

中央研究院歷史語言研究所集刊

第六十七本 第三分

(抽印本)

The Tsou Temporal, Aspectual and Modal  
System Revisited

Elizabeth Zeitoun

Reprinted from  
The Bulletin of the Institute of History and Philology  
Academia Sinica  
Vol. 67, Part 3  
Taipei, Taiwan, Republic of China  
1996

## The Tsou Temporal, Aspectual and Modal System Revisited<sup>1</sup>

Elizabeth Zeitoun \*

In the present paper, I investigate the temporal, aspectual and modal system of Tsou. My aim is two-fold: (1) I intend to reassess previous analyses made on this topic (see Tung 1964; Zeitoun 1992 and Szakos 1994) and (2) to re-examine the Tsou data in a typological perspective in order to present a unified study that takes into consideration not only this language but also highlights in what respects it differs from other Formosan languages.

I show that the temporal, aspectual and modal system of Tsou is based, as in most Formosan languages, on a basic modal dichotomy where realis contrasts with irrealis. In the realis, auxiliary verbs are divided into two categories, according to whether they

---

\* Institute of History and Philology, Academia Sinica

<sup>1</sup> This paper represents a revised version of part of my Ph. D. dissertation (Zeitoun 1995). Some of the ideas put forth here were brought to light through discussions with Lillian Huang and Mei-li Yeh, as part of a larger project on 'A typological study of the grammatical relations of some Formosan languages' (NSC grant 83-0301-H003-017). I wish to thank Li Jen-kuei, Stanley Starosta, Shigeru Tsuchida and Randy LaPolla for their comments on earlier versions of this paper as well as my main informants for sharing their linguistic knowledge with me -- they include Ming-hui Wang, Zheng-zong Zheng and Shan-sheng Wu on Tsou, Xian-hui Tang on Pailwan, Ting-fa Tang on Atayal and Zheng-fu Long on Rukai.

occur in AF (imperfective) or NAF (perfective) constructions. In the irrealis, all the auxiliary verbs can occur in AF and NAF constructions but the imperfective/ perfective dichotomy is not found. Auxiliary verbs may further be divided according to whether they refer to a remote or immediate situation both in the realis and in the irrealis.

**key word:** Formosan language, Tsou, tense, aspect, modality

## Introduction

Among the Formosan languages, Tsou<sup>2</sup> represents by far one the best documented thanks to the comprehensive grammar of Tung (1964), which not only deals with the phonology, morphology and syntax of the Tsou language but also provides abundant texts and a glossary. Recently, another grammar has been compiled (see Szakos 1994), which in terms of data collection surpasses the study carried out by Tung (1964). In spite of the large amount of work done on Tsou, however, many syntactic and semantic aspects of the language are still poorly understood.

In Zeitoun (1992 and 1993), it was briefly shown that:

(i) Tsou is basically a verb-initial language. The postverbal order of (full) lexical NPs is relatively fixed. In transitive sentences, word order may be defined as VOS, with (locative/temporal) adjuncts occurring in sentence-final position.

(ii) It patterns like most of the Formosan and extra-Formosan languages (e.g., the Philippine-type languages) in having a nominal case marking system cross-referenced on the verb. Full NPs are preceded by (nominative/oblique) case markers and the semantic role of the NP selected as the subject of the sentence is morphologically

<sup>2</sup> Tsou is spoken in southern Taiwan. It includes three dialects, Tapangu, Tfuya and Duhtu, which differ on the lexical and phonological levels (see Tung 1964 and Li 1979). The first two are spoken in a number of villages scattered in the county of Mt Ali (Chia-yi prefecture), the third in only one village occupied for the most part by a Bunun community, in the county of Hsin-yi (Nantou prefecture). The present research is based on the Tfuya dialect.

marked on the verb by means of an affix.

(iii) It differs from other Formosan languages, however, in having developed a complex system of auxiliaries and case markers which not only encode syntactic relations but also contain semantic information.

In Zeitoun (1993), I investigated the Tsou nominal case marking system. In the present paper, I deal with the temporal, aspectual and modal system of this language. My aim is two-fold: I intend to reassess previous analyses of this topic (see Tung 1964; Zeitoun 1992 and Szakos 1994) and to re-examine Tsou in a typological perspective in order to achieve a unified study that takes into consideration not only this language but also highlights in what respects it differs from other Formosan languages.<sup>3</sup>

## 1. The realis/irrealis dichotomy<sup>4</sup>

Below, I will show that Tsou behaves like most other Formosan languages in

<sup>3</sup> If not otherwise specified, data on languages other than Tsou come from my own field work, carried out between 1992 and 1995. In this paper, I will be comparing Tsou with Atayal (Mayrinax), Paiwan (Stimul), Rukai (Budai), and Saisiyat (Tungho).

The Tsou phonemic inventory includes 15 consonants /b, d, t, k, c, f, s, h, ʔ, n, m, ŋ, v, z, y/ and 6 vowels /i, e, i, a, o, u/. I do not believe that w should be included in the phonemic inventory of this language, as pointed out by Ho (1976). The implosive /d/ is transcribed as /l/ by Tung (1964) and Szakos (1994). To facilitate comparison between Tsou and the other Formosan languages selected for this study (cf. above), IPA symbols will be used throughout this paper. The abbreviations used in the glosses include: Acc: Accusative, Act: Active, Adv: Adverb, AF: Agent Focus, Asp: Aspect, BG: Bound Genitive, BN: Bound Nominative, FN: Free Nominative, Hab: Habitual, I: Inclusive, NAF: Non Agent-Focus, Neg: Negation, Nom: Nominative, Obl: Oblique, P: Plural, Part: Particule, Prf: Perfective, PF: Patient Focus, Real: Realis, Red: Reduplication, RT: Reference Time, S: Singular, ST: Speech Time.

<sup>4</sup> To my knowledge, Tsuchida (1980: 204) is one of the first (and among the few) scholar(s) working on Formosan languages to have pointed out that in Puyuma, the temporal/aspectual system is actually based on a realis/irrealis dichotomy.

exhibiting a basic distinction between realis and irrealis but differs from them in that it has grammaticalized the notion of "absolute" tense. I will first provide an overview of the temporal/aspectual and modal system of four Formosan languages, Atayal, Paiwan, Saisiyat and Rukai before turning my attention to Tsou.

### 1.1. Overview of the temporal/aspectual and modal system of Atayal, Paiwan Rukai and Saisiyat

This overview is intended to be brief because it summarizes ideas put forth in Zeiton et al. (1996). For the sake of clarity and concision, I will restrict myself to a discussion of the notion of "tense"<sup>5</sup> in AF constructions.

In Atayal, Paiwan and Saisiyat, focus affixes carry over temporal information if no other constituent determining the frame of the utterance simultaneously co-occur in the sentence. Hence, a verb infixed or prefixed with a m-form (in AF constructions) indicates that a situation has occurred/is actually taking place. Note that in these languages, past is not overtly distinguished from present. The same holds true in Rukai, which lacks the focus system commonly found in the other Formosan languages and has developed an active/passive dichotomy. An active (or a passive) verb infixed with <a> may refer to a past or present situation. As an illustration, consider (1a-d).

- (1) a. Atayal (Mayrinax)
- |          |     |       |     |       |      |         |
|----------|-----|-------|-----|-------|------|---------|
| m-aiq    | cu? | pila? | ʔi? | limuy | cku? | ʔulaqi? |
| [AF-give | Acc | money | Nom | Limuy | Acc  | child]  |
- i. 'Limuy is giving money to a child'
- ii. 'Limuy gave money to a child'
- b. Paiwan (Stimul)
- |          |    |       |     |      |
|----------|----|-------|-----|------|
| ʔ<am>əci | ti | palan | tua | vatu |
|----------|----|-------|-----|------|

<sup>5</sup> Note that in the Formosan languages, tense interacts with voice/focus, aspect and modality.

- |                   |     |        |     |      |
|-------------------|-----|--------|-----|------|
| [AF-beat to death | Nom | palang | Obl | dog] |
|-------------------|-----|--------|-----|------|
- i. 'Palang is beating a dog to death'
- ii. 'Palang beat a dog to death'
- c. Saisiyat [Yeh, 1991:84]
- |         |           |     |          |
|---------|-----------|-----|----------|
| ʔoya?   | f<om>əβat | ka  | korkorin |
| [mother | beat<AF>  | Acc | child]   |
- i. 'Mother is beating a child'
- ii. 'Mother beat a child'
- d. Rukai (Budai)
- |                |     |         |     |         |
|----------------|-----|---------|-----|---------|
| w-a-lumay      | ka  | takanaw | ki  | lampaw  |
| [Act-Real-beat | Nom | Takanaw | Obl | Lampaw] |
- i. 'Takanaw beat Lampaw'
- ii. 'Takanaw is beating Lampaw'

The notions of "past" and "present" usually depends on the occurrence of an aspectual affix or that of a temporal adjunct, as shown in (2) and (3).

- (2) a. Atayal, Mayrinax dialect [Huang, 1995:24]
- |              |     |       |     |       |      |         |
|--------------|-----|-------|-----|-------|------|---------|
| m<in>aiq     | cu? | pila? | ʔi? | limuy | cku? | ʔulaqi? |
| [AF<Prf>give | Acc | money | Nom | Limuy | Acc  | child]  |
- 'Limuy gave money to a child'
- b. Paiwan (Stimul)
- |                       |     |        |     |      |
|-----------------------|-----|--------|-----|------|
| na-ʔ<am>əci           | ti  | palan  | tua | vatu |
| [Prf<AF>beat to death | Nom | Palang | Obl | dog] |
- 'Palang beat a dog to death'
- c. Saisiyat [Yeh, 1991:80]
- |        |           |     |        |
|--------|-----------|-----|--------|
| yako   | m<in>ofa? | ila | hiza?  |
| [1S.FN | AF<Prf>go | to  | there] |
- 'I went there'

## d. Rukai (Budai)

w-a-[umay-pa ka takanaw ki lampaw  
 [Act-Real-beat-Prf Nom Takanaw Obl Lampaw]  
 'Takanaw beat Lampaw'

## (3) a. Atayal (Mayrinax)

m-aiq cu? pila? ?i? yumin cku? ?ulaqi? cu? hisa?  
 [AF-give Acc money Nom Yumin Acc child Part yesterday]  
 'Yumin gave money to a child yesterday'

## b. Paiwan (Stimul)

na-?əm>əci ti palan tua watu katiaw  
 [Prf<AF>beat to death Nom Palang Obl dog yesterday]  
 'Palang beat a dog to death yesterday'

## c. Saisiyat [Yeh, 1991: 70]

?oya? kahila? ʃ<əm>əβət ka korkorin  
 [mother yesterday beat<AF> Acc child  
 'Mother beat a child yesterday'

## d. Rukai, Budai dialect

w<a>[umay ka takanaw ki lampaw kuiya  
 [Act-Real-beat Nom Takanaw Obl Lampaw yesterday]  
 'Takanaw beat Lampaw yesterday'

Depending on the languages, future is either expressed morphologically and/or lexically: future is indicated by the prefixation of pa- in Atayal (Mayrinax) and li- in Rukai (Budai) and the occurrence of a modal auxiliary in Saisiyat and Paiwan. Compare (4) and (5).

## (4) a. Atayal (Mayrinax)

pa-βaiq cu? pila? ?i? yumin cku? ?ulaqi?  
 [will-give Acc money Nom Yumin Acc child]  
 'Yumin will give money to a child'

## b. Rukai (Budai)

li-[umay ka takanaw ki lampaw  
 [will-beat Nom Takanaw Obl Lampaw]  
 'Takanaw will beat Lampaw'

## (5) a. Saisiyat [Mei-li Yeh, p.c.]

minkorijan ʔam ʃ<əm>əβət ka korkorin  
 [woman will beat Acc child]  
 'The woman will beat a child'

## b. Paiwan (Stimul)

uri ʔ<əm>əci ti palan tua watu  
 [will AF-beat to death Nom Palang Obl dog]  
 'Palang will beat a dog to death'

A comparison of (1) and (4)-(5) shows that these languages exhibit a basic distinction between situations viewed as having occurred or actually taking place (realis/non-future) and those which have not (yet) occurred (irrealis/future).

As will become clear in the next section, Tsou displays the same realis/irrealis dichotomy<sup>6</sup> but differs from them in a number of respects.

## 1.2. The "remote/immediate" distinction in Tsou

As mentioned above, Tsou is characterized by its complex system of auxiliary verbs. These auxiliary verbs, which are required in each verbal clause, usually occur in initial position. They carry focus distinctions; however, unlike (lexical) verbs

<sup>6</sup> Szakos (1994) considers that Tsou exhibits a tripartite tense system, where past contrasts with present and future. In Zeitoun (1992), I thought that there were three major classes of auxiliary verbs, the first (cf. moso, moh-, mi-, i-, qh-) indicating tense (past vs. non-past), the second (da) aspect and the third modality (cf. te, təna, ta...). The present analysis differs from the earlier one in the light of the cross-linguistic comparison made with other Formosan languages.

which encode the semantic role of the NP selected as subject (for a discussion on Tsou focus markers, see Tsuchida 1976:100-6), they only indicate whether a sentence is an AF or NAF construction. They fall into three distinct classes: mio, moso, mi- and mo(h)- occur only in AF constructions while i- and o(h)- only in NAF constructions; te, ta, tena, n-te, nto and da can appear in both AF and NAF constructions.

One major difference between Tsou and the other Formosan languages is that temporal, aspectual and modal information are not marked on the verb but on these auxiliary verbs. In the realis, the occurrence of AF/NAF auxiliary verbs depends on whether a situation is regarded as having already occurred at Speech Time (ST), or as actually taking place/having a certain relevance at ST. As an illustration, consider (6) and (7).

## (6) Tsou

- a. moso yuevaho to peisu to oko ?o mameoi  
[AF lend-AF Obl money Obl child Nom old man]

'The old man lent money to a child'

- b. moh-ta yuevaho to peisu to oko  
[AF-3S.BN lend-AF Obl money Obl child]

'He lent money to a child'

- c. oh-ta yuevah-i to peisu to mameoi ?e oko  
[NAF-3S.BG lend-LF Obl money Obl old man Nom child]

'The old man lent money to the child'

## (7) Tsou

- a. mo yuevaho ta peisu ta oko ?e mameoi  
[AF lend-AF Obl money Obl child Nom old man]

'The old man is lending money to a child'

- b. mi-ta yuevaho ta peisu ta oko  
[AF-3S.BN lend-AF Obl money Obl child]

'He is lending money to a child'

- c. i-ta yuevah-i ta peisu ta mameoi ?e oko  
[NAF-3S.BG lend-LF Obl money Obl old man Nom child]

'The old man has (just) lent money to the child'

With mo(h)-, moso and o(h)-, the speaker implies that the event is over; it has taken place before ST and has no relevance at ST. With mo, mi- and i-, on the other hand, he emphasizes the fact that the situation is either on-going or has a certain relevance at ST. These examples show, in other words, that "past" and "present" distinctions are morphologically marked in the Tsou auxiliary verb system. In that respect, this language can be treated as having grammaticalized the notion of (absolute) tense. This claim is supported by the fact that the substitution of one auxiliary verb by another may yield the ungrammaticality of the utterance in question or produce semantic variations. More specifically, moso, mo(h)- and o(h)- can occur with (i) temporal adjuncts or with (ii) the aspectual particle da, which indicate that an event has occurred before ST and has no relevance at ST; mo, mi- and i- cannot. Compare the grammaticality of the pairs of examples given in (8)-(10).<sup>7</sup>

## (8) Tsou

- a. moso m-ichi netaseona  
[AF AF-rain this morning]

'It rained this morning'

- b. \* mo m-ichi netaseona  
[AF AF-rain this morning]

## (9) Tsou

- a. moh-ta da s<m>ovei ta oko

<sup>7</sup> Tung (1964) differentiates various mi's, mo's etc., but as shown in Zeitoun (1992), his analysis with respect to this classification is rather confusing. We can treat mo (vs. mi-), moso (vs. mo(h)-) and ntoso (vs. nto(h)-) as variants of the same morpheme. They differ in that the former (e.g., moso, mo and ntoso) cannot be followed by a bound pronoun or an aspectual suffix while the latter (cf., mo(h)-, mi and nto(h)-) can.

[AF-3S.BN Asp carry<AF> Obl child]

'(In the past), s/he carried the child'

b. \* mi-ta da s<m>ovei ta oko

[AF-3S.BN Asp carry<AF> Obl child]

(10) Tsou

a. o-si mi?-a ta papai to mamespiŋi ?o bivni nehucma  
[NAF-3S.BG plant-PF Obl field Obl woman Nom flower yesterday]

'The woman planted flowers in the field yesterday'

b. \* i-si mi?-a ta papai to mamespiŋi ?o bivni nehucma  
[NAF-3S.BG plant-PF Obl field Obl woman Nom flower yesterday]

If mo(h)- co-occurs with -cu 'already,' the sentence will be interpreted as having occurred in the past (see (11a)). If, on the other hand, mi- co-occurs with -cu, the utterance will be interpreted as on-going at ST, (see (11b)).

(11) Tsou

a. moh-ta -cu boni to tacimi  
[AF-3S.BN -already eat-AF Obl banana]

'He ate a banana (and then...)'

b. mi-ta -cu boni ta tacimi  
[AF-3S.BN -already eat-AF Obl banana]

'He is already eating a banana'

In the irrealis, future is indicated, as in Saisiyat and Paiwan, by the occurrence of a modal auxiliary (cf. te, tena, ta).<sup>8</sup> Though the semantic distinctions between these

<sup>8</sup> If these auxiliaries are treated as modals, then we can account for the fact that te can (1) occur in imperative (affirmative and negative) sentences, as illustrated in (i) and (2) express volitionality as in (ii).

(i) Tsou

a. te-to -n?a m-imo  
[will-1PI.BN still AF-drink]  
'Let us have a drink (again)!!'

three auxiliaries remain to be worked out, we may say, at a first approximation, that te and ta differ in that the former is used to refer to an event which is to happen soon whereas ta indicates that the event is to happen later, i.e., the speaker stresses on the remoteness in time. Compare (12a-b).

(12) Tsou

a. te-?o -n?a etamaku  
[will-1S.BN -still smoke-AF]

'I'm going to smoke again (at once)'

b. ta-?u -n?a etamaku  
[will-1S.BN -still smoke-AF]

'I will smoke again (in a moment)'

Tung (1964: 105) claims that "the difference between /tena/ and /te/ is just the same as the difference between /o?ana/ 'not longer, not more' and /o?a/ 'not' or between /uk?ana/ 'there is no more' and /uk?a/ 'there is not'. Hence, the special function of /tena/ is to indicate a new situation, or something as the result of a previous event." But his claim remains to be justified by syntactic evidence.

b. ?o-te-su m-onoi ta-?u pa-mihia tposi  
[Neg-will-2S.BN AF-leave will-1S.BN Caus-buy books]  
'Don't leave, I want you to buy some books'  
c. te-av?a ima ?e emi  
[will-Neg drink-NAF Nom wine]  
'Don't drink the wine'

(ii) Tsou

a. o?a te m-imo ta emi  
[Neg will AF-drink Obl wine]  
'He will not drink wine'  
b. o?-te m-imo to emi  
[Neg-will AF-drink Obl wine]  
'He does not drink wine'

Two other auxiliaries (cf. *nte* and *nto(h)-/ntoso*) refer to a situation which may occur or which was to happen in the past but did not. We can treat the prefix *n-* as marking the uncertainty of the speaker who believes that a situation may happen/may have happened but does not exclude the fact that it won't (hypothetical reading) or did not happen (counterfactual reading). As an illustration, consider (13a-b).

## (13) Tsou

- a. *honci-ʔu eaa peisu, nte-ʔu mihia emoo*  
 [if-1S.BN have money will-1S.BN buy house]  
 'If I have money, I will buy a house'
- b. *honci-ʔu eaa peisu, nto-ʔu mihia emoo*  
 [if-1S.BN have money will-1S.BN buy house]  
 'If I had had money, I would have bought a house'

We have presented the temporal system of Tsou and argued that it is based on a modal dichotomy where *realis* contrasts with *irrealis*. For ease of comparison with other Formosan languages, we showed that in the *realis*, "past" is morphologically distinguished from "present". It is worth recalling, however, that more than thirty years ago, Tung (1964: 96) warned against the misuse of the traditional distinction between "past" and "present" in Tsou, because it masks important linguistic facts in this language. We will follow him in arguing that Tsou has, in fact, developed a distinction between remoteness and immediacy.<sup>9</sup> If we adopt such an analysis, we can account for the morphological parallelism found in the marking of situations viewed as having occurred or actually taking place (*realis*) and those regarded as having not yet occurred or having not occurred (*irrealis*). Both in the *realis* and in the *irrealis*, situations seen as immediate are expressed by an auxiliary verb ending with *-i*

<sup>9</sup> The concept of remoteness/immediacy also accounts for the Tsou nominal case marking system (see Zeitoun 1993), since as shown in Zeitoun (1995), in this language, the notion of Time parallels that of Space.

or *-e*, cf. *mi-*, *i-*, *te-* while those viewed as remote are referred to by an auxiliary verb ending with *-o*, cf. *moso*, *mo(h)-*, *o(h)-*, *nto(h)-*, *ntoso*). This morphological contrast is illustrated in (14) and (15).

## (14) Tsou

- a. *mi-ta -cu moyafu*  
 [AF-3S.BN -already go out]  
 'He has already gone out' (Not long ago)
- b. *te-ta -cu moyafu*  
 [AF-3S.BN -already go out]  
 'He is going out/will go out (very soon)'

## (15) Tsou

- a. *upena ne-moso m-ichi nehucma, moh-ta cʔo moyafu*  
 [even though AF AF-rain yesterday AF-3S.BN only go out]  
 'Though it rained yesterday, he did go out'
- b. *upena hoci m-ichi nehucma, ntoh-ta cʔo moyafu*  
 [even though if AF-rain yesterday AF-3S.BN only go out]  
 'Even if it had rained yesterday, he would have gone out'

## 2. Aspectual distinctions\*

I will now examine aspectual distinctions (perfective vs. imperfective, progressive and habitual). Adopting the same approach as before, I will be comparing Tsou to Atayal, Paiwan, Saisiyat and Rukai.

I will first show that in the *realis*, situations can be viewed as imperfective or perfective. Such a dichotomy is not found in the *irrealis*. I will then argue that the progressive aspect is not overtly marked in Tsou and that two *da*'s -- one of these being used to refer to habitual situations -- must be distinguished.



## 2.1. AF vs. NAF constructions and the imperfective/perfective dichotomy

It was shown above that in the realis, auxiliary verbs can be divided into two distinct categories: moso, mo, mi- and mo(h)- only occur in AF constructions while i- and o(h)- are only found in NAF constructions. In the irrealis, auxiliaries can appear both in AF and NAF constructions.

The syntactic distribution of the Tsou auxiliary verbs reflects the semantic dichotomy (imperfective/perfective) that divides AF and NAF constructions not only in Tsou but also in other Formosan languages, e.g., Atayal (Mayrinax), (see Zeitoun and Huang, 1994). As an illustration, consider (16).

(16) Tsou

- a. mi-ta            m-imo        ta        emi  
       [AF-3S.BN    AF-drink   Obl   wine]  
       'He is drinking wine'
- b. i-ta            im-a        ta        emi  
       [NAF-3S. BG   drink-PF   Nom   wine]  
       'He has drunk the wine'

In AF constructions, the speaker stresses the activity carried out by the agent/actor; the event is viewed as imperfective and the patient is regarded as only partially affected, as shown in (16a). In NAF constructions, on the other hand, the speaker focuses on the result of that activity; whether the situation is understood as completed or not, the patient is regarded as more (if not totally) affected, as in (16b). More generally, the AF/NAF dichotomy can be defined as an instance of the 'Transitivity hypothesis' put forward by Hopper and Thompson (1981).<sup>10</sup> They point out that the notion of "Transitivity" must be

<sup>10</sup> Based on this work, Gibson and Starosta (1990) later established a parallel between imperfectivity/intransitivity and perfectivity/transitivity and showed that while NAF constructions represent the basic sentences in Austronesian languages, AF constructions can be treated as antipassives and in other words, that Formosan languages are ergative in nature.

understood as a "[r]elationship which obtains throughout a clause. It is not restricted to one constituent or pair of constituents. Consequently, the presence of an overt O is only one feature of a Transitive clause; it coexists with other defining properties (such as Agency, Kinesis, Aspect, Punctuality, Volitionality, Affirmation, Mode, Agency, Affectedness of O, individuation of O)]" (Hopper and Thompson 1981:266). Tsou has developed a complex system of case markers (see Tung 1964; Zeitoun 1993 and Szakos 1994) and the interpretation of an utterance as on-going, completed or inchoative depends, among other things, on the co-occurrence of auxiliaries with these case markers. As shown above, mi- refers to an on-going situation at ST. A comparison of (17) and (18) shows, however, that in co-occurrence with to which refers to an object "unseen" at Speech Time, the utterance is given an immediate past reading.

(17) Tsou

- mi-ta            -cu            6oni        ta        tacimi  
       [AF-3S.BN    -already   eat-AF   Obl   banana]  
       'He is already eating a banana'

(18) Tsou

- mi-ta            -cu            6oni        to        tacimi  
       [AF-3S.BN    -already   eat-AF   Obl   banana]  
       'He has already eaten a banana'

In the irrealis, the imperfective/perfective dichotomy is not found. Compare (16) and (19).

(19) Tsou

- a. te-ta            m-imo        ta        emi  
       [will-3S.BN   AF-drink   Obl   wine]  
       'He will drink wine'
- b. te-ta            im-a        ?e        emi  
       [will-3S.BG   drink-PF   Nom   wine]  
       'He will drink the wine'

This claim is supported by the fact that in co-occurrence with the auxiliary verb mi-, -n?a is interpreted as 'still' and the utterance is given a progressive reading (at ST). Such is not the case if te- co-occurs with -n?a which then translates as 'again'. Compare (20a-b).

## (20) Tsou

- a. mi-ta      -n?a    m-imo    ta    emi  
[AF-3S.BN    still    AF-drink    Obl    wine]  
'He is (still) drinking wine'
- b. te-ta      -n?a    m-imo    ta    emi  
[will-3S.BN    still    AF-drink    Obl    wine]  
'He is going to drink wine again'

## 2.2. Is there a progressive in Tsou ?

We will first examine how the progressive is expressed in Paiwan, Rukai, Atayal and Saisiyat.

In Paiwan and Rukai, the progressive aspect is indicated by the total or partial reduplication of the verb stem, as illustrated in (21) and (22).

## (21) Paiwan (Stimul)

- ?<am>aci-?aci      ti      palanj      tua      watu  
[<AF>Red-beat to death    Nom    Palang    Obl    dog]  
'Palang is beating a dog to death'  
(but also: 'Palang (usually) beats dogs to death')

## (22) Rukai (Budai)

- w-a-luma-lumay      ka      takanaw      ki      lampaw  
[Act-Real-Red-beat    Nom    Takanaw    Obl    Lampaw]  
'Takanaw is beating Lampaw'  
(but also: 'Takanaw (usually) beats Lampaw')

Both Atayal and Saisiyat make use of lexical marking.

Atayal (Mayrinax) has grammaticalized the verbs of possession/ location/ existence kia? and hani?an into aspectual auxiliaries. These two auxiliary verbs can co-occur with verbs marked as AF or NAF. A comparison of (23a-d) shows, however, that they differ slightly semantically. Huang (1995:156) has clearly shown that hani?an designates "an action taking place close to the speaker" and that on the other hand, kia? indicates that the action is "taking place away from the speaker."

## (23) Atayal (Mayrinax)

- a. hani?an-ci    m-aiq    cu?    pila?    cku?    ?ulaqi?  
[Asp-1S.BN    AF-give    Acc    money    Acc    child]  
'I am giving money to a child'
- a' hani?an    m-aiq    cu?    pila?    ?i?    yumin    cku    ?ulaqi?  
[Asp    AF-give    Acc    money    Nom    Yumin    Acc    child]  
'Yumin is giving money to a child' (I can see him giving money to the child here and now)
- b. kia?-ci      m-aiq      cu?      pila?      cku?      ?ulaqi?  
[Asp-1S.BN    AF-give    Acc    money    Acc    child]  
'I was giving money to a child (when I saw you)'
- b' kia?      m-aiq      cu?      pila?      ?i?      yumin      cku?      ?ulaqi?  
[Asp    AF-give    Acc    money    Nom    Yumin    Acc    child]  
'Yumin is giving money to a child' (I can see him giving money to the child over there, or I have (just) seen him doing so and I am talking about this to you).

Saisiyat makes use of two particles man and ma to indicate the progressive. The first occurs in AF constructions, as in (24) and the second in NAF constructions.

## (24) Saisiyat [Mei-li Yeh, p.c.]

- a. minkorinan    man    f<om>əβət    ka    korkorin  
[woman    Asp    beat<AF>    Acc    child]  
'The woman is beating a child'

b. korkorin noka minkorinan ma ʃəβət-an  
 [child Gen woman Asp beat-PF]

'The woman is beating the child'

Tsou does not indicate the progressive aspect through the reduplication of the verb stem or through the use of a specific auxiliary verb. In this language, the progressive is inherently implied in AF constructions,<sup>11</sup> as illustrated in (25). However, as shown in (18) above, the co-occurrence of an auxiliary verb with different sentential constituents may yield a different interpretation.

(25) Tsou

mi-ta eoβako ta oko  
 [AF-3S.BN beat-AF Obl child]

'He is beating a child'

### 2.3. Habitual aspect

Following the same procedure as above, I will first show in what respects Tsou differs from Atayal, Paiwan and Rukai before examining the semantic function of the auxiliary verb da. I will then contrast it with the preverb da and the auxiliary verb de.

In Atayal and Saisiyat, the occurrence of a temporal adverb such as 'often' or 'everyday' etc. yield a habitual reading, as shown in (26).

(26) a. Atayal (Mayrinax)

m-aiq kariariax cu? pila? ʔi? yumin cku? ʔulaqi?  
 [AF-give every day Acc money Nom Yumin Acc child]

'Yumin gives money to child(ren) everyday'

<sup>11</sup> Our analysis (i.e., treating moso and mo as the respective allomorphs of mo(h)- and mi-) goes against that of Szakos (1994: 126), who treats moso/mo as [+progressive] and mo-/mi- as [-progressive], see also footnote (7).

b. Saisiyat [Yeh, 1991:70]

ʔoya? ramram ʃ<om>əβət ka korkorin  
 [mother often beat<AF> Acc child]

'Mother often beats child(ren)'

(27) is ungrammatical because of the co-occurrence of mi-, which basically refers to an on-going situation at ST, and huhucmasi 'every day,' which implies the scanning of a class of occurrences.

(27) Tsou

mi-ta huhucmasi eoβako to oko  
 [AF-3S.BN AF-every day beat-AF Obl child]

In Rukai and Paiwan, it is the total/partial reduplication of the verb stem that yields a progressive interpretation as shown above, but also a habitual reading. In Paiwan, this structural ambiguity is raised by the situational context. In Rukai (Budai), the occurrence of different case markers (cf. ka 'visible' vs. ku 'invisible') may give the utterance either a progressive or a habitual reading. As an illustration, consider (29a-b).

(28) Paiwan (Stimul)

k<om>əβə-kəβə ti palan tay kalalu  
 Red-AF-beat Nòm Palang Obl Kalalu]

i. 'Palang is beating Kalalu'

ii. 'Palang often beats Kalalu'

(29) Rukai (Budai)

a. w-a-kanə-kanə-su ka bələbələ  
 [Act-Real-Red-eat-2S.BN Obl banana]

'You are eating a banana'

b. w-a-kanə-kanə-su ku bələbələ  
 [Act-Real-Red-eat-2S.BN Obl banana]

'You usually eat bananas'

In Tsou, the partial reduplication of the verb stem does not yield a habitual reading. Compare (28)-(29) and (30).

(30) Tsou

mi-ta      eo-eobako      ta      oko  
[AF-3S.BN    Red-beat-AF    Obl    child]  
'He is beating the child'

To obtain such an interpretation, the auxiliary verb da must be used instead, as shown in (31).

(31) Tsou

da-ta      huhucmasi      eobako      to      oko  
Hab-3S.BN    every day-AF    beat-AF    Obl    child  
'He beats a child every day'

Note that da occurs in sentence-initial position if it refers to an 'habitual present'. In co-occurrence with mo(h)-, moso, o(h)- or te, tena, ta, which determine the temporal frame of an utterance (either past or future), it is positioned after the auxiliary verb. As an illustration, consider the following examples.

(32) Tsou

moh-ta      da      huhucmasi      boni      to      tacimi  
[AF-3S.BN    Hab    every day-AF    eat-AF    Obl    banana]  
'(In the past), he would eat a banana every day'

(33) Tsou

\*tena      da-ta      huhucmasi      boni      to      tacimi  
[will    Hab-3S.BN    every day    eat-AF    Obl    banana]  
'(In the future), he will eat a banana every day'

Note that if huhucmasi 'everyday' does not occur, however, (32) would be given a past interpretation, and (33) would become ungrammatical, as shown in (34) and (35).

(34) Tsou

moh-ta      da      boni      to      tacimi

[AF-3S.BN    Asp    eat-AF    Obl    banana]

'He ate a banana'

(35) Tsou

\* tena      da-ta      boni      to      tacimi  
[will    Hab-3S.BN    eat-AF    Obl    banana]

How can we account for the semantic variation of (34) and the ungrammaticality of (35)?

We mentioned above that moso, mo(h)- and o(h)- can occur with the aspectual particle da, as in (36). It indicates an anteriority and a disconnection with ST or RT.

(36) Tsou

a. moh-ta      da      etamaku  
[AF-3S.BN    Asp    smoke-AF]  
'He smoked'  
b. moh-ta      da      pasunaeno  
[AF-3S.BN    Asp    sing-AF]  
'He sang'

In (36), da occurs just before the verb. In (37), it appears in the initial position. We note that when its position varies, the utterance cannot be given the same interpretation.

(37) Tsou

a. da-ta      etamaku  
[Hab-3S.BN    smoke-AF]  
'He (usually) smokes'  
b. da-ta      pasunaeno  
[Hab-3S. BN    sing-AF]  
'He (usually) sings'

These examples show that there are in fact two da's<sup>12</sup> in Tsou and that they both differ syntactically and semantically. Let us now return to a comparison between (32)-(34) and (33)-(35), repeated below for convenience, as (38) and (39).

(38) Tsou

- a. moh-ta      da      huhucmasi      boni      to      tacimi  
                  [AF-3S.BN    Hab    every day-AF    eat-AF    Obl    banana]  
                  '(In the past), he would eat a banana every day'
- b. moh-ta      da      boni      to      tacimi  
                  [AF-3S.BN    Asp    eat-AF    Obl    banana]  
                  'He ate bananas'

(39) Tsou

- a. tena      da-ta      huhucmasi      boni      to      tacimi  
                  [will    Hab-3S.BN    every day    eat    Obl    banana]  
                  '(In the future), he will eat a banana every day'
- b. \* tena      da-ta      boni      to      tacimi  
                  [will    Hab-3S.BN    eat-AF    Obl    banana]

In (38a) and (39a), da (henceforth da<sub>1</sub>) functions as an auxiliary verb. It refers to the scanning of a class of situations (habitual aspect) and by implication to the characteristic of the agent/actor of the sentence. In (38b), da (henceforth da<sub>2</sub>) functions as an aspectual marker. It refers to a past event, in disconnection with ST. If (39b) refers to an event (E<sub>1</sub>) anterior to a certain Reference Time given by a second event (E<sub>2</sub>), then the utterance is well-formed. Compare (39b) and (39c).

(39) Tsou

- c. tena-ta      da      boni      to      tacimi, te      moyafu      ?e      amo

<sup>12</sup> While Tung (1964:90) mentions that these two da's are in fact different, he does not show in what respect they differ from one another, nor does he really define their semantic functions. He believes, on the other hand, that da and da are quite identical "in sound and in use" (see Tung, *ibid*).

[will-3S.BN    Asp    eat-AF    Obl    banana will    go out-AF    Nom    father]

'After he eats a banana, father will go out'

Our claim that two da's co-exist in Tsou is supported by the following evidence: da<sub>1</sub> and da<sub>2</sub> can both co-occur with -s?a, -cu 'already' and -n?a 'still'. Our analysis correctly predicts, however, that (i) the position of the two da's with respect to -s?a, -cu and -n?a, and (ii) the meaning of the utterances in question, will differ. Compare the following pairs of examples:

(40) Tsou

- a. o?a      moh-ta      da      -s?a      boni      to      tacimi  
                  [Neg    AF-3S.BN    Hab    Adv    eat-AF    Obl    banana]  
                  '(In the past), he would not eat bananas'
- b. o?a      moh-ta      -s?a      da      boni      to      tacimi  
                  [Neg    AF-3S.BN    Adv    Asp    eat-AF    Obl    banana]  
                  '(In the past), he did not eat bananas'

(41) Tsou

- a. moh-ta      da      -n?a      t<m>opsi,      mo-?u      -cu      da      eohioa  
                  [AF-3S.BN    Hab    still    read<AF>    AF-1S.BN    -already    Asp    work-AF]  
                  '(At the time) when he was attending school, I was already working'
- b. moh-ta      -n?a      da      t<m>opsi,      mo-?u      da      eimeimi  
                  [AF-3S.BN    still    Asp    read-AF    AF-1S.BN    Asp    enter-AF]  
                  'I entered while he was reading'

(42) Tsou

- a. moh-ta      da      -cu      etamaku  
                  [AF-3S.BN    Hab    -already    smoke-AF]  
                  '(At that time), he could already smoke'
- b. moh-ta      -cu      da      etamaku  
                  [AF-3S.BN    -already    Asp    smoke-AF]  
                  '(In the past), he already smoked'

There is another auxiliary verb, dea, that Szakos (1994: 131) also treats as marking 'habituality'. While da<sub>1</sub> and dea<sup>13</sup> can substitute for each other in (43), they cannot in (44).

(43) Tsou

a. dea-ta      meedɨ      etamaku  
[know-BN      be able to-AF      smoke-AF]  
'He can smoke'

b. da-ta      meedɨ      etamaku  
[Hab-3S.BN      be able to-AF      smoke-AF]  
'He can smoke'

(44) Tsou

a. \* dea-ta      huhucmasi      6oni      to      tacimi  
[know-3S.BN      every day-AF      eat-AF      Obl      banana]  
b. da-ta      huhucmasi      6oni      to      tacimi  
[Hab-3S.BN      every day-AF      eat-AF      Obl      banana]

'He eats (a) banana(s) every day'

A comparison of (45) and (46) reveals that da<sub>1</sub> and dea differ semantically. As shown above, da<sub>1</sub> refers to the scanning of a class of situations and/or to the characteristic of the agent/actor of the sentence. This is illustrated in (45b) and (46b). dea on the other hand, indicates the agent's (cap)ability in performing an action, as exemplified in (45a) and (46a).

(45) Tsou

a. dea-ta      etamaku  
[know-3S.BN      smoke-AF]  
'He knows how to smoke'

<sup>13</sup> I later found that not all my informants agree with the interpretation given of dea in (43)-(46). Wang Ming-hui suggested that dea could actually be used in a 'habitual' context -- hence, he believes that (44a) is grammatically correct--but differs from da in carrying a notion of 'certainty' (as does mo).

b. da-ta      etamaku  
[Hab-3S.BN      smoke-AF]  
'He (usually) smokes'

(46) Tsou

a. dea-ta      hioa      ʔo      tufku  
[know-3.SBG      work-PF      Nom      clothes]  
'He knows how to wash clothes'

b. da-ta      hioa      ʔo      tufku  
[Hab-3S.BG      work-PF      Nom      clothes]  
(Lit:) 'His work consists of washing clothes'

## Concluding remarks

In this paper, I have tried to provide a unified account of tense, aspect and modality that does take into consideration not only the Tsou language, but also highlights in what respects it differs from other Formosan languages.

I showed that the temporal, aspectual and modal system of Tsou is based, as in most of the Formosan languages, on a basic modal dichotomy where realis contrasts with irrealis. In the realis, auxiliaries are divided into two categories according to whether they occur in AF (imperfective) or NAF (perfective) constructions. In the irrealis, all the auxiliaries can occur in AF or NAF constructions and the imperfective/perfective dichotomy is not found. Auxiliaries may further be divided according to whether they refer to a remote or immediate situation both in the realis and in the irrealis. The following table summarizes this overall discussion.

Table 1: The temporal, aspectual and modal system of Tsou

	Realis			Irrealis	
	Remote	Immediate	Habitual	Remote	Immediate
AF (Imperfective)	mo(h)- moso	mi- mo			
AF/NAF			da	ta- nto(h) ntoso	te nte
NAF (Perfective)	o(h)-	i-			

It is hoped that this paper will encourage linguists working on Formosan languages to carry more typological studies, not only to clarify the still-controversial relationships of the Formosan languages with respect to one another and to languages spoken outside Taiwan, but also to understand and deepen their knowledge of a particular language by reaching cross-linguistic generalizations that may be missed otherwise.

( 本文於民國八十五年二月二十六日通過刊登 )

## References

- Chung, Sandra and Alan Timberlake  
 1985 Tense, Aspect and Mood. In Timothy Shopen (ed.) *Language Typology and Syntactic Description, Vol 3: Grammatical categories and the lexicon*. pp.202-58. Cambridge: Cambridge University Press.
- Gibson, Jeanne and Stanley Starosta  
 1990 Ergativity east and west. In Philip Baldi (ed.), *Linguistic change and reconstruction methodology* pp. 195-210. Trends in Linguistics Studies and Monographs 45. Berlin and New York: Mouton de Gruyter.
- Ho, Dah-an  
 1976 Tsou phonology. *Bulletin of the Institute of History and Philology* 47: 245-74. (In Chinese)
- Hopper, Paul and Sandra Thompson  
 1980 Transitivity in grammar and discourse. *Language* 56: 251-99.
- Huang, Lillian M.  
 1995a *A Study of Mayrinax Syntax*. Taipei: The Crane Publishing Co.  
 1995b The Syntactic Structure of Wulai and Mayrinax: A Comparison. *Bulletin of National Taiwan Normal University* 40: 261-94.
- Li, Paul J.  
 1979 Variations in the Tsou dialects. *Bulletin of the Institute of History and Philology* 47: 245-274.  
 1992 *Orthographic systems for Formosan languages*. Taipei: Ministry of Education, Taiwan, ROC. (In Chinese)
- Starosta, Stanley  
 1969 Review of Tung T'ung-ho, A descriptive study of the Tsou language, Formosa. *Language* 45.2: 439-44.  
 1974 Causative verbs in Formosan languages. *Oceanic Linguistics* 13.1-2: 279-369.  
 1988 A grammatical typology of Formosan languages. *Bulletin of the Institute of History and Philology* 59.2: 541-76.

- 1994 Formosan clause structure: transitivity, ergativity, and case marking. *Paper presented at the Fourth International Symposium on Chinese Languages and Linguistics, IsCLL4* (July, 18-20). Taipei: Academia Sinica.
- 1995 A grammatical subgrouping of Formosan languages. In Paul Jen-kuei Li, Cheng-hwa Tsang, Ying-kuei Huang, Dah-an Ho, Chiu-yu Tseng (eds.), *Austronesian studies relating to Taiwan*. Symposium series of the Institute of History and Philology, Academia Sinica, No.3: 683-726.

Szakos, Joseph

- 1994 *Die Sprache der Cou: Untersuchungen zur Synchronie einer austronesischen Sprache auf Taiwan*. Ph. D dissertation. Bonn: University of Bonn.

Tsuchida, Shigeru

- 1976 *Reconstruction of Proto-Tsouic phonology*. Study of Languages and Cultures of Asia and Africa Monograph Series No. 5. Tokyo: Institute of Languages and Cultures of Asia and Africa.
- 1980 Puyuma (Tamalakaw dialect) vocabulary -- with grammatical notes and texts [In Japanese]. In Kuroshio Bunka no Kai [Black Current Cultures Committee] (eds.), *Kuroshio no minzoku, bunka gengo* [Ethnology, cultures and languages along the Black current], 183-307. Tokyo: Kadokawa Shoten.

Tung, T'ung-ho

- 1964 *A Descriptive Study of the Tsou Language, Formosa*. Taipei: Academia Sinica.

Yeh, Mei-li

- 1991 *Saisyat Structure*. MA thesis. Hsinchu: National Tsing Hua University.

Zeitoun, Elizabeth

- 1992 *A Syntactic and Semantic Study of Tsou Focus System*. MA thesis, Hsinchu: National Tsing Hua University.
- 1993 A Semantic Study of Tsou Case Markers. *Bulletin of the Institute of History and Philology* 64.4: 969-89.
- 1995 *Problèmes de linguistique dans les langues aborigènes de Taiwan*. [English version: Issues on Formosan linguistics] Unpublished dissertation, Université de Paris 7.

Zeitoun, Elizabeth and Lillian M. Huang

- 1994 Toward a Typology of Tense, Aspect and Modality in the Formosan

Languages: a Preliminary Study. *Paper presented at the Fourth International Symposium on Chinese Languages and Linguistics, IsCLL4* (July, 18-20). Taipei: Academia Sinica.

Zeitoun, Elizabeth, Lillian M. Huang, Marie M. Yeh, Anna H. Chang and Joy J. Wu

- 1996 The Temporal/Aspectual and Modal systems of some Formosan languages: Typological Perspective. *Oceanic Linguistics* 35.1: 21-56.



## 再論鄒語的時制、動貌與語氣系統

齊莉莎

中央研究院歷史語言研究所

本文主要探討鄒語的時制、動貌與語氣系統。我的研究目標有兩個：一方面，就以前對鄒語時貌系統所做的分析再作評定（參見Tung 1964, Zeitoun 1992, Szakos 1994）；另一方面，是以文法關係型態的觀點來重新考慮鄒語的語料，進而探討鄒語和幾個台灣南島語言/方言所顯現的一些異同。

一般台灣南島語時貌的呈現有兩種方法來表示，一種是利用動詞的詞綴（包括焦點系統）或重疊，另一種則是藉由時間副詞。鄒語則有所不同，時貌的呈現是由助動詞來表示。台灣南島語和鄒語的相同點在於時貌都可分為事實和非事實。鄒語的助動詞在事實可分為出現在主事者焦點結構（表示非完成貌）和非主事者焦點結構（表示完成貌）兩大類；在非事實，助動詞可出現在主事者焦點或非主事者焦點結構，但是完成貌/非完成貌的區別並不存在。另外，在事實和非事實可利用「遠隔」和「臨近」的對立來細分鄒語的助動詞。