-verb	A-verb-P		verb-P
Semantics	-state, -affected, +control			+state, +affected, -control

The comments I would like to make about Tsukida's (2005b) analysis are stated as follows. To begin with, although she tries to capture the semantic differences among different verb classes with three explicit features, she does not provide much syntactic evidence to support such a classification. Furthermore, as one can see from Table 1.20, it seems a bit controversial to treat *mi-* verbs that have a Nominative-Oblique case frame as transitive, or at least as the same kind of transitive verbs like *ma-* verbs, which have a Genitive-Nominative pattern. Based on Tsukida's (2005b) analysis, such *mi-* verbs seem to be semantically transitive, but not syntactically, while *ma-* verbs with the Genitive-Nominative case frame seem to be both, though she does not discuss this issue. These two types of "transitive" verbs should be treated differently instead of placing them under the same category of "transitivity".

1.3 Overall Comments and Research Issues

The following similarities can be found in the works reviewed above in spite of their different theoretical approaches or frameworks adopted in the analyses.

1. All of them, except Tsukida (2005b), make the following case distinctions in their case marking system: nominative, genitive, and accusative.³⁵ The accusative case is treated as oblique by Tsukida (2005b).
2. Case frame and/or the affixation of the voice markers serve as the major criteria for classifying verbs.
3. Most of them (e.g. Chen 1987, Huang 1988, Liu 1999) acknowledge the ergative phenomenon of Amis. However, their case marking system (i.e. the existence of an accusative case) seems to suggest the existence of a split-ergative system in this language.
4. Transitivity seems to be defined based on the number of semantic roles rather than on the syntactic ground in these works. That is, they regard the existence of an agent role and a patient role as an index of transitivity, and the following two case frames can be both treated as transitive: Nominative Agent + Accusative/Oblique Patient and Genitive Agent + Nominative Patient.
5. Most, if not all, of these studies seem to assume that the NP marked by the nominative case is the grammatical subject in Amis.
6. For some studies following a four-voice or four-focus system (e.g. Yan 1992, Liu 1999, and Liu 2003), intransitive verbs all seem to be placed under the AV set regardless of the semantic role of the S argument in these verbs. That is, UV or PV is only restricted to two-place predicates, but not single-place predicates. Although

³⁵ Liu (1999), following Huang (1995), names this case as accusative/locative.

Tsukida's (2005b) analogy between split-intransitivity and Amis intransitive verbs seems to make a distinction between semantic roles of S, she still retains the AV terminology to name these intransitive verbs.

7. For the studies following the four-voice or four-focus system, the four voices or focuses are placed under the same "voice" category without further differentiation regarding their functions.

I have also found the following questions that seem to remain unclear or disputable in the above works:

1. Whether the voice markers (or focus markers) and their related morphology are derivational or inflectional or both is still under dispute.
2. Whether Amis is an accusative language, an ergative language, or both is not clear.
3. How the case relations and case forms are mapped into each other is not entirely clear.
4. The issue of grammatical relations has not been thoroughly explored. The existence of a grammatical subject in the Philippine-type languages has been questioned in Schachter (1977). Amis, being genetically related to the Philippine-type languages, may also exhibit similar uncertainty, and thus requires more investigation on this issue.

This dissertation, taking up the above-mentioned unsolved or unclear issues, will pursue the following research interests in the framework of RRG. To begin with, in addition to utilizing argument structure or case relations and voice morphology, Amis verbs will be classified based on the lexical aspect features of the verbs. Following this classification, verb classes will be represented with decomposition-based logical

structures, and these logical structures will serve as the basis for postulating the case assignment rules for Amis and the exploration of the issue of grammatical relations. Furthermore, a decompositional analysis for the voice markers will also be proposed in this dissertation to account for their derivational functions. Meanwhile, I will also discuss their specific voice marking functions. That is, I will show that while these markers are essentially derivational, they do play important inflectional functions as marking voice operations. This is especially true for *mi-*, *ma-* (both AV and UV), and *-en*, the three most frequently employed voice forms. Moreover, adopting the notion of macrorole and the definition of transitivity in RRG, I will re-examine the issues of transitivity and ergativity in Amis. Transitivity in RRG is determined by the number of macroroles that a verb takes, and such transitivity is termed macrorole transitivity or M-transitivity. It is possible that a verb has two core arguments but only one of them is selected as the macrorole and the other is realized as a non-macrorole (NMR) core argument. For such verbs, they are treated as intransitive. Hence, the two case marking patterns (i.e. NOM-DAT and GEN-NOM) that have long been treated as transitive may not be “equally” transitive in terms of macrorole transitivity. The exploration of this issue will help disambiguate whether Amis is an ergative language, an accusative language, or both. Finally, major grammatical constructions such as relativization and control constructions will be examined in this dissertation to see whether the arguments that can exhibit the behavioral properties of a subject (e.g. being a controller or a pivot) in these constructions are grammatically determined.