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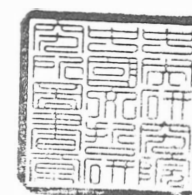
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A Typological Overview of Nominal Case Marking Systems of Some Formosan Languages

Lillian M. Huang, National Taiwan Normal University
Marie M. Yeh, Lien-ho College of Technology and Commerce
Elizabeth Zeitoun, Academia Sinica
Anna H. Chang, Ta Jen Junior College of Pharmacy
Joy J. Wu, National Taiwan Normal University

Abstract

Li (1994) has presented a study of pronouns and case markers on nouns in Formosan languages, which is rather comprehensive. In that paper, Li shows among other things, how many sets of case markers each language has and what these case markers are. However, several aspects related to case marking systems of Formosan languages have not been discussed there. The present paper thus attempts to further investigate the nominal case marking systems of the following Formosan languages: Amis [Central], Atayal [Wulai & Mayrinax], Saisiyat, Bunun [Isbukun], Tsou, Rukai [Mantauran, Tona & Budai], Paiwan [Northern], and Puyuma [Nanwang], and to examine several related issues.

It is noticed that different Formosan languages, sometimes even different dialects of the same language, have different sets of case markers. For example, while Saisiyat has seven sets (Yeh 1991), Mayrinax Atayal has five sets (Huang), Isbukun Bunun has only one oblique case marker and Wulai Atayal even does not require the presence of case markers before nouns. Thus in this paper, we will first examine the complete sets of case markers each of the above-mentioned languages/dialects has; they are somewhat different from those given in Li (1994). In addition to syntactic functions, we will discuss the semantic functions each set of case markers serves in the named languages/dialects. We will further investigate semantic/functional resemblances, diversities and neutralization among different sets of case markers cross-linguistically. Next, we will show how case markers in different Formosan languages (or dialects) may diverse from each other, with respect to the following features: common/personal proper nouns, plural/singular, referential/non-referential, visible/invisible, proximal/distal and human/non-human. Finally, different case markers existing in pronominal sets of the named Formosan languages/dialects will be examined.

1. Introduction

Formosan languages, forming very important subgroups of Austronesian languages, have recently attracted a lot of attention and have been investigated rather extensively. While the phonology of most of these languages has been well studied, the syntax of these languages still deserves more analyses. The present paper, being part of a research project on the grammatical typology of the Formosan languages,[1] attempts to present a typological overview of the nominal case marking systems of some Formosan languages, including Amis [Central], Atayal [Wulai & Mayrinax], Saisiyat, Bunun [Isbukun], Tsou, Rukai [Mantauran, Tona & Budai], Paiwan [Northern], and Puyuma [Nanwang]. The data of the above-mentioned languages come from our own fieldwork,[2] collected during different periods of time between

1988 and 1995. The dialects of each language and the one(s) studied in the present paper are as follows (the ordering of the investigated languages depends on the population of the speakers):

(a) Amis, spoken by the largest aboriginal minority (the population being around 130,000). inhabiting in Hualien, Taitung and a small area in Pingtung is often subdivided into five dialects (Tsuchida 1982; Li 1992:3): Sakizaya (or Sakiraya), Northern (often referred to as Nanshi Amis), Tavalong-Vata?an, Central (i.e. Haian Amis and Hsiukulan Amis excluding Tavalong and Vata?an), and Southern (i.e. Peinan and Hengchun Amis). The dialectal variant investigated in this paper belongs to Central Amis and is spoken in Changpin, Taitung Prefecture.

(b) Atayal, the most wide spread Formosan language with the speakers estimated to be 80,000, consists of two major dialects, Squliq and C?uli?. The Squliq dialect spoken in Wulai Village, Wulai Hsiang, Taipei Prefecture and the C?uli? dialect, Mayrinax, spoken in Chinshui Village, Taian Hsiang, Miaoli Prefecture are chosen as representatives here.

(c) Paiwan with speakers around 60,000 has four dialects, the Eastern, Northern, Middle and Southern Paiwan; the Northern Paiwan spoken in Saijia Village, Sandimen Hsiang, Pingtung Prefecture is chosen for the present study.

(d) Bunun, spoken by 40,000 people or so, is made up of five dialects, namely, Takituduh, Takibakha, Takbanuath, Takivatan and Isbukun. The Isbukun dialect under study here is spoken in Sanmin Hsiang, Kaohsiung Prefecture.

(e) Puyuma, with speakers around 8,000, is spoken in eight villages in Taitung Prefecture. It has two major dialects, namely, Nanwang and Katipol. The Nanwang dialect is under investigation here.

(f) Rukai (the population being 8,000) includes six main dialects stretching across the South of Taiwan, i.e. the Tanan dialect in the East (Taitung prefecture), the Budai and Labuan dialects in the South (Pingtung prefecture), and the Maga, Mantauran and Tona dialects in the North (Kaohsiung prefecture). In this paper, the Tona, Budai and Mantauran dialects are chosen.

(g) Tsou (also known as Northern Tsou, while Southern Tsou includes Saaroa and Kanakanavu) is spoken by 6,000 people in the Mt. Ali area. It is composed of Tapangu, Tfuya, Duhtu and Iimucu dialects with the last being extinct now (Tung 1964:2). The Tfuya dialect is investigated in the present paper.

(h) Saisiyat is spoken in Nanchuang, Miaoli Prefecture and Wufong, Hsinchu Prefecture, and the population is around 4,000. The language is divided into two dialects, Tungho and Taai. The Tungho dialect is selected.

Before the discussion of the nominal case marking systems of the languages/dialects in question, let us examine their sound systems. The notation employed here follows normal convention unless otherwise specified, and illustrative examples are cited in phonemic transcription. In all the languages/dialects investigated, there are totally nine vowels, as given in Table 1:

Table 1　Vowels appearing in the investigated languages

	front		central	back
	unrounded	rounded		
high	i		ɨ	u
mid	e	œ	ɔ	o
low	æ		a	

As for consonants, there are thirty-five, with /tj/ standing for a voiceless palatal stop and /dj/ for a voiced palatal stop, as illustrated in Table 2:[3]

Table 2　Consonants appearing in the investigated languages

		Bilabial	Labio-dental	Inter-dental	Alveolar	Alveo-palatal	Palatal	Retro-flex	Velar	Uvular	Glottal
Stop	Vl	p			t		tj	ʈ	k	q	?
	Vd	b, ɓ			d, ɖ		dj	ɖ	g		
Nasal		m			n				ŋ		
Affricate	Vl					c					
Fricative	Vl		f	θ	s	ʃ			x		h
	Vd	β	v	ð	z				ɣ		
Lateral	Vl				ɬ						
	Vd				l		ʎ				
Trill					r						
Glide		w					y				

2. Case markers vs. prepositions

In the real world, all the happenings, occurrences, situations, except for natural phenomena such as weather, are manifested in two aspects: participant(s) and types of events. Participants can be manifested by either pronouns or nouns. Different roles, semantic or grammatical, require to be manifested by different pronominal forms. Yet in the Formosan languages under study here, since nouns alone do not present different forms, such a requirement is thus fulfilled by different markers preceding nouns. These markers are called *relation markers* by Tsuchida (1980:191), *construction markers* by Causquelin (1991:42), and *case markers* by most other Austronesian linguists such as Li (1994). The term *case marker* is adopted in this paper; following the convention is one of the reasons, and the other reason is due to the functions these case markers serve. As will be observed below, the case markers are meaningful elements when cooccurring with nouns; they may designate the

grammatical relation and/or semantic roles (or case relation). The term *case markers* may present a better picture then.

Among different case markers in Formosan languages that will be discussed below, cases such as Nominative and Oblique are more structural cases and indicate syntactic relation of nouns manifesting participants in a sentence. For example, nouns marked with Nominative case designate grammatical subject and those marked with Oblique indicate non-subject. Cases like Accusative, Benefactive, Instrument and Locative, on the other hand, are more semantic cases. That is, they designate semantic roles of the participants to the events. Nevertheless, such a syntactic-semantic distinction is not clear-cut; overlapping situations exist, to which we will return in Section 4.

Before the discussion of the case marking systems of Formosan languages, another question needs to be asked: Are case markers and prepositions (or postpositions) the same or different? In order to answer this question, let us first examine the following Paiwan and Amis sentences:

(1)Paiwan
P1a. k<əm>əsa-kəsa　　　ti　kina　i　casav
[Red<AF>Red-cook　Nom　mother　Prep　outside]
'Mother is cooking outside'

P1b. na-maŋətjəz　ti　palaŋ　i　*tua*　ma-mazaŋil-an
[Prf-come.AF　Nom　Palaŋ　Prep　Acc　Red-chief-AN]
'Palaŋ came to the chief's place'

P1c. na-maŋətjəz　ti　palaŋ　i　*tjay*　kalalu
[Prf-come.AF　Nom　Palaŋ　Prep　Acc　Kalalu]
'Palaŋ came to Kalalu's place'

(2)Amis
A1a. ma-futiʔ　ci　aki　i　lumaʔ
[AF-sleep　Nom　Aki　Prep　house]
'Aki sleeps at home'

A1b. ma-futiʔ　ci　aki　i　*tu*　kaka-an
[AF-sleep　Nom　Aki　Prep　Acc　elder:sibling-AN]
'Aki sleeps at the elder brother's place'

A1c. ma-futiʔ　ci　aki　i　*ci*　panay-an
[AF-sleep　Nom　Aki　Prep　Acc_1　Panay-Acc_2]
'Aki sleeps at Panay's place'

Notice that in each of the above Paiwan and Amis sentences, there is a marker **i** preceding the nouns which designate locations, intrinsically or not. However, there is another marker appearing between the marker **i** and the nouns, i.e. *tua* in (1)P1b, *tjay* in (1)P1c, *tu* in (2)A1b and *ci* in (2)A1c. If we agree that one noun can only be marked with one case marker,[1] then the two prenominal markers should not be equally treated as case markers. Furthermore, since the second marker is identical to the Accusative case marker in both Paiwan and Amis (as will be seen in Sections 3.4 and 3.3), we postulate that the first marker **i** is better treated as a preposition and the second a case marker. Such a cooccurrence of a preposition and a case marking element is also found in English, though the situation is not exactly analogous. Examine:

(3)English
E1a. John is coming **to** *me* for help tomorrow.
E1b. Mary jumped **onto** *them* yesterday.

As shown above, the prepositions **to** and **onto** precede Accusative pronouns *me* and *them*. Apparently, English allows the cooccurrence of prepositions and pronouns with Accusative case. Furthermore, the prepositions **to** and **onto** seem to require that the following pronouns be in the Accusative case. This also seems to be the case with Paiwan and Amis; that is, the preposition **i** governs the presence of the prenominal Accusative case marker. However, Amis is different from Paiwan in that the preposition **i** is always required in Paiwan, whereas it is optional in Amis when the noun following **i** does not designate an intrinsic location, such as *kaka* 'elder sibling' in (2)A1b and *panay* 'a female's name' in (2)A1c. Hence, (2)A1b and (2)A1c can also be written as follows:

(2)Amis
A1b'. ma-futiʔ　ci　aki　*tu*　kaka-an
[AF-sleep　Nom　Aki　Acc　elder:sibling-AN]
'Aki sleeps at the elder brother's place'

A1c'. ma-futiʔ　ci　aki　*ci*　panay-an
[AF-sleep　Nom　Aki　Acc_1　Panay-Acc_2]
'Aki sleeps at Panay's place'

Such an absence of the preposition **i** before non-location nouns is also found in other Formosan languages/dialects. Observe:

(4)Mayrinax Atayal
M1a. kaa　usaʔ-∅　**iʔ**　uray
[Neg　go-AF　Prep　Wulai]
'Don't go to Wulai!'

M1b. Ø-tayhok   Ø   ***cku'í***   tawqi? ?i? yumin
[AF-arrive Prep Acc.Rf chief   Nom Yumin]
'Yumin arrived at the chief's place'

M1c. m<in>uwah   Ø   ***ki'í*** watan ?i? βa?unay cu? hisa?
[AF<Prf>come Prep Acc Watan Nom Ba?unay Part yesterday]
'Ba?unay came to Watan's place yesterday'

(5)Puyuma
U1a. ulaya   **i**   sabak nanku suan
[exist Prep house 1S.Gen dog]
'My dog is inside the house'

U1b. ulaya na   suan Ø ***kana*** sinsi
[exist Nom.Sp dog Prep Obl.Sp teacher]
'The dog is at the teacher's place'

U1c. ulaya na   suan Ø ***kan*** sigimuli
[exist Nom.Sp dog Prep Obl.Sg Sigimuli]
'The dog is in Sigimuli's place'

U1d. ulaya na   suan Ø ***kana*** sigimuli
[exist Nom.Sp dog Prep Obl.Pl Sigimuli]
'The dog is in Sigimuli and his family's place'

Based on the presence and absence of the preposition **i** in locative expressions in some Formosan languages presented above, one may postulate that the locative expression in the present Formosan languages might have evolved from a common source, as shown below:

Figure 1   Evolution of the locative expression in Formosan languages

*i Acc noun

Paiwan   Amis   Atayal/Puyuma
i Acc noun   (i) Acc noun   Ø Acc noun
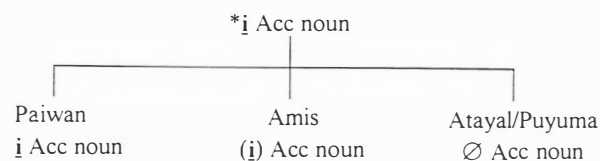
With the above analysis in mind, we then exclude from the Formosan case marking systems the marker **i** even though it is conventionally treated as the Locative case marker. However, for Formosan languages which have markers (such as ***ray*** and ***kan*** in Saisiyat, but not **i**) before locative expressions, and which do not have another marker cooccurring (as will be presented in Section 3.1), the above-mentioned markers (i.e. ***ray*** and ***kan*** in Saisiyat) will continue to be treated as Locative case

markers, though their actual status remains a question.

In the following, we will first present the complete sets of case markers of the languages/dialects in question. We will also discuss some issues related to the case markers, i.e. their grammatical relations and semantic functions. Finally, different case markers existing in pronominal sets of the named Formosan languages/dialects will be examined as well.

3. Sets of case markers in the Formosan languages under study

Below we will list the complete sets of case markers of the above-mentioned Formosan languages. We will present these languages according to the number of case markers each language has, and thus in the following order: Saisiyat, Atayal, Amis, Paiwan, Tsou/Puyuma/Rukai, and Bunun. As will be shown below, Saisiyat seems to have the most complicated case marking system among Formosan languages while Isbukun Bunun and Mantauran Rukai the least. Consequently, we will also notice that languages like Saisiyat with a large set of case markers have their grammatical relations explicitly expressed whereas languages like Isbukun Bunun and Mantauran Rukai do not

3.1 Saisiyat (Yeh 1991:35-50 & p.c.)

According to Yeh (1991), Saisiyat has seven sets of case markers, and each set makes further distinction between common nouns and personal proper nouns (including kinship terms), as the following table shows:[5]

Table 3   Case markers in Saisiyat

Cases Nouns	Nom	Acc	Gen	Poss	Ben	Loc	Com
Common	ka	ka	ñoka no	?an-noka...a	no	ray	kir
Proper	hi	hi	ni	?an...a	?ini	kan kala	kir

There are five points deserving special attention here:

(i) The Nominative case markers **ka** and **hi** are seldom used in utterances; that is, 'the nominative case is normally marked by zero case marker', as remarked by Yeh (1991: 37). For example:

(6)Saisiyat
S1a. (**ka**) ñyaw ?okay sakər   ka   ?awhæs
[Nom cat Neg catch.AF Acc mouse]
'The cat did not catch the mouse'

S1b. ∅   kapinaloʔ   βaliʔ
     [Nom lady   slender]
     'The lady is slender'

S2a. (**hi**) βakiʔ   sararaʔ ka korkoriŋ
     [Nom grandfather like   Acc child   ]
     'Grandfather likes the child'

S2b. ∅   ʔoyaʔ   ʔiβaβaw
     [Nom mother   tall   ]
     'Mother is tall'

(ii) In addition to manifesting a benefactive participant, the Benefactive case markers **no** and **ʔini** may designate a reason/cause, which seems to be unique to Saisiyat. Compare the following pairs of sentences:

(6) Saisiyat
S3a. yako   ʔam t<om>alək   **no**   korkoriŋ ka   pazay
     [1S.Nom will cook<AF>cook Ben child   Acc rice]
     'I will cook rice for the child'

S3b. ∅   βakiʔ   maŋ   βiʔəl **no**   korkoriŋ (Cause)
     [Nom grandfather Asp   angry Ben child   ]
     'Grandfather is being angry with the child'

S4a. yako   ʔam t<om>alək   **ʔini** ʔoyaʔ ka   pazay
     [1S.Nom will cook<AF>cook Ben mother Acc rice]
     'I will cook rice for Mother'

S4b. ∅   βakiʔ   maŋ   βiʔəl **ʔini** ʔoyaʔ   (Cause)
     [Nom grandfather Asp   angry Ben mother]
     'Grandfather is being angry with Mother'

(iii) To indicate possessive relationship, Saisiyat may use either Genitive or Possessive case markers, the use of Possessive case markers is not found in any other Formosan language. Compare the following pairs of sentences containing Genitive and Possessive case markers (Note that the Possessive markers consist of discontinuous elements," which can also be found in Amis but in no other named languages):

(6) Saisiyat
S5a. ∅   tatpoʔ **noka/no** korkoriŋ ray talkal
     [Nom hat   Gen   child   Loc desk]
     'The child's hat is on the desk'

S5b. hizaʔ **ʔan noka** korkoriŋ **a**   tatpoʔ
     [that Poss₁   child   Poss₂ hat]
     'That is the hat of the child'

S6a. ∅   tatpoʔ **ni** βakiʔ   ray talkal
     [Nom hat   Gen grandfather Loc desk]
     'Grandfather's hat is on the desk'

S6b. hizaʔ **ʔan** ʔiβan **a**   tatpoʔ
     [that Poss₁ ʔiban Poss₂ hat]
     'That is ʔiban's hat'

(iv) In addition to indicating possessive relationship, the Genitive case markers may designate agent or instrument, which is also found in other Formosan languages. Examples follow:

(6) Saisiyat
S7a. ∅   tatpoʔ **noka/no** *korkoriŋ* ray talkal
     [Nom hat   Gen   child   Loc desk]
     [possessor   ]
     The child's hat is on the desk'

S7b. ∅   pazay siʔaəl-ən **noka** *korkoriŋ*
     [Nom rice   eat-PF   Gen   child]
     [Agent   ]
     'The rice was eaten by the child'

S7c. yako **noka** *sasoway* s<om>iʔaəl ka   pazay
     [1S.Nom Gen   chopsticks eat<AF>eat Acc rice]
     [Instrument   ]
     'I eat the rice with chopsticks'

S8a. ∅   tatpoʔ **ni** *βakiʔ*   ray talkal
     [Nom hat   Gen grandfather Loc desk]
     [possessor   ]
     'Grandfather's hat is on the desk'

S8b. ∅   korkoriŋ ʃəβət-ən **ni** *ʔoyaʔ*
     [Nom child   beat-PF   Gen mother]
     [Agent   ]
     'The child was beaten by his mother'

S8c. ∅   pazay   **ni**   ʿoyaʿ   siʔaəl-ne
[Nom rice   Gen   mother   eat-PF]
[Agent/possessor   ]
(i) 'The rice was eaten by Mother'
(ii)'Mother's rice was eaten'

(v) If our earlier analysis that the marker **i** is not a Locative case marker, Saisiyat seems to be one of the very few Formosan languages that have Locative case markers. Examples follow:

(6) Saisiyat
S9a. ∅   ʔyaβaʔ   h<om>iwal   ka   somay   **ray**   kolkolol
[Nom   father   kill<AF>kill   Acc   bear   Loc   mountain]
'Father killed the bear on the mountain'

S9b. ∅   korkoriŋ   kakoriŋ   **kan**   ʔoβay   (**ray**   tawʔan)
[Nom   child   fight   Loc   ʔobay   Loc   house]
'The children fought at ʔobay's house'

3.2 Atayal (Huang)

Atayal has two major dialects, namely, Squliq and Cʔuliʔ. Mayrinax, belonging to the latter, is considered to be more conservative than the other Atayal dialects; it preserves many structural features. In the earlier analysis, Huang (1995a:88-111) considers that Mayrinax has a very complex case marking system which is composed of nine sets of case markers, each of which makes a further distinction between common nouns and personal proper nouns (including kinship terms and free pronouns). Moreover, the case markers for common nouns can be further divided in terms of 'referentiality':[7]

Table 4a   Case markers in Mayrinax Atayal (Huang 1995a)

Nouns	Cases	Nom	Acc	Dat	Gen	Ben	Com	Loc	Ins	Neu
Common	Rf	kuʔ	ckuʔ	ckuʔ	nkuʔ	nkuʔ	---	ckuʔ	nkuʔ	---
	Nrf	aʔ	cuʔ	---	naʔ	---	---	iʔ	naʔ	---
Proper		ʔiʔ	ʔiʔ	ʔiʔ	niʔ	niʔ	kiʔ	kiʔ	---	ʔiʔ

Notice that in the above table, some sets have similar forms, such as Acc & Dat, Gen & Ben & Ins. Since some of these sets may illustrate roles which resemble each other semantically (e.g. Acc in a transitive sentence vs. Dat in a ditransitive sentence), or they can be differentiated in terms of animacy/humanness (Gen vs. Ben vs. Ins), they can be analyzed as belonging to the same sets. Thus, in the present paper, Mayrinax is analyzed as having only five sets of case markers, namely, Nominative, Accusative,

Genitive, Comitative and Neutral, in addition to **iʔ**, the preposition for nouns indicating location, as the following table illustrates:

Table 4b   Case markers in Mayrinax Atayal

Nouns	Cases	Nom	Acc	Gen	Com	Neu
Common	Rf	kuʔ	ckuʔ	nkuʔ	---	---
	Nrf	aʔ	cuʔ	naʔ	---	---
Proper		ʔiʔ	ʔiʔ; kiʔ	niʔ	kiʔ	ʔiʔ

As shown above, there are two Accusative case markers for personal proper nouns, and one of them resembles the Nominative case marker, i.e. **ʔiʔ**. Note that the two **ʔiʔ**'s may co-appear in a sentence. For instance:

(7) Mayrinax Atayal (Huang 1995a:92-93)
M1a. h<um>ihip   **ʔiʔ**   yumin   ʿiʿ   limuy
[kiss<AF>kiss   Acc   Yumin   Nom   Limuy]
'Limuy is kissing Yumin'

M1b. h<um>ihip   **ʔiʔ**   yayaʔ   ʿiʿ   yabaʔ
[kiss<AF>kiss   Acc   mother   Nom   father]
'Father is kissing Mother'

Here word order plays an important role; that is, the grammatical subject which is indicated by the Nominative case marker ʿiʿ has to appear in sentence final position. The change of the word order may thus result in different meanings. As for the difference between the two Accusative case markers **ʔiʔ** and **kiʔ**, compare the following two sentences:

(7) Mayrinax Atayal (Huang 1995a:104)
M2a. m-itaal=cu   **kiʔ**   watan
[AF-see=1S.Nom   Acc   Watan]
'I am looking at Watan' (only looking in that direction)

M2b. m-itaal=c**iʔ**   watan
[AF-see=1S.Nom   Watan]
'I am looking at Watan'
(trying to see what kind of person Watan is)
(trying to see if he needs any help when he falls off a motorcycle)

In (7)M2b, **ciʔ** '1S.Nom' is derived from **cu** '1S.Nom' followed by the Accusative case marker **ʔiʔ**.[8] As indicated by the additional gloss, while the participant *watan* in

(7)M2a simply designates a location being looked at and less affected, the participant *watan* in (7)M2b is being investigated and more involved, and more qualified to be a patient.

Moreover, unlike Saisiyat, Mayrinax Atayal has a Neutral case marker which appears in predicate position (i.e. sentence initial position) of an equational/nominal sentence, as exemplified below:

(7)Mayrinax Atayal
M3. ʔiʔ　　βaicuʔ　　ʔiʔ　　　yaβaʔ=mu
　　[Neu　Baicuʔ　　Nom　　father=1S.Gen]
　　'Baicuʔ is my father'

Although the above named form is identical to the Nominative case marker for personal proper nouns (i.e. ʔiʔ), yet since sentences like (7)M3 may also have a Nominative case marker (either ʔiʔ, aʔ or kuʔ), the sentence-initial marker ʔiʔ can not be a Nominative case marker as well if we agree that a sentence in a focus language can only have one focussed noun marked with the Nominative case marker. Furthermore, the sentence-initial ʔiʔ may be regarded as marking a personal proper noun⁹ without showing any case relationship and so it is optional; thus the term 'Neutral case marker' is used. A similar case is also found in Amis, which will be discussed in the following section.

As for the Squliq dialect spoken in Wulai, though nouns manifesting participants can be case marked (often appearing in senior speakers' utterance and in longer discourse), these case markers are seldom required in daily conversation, especially not in the young generation's speech. The case markers in Wulai Atayal can be summarized as follows:

Table 5　Case markers in Wulai Atayal

Cases	Nom	Gen	Com	Loc
	quʔ	naʔ; nquʔ	kiʔ	te; sa; squʔ

Comparing Tables 4b and 5, we observe that while the case markers in Mayrinax are obligatory and very complex, the case markers in Wulai Atayal are optional and relatively simple. Furthermore, while Mayrinax makes a distinction between common and personal proper nouns like most of the other Formosan languages, there is no such a distinction in Wulai Atayal.

3.3 Central Amis (Huang 1995b)

Like Saisiyat and Mayrinax Atayal, Amis makes a distinction between common nouns and personal proper nouns. The case markers for personal proper nouns can be further grouped in terms of plurality. Below is the complete set of case markers in

Amis:

Table 6　Case markers in Central Amis

Nouns	Cases	Nom	Acc[10]	Gen	Neu
Common		ku	tu	nu	u
Proper	Sg	ci	ci...an	ni	ci
	Pl	ca	ca...an	na	ca

The unique property of the Amis case marking system is that the Accusative markers for personal proper nouns are composed of discontinuous morphemes, i.e. **ci...an/ca...an**, which is not found in the other Formosan languages (yet note that the Possessive case markers, though not the Accusative case markers, in Saisiyat are also composed of discontinuous elements as discussed in Section 3.1).

3.4 Paiwan (Chang p.c.)

Like Saisiyat, Mayrinax Atayal and Amis, Paiwan has different case markers for common and personal proper nouns, and like in Amis, the case markers for personal proper nouns in Paiwan can be further classified into singular and plural. The following presents the complete set of Paiwan case markers:

Table 7　Case markers in Northern Paiwan

Nouns	Cases	Nom	Acc	Gen
Common		a	tua / ta / tu	nua / na
Proper	Sg	ti	tjay	ni
	Pl	tya	tjya	nya

As shown in the above table, the Accusative and Genitive case markers for common nouns in Paiwan have more than one form. As remarked by our Paiwan informants, while **ta** and **na** tend to be used by young people, **tua** and **nua** often appear in the old generation's as well as formal speech. As for the Accusative case marker **tu**, its distribution is more limited; it only precedes a noun phrase beginning with a numeral or a demonstrative. For example:

(8)Northern Paiwan
P1a. na-v<ən>əḷi-akən　　　　**tu**　ḍusa　a　　hana
　　[Prf-buy<AF>buy-1S.Nom　Acc　two　Lin　flower]
　　'I bought two flowers'

P1b. ʔiḻadj-i **tu** icu a ʔiḻadjan
[sit-Imp Acc this Lin chair]
'Let's sit on this chair!'

3.5 Tsou (Zeitoun 1993 & p.c.)

Though there are only two sets of case markers and there is no distinction between common nouns and personal proper nouns, the Tsou case marking system is rather complex. As will be seen in the following table, the case markers can be further categorized in terms of 'referentiality', 'identifiability', and the spatial or metaphorical distance between the participant in question and the speaker (and hearer) expressed by [+/-speaker] and [+/-hearer]:

Table 8   Case markers in Tsou

Cases		Nom	Obl
Referential			
Identifiable			ta
	[+speaker;-hearer]	ʔe	
	[-speaker;±hearer]	si	
	[-speaker;-hearer]	ta	
(Non-)identifiable		ʔo	to
Nonreferential			
Identifiable		co	nca
Non-identifiable		na	no; ne

As remarked above, Tsou has only two sets of case markers. Hence, the Oblique case markers need to play multiple roles; that is, they have to serve the functions that are served by other case markers (such as Accusative, Genitive, Benefactive and Instrument) in other Formosan languages.

Below are some examples illustrating the semantic diversities presented in Table 8.[11]

(9)Tsou
T1a. oh-ta eoɓaka ta ino-su ʔe/si/ta oko-taini
[NAF-3S.Gen beat.PF Obl mother-2S.Gen Nom child-3S.Gen]
'Your mother beat his child' (both are seen at speech time)

T1b. oh-ta eoɓaka to ino-su ʔo oko-taini
[NAF-3S.Gen beat.PF Obl mother-2S.Gen Nom child-3S.Gen]
'Your mother beat his child' (neither is seen at speech time)

T2f. mi-ʔo nʔa ɓoni **ta/*to** tacɨmɨ
[AF-1S.Nom Asp eat.AF Obl banana]
'I'm eating a banana'

T2g. mi-ʔo cu ɓoni **ta** tacɨmɨ
[AF-1S.Nom Asp eat.AF Obl banana]
'I have been eating a banana'

T2h. mi-ʔo cu ɓoni **to** tacɨmɨ
[AF-1S.Nom Asp eat.AF Obl banana]
'I have eaten a banana' (the banana is completely gone)

3.6 Nanwang Puyuma (Huang)

Like Tsou, Nanwang Puyuma has only two sets of case markers. Yet like Saisiyat, Mayrinax Atayal, Amis and Paiwan, the language makes a distinction between common nouns and personal proper nouns. Moreover, case markers for common nouns can further be classified into specific and nonspecific, and case markers for personal proper nouns are further grouped in terms of plurality, as shown below:

Table 9   Case markers in Puyuma

Nouns	Cases	Nom	Obl
Common	Nsp	a	da
	Sp	na	kana
Proper	Sg	i	kan
	Pl	na	kana

Like the Oblique case markers in Tsou, the Oblique case markers in Puyuma may designate several roles/participants as well.

3.7 Rukai (Zeitoun p.c.)

In this section, the case marking systems of three dialects of Rukai are discussed. First, examine the following table which presents the two sets of case markers in Budai Rukai; i.e. Nominative and Oblique. Also, there is a common-personal proper distinction in Budai. Moreover, the Nominative case markers are further classified in terms of visibility, as shown below:

Table 10 Case markers in Budai Rukai

Cases Nouns		Nom	Obl
Common	visible	ka	ka
	invisible	ko	ko
Proper	visible	ka	ki
	invisible	ko	

Next, consider the case marking system of Tona Rukai, which seems to be relatively simpler than that of Budai Rukai, as shown below:

Table 11 Case markers in Tona Rukai

Cases Nouns		Nom	Obl
Common	proximal	na	na
	distal	ko	ko
Proper		ki	∅...anə

The use of an affix as a case marking is also found in Mantauran Rukai. Mantauran Rukai has no case particles as the other Formosan languages; in the Oblique case, personal proper nouns (but not common nouns) may be suffixed with **-inə**, as exemplified below:

(10)Mantauran Rukai
MT1a. maðalamə ðipol-inə taotao
    [love ðipolo-Obl Taotao]
    'Taotao loves ðipolo'

MT1a'. o-koaŋə comai ðona?i savarə
    [Act/Real-shoot bear that young:man]
    'That young man shot a bear'

However, the suffix -**inə**, instead of being attached to nouns, most commonly occurs on the verb and forms an object-verb agreement, which is rather unique to Mantauran Rukai. Notice that the sentence is then ambiguous, as shown in the following sentence:

(10)Mantauran Rukai
MT2a. maðalam-inə ðipolo taotao
    [love-3S.Obl ðipolo Taotao]
    (i) 'Taotao loves ðipolo'
    (ii)'ðipolo loves Taotao'

MT2b. *maðaləmə-∅ ðipolo taotao
    [love-3S.Obl ðipolo Taotao]

3.8 Isbukun Bunun (Huang)

Among the Formosan languages investigated here, Bunun is the one that has only one Oblique case marker **mas**.[12] And even so, it is optional. Examples containing this marker follow:

(11)Isbukun Bunun
B1a. m-aðim-ik maun (**mas**) andip tu isikan-tan
    [AF-like-1S.Nom eat Obl this Lin fish-this]
    'I like to eat this kind of fish'

B1b. na-malansan-ik (**mas**) iesu
    [Fut-follow-1S.Nom Obl Jesus]
    'I will follow Jesus'

B1c. isaiv-ku suy **mas** dahu?-cia?
    [give.NAF-1S.Gen money Obl Dahu?-]
    'I gave money to Dahu?'

B1d. is-pit?ia kata-n **mas** cina?
    [BF-cook 1Pl Obl mother]
    'Mother cooks for us'

3.9 Summary

Below is a list of the number of the sets of the case markers the named Formosan languages have:

Table 12 Case markers in some Formosan languages

	total	Nom	Acc	Gen	Poss	Ben	Com	Loc	Obl	Neu
Saisiyat	7	(+)	+	+	+	+	+	+	-	-
Atayal-Ma	5	+	+	+	-	-	+	-	-	+
-Wu	4	(+)	-	(+)	-	-	+	(+)	-	-
Amis	4	+	+	+	-	-	-	-	-	+
Paiwan	3	+	+	+	-	-	-	-	-	-
Tsou	3	+	-	-	-	-	-	-	+	-
Puyuma	2	+	-	-	-	-	-	-	+	-
Rukai -Bu	2	+	-	-	-	-	-	-	+	-
-To	2	+	-	-	-	-	-	-	+	-
-Mt	1	-	-	-	-	-	-	-	+	-
Bunun-Is	1	-	-	-	-	-	-	-	+	-

Considering the above list, we may observe the following points:

(i) Both Saisiyat and Mayrinax Atayal have more sets of case markers; the two case marking systems, relatively speaking, resemble each other. For instance, only these two languages have the Comitative case markers.[13] This seems to support Li' (1985) and Starosta's (1995) proposal. Li (1985:260) postulates that Atayal (as well as Seediq) has closer relationship with Saisiyat than the other Formosan languages and that they form a subgroup of the Formosan languages, namely, the Northern group. Such an idea is also shared by Starosta (1995).[14]

(ii) The languages in question, except for Mantauran Rukai and Isbukun Bunun, have overt Nominative case markers, though they may not always be present in Saisiyat and Wulai Atayal sentences.

(iii) For those languages without Accusative case markers (but excluding Wulai Atayal), they make no distinction among Accusative, Genitive, Possessive, Benefactive and Locative cases. The functions of the above-named cases are all served by the Oblique case, which will be further discussed in Section 4.1.1.

(iv) Furthermore, the Nominative and Accusative case markers may be identical, as in Saisiyat, Mayrinax Atayal (only for personal proper nouns), Budai and Tona Rukai (only for common nouns). In order to avoid such potential ambiguity, Saisiyat has the noun marked with the Nominative case appearing in the pre-verbal position; i.e. sentence initial position. Mayrinax Atayal, on the other hand, utilizes non-agent focus constructions.

4. Related issues

In this section, we will discuss two aspects related to case marking systems; namely, grammatical functions and semantic relations.

4.1 Grammatical functions

In discussing the grammatical functions related to the case marking systems of the Formosan languages in question, we may notice that there are two phenomena shared by these languages; that is, neutralization and diversification.

4.1.1 Neutralization

As remarked before, in languages having a large set of case markers (e.g. Saisiyat), their grammatical relations are explicitly expressed, whereas languages with fewer sets of case markers (e.g. Isbukun Bunun) neutralize the semantic roles of the arguments. However, there are two instances of neutralization that can be found in all the Formosan languages investigated here:

(i) We notice that certain case markers may serve more than one semantic functions. For example, the Nominative case markers may designate either the agent participant in an agent focus (AF) construction, or a non-agent participant such as patient, beneficiary, instrument role in a non-agent focus (NAF) construction, which can be indicated by the focus marker affixed to verbs.

(ii) The Genitive case markers may designate both possessive relationship or the agent participant in a NAF construction.

Below is a more detailed illustration of the neutralization phenomena that exist in the named languages:

Table 13   Neutralizations in Formosan languages

	Nom	Acc	Gen	Poss	Ben
Saisiyat	Agt/Pat/Loc/Ben/Ins	Pat/Dat	Agt/Ins	Agt	Ben
Atayal -Ma	Agt/Pat/Loc/Ben/Ins	Pat/Dat	Agt/Ins/Poss/Ben	-	-
-Wu	(Agt/Pat/Loc/Ben/Ins)	-	(Agt/Ins)	-	-
Amis	Agt/Pat/Loc/Ben/Ins	Pat/Dat	Agt/Ins/Poss	-	-
Paiwan	Agt/Pat/Loc/Ben/Ins	Pat/Dat	Agt/?	-	-
Tsou	Agt/Pat/Loc/Ben/Ins	-	-	-	-
Puyuma	Agt/Pat/Loc/Ben/Ins	-	-	-	-
Rukai -Bu	Agt/Pat	-	-	-	-
-To	Agt/Pat	-	-	-	-
-Mt	Agt/Pat	-	-	-	-
Bunun-Is	Agt/Pat/Loc/Ben/Ins	-	-	-	-

	Com	Loc	Obl
Saisiyat	Com	Loc	-
Atayal -Ma	Com	-	-
-Wu	Com	Loc	-
Amis	-	-	-
Paiwan	-	-	-
Tsou	-	Loc	Pat/Dat/Agt/Poss/Ben/Ins
Puyuma	-	-	Pat/Dat/Agt/Poss/Ben/Ins
Rukai -Bu	-	-	Pat/Dat/Agt/Poss/Ben/Ins
-To	-	-	Pat/Dat/Agt/Poss/Ben/Ins
-Mt	-	-	Pat/Dat/Agt/Poss/Ben/Ins
Bunun-Is	-	-	Pat/Dat/Agt/Poss/Ben/Ins

4.1.2 Diversification

In the Formosan languages examined in this paper, we also find instances of diversification. That is, the same argument may be manifested in different ways. For instance, the agent participant is marked with the Nominative case in an AF construction, but it is marked with the Genitive case (as in Mayrinax Atayal and Amis) or marked with the Oblique case (as in Puyuma and Bunun) in a NAF construction. Similarly, the patient participant is marked with the Accusative case (or with the Oblique case) in an AF construction, but the Nominative case in a NAF construction.

The following table presents such diversification existing in the above-mentioned Formosan languages:

Table 14   Diversifications in Formosan languages

Roles	Agt	Pat	Dat	Poss	Ben	Ins	Loc
Saisiyat	Nom/Gen	Acc/Nom	Acc/Nom	Poss	Ben/Nom	Ins/Nom	Loc/Nom
Atayal -Ma	Nom/Gen	Acc/Nom	Acc/Nom	Gen	Gen/Nom	Gen/Nom	Ø/Acc/Nom
-Wu	(Nom/Gen)	Ø/(Nom)	Ø/(Nom)	Gen		(Gen/Nom)	(Loc)
Amis	Nom/Gen	Acc/Nom	Acc/Nom	Gen			Ø/Acc/Nom
Paiwan	Nom/Gen	Acc/Nom	Acc/Nom	Gen			Ø./Acc/Nom
Tsou	Nom/Gen	Obl	Obl	Obl			Obl
Puyuma	Nom/Gen	Obl/Nom	Obl/Nom	Obl	Obl/Nom	Obl/Nom	Obl
Rukai -Bu	Nom/Gen	Obl/Nom	Obl/Nom	Obl			
-To	Nom/Gen	Obl/Nom	Obl/Nom	Obl			
-Mt	Ø	Obl	Obl				
Bunun -Is	Ø/Obl	(Obl)	(Obl)	(Obl)	(Obl)	(Obl)	

4.2 Semantic functions

As noticed in Section 3, with respect to semantic functions, the case marking systems of the named Formosan languages differ from each other. These case markers can be classified in terms of the following parameters: (i) common vs. (personal) proper; (ii) singular vs. plural; (iii) referential vs. non-referential; (iv) visible vs. invisible; (v) proximal vs. distal; and (vi) human vs. non-human.

4.2.1 Common vs. (personal) proper

Among the Formosan languages examined in this paper, Saisiyat, Mayrinax Atayal, Amis, Paiwan, Puyuma and Rukai make a distinction between common nouns and personal proper nouns, and thus there are two different sets of case markers: one for common nouns and the other personal proper nouns. Wulai Atayal, Tsou and Isbukun Bunun do not make such a distinction. Below are some examples from Saisiyat to illustrate this common-(personal) proper distinction:

(12)Saisiyat
S1. (**ka**) *ŋyaw* ʔokay sakər   ka   ʔawhæs
      [Nom cat   Neg catch.AF Acc   mouse]
      'The cat did not catch the mouse'

S2. (**hi**) *ʔoβay* sararaʔ ka   korkoriŋ
      [Nom ʔobay   like   Acc   child]
      'ʔobay likes the child'

4.2.2 Singular vs. plural

In Amis, Paiwan and Puyuma, the case markers for personal proper nouns can be further divided according to plurality; the other Formosan languages make no such a distinction. The following Amis sentences reveal the singular-plural contrast:

(13)Amis
A1. mi-stiʔ   **ci**   aki ci   panay-an
      [AF-beat Nom.Sg Aki Acc_1 Panay-Acc_2]
      'Aki beat Panay'

A2. mi-stiʔ   **ca**   aki ci   panay-an
      [AF-beat Nom.Pl Aki Acc_1 Panay-Acc_2]
      'Aki (and his friends/family) beat Panay'

4.2.3 Referential vs. non-referential

Languages like Mayrinax Atayal and Tsou further categorize their case markers in terms of the notion 'referentiality'. According to Givón (1978:293), 'referentiality' is defined as follows:

It involves, roughly, the speaker's intent to 'refer to' or 'mean' a nominal expression to have non-empty references - i.e. to 'exist' - within a particular universe of discourse... If a nominal is 'non-referential' or 'generic' the speaker does not have a commitment to its existence within the relevant universe of discourse. Rather, in the latter, the speaker is engaged in discussing the genus or its properties, but does not commit him/herself to the existence of any specific individual member of that genus.

Some examples from Mayrinax Atayal and Tsou illustrate the referential-nonreferential distinction:

(14)Mayrinax Atayal
M1. ukas   **aʔ**   ʔulaqiʔ=mu
      [not:exist Nom.Nrf child=1S.Gen]
      'I have no child'

M2. ukas   **kuʔ**   ʔulaqiʔ=mu
      [not:exist Nom.Rf child=1S.Gen]
      'My child is not in' (I don't know where he is)

(15)Tsou

T1. oh-ta   eoɓaka   ta   ino-su   ʔe/**si/ta**/ʔo   oko-taini
    [NAF-3S.Gen   beat.PF   Obl   mother-2S.Gen   Nom   child-3S.Gen]
    'Your mother beat his child'

T2. *oh-ta   eoɓaka   ta   ino-su   **na**   oko-su
    [NAF-3S.Gen   beat.PF   Obl   mother-2S.Gen   Nom   child-2S.Gen]
    (YOUR child can not be non-referential)

4.2.4 Visible vs. invisible

Some case markers in Tsou and Budai Rukai are divided into visible and invisible sets. Examples from Tsou follow:

(16)Tsou

T1. oh-ta   eoɓaka   **ta**   ino-su   ʔe/**si/ta**   oko-taini
    [NAF-3S.Gen   beat.PF   Obl   mother-2S.Gen   Nom   child-3S.Gen]
    'Your mother beat his child' (both are **seen** at speech time)

T1. oh-ta   eoɓaka   **to**   ino-su   **ʔo**   oko-taini
    [NAF-3S.Gen   beat.PF   Obl   mother-2S.Gen   Nom   child-3S.Gen]
    'Your mother beat his child' (both are **unseen** at speech time)

4.2.5 Proximal vs. distal

The proximal-distal contrast here refers to temporal, spatial or metaphorical distance. Consider the following Tona Rukai sentences which illustrate the temporal and spatial remote-recent contrast, and thus the visible-invisible contrast as well:

(17)Tona Rukai

TR1a. w-a-stiti   **na**   aθo
      [Act-Real-beat   Obl   dog]
      '(He) is beating/beat a dog' (a temporally recent event)

TR1b. w-a-stiti   **ko**   aθo
      [Act-Real-beat   Obl   dog]
      '(He once) beat a dog' (a temporally remote event)

TR2a. w-a-laŋai   kakɔ   **na**   daʔanɔ
      [Act-Real-buy   1S.Nom   Obl   house]
      'I **bought** a house' (spatially close to the speaker)

TR2b. w-a-laŋai   kakɔ   **ko**   daʔanɔ
      [Act-Real-buy   1S.Nom   Obl   house]
      'I **sold** a house' (spatially away from the speaker)

Some examples from Tsou are given below to illustrate the metaphorical proximal-distal contrast:

(18)Tsou

T1. i-ʔo   tadɨa   **ʔe**   ino-ʔu
    [NAF-1S.Gen   think:about.PF   Nom   mother-1S.Gen]
    'I am thinking about my mother'
    (the speaker emphasizes the parental link between him and mother) => metaphorical

T2. *i-ʔo   tadɨa   **si/ta**   ino-ʔu
    [NAF-1S.Gen   think:about.PF   Nom   mother-1S.Gen]
    (my mother has a close link with me, and thus can not be remote from me metaphorically)

T3. i-ʔo   tadɨa   **ʔo**   ino-ʔu
    [NAF-1S.Gen   think:about.PF   Nom   mother-1S.Gen]
    'I am thinking about my mother'
    (the speaker emphasizes the spatial separation) =>spatial

4.2.6 Human vs. non-human

The human-nonhuman distinction exists in Mantauran Rukai, in which only the human patient can be case marked. Examples follow:

(19)Mantauran Rukai

MT1. maðalamɔ   ðipol-**inɔ**   taotao
     [love   ðipolo-Obl   Taotao]
     'Taotao loves ðipolo'

MT2a. o-koaŋɔ   comai   ðonaʔi   savarɔ
      [Act/Real-shoot   bear   that   young:man]
      'That young man shot a bear'

MR2b. *o-koaŋɔ   comai-**inɔ**   ðonaʔi   savarɔ
      [Act/Real-shoot   bear-Obl   that   young:man]

4.2.7 Summary

The following table sums up the above discussion:

Table 15   Semantic diversities of case markers

	common/ proper	singular/ plural	referential/ non-referential	visible/ invisible	distal/ proximal	human/ non-human
Saisiyat	+	-	-	-	-	-
Atayal -Ma	+	-	+	-	-	-
-Wu	-	-	-	-	-	-
Amis	+	+	-	-	-	-
Paiwan	+	+	-	-	-	-
Tsou	-	-	+	+	+	-
Puyuma	+	+	+	-	-	-
Rukai -Bu	+	-	-	+	-	-
-To	+	-	-	-	+	-
-Mt	-	-	-	-	-	+
Bunun-Is	-	-	-	-	-	-

5. Case marking in pronouns

Some Formosan languages may have their case markers appearing in certain sets of their pronominal forms, and very often these pronouns are free pronouns (as in Saisiyat, Atayal, Amis and Paiwan), but they may be bound pronouns, though very rarely (as in Mantauran Rukai). The following illustrates the different case markings existing in the pronominal sets of the named Formosan languages (those with * only apply to the third person singular pronouns, and those with **, the third person plural):

Table 16   Case marking in pronouns

Pronouns	Nom	Acc	Gen	Poss	Ben	Loc	Obl
Saisiyat			ni-	an-..-a	?ini-	kan-	
Atayal-Ma							
-Wu							
Amis	k-	t-..-an					
	*ci-	*ci-..-an	ni-				
	**ca-	**ca-..-an	na-				
Paiwan	ti-	*tjay-		ni-			
	**tjya-	**tjaya-		**nya-			
Tsou							
Puyuma							kan-
Rukai -Bu	ko-						
-To	ki-						
-Mt							
Bunun -Is		ma(s)-					

Below are some pronouns showing the presence of the case marking:

(20) Saisiyat
    Gen: **ni**so '2S.Gen'
    Poss: **?an**soa**?a** '2S.Poss'
    Ben: **?ini**so '2S.Ben'
    Loc: **kan**so '2S.Loc'

(21) Amis
    Nom: **k**aku '1S.Nom'; **ci**ŋra '3S.Nom'; **ca**ŋra '3P.Nom'
    Acc: **k**aku**an** '1S.Acc'; **t**aku**an** '1S.Acc'; **ci**ŋra**an** '3S.Acc'; **ca**ŋra**an** '3P.Nom'
    Gen: **ni**ŋra '3S.Gen'; **na**ŋra '3P.Gen'

(22) Paiwan
    Nom: **ti**akən '1S.Nom'; **tjya**madju '3P.Nom'
    Acc: **tjay**madju '3S.Acc'; **tjaya**madju '3P.Acc'
    Poss: **ni**akən '1S.Poss'; **nya**madju '3P.Poss'

(23) Puyuma
    Obl: **kan**ku '1S.Obl'

(24) Rukai
    Nom: **ko**(n)ako '1S.Nom' (Budai)
    Nom: **ki**nay '3S.Nom' (Tona)

(25) Bunun
    Acc: **ma**su '2S.Acc'

6. Concluding remarks

This paper deals with the nominal case marking systems of eight Formosan languages. To begin with, it shows the distinction between case markers and prepositions, and proposes that the marker **i** is a preposition for nouns indicating location. The paper then examines the complete sets of case markers found in each of the eight named Formosan languages. It continues to discuss two aspects of grammatical relations related to case markers, namely, neutralization and diversification. It shows how these languages neutralize the semantic roles of some arguments and how certain semantic roles have diverse case manifestations. Furthermore, case markers in these languages can be divided on the basis of six parameters: common/(personal)proper, plurality, referentiality, visibility, proximity and human/non-human. Finally, the paper shows how certain case markers exist in some pronominal forms of the Formosan languages investigated here. It is hoped that the present discussion can provide a better picture showing how these Formosan languages share with and differ from each other syntactically and semantically.

NOTES

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2. The data on Atayal, Amis, Bunun and Puyuma are from my own fieldnotes. The others are provided by Elizabeth Zeitoun (Tsou and Rukai), Marie Yeh (Saisiyat) and Anna Chang (Paiwan).
3. The abbreviations and symbols used in this paper are as follows: 1S 1st Person Singular; 1PE 1st Person Plural Exclusive; 1PI 1st Person Plural Inclusive; Acc Accusative; AF Agent focus; Asp Aspect; Ben Benefactive; BF Benefactive focus; Caus Causative; Com Comitative; Excl Exclusive; Fut Future tense; Gen Genitive; Imp Imperative; Incl Inclusive; LF Locative focus; Lin Linker; Loc Locative; NAF Non-agent focus; Neg Negator; Neu Neutral; Nom Nominative; Nrf Non-referential; Nsp Nonspecific; Obl Oblique; Part Particle; Prf Perfective aspect; PF Patient focus; Pl Plural; Poss Possessive; Prep Preposition; Real Realis; Red Reduplicate; Rf Referential; Sg Singular; Sp Specific; Vd Voiced; Vl Voiceless; = indicating the following pronoun is a clitic; < > indicating the enclosed elements are infixes and their glosses
4. Jane Tang (p.c.) pointed out that in Russian, a noun may be indicated by two case markers, with one preceding the noun and the other attached to it, which seems different from the Amis case discussed here.
5. Due to the limited space of the present paper, in the following discussion we will only provide necessary examples to illustrate our points. Readers may refer to Huang 1995c for sentences containing the case markers in each language under investigation.
6. One of the reviewers has pointed out that what is treated as Poss$_2$ (i.e. a) in Saisiyat may alternatively be analyzed as a ligature, which is rather plausible. Yet since the Possessive pronouns in the language all end with a (e.g. ?ansoa?a '2S.Poss'), we would continue to regard this element **a** as part of the Possessive case marker.
7. The notion of 'referentiality' will be discussed in detail in Section 4.2.3.
8. One may refer to Huang 1995a for a detailed discussion on this aspect.
9. Prof. Li (p.c.) has pointed out that in Kavalan, a personal proper noun can be preceded by a personal marker which in turn is preceded by a case marker. However, in the languages under investigation here, no such cooccurrence of two prenominal markers is found. Thus the issue regarding whether these prenominal elements should be treated as case markers or personal proper noun markers deserves further research.
10. Though the term *Loc* as used in Huang 1995b seems more appropriate, in order to match with the description of the case systems of the other languages, the term *Acc* is still used here.
11. More examples containing these case markers are given in Sections 4.2.3, 4.2.4 and 4.2.5.
12. Prof. Li (p.c.), however, pointed out that even within the dialect of Isbukun, some other case markers are retained in the variety spoken in the east coast of Taiwan.
13. We are still not certain of the actual status of the Comitative case in the named languages. Whether they are case markers or coordinating conjunctions remains a question and deserves further exploration.
14. Yeh, et al. (in this volume) also supports such a view, based on the similar negative declarative constructions found in Saisiyat and Atayal.

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The Dialectal Differences in Atayal in I-Lan

Paul Jen-kuei Li
Academia Sinica

Abstract

This is a study of all Atayal dialects spoken in I-Lan prefecture. Four types of linguistic differences are discussed: (1) lexical, (2) phonological, (3) morphological and (4) syntactic, to show all the important dialectal differences of Atayal in I-Lan. Some features, such as lexical forms, are borrowed rather easily, whereas the others, such as phonological and syntactic features, are much more resistant to borrowing among these dialects. Based on the knowledge of previous work on Atayal dialects in the other areas, 190 lexical items were picked to show all the important differences in the Atayal dialects in I-Lan. Given in the Appendix is a comparative wordlist with these lexical forms. as well as a few sentences to illustrate some syntactic differences in the Atayal dialects.

1. Introduction[1]

This paper aims to show the dialectal differences of Atayal as spoken in I-Lan prefecture. The Atayalic group of Formosan languages is comprised of Atayal and Seediq. Atayal, in turn, has two subgroups, Squliq and Ts'ole'. Atayal is spoken in Datung and Nan'ao counties in I-Lan, and both varieties of Squliq and Ts'ole' are found in a dozen villages in these two counties.

Tsuchida (1980) proposed three criteria to distinguish between Squliq and Ts'ole': (1) lexical, (2) phonological, and (3) morphological or syntactic. He listed some 30 lexical forms and a few sentences to illustrate these dialectal differences in the Atayalic group. I shall follow his suggestion and try to provide more data to show all important differences in all the Atayal dialects as spoken in I-Lan. In addition, I shall discuss what linguistic features are resistant to borrowing and can best serve as linguistic bases for language classification.

I have studied some 30 major dialects in the Atayalic group since 1978, and collected nearly 1,000 lexical items for each of these dialects. I carefully picked about 190 lexical items that would show important linguistic differences in Atayal dialects for this dialect survey in I-Lan. These differences may be (1) entirely different lexical forms, especially in the different subgroups; (2) differences in phonological shape, but with regular sound correspondences; (3) differences in morphological shape that can be accounted for by the differences in the male and female forms of speech in the Atayalic group, as described in Li (1982b, 1983); and (4) differences in grammatical forms and functions. Based on these 190 lexical items, I shall present the lexical, phonological, morphological and syntactic differences among the Atayal dialects in I-Lan.

2. Differences in Lexical Forms

Most Atayal dialects share essentially the same vocabulary stock although their forms may vary to a certain extent from dialect to dialect. However, completely or