A Study of Noun-class Markers in Kavalan*

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ABSTRACT

It has long been observed that common nouns and noncommon nouns (including proper nouns and pronouns) take different case markers in a number of Formosan languages: common nouns take u/a-system of case markers while noncommon nouns take i-system case markers (Mei 1994, Li 1995, Huang 1995, among many others). In Kavalan, the common-noncommon distinction is also attested but in a different fashion: it is attested in noun classification rather than in case marking. The system of noun classification in Kavalan is summarized below:

```
  noun
   /\  
  /   \  
common /     \ noncommon
  \   /     \\
  human  nonhuman  human  nonhuman
     \     /     \     /     \\
      kin*  u*  ti  f*/ni
```

(* when numerals or quantifiers are present)
(\* indicates zero morpheme)

In Kavalan, nouns are classified into two major categories: common nouns and non-common nouns. In the category of common nouns, human members occur with the noun-class marker kin while nonhuman members occur with u upon the presence of

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numerals or quantifiers. On the other hand, in the category of common nouns, human members take \textit{ti} while nonhuman nouns either take \textit{φ} (zero morpheme) or \textit{ni}.

It is noteworthy that like classifiers, noun-class markers in Kavalan classify nouns according to the inherent properties of the entities to which the nouns refer, though they are slightly different from classifiers in their syntactic behavior (e.g. unlike typical classifiers, the noun-class markers for noncommon nouns do not occur with numerals or quantifiers).

Besides, the results of this study also shed light on the systems of the noun-marking in Formosan languages. In light of the noun-class marking system in Kavalan, we postulate that the common-noncommon distinction which is previously claimed to be made in case-marking in other Formosan languages should be a distinction of noun-class marking instead. In that case, case-markers are morphological complexes: they consist of a case-marker and a noun-class marker. Under the analysis, case-markers for noncommon human nouns should comprise of a case-marker plus a noun-class marker \textit{Ci} (C stands for a consonant). On this view, a number of long standing problems (e.g. the problem why nouns in non-argument positions should take “case markers”) can be solved.

\textbf{Key Words}: noun-class markers, common/non-common, human/non-human

\section{1. Introduction}

In Formosan languages, it is often observed that common nouns are distinguished from noncommon nouns such as proper nouns and pronouns by grammatical markers. According to Li (1994/5), Mei (1994), Huang (1995/6), among many others, the common-noncommon distinction is made in case-marking system in Mayrinax Atayal, Saisiyat, Paiwan, Amis, Puyuma and Rukai: common nouns use \textit{i}-system case markers but noncommon nouns use \textit{u/a}-system case markers. Similar distinction is also made but in a quite different fashion in Kavalan. In Kavalan, those markers that distinguish common nouns from noncommon nouns can co-occur with case markers and thus can not be identified as case markers. But what are they? Using syntactic and semantic criteria, the paper aims to define the grammatical status of the markers and identify the system of the markers as well.

This paper starts with the marking of non-common nouns. In Kavalan, non-common human nouns must be preceded by the marker \textit{ti}. In section 2, we present the distribution of \textit{ti}. In section 3, we study its syntax and semantics. In sec-
tion 4, we propose the analysis of *ti* as a noun-class marker and illustrate the system of noun-class marking in Kavalan. Also, we are to account for the distribution of *ti* described in section 2. In section 5, we discuss the implications of this study and conclude this paper.

2. The distribution of *ti*

2.1 The contexts where it occurs

There are two *ti* morphemes in Kavalan. One attaches to predicates and the other can precede proper nouns. For example:

(i) p-um-ukun = *ti* ti-abas\(^1\) *ti*-buya-an\(^2\)
    hit-AV = Asp TI-Abas TI-Buya-Loc\(^3\)
    'Abas has hit Buya.'

While the post-predicate *ti* is clearly an aspect marker, the status of the prenominal *ti* is not clear. We will pursue this issue in the subsequent sections.

The nouns which can occur with prenominal *ti* are rather restricted: proper nouns and pronouns. Proper nouns, including proper names and kinship terms, must be preceded by *ti* in argument positions. The deletion of *ti* will lead to ungrammaticality. For example:

1. Though we are not to examine the morphological status of the prenominal marker *ti* in details, we would like to note that *ti* can be a prefix as far as its syntactic behavior is concerned. First, *ti* must immediately attach to the noun it marks. No intervention is allowed. Consider:

   (i) a. Rubataq = ay ti-abas
       beautiful = Comp TI-Abas
       'beautiful Abas'
   b. *ti*-Rubataq = ay abas
       beautiful = Comp Abas
       'beautiful Abas'

   Second, *ti* together with the noun it marks can serve as equational predicate and simple response to questions (See the discussions below for illustration). This suggests that *ti* counts as an inalienable part of the noun it marks. Third, some uses of *ti* (for example *tiana* 'who' and *timayku* 'me') have been lexicalized with the elements it marks and thus can never be left out. Given this fact, it will be by no means odd to analyze *ti* as a prefix.

2. In this paper, '=' indicates what follows is an affix and '·' indicates what follows is a clitic.

3. Abbreviations used in this paper are as follows:

   Nom: nominative     Acc: accusative     Gen: genitive       Loc: locative
   AV: Actor voice     PV: Patient voice   D: determiner       Ncm: noun-class marker
   Cl: classifier      Asp: aspect         Comp: complementizer S: singular   P: plural
(2) a. p-um-ukun = ti ti-abas ti-buya-an
    hit-AV = Asp TI-Abas TI-Buya-Loc
    'Abas has hit Buya.'

b. p-um-ukun = ti ti-tina ti-buya-an
    hit-AV = Asp TI-Mother TI-Buya-Loc
    'Mother has hit Buya.'

c. *p-um-ukun = ti abas/tina buya-an
    hit-AV = Asp Abas/Mother Buya-Loc

This also holds true with pronouns, which include personal, interrogative and quantifier pronouns. For example:

(3) a. p-um-ukun = ti ti-abas ti-maiku?-an
    hit-AV = Asp TI-Abas TI-1S-Loc
    'Abas has hit me.'

b. p-um-ukun = ti ti-abas ti-ana
    hit-AV = Asp TI-Abas TI-who
    'Whom has Abas hit?'

c. p-um-ukun = ti ti-abas ti-tiana
    hit-AV = Asp TI-Abas TI-everyone
    'Abas has hit everyone.'

c. *p-um-ukun = ti abas maiku? an/a na/tiana
    hit-AV = Asp Abas 1S-Loc/who/everyone

While human proper names and pronouns can occur with *ti, their non-human counterparts cannot. Thus, place names, demonstrative pronouns, non-human interrogative pronouns and non-human quantifier pronouns are all excluded from *ti. For example:

(4) a. *ti-bakuŋ
    TI-Bakuŋ (place name)

b. *ti-zau
    TI-this

c. *ti-niana
    TI-what

d. *ti-nianiana
    TI-everything

Meanwhile, nouns other than proper nouns and pronouns are all incompatible with *ti. For example:
(5) a. p-um-ukun＝ti ti-tina (*ti-)tazuğan
   hit-AV＝Asp TI-Mother TI-woman
   ‘Mother has hit a woman.’
   b. p-um-ukun＝ti ti-abas (*ti-)tina-na
   hit-AV＝Asp TI-Abas TI-mother-3S.Gen
   ‘Abas has hit his mother.’

On the other hand, nouns marked by *ti* have rather free distribution. They
can occur in argument positions, preceded by case markers. For example:

(6) a. p-um-ukun＝ti ti-abas (tu) ti-buya-an
    hit-AV＝Asp TI-Abas Acc TI-Buya-Loc
    ‘Abas has hit Buya.’
   b. yau ta ti-abas-an
    exist Loc TI-Abas-Loc
    ‘He is in Abas’ house.’
   c. pukun-an＝ti na ti-abas (ya) ti-buya
    hit-PV＝Asp Gen TI-Abas Nom TI-Buya
    ‘Buya has been hit by Abas.’

Furthermore, *ti*-marked nouns can serve as predicates of equational sentences or
simple responses to questions. For example:

(7) ti-abas ya tazuğan
    TI-Abas Nom woman
    ‘The woman is Abas.’
(8) a. ti-ana m-awtu＝ti
    TI-who AV-come＝Asp
    ‘Who has come?’
   b. ti-buya
    TI-Buya
    ‘Buya.’

To sum up, the marker *ti* is only available to human subsets of proper
nouns, personal pronouns, interrogative pronouns and quantifier pronouns. If we
classify proper nouns, personal pronouns and interrogative pronouns as non-

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4. According to my informants, it is usually the case that the genitive case marker *na* is fused
   with *ti*, surfacing as *ni* phonetically:
   (i) pukun-an＝ti ni abas (ya) ti-buya
    hit-PV＝Asp Gen TI Abas Nom TI-Buya
    ‘Buya has been hit by Abas.’
common nouns, we can say that ti is restricted to human non-common nouns. On the other hand, the distribution of ti+N is rather free: it can occur in both argument positions and non-argument positions.

2.2. The contexts where ti does not occur

Meanwhile, ti does not always occur with proper names: it is excluded from a "proper name" which serves as the head of restrictive relative clauses. For example:

(9) pukun-an-ku=ti sigulus-ay tu baRi-ay *(ti)-abas
    hit-PV-1S.Gen=Asp wear-Comp Acc red-Comp TI-Abas
    'An Abas who wears red clothes has been hit by me.'

By contrast, ti is obligatory with the proper name in non-restrictive relative clauses. Consider:

(10) pukun-an-ku=ti sigulus tu baRi-ay *(ti)-abas
    hit-PV-1S.Gen=Asp wear Acc red-Comp TI-Abas
    'Abas, who wears red clothes, has been hit by me.'

The presence of ti is one of the factors which distinguish restrictive from non-restrictive relative clause, since only the relative head without ti allows a contrastive reading:

(11) a. pukun-an-ku=ti sigulus-ay tu baRi-ay abas,
    hit-PV-1S.Gen=Asp wear-Comp Acc red-Comp Abas

5. The distinction between common and non-common nouns will be discussed in details in Section 3.1.
6. In this example, the term "proper name" is used just for sake of comparison. Actually, the head noun "abas" should serve as a common noun rather than as a proper noun. We will return to this issue shortly.
7. That different types of relative clauses are distinguished by the absence of proper noun marker is also attested in Tagalog (Schachter 1972: 127–132):

   (i) a. hinahanap-kon ang *(si) pedro-ng inihalal nila
       look for-I ANG SI Pedro-Comp elected their
       hindia ng *(si) pedro-ng
       not ANG SI Pedro
       'I am looking for the Pedro they elected, not the Pedro ...'
   b. ang inihalal nila-ng *(si) pedro
      ANG elected their-Comp SI Pedro
      'Pedro, whom they elected'

It seems that Tagalog si corresponds to Kavalan ti. Just like ti, si is absent with proper noun in restrictive relative clauses but obligatory in non-restrictive relative clauses.
usa? vusar-ay abas
not white-Comp Abas
'The Abas who wears red clothes rather the Abas who
wears white clothes has been hit by me.'
b.*pukun-an-ku=ti sigulus tu baRi-ay ti-abas
hit-PV-1Sg.Gen=Asp wear Acc red-Comp TI-Abas
usa? vusar-ay ti-abas
not white-Comp TI-Abas

ti does not pattern with a proper noun in vocatives, either: 8

(12) (*ti)abas! naRin pa-qan-an tu Raaq ti-buya
TI-Abas Neg Cau-eat-PV Acc wine TI-Buya
'Abas! Don't let Buya be fed with wine.'

To summarize, ti is restricted to human non-common nouns. Furthermore, it
is absent from personal names in vocatives and restrictive relative clauses.

3. The syntax and semantics of ti-marking

In this section, we would like to address two issues. First, we would like to
explore whether ti-marking is syntactically or semantically well-motivated.
This is equal to asking the question below:

(A) Do ti-marked nouns share common features? 9

Moreover, as shown in the previous section, ti marks only proper nouns and
pronouns. And proper nouns and pronouns are generally identified as determiner
phrases (i.e., DP) in the literature. Another question in connection with the DP
analysis is:

(B) Is ti a determiner or simply a grammatical marker?

The key to this question lies in whether ti contributes semantically to the nouns
it marks. 9 If the answer is yes — ti determines the reference of ti-marked nouns
in much the same way as a determiner — ti can be analyzed as a determiner; if
not, ti can simply serves as a grammatical marker which marks a featureshar-

8. This is also the case in Tagalog. For example: (Schachter 1972: 95)

(i) Magandang umaga, (*'si) Juan
'Good Morning, Juan!'

9. We are grateful to Wei-tien Dylan Tsai for discussion of this issue.
ing class and thus has no status in the nominal structure.

3.1 Cross-linguistic generalizations

Nouns can be divided into common nouns and non-common nouns. They differ in several respects. Semantically, non-common nouns have intrinsic reference while common nouns do not denote specific reference unless they are syntactically determined. As Longobardi (1994: 634–5) points out, non-common nouns, unlike common nouns, need not refer to a kind and so provide a range to an operator-bound variable. Thus, determiner phrases with common nouns (13a) can logically translate as (13b):

(13) a. [D [N]]
   b. Dx, such that x belongs to the class of Ns

so that (14a) is to be understood as (14b):

(14) a. the/every table
   b. the/∀x, such that x belongs to the class of tables

However, non-common nouns will not be understood in that way. Non-common nouns such as John or he will be thought of as “directly designating the entity” rather than as bound by an operator.

The inherent difference in semantics between common nouns and non-commons has syntactic correlates. With intrinsic reference, non-common nouns syntactically behave like DPs. For example, in English non-common nouns do not co-occur with determiners in general while common nouns can freely do so. In other words, non-common nouns are in complementary distribution with respect to determiners. For example:

(15) a. The boy is coming.
    b. *The John is coming.10
    c. *The he is coming.

Under this view, it seems plausible to identify non-common nouns as deter-
miners. It follows that they differ from common nouns in grammatical category: non-common nouns are assigned the status of Ds but common nouns as the status of Ns with respect to X-bar theory (Postal 1969, Abney 1987, Reinhart 1992, Longobardi 1994, among many others). Compare:

10. Nouns of this sort can be preceded by determiners only if they function as common nouns. We will return to this issue later.
(16) a. N
    
    boy

b. D

    John/he/who/everyone

Furthermore, non-common nouns are morphological complexes in contrast with common nouns. Postal (1969: 208), among many others, notes that pronouns are “not unanalyzable atomic symbols; rather, they are complexes of syntactic, phonological and semantic features or properties.” Thus, in English, pronouns can be decomposed into determiner prefixes plus noun stems:

(17) a. th-ey\(^{11}\)
    b. \(\phi\)-who\(^{12}\)
    c. every-one
    d. some-one

(18) D

  /\n
  'D  'N

  th  ey

  \(\phi\)  who

  every  one

  some  one

Given the syntactic and semantic parallelism between proper nouns and pronouns, it seems plausible to treat all of the non-common nouns as morphological complexes. In other words, non-common nouns can be treated as Ds which comprise a made up of a determiner affix and a noun stem.

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11. The prefix ‘th-’ can be the reduced form of the definite determiner ‘the’. Thus, pronouns prefixed ‘th-’ observe the same specificity effect as full DPs with the determiner ‘the’. See Tsai (1994: 19-20) for details.

12. This follows Tsai’s (1994) proposal that in English interrogative pronouns are made up of a zero determiner plus wh-words. The wh-morpheme of interrogative pronouns simply serves as a morphological element which triggers overt wh-movement rather than as a determiner which determines the quantificational force of interrogatives. Thus, interrogative pronouns can pattern with a universal determiner in contrast with personal pronouns:

   (i) a. wh-o-ever
   b. *th-ey-ever
3.2 *ti* as a determiner?

After examining cross-linguistic traits of non-common nouns, let us now turn to non-common nouns in Kavalan. Assume that in Kavalan non-common nouns are also morphological complexes. Since *ti* always occurs with non-common nouns and imposes selectional restrictions on them, we may be tempted to claim that *ti* serves as a determiner prefix followed by a noun stem in Kavalan in much the same way as the determiner prefix *th- in English:

\[(19)\]  
\[
\begin{array}{c}
\text{a. ti-abas/maiku/ana/tiana} \\
\text{‘Abas/me/who/everyone’}
\end{array}
\]

\[
\begin{array}{c}
\text{b. D} \\
\text{‘D ‘N} \\
\text{ti- abas/maiku/ana/tiana}
\end{array}
\]

This analysis straightforwardly accounts for why *ti* is incompatible with common nouns and why *ti* always occurs with non-common nouns as well. However, two problems arise in connection with this analysis. First, unlike a determiner, *ti* does not determine the reference of the noun stem. The nouns *ti* marks are inherently distinct from one another in reference. Compare:

\[(20)\]  
\[
\begin{array}{c}
\text{a. every-one} \\
\text{b. some-one}
\end{array}
\]

\[(21)\]  
\[
\begin{array}{c}
\text{a. ti-abas} \\
\text{‘Abas’} \\
\text{b. ti-maiku} \\
\text{‘me’} \\
\text{c. ti-ana} \\
\text{‘who’}
\end{array}
\]

In (20), the two quantifier pronouns have common the stem *one* and they are distinguished in reference by the determiner prefixes: *every-* refers to universal quantification but *some-* existential quantification. By contrast, *ti* does not make such a distinction in reference. In (21a-b), *abas* and *maiku* are a proper name and a personal pronoun respectively, which are both inherently definite in reference. On the other hand, in (21c), *ana* is an interrogative pronoun, which is indefinite in reference. *ti* does not affect the reference of the stems it attaches to. This is further attested in the following examples, where the proper name and the pronoun remain as definite expressions as *ti* is left out.
(22) a. ti-abas,  rizaq-an-niq
    TI-Abas like-PV-1P.Inc.Gen
    ‘Abas, she was liked by us(inclusive).’
  b. abas,  rizaq-an-niq
    Abas like-PV-1P.Inc.Gen
    ‘=a’

(23) a. m-irizaq aiku?  tu tazujan
    AV-like 1S.Nom Acc woman
    ‘I likes a woman.’
  b. m-irizaq ya  tazujan ti-m-aiku?-an
    AV-like Nom woman TI-M-1S-Loc
    ‘The woman likes me.’

(24) a. ti-ana  rizaq-an-su
    TI-wh like-PV-2S.Gen
    ‘Who was liked by you?’
  b. ni-ana  rizaq-an-su
    NI-wh like-PV-2S.Gen
    ‘What was liked by you?’

In (22), the deletion of ti does not yield meaning shift. The proper noun Abas still refers to a unique individual by the name in (22b) as well as in (22a). In (23a–b), the morpheme aiku uniformly designates the first person singular pronoun, already definite in reference. The occurrence of ti with the pronoun does not alter its reference. In (24), the replacement of ti by ni does not cause reference shift, though it does result in meaning change. Both tiana and niana function as interrogative pronouns and thus are identical in reference, while the former designates a human individual but the latter a non-human entity. This indicates that the function of ti is to identify the class rather than the reference of the nouns it marks. In this respect, ti does not behave like a determiner. Note that a determiner normally has the function of “specifying the reference of a noun” (Abney 1987: 77).

Furthermore, the “ti-as-determiner” analysis also fails to account for the distribution of ti in relative clauses. Consider:

(25) a. pukum-an-ku=ti siquulus-ay tu baRi-ay (*ti-)abas
    hit-PV-1S=Asp wear-Comp Acc red-Comp TI-Abas
    ‘An Abas who wears red clothes has been hit by me.’
  b. pukum-an-ku=ti siquulus tu baRi-ay *(ti-)abas,
    hit-PV-1SG=Asp wear Acc red-Comp TI-Abas
‘Abas, who wears red clothes, has been hit by me.’

As shown in (25), ti must get deleted in restrictive relative clauses but must be retained in non-restrictive relative clauses. The distribution of ti in relative clauses is strikingly opposite that of a standard determiner. Take English for comparison:

(26) a. I have hit *(the) Mary who wears red clothes.
    b. I have hit (*the) Mary, who wears red clothes.

As in (26), the determiner the must be retained in restrictive relative clauses but must get deleted in non-restrictive relative clauses. This further indicates that ti is quite different from a determiner.

To sum up, ti does not behave like a determiner semantically as well as syntactically. It is thus unlikely that ti serves as a determiner. Rather, it can simply function as a grammatical marker. This is the analysis we would like to pursue in the next section.

4. Noun classification

4.1 Cross-linguistic generalizations

Here, noun classification means that nouns are classified through noun-class markers. In general, there are two types of noun classification. In the first type, noun-class markers are also known as classifiers. They classify nouns according to the inherent properties of the entities to which the associated nouns refer.\(^{13}\) Most languages which grammatically observe noun classification are of this type. Among them, classifier languages such as Chinese and Tzeltal are paradigm examples. Take for example the classifier tiao （條） in Chinese. As noted by Tai (1994: 486), tiao is used to mark nouns with a (one-dimensional) long shape. Thus, among the gua ‘melon’ class, only those with a long shape such as huang-gua ‘cucumber’ and sigua ‘towel gourd’ can occur with tiao whereas those without a long shape such as xigua ‘watermelon’ and nangua ‘pumpkin’ cannot. Compare:

(27) a. yi tiao huanggua/sigua
    ‘one cucumber/towel gourd’

\(^{13}\) Here, the inherent properties refer to the properties of the entities which Allan (1977) assumes under the titles of material, shape, size and consistency.
b. *yi tiao xigua/ nangua
   for ‘one watermelon/pumpkin’

On the contrary, *xigua ‘watermelon’ and *nangua ‘pumpkin’ can occur with the
classifier *ke (颗), which is used to classify round-shape or nearly round-shape
objects, but *huanggua ‘cucumber’ and *sigua ‘towel gourd’ cannot. In both cases,
the use of classifiers varies with the inherent physical properties of the nouns
they are associated with. In other words, noun classification in question is physi-
cally motivated.

In the second type, noun-class markers do not classify nouns according to
inherent properties of the associated nouns. For example, in Dyirbal (a north-
eastern Australian language), the use of noun-class markers is determined by the
visibility of the associated nouns (Allan 1977: 288).

With the typology of noun-class markers in mind, let us now turn to noun
classification in Kavalan.

4.2 Noun classification in Kavalan

In the first place, we would like to point out that Kavalan is of the first type.
As in Chinese, there are noun-class markers classifying nouns according to the
inherent characteristics of the associated nouns in Kavalan: the noun-class
marker *kin occurs with human objects but *u with non-human. For example:

(28) a. *kin-turu a sunis
      Ncm-three Nom child
   lit. ‘The child are three (in number).’
   ‘three children’
   b. *u-turu a wasu
      Ncm-three Nom dog
   lit. ‘The dogs are three (in number).’
   ‘three dogs’

(29) a. *kin-tani sunis
      Ncm-how many child
   ‘how many child’
   b. *u-tani wasu
      Ncm-how many dog
   ‘how many dogs’

In (28a), the head noun sunis ‘child’ is human and thus the numeral is prefixed *kin
whereas in (28b), the head noun wasu ‘dog’ is non-human and thus the numeral is
prefixed *u. The human-nonhuman distinction is also attested in (29a–b). In addition, *kin and *u behave like numeral classifiers in Chinese. They are obligatory upon the occurrence of numerals and quantifiers. Compare:

(30) a. san tiao yu
    three Cl fish
    ’three fish’

   b. *san yu
    three fish

(31) a. *kin-turu a sunis
    Ncm-three Nom child
    ’three children’

   b. *turu a sunis
    three Nom child

Besides, as shown in the previous sections, the human-nonhuman distinction also holds with non-common nouns. Compare:

(32) a. m-awtu=ti ti-abas
    AV-come=Asp Ncm-Abas
    ’Abas is coming.’

   b. *m-awtu=ti ti-bakuŋ ya sunis
    AV-come=Asp Ncm-Bakuŋ (place name) Nom child
    for ‘The child comes to Bakuŋ.’

As in (32a–b), while both abas and bakuŋ are proper nouns, only the former can occur with the noun-class marker *ti.\(^{14}\)

Similarly, the classification of interrogative pronouns observes human-nonhuman distinction. Compare:

(33) a. ti-ana
    Ncm-wh
    ’who’

   b. ni-ana
    Ncm-wh
    ’what’

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14. The marker *ti is called **personal marker** in Li (1978). The term is on the right track but not fully correct. Note that not only personal names/pronouns but also interrogative/quantifier pronouns can occur with *ti. But interrogative/quantifier pronouns can not be identified as personal if personal refers to nouns which are inherently unique in reference.
As in (33a-b), human interrogative pronouns take *ti* while their nonhuman counterparts takes *ni*. It is noteworthy that *ti* has become part of the word *tiana* and thus cannot be separated from it, contrary to the occurrence of *ti* with proper names.

Actually, the pattern of noun classification attested in Kavalan can also be found in Paiwan, a Formosan language genetically related to Kavalan. While human interrogatives are distinguished from nonhuman ones, as in:

(34) a. **ti-ima**
    Ncm-who

b. **a-nema**
    Ncm-what

the most striking noun classification made in Paiwan is that even nonhuman proper nouns are overtly marked. Compare:\^{15}

(35) a. **ti-kai**
    Ncm-Kai

b. **i-magazayazaya**
    Ncm-Magazayazaya (place name)

(36) a. **ti-aken**
    Ncm-I  I

b. **a-icu**
    Ncm-this

In (35-36a), proper nouns and personal nouns both take *ti* like their counterparts in Kavalan. However, as in (35-36b), place names and demonstratives take noun-class markers as well. In view of this fact, we would like to suggest that place names and demonstratives in Kavalan are also marked but marked by covert noun-class markers *φ*. It follows that the system of noun-class markers in Kavalan can be schematized below:

(37)

```
   nouns
/\  
common / \ non-common
/ \    / 
human non-human human non-human
kin  u  ti  φ/ni
```

---

15. The Paiwan data are drawn from J. Tang et al. (1996).
In Kavalan, nouns are divided into two categories with respect to noun-class markers: common nouns and non-common nouns, which are in turn classified into human and non-human subcategories. In the category of common nouns, human nouns occur with *kin* but non-human nouns *u* upon the occurrence of numerals or quantifiers. In the category of non-common nouns, human nouns take *ti* but non-human nouns take *ϕ* or *ni*. All of the noun-class markers are bound morphemes: *kin* and *u* attach to numerals or quantifiers while *ti* and *ni* attach directly to the nouns they mark.

### 4.3 Explaining the distribution of *ti*

In the analysis of *ti* as a noun-class marker, we can account for the distribution of *ti*, summarized below:

<table>
<thead>
<tr>
<th><em>ti</em> occurs:</th>
<th><em>ti</em> deletes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>precedes human proper nouns</td>
<td>does not precede common nouns,</td>
</tr>
<tr>
<td>and human pronouns</td>
<td>non-human proper nouns and</td>
</tr>
<tr>
<td></td>
<td>non-human pronouns</td>
</tr>
<tr>
<td>co-occurs with case markers</td>
<td>deletes in restrictive relative clauses</td>
</tr>
<tr>
<td><em>ti</em> + N as a response to a question</td>
<td>deletes in vocatives</td>
</tr>
<tr>
<td><em>ti</em> + N as a predicate</td>
<td></td>
</tr>
</tbody>
</table>

#### 4.3.1 Explaining the presence of *ti*

Being a noun-class marker for human non-common nouns, *ti* is of course restricted to human proper nouns and pronouns. It can co-occur with case markers since it is not syntactically or semantically incompatible with them. Noun-class markers and case markers are distinct in their function: the function of noun-class markers is to classify nouns, while that of case markers is to mark the grammatical relation of arguments. There is no a priori reason for noun-class markers to be excluded from case markers, though they may undergo fusion phonologically, as in the case of *ni* (*ni* plus *ti*). In Kavalan, with the exception of genitive case markers, case markers are optional. As a result, noun-class markers may look like case markers. For example:

(38) a. m-uxamaz tu tamun ya tazuŋan
    AV-cook Acc dish Nom woman
    ‘The woman is preparing dishes’
b. m-uxamaz tu tamun (ya) ti-abas
   AV-cook Acc dish Nom Ncm-Abas
   ‘Abas is preparing dishes.’

As (38a-b) shows, the common noun *tazuŋan* and the proper noun *abal* pattern with the identical nominative case marker *ya*, though they are differentiated from each other by the noun-class marker. However, *ya* is optional. As *ya* gets deleted, the difference between *tazuŋan* and *abal* seems to be shifted from a contrast of noun-class marking to one of case marking. Compare:

(39) a. m-uxamaztu tamunya tazuŋan
   AV-cook Acc dish Nom woman
   ‘The woman is cooking dishes.’

b. m-uxamaz tu tamun ti-abal
   AV-cook Acc dish Ncm-Abas
   ‘Abas is cooking dishes.’

This seemingly contrast is noteworthy since it has long been observed that in Formosan languages common nouns are distinguished from their non-common counterparts by case markers. Take Mayrinax Atayal for example:

(40) Mayrinax Atayal (Li 1995: 25)
   a. ma-qilaap ku? xuil
      AV-sleep Nom dog
      ‘The dog slept.’

b. ma-qilaap ?i? ba?ay
   AV-sleep Nom Ba?ay
   ‘Ba?ay slept.’

As in (40a-b), the common noun *xuil* ‘dog’ takes the nominative case marker *ku?* but proper name *ba?ay* takes ?i?. Given the facts shown in Kavalan, it is plausible to assume that the nominative case marker ?i? for non-common nouns is a morphological complex: it can comprise the nominative case marker *ku?* plus the noun-class marker ?i. On this view, we can naturally account for why in Mayrinax proper nouns and pronouns occurring in predicate and topic positions take ?i with them. Consider:

      Neu Baicu? Nom chief Gen Atayal
      ‘Baicu? is the Atayal chief.’
   Neu I Nom chief Gen Atayal
   ‘I am Atayal chief.’
(42) Li (1995: 33–34)

a. ?i-ku?i ku? ma?usa?
   Pre-I Nom want go
   ‘It is me who wants to go.’

b. ?i-ku?i ku? hani
   Pre-I Nom this
   ‘This is mine.’

c. ?i-ku?i ga? ba?ay
   Top-I Top Ba?ay
   ‘As for me, I am Ba?ay.’

The marker ?i is analyzed as a neutral case marker by Huang (1995) but as a predicate or topic marker by Li (1995). However, both of the analyses are dubious. The rationale of the analyses aside, they fail to explain why proper nouns and pronouns in predicate and topic positions occur with ?i but common nouns don’t. Consider:

   dog-1S.Gen Top AV-black and AV-big
   ‘As for my dog, it is black and big.’

   child Nom AV-eat Acc sweet potato
   ‘The one who is eating potato is a child.’

As in (43a–b), in spite of serving as the predicate and topic, the common nouns xuil and ?ulaqi? do not take the marker ?i on a par with proper nouns and pronouns. The asymmetrical distribution of ?i is unexplained under Huang and Li’s analyses. However, it is borne out under our analysis of ?i as a noun-class marker for non-common nouns.

4.3.2 Explaining the absence of ti

In the analysis of ti as a noun-class marker for non-common human nouns, ti should not occur with common nouns or non-common non-human nouns. It also follows that ti cannot occur with a personal name which serves as the relative head in restrictive relative clauses, since in that case the personal name has no unique reference any more and thus should be treated as a common noun. For the
sake of exposition, let us consider the situation in English first.

(44) a. I have fallen in love with a Mary who wears red clothes.
   b. I have fallen in love with the Mary who wears red clothes,
      rather than the Mary who wears white clothes.
(45) a. I have fallen in love with a girl who wears red clothes.
   b. I have fallen in love with the girl who wears red clothes,
      rather than the girl who wears white clothes.

In the restrictive clause (44), the personal name Mary occur with determiners in much the same way as the common noun girl as in (45). In this case, the personal name should count as a common noun.

By contrast, a personal name in non-restrictive relative clauses must be a non-common noun proper. For example:

(46) a. I have fallen in love with (*a) Mary, who wears red clothes.
   b. I have fallen in love with (*the) Mary, who wears red clothes.

As in non-restrictive relative clause (46), the personal name Mary, being inherently unique in reference, cannot occur with determiners.

The contrast is also attested in Kavalan. Compare:

(47) a. pukun-an-ku=tî sïulus-ay tu bâri-ay (*tî-)abas
    hit-PV-1S.Gen= Asp wear-Comp Acc red-Comp Ncm-Abas
    'I have hit the Abas who wears red clothes'
   b. pukun-an-ku=tî sïulus tu bâri-ay *(tî-)abas
    hit-PV-1S.Gen= Asp wear Acc red-Comp Ncm-Abas
    'I have hit Abas, who wears red clothes.'

As in (47), the distribution of ti indicates the difference between restrictive and non-restrictive relativization. In (47a), ti cannot occur with the personal name abas. This suggests that in this case abas should be treated as a common noun and the sentence should involve restrictive relativization, as also illustrated by the English translation. By contrast, in (47b), ti should occur with abas. In this case, abas should then be treated as a proper noun and the sentence should involve non-restrictive relativization instead.

Interestingly, the distribution of ti is the opposite of the determiner the in English: ti occurs in non-restrictive relative clauses but disappears in restrictive relative clauses whereas the occurs in restrictive relative clauses but disappears in non-restrictive relative clauses. This further argues against the analysis of ti as a determiner.
Like personal names, kinship terms also have two uses: one as a proper noun and the other as a common noun. In English, for example, the capitalized kinship term *Mother* functions like a proper name as it only refers to the speaker’s own mother, while the non-capitalized *mother* is used as a common noun. Similar distinction is also attested in Kavalan, but in a different manner. For example:

(48) a. m-etawa ti-tina
   AV-laugh Ncm-Mother
   ‘Mother is laughing.’

b. m-etawa (*ti-) tina-na
   AV-laugh Ncm-mother-3S.Gen
   ‘His/ Her mother is laughing.’

In (48a), *tina* co-occurs with *ti* and functions as a proper noun like the capitalized kinship term *Mother* in English, while in (48b) *tina*, modified by the third person genitive pronoun, serves as a common noun and is thus incompatible with *ti*.

As for vocatives, it is not immediately clear why *ti* cannot occur with proper nouns and pronouns there. Vocative is a mean of direct address -- the personal name in vocatives directly refers to the hearer and is unique in reference. Thus, it should not be treated as a common noun. Then, why don’t proper names occur with *ti*? My hunch is that as in imperatives, elements in vocatives tend to occur in root forms. Probably for this reason, proper names do not take *ti* with them in vocatives.

5. Conclusion

The grammatical marking of noun classification has been one of the central issues in Austronesian linguistics. In the past, most attention has been focussed on the case marking of nouns. However, as shown above, apart from case-marking, Kavalan does observe systematic noun classification on a par with classifier languages. Like ordinary classifiers, noun-class markers in Kavalan classify nouns according to the inherent properties of the entities to which the associated nouns refer. In Kavalan, nouns that are unique in reference such as proper nouns and pronouns are classified into the category of non-common nouns in contrast to common nouns. In the category of non-common nouns,

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16. Tsuchida (1995) seems to be an exception to this trend. In the paper, he observes that the alienable-inalienable distinction is made by noun-class markers in Puyuma. Puyuma is a Formosan language which is generally identified as Paiwanic like Kavalan.
human proper nouns and pronouns take the noun-class marker ti while their nonhuman counterparts take zero marker or the marker ni. On the other hand, noun-class markers for common nouns behave like numeral classifiers in classifier languages: they appear upon the occurrence of numerals or quantifiers. In this category, human common nouns occur with the noun-class marker kin whereas their nonhuman counterparts occur with u. Both kin and u attach to the numerals or quantifiers rather than to the modified nouns.

The study of noun-class markers in Kavalan may shed light on the systems of noun-marking in Formosan languages as well. In light of the noun-class marking system in Kavalan, we postulate that the common-noncommon distinction, which is previously claimed to be made in case-marking, should be a distinction of noun-class marking instead. In that case, case-markers are morphological complexes: they consist of a case-marker and a noun-class marker. In particular, case-markers for noncommon human nouns comprise a case-marker plus a noun-class marker Ci (C stands for a consonant). On this view, a number of long standing problems (e.g. the problem why nouns in non-argument positions should take “case markers”) can be solved.

REFERENCES


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噶瑪蘭語類別詞研究

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摘要

在台灣南島語裡，普通名詞（common nouns）和非普通名詞（non-common nouns, 即專有名詞和代詞）常有不同的語法標記。Li (1995/7)、梅 (1994) 和 Huang (1995/6) 都曾指出，在台灣南島語裡，普通名詞通常由帶 u 或 a 元音的格位標記（case marker）來標示，而非普通名詞則通常有帶 i 元音的格位標記來標示。這種普通名詞和非普通名詞的區別，噶瑪蘭語也不例外地展現。然而，不同於其他台灣南島語的是，噶瑪蘭語普通名詞和非普通名詞的區別表現在於類別詞（noun-class marker）上，而是在格位標記上。本文嘗試從語法和語意的觀點，逐步辨識並整理出噶瑪蘭語的類別詞系統，如下圖所示：

```
名詞
  普通名詞*  非普通名詞
    屬人的  不屬人的  屬人的  不屬人的
      kin    u    ti    φ/ni
```

(*普通名詞只有和數量詞、數詞一起出現時才會有 kin 和 u 的標記)

在噶瑪蘭語裡，普通名詞通常沒有標記。不過如果和數量詞、數詞一起出現，屬人的（human）的普通名詞則和 kin 搭配使用，而不屬人的（non-human）則和 u 搭配使用；另一方面，屬人的非普通名詞通常由 ti 標記，而不屬人的非普通名詞不是沒有標記，就是由 ni 來標記。

噶瑪蘭語的類別詞雖然和典型的量詞（classifier）在句法表現上有些差異（例如類別詞 ti 不能和數詞和數量詞一起出現），但是類別詞和量詞在對其所搭配的名詞的分類原則卻是一致：兩者皆是根據名詞的固有屬性（inherent property）來將名詞分類的。

另外，噶瑪蘭語的類別系統對於理解台灣南島語的名詞標記系統也有啟發性的作用，特別是有關屬人的非普通名詞標記方面。根據噶瑪蘭語的名詞分類系統，我
們可以合理地推斷，過去所謂的格位標記有普通名詞和非普通名詞的區別事實上是假象，其中真正的區別仍在於類別別詞的區分。更精確地說就是，在這些語言裡，格位標記爲詞彙複合體（morphological complex）：格位標記事實上是格位標記和類別別詞組合形成的。例如，非普通名詞的標記是格位標記加上類別別詞Ci（C表輔音）組合而成的。這樣的分析不只在理論上完全站得住腳，同時也可以解釋實際的問題，例如出現在非論元位置（non-argument position；例如主題位置，述語位置）的名詞仍帶有所謂格位標記的問題。

關鍵詞：類別別詞，普通名詞／非普通名詞，屬人／非屬人名詞