

## **Tsou Case Markers Revisited: Visibility, Proximity, and Beyond\***

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It is widely observed that case markers indicate pragmatic functions as well as grammatical functions in Tsou. While it is generally agreed that Tsou case markers encode visibility and proximity, it remains to be worked out whether they bear additional pragmatic/cognitive functions. The majority of the previous researchers believe that Tsou case markers are also markers of referentiality. This paper rejects the referential analysis and argues instead that Tsou case markers additionally specify the speaker's sensory experiences and perception. The present perception-based analysis explains why (i) Tsou case markers are unselective to referentiality; (ii) the sensory/perceptual principles that govern the case-marking of ordinary NPs also govern that of locative/temporal NPs; (iii) the NPs denoting interrogative, spiritual, legendary, unrealized, and abstract entities are case-marked in the same manner. The findings of this study prompt the revision of Tsou case-marking system.

Keywords: Tsou, case markers, referentiality, visibility, proximity, perception

### **1. Introduction**

Since Tung (1964), it has been widely observed that case markers indicate pragmatic functions as well as grammatical functions in Tsou. While Tsou case markers are generally believed to encode visibility and proximity, the question of whether they bear additional pragmatic functions remains to be worked out. Most of the previous studies claim that Tsou case markers can indicate referentiality, as in other Formosan languages such as Mayrinax Atayal and Puyuma.<sup>1</sup> However, there is convincing evidence that the treatment of Tsou case markers as markers of referentiality is undesirable. This paper attempts to offer an alternative analysis to the referential analysis on the basis of a project report of the Tsou dictionary compilation (H. Chang and Cheng 2010) and my own field notes.

The paper is organized as follows. Section 2 reviews the previous studies on the case-marking in Tsou, with special focus on their referential analysis. Section 3 and section 4 falsify the referential analysis by showing what are taken as indefinite/nonspecific case markers can co-occur with definite/specific NPs on the one

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\* I am grateful to two anonymous reviewers for their valuable comments. Thanks are also due to my principal language consultants Mo'e Peongsi (Mo'o Peongsi), Mo'e Yakumangana (Mo'o Yakumangana), Sayung'e Yulunana (Sayungu Yulunana). I am indebted to my research assistants Chiafen Wu and Terry Lee for their typographic assistance.

<sup>1</sup> Readers are referred to Li (1995) and L. Huang (1995) for the analysis of Mayrinax case markers as indicating specificity and to Teng (2008) for the treatment of Puyuma case markers as markers of definiteness.

hand and what are treated as definite/specific case markers can mark indefinite/nonspecific NPs on the other hand. In the meantime, I also identify the additional pragmatic functions of Tsou case markers. Section 5 concludes the paper by revising Tsou case-marking system and discussing the implications of this study.

## 2. Literature review

Tung (1964) classifies Tsou case markers according to the visibility and proximity of the entities described by the NPs they pattern with, as indicated below at Table 1.

**Table 1:** Case markers in Tsou (Based on Tung 1964: 147, 218)

	<u>Oblique</u>	<u>Nominative</u> <sup>2</sup>
Being seen by both (the speaker and the addressee)		
<u>Near</u>	<u>ta</u>	<u>'e</u>
<u>Middle</u>	<u>ta</u>	<u>si</u>
<u>Distant</u>	<u>ta</u>	<u>ta</u>
Not being seen by both (the speaker and the addressee)		
<u>but seen by the speaker before</u>	<u>to</u>	<u>'o</u>
<u>and never seen by the speaker</u>	<u>no</u>	<u>na</u>
<u>but known to both</u>	<u>ne</u>	
but heard or actually being somewhere		
<u>nearby</u>	<u>nca</u>	<u>co</u>
<u>Non-existent</u>	<u>ci</u>	

While following Tung's analysis regarding visibility and proximity, most subsequent researchers add another function to Tsou case markers, viz., their referential function. Among them, Zeitoun (1992, 1993) gave the most detailed analysis of Tsou case markers. Zeitoun (1992, 1993, 2000, 2005) and her collaborate work with Lillian M. Huang (L. Huang et al. 1998) classify Tsou case markers into two categories: *'e/si/ta<sub>ABS</sub>/'o//ta<sub>OBL</sub>/to* are referential while *na/no* are nonreferential. The term 'referentiality' is subject to different definitions in the literature. It is meant for referring for some authors such as Du Bois (1980) but for specificity for others such as Givón (1979, 1984, 1990). Judging from Zeitoun and Huang et al.'s characterization, I believe that they intend referentiality for specificity rather than referring; in other words, their 'referential' means 'specific' and their 'nonreferential' means 'nonspecific'. This

<sup>2</sup> For ease of comparison, I change Tung's (1964) 'first conjunctive' to 'oblique' and his 'second conjunctive' to 'nominative'.

becomes evident once we examine their quotation of Givón’s definition of referentiality:

“It (referentiality, H.Y.C.) 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.” (Givón 1978: 293, cited in L. Huang et al. 1998: 41)

Similar inference holds of Zeitoun’s elaboration of her analysis of the case markers *no* and *na* vs. *’o* and *to*:

“both *no* and *na* carry the same semantic function: they both refer to the scanning of a class of elements, the speaker refusing or being unable to pick up any element of this class, by opposition to *’o* and *to*, which indicate that an element of the class has been extracted (i.e., it is identified at least by the speaker).” (Zeitoun 1993: 985)

Zeitoun provides two arguments for her position. First, to prove that *no/na* are nonspecific, she shows that *no/na* cannot co-occur with the possessive pronouns *’u* ‘my’ and *su* ‘your’. As shown in (1a), the bare noun phrase *oko* is fine with *na* and interpreted as indefinite (by Zeitoun). By contrast, the combination of *oko* ‘child’ with *na* yields ungrammaticality when it takes the possessive pronoun *su* ‘your’. Zeitoun’s explanation of the contrast is that *na/no* are nonspecific and thus incompatible with the definite possessive noun phrases.

- (1) Zeitoun (1993: 986)
- a. mo mongsi **na oko**  
 AF<sup>3</sup> cry Nom child  
 ‘A child is crying.’<sup>4</sup>

<sup>3</sup> This paper follows The Leipzig’s Glossing Rules, with the following amendments: AF=actor focus, BA=benefactive applicative, CONT=continuative aspect, DT=downtoner, EMP=emphatic marker, LA=locative applicative, PF=patient focus, PLN=place name.

<sup>4</sup> According to my language consultants, the *na*-marked noun phrase *oko* ‘child’ should be interpreted as definite rather than as indefinite in this sentence. I shall return to this issue shortly.

- b. mo mongsɿ 'e oko-su  
 AF cry Nom child-2S.Gen  
 'Your child is crying.'
- c. \*mo mongsɿ na oko-su  
 AF cry Nom child-2S.Gen

Second, she observed that *no/na* co-occur with interrogative phrases.

- (2) Zeitoun (1993: 987)
- a. cuma na i-si an-a ta oko  
 what Nom NAF-3S.Gen eat -PF Obl child  
 'What has the child (just) eaten?'
- b. mo bon-ʉ no cuma si oko  
 AF eat-AF Obl what Nom child  
 'What is that child eating?'

She accounts for the co-occurrence by saying that "the speaker scans a whole class of elements but being unable to pick up any element; he then asks the addressee to designate the right element" (ibid: 986). In other words, she treats *no/na* as indicating nonspecificity, hence compatible with interrogative phrases. Her referential analysis can be summarized in Table 2.

**Table 2:** Tsou case markers (Zeitoun 2005: 274)

The case-marked NP is:	Case markers	
	Nominative	Oblique
Referential		
Identifiable		
Visible and/or near (spatially, metaphorically)		
from:		
speaker	'e	
hearer	si	ta
Visible but away from		
speaker and hearer	ta	
(Non-)identifiable	'o	to
Invisible and far (spatially, metaphorically) from		
speaker and hearer or newly introduced in the		
discourse		
Non-referential		
Non-identifiable (usually implies a scanning of	na	no, ne
a class of elements)		

A similar referential analysis is also adopted by other authors. Szakos (1994) identifies Tsou case markers as articles and divides them into two sets with regard to definiteness: *na/to* are indefinite and the rest are definite, as shown in the following table:

**Table 3:** A table of the case-marking system in Tsou (Based on Szakos 1994: 77)

Distance	Visibility for:			Definiteness	
	Hearer & Speaker	Speaker	Other		
s u b j e c t	Near speaker	'e	'o	co	Definite
	Near hearer	si			
	o b j e c t	Far	ta (1)		na
ta (2)			to	nca	
		ne		ne	
	Given Topic		New Topic		

Note: *ta* (1) is a nominative case marker and *ta* (2) is an oblique case marker.

Likewise, M. Chang (1998) distinguishes Tsou case markers in terms of definiteness: the visible case markers are definite while the invisible ones are indefinite, as shown below at Table 4. Furthermore, she classifies the invisible case markers into two categories: *'o/to* are specific but *na/no* are nonspecific. In this respect, her position is close to Zeitoun and L. Huang et al.'s.

**Table 4:** A table of the case-marking system in Tsou (M. Chang 1998: 26)

Definiteness		Nominative	Oblique
Definite	near	'e	ta
	middle	si	ta
	far	ta	ta
Indefinite	specific	'o	to
	nonspecific	na	no

In her later work (M. Chang 2004), she analyzes Tsou case markers as locational determiners which specify the physical and psychological distance of an entity from the speaker. In this analysis, she no longer specifies the referential property of Tsou case markers. Nonetheless, her determiner label suggests that she does not fully give up her earlier referential analysis.

On the other hand, there are a few exceptions from the referential analysis. H. Chang (2001) represents the first attempt to reject the popular referential analysis after Tung (1964). Yang (2001) takes Tsou case markers as markers of evidentiality instead of referentiality, as summarized in Table 5 below.

**Table 5:** Tsou Case Markers and Evidentiality (Yang 2001: 28)

source of knowledge		case	Nom.	Obl.
perception	vision	near	'e	ta
		middle	si	ta
		far	ta	ta
	auditory sense tactile sense olfactory sense		co	nca/ninca
cognition	previously known knowledge		'o	to
	not previously known knowledge		na	no

Like H. Chang (2001), H. Huang (2010) also dismisses the referential analysis. She treats Tsou case markers as nominal markers which indicate spatial deixis, as

summarized below in Table 6.

**Table 6:** Case markers in Tsou (H. Huang 2010: 61)

<b><u>Categories marked</u></b>	<b><u>cross-indexed on voice (NOM)</u></b>	<b><u>Not cross-linked on voice (OBL)</u></b>
<b>Visible and near speaker</b>	<i>'e</i>	<i>ta</i>
<b>Visible and/or perceptually near speaker</b>	<i>si</i>	<i>ta</i>
<b>Visible but away from speaker</b>	<i>ta</i>	<i>ta; to</i>
<b>Entity invisible or far from speaker, or matter conceptually specific to speaker</b>	<i>'o</i>	<i>to; no</i>
<b>Invisible, but hearable, or touchable</b>	<i>co</i>	<i>nca</i>
<b>Assumed entity or unacquainted idea/concept</b>	<i>na</i>	<i>no</i>
<b>Independent pronoun</b>	<i>na</i>	--
<b>Place name</b>	--	<i>ne</i>

In what follows, I provide solid evidence in favor of the approach taken by H. Chang (2001), Yang (2001), and H. Huang (2010).

Before going to the issues of referentiality, I would like to introduce my grammatical view of Tsou case markers. Unlike previous researchers, I analyze Tsou case markers as exhibiting a three-way case distinction instead of a nominative-oblique case dichotomy, as indicated below in Table 7.

**Table 7:** A three-way case-marking distinction in Tsou (H. Chang 2011a, b)

	Ergative/ Genitive	Oblique	Absolutive
Being seen by both (the speaker and the hearer)			
near	ta	ta	'e
middle	ta	ta	si
distant	ta	ta	ta
Not being seen by both (the speaker and the hearer)			
but having been seen by the speaker	to	to	'o
and having not been seen by the speaker	no	no	na
but known to both		ne <sup>5</sup>	
but actually being somewhere nearby		nca	co
Non-existent		ci	

For the details of this tripartite case-marking analysis, readers are referred to H. Chang (2011a, b). In section 5, I modify Table 7 by taking into account the additional pragmatic/cognitive functions of Tsou case markers.

### 3. *na* and *no* as nonspecific markers?

My reflection starts with the previous analyses of the invisible case markers *na* and *no*. As mentioned above, *na* and *no* are usually taken as markers of nonspecificity/indefiniteness, which I refer to as the indefinite analysis. In this section, I illustrate that the indefinite analysis is empirically flawed.

#### 3.1 The pragmatic functions of *na*

##### 3.1.1 *na* and definite NPs

The most challenging evidence against the analysis of *na* as a marker of

<sup>5</sup> For the time being, I follow the traditional analysis and identify *ne* as a locative case marker (Zeitoun 2000, 2005, Pan 2010). Still, it should be noted that *ne* can co-occur with an absolutive case marker, as illustrated below.

- (i) mo yupa cum'u 'o ne tfuya ho tapangx  
 INTR RECP near ABS PLN CONJ PLN

'Tfuya and Tapangx are geographically close to each other.'

This poses a challenge for the case-marking analysis. I leave this issue for further investigation.

indefiniteness/nonspecificity is that *na* can co-occur with definite noun phrases. As shown in (3a-b), *na* co-occurs with the possessive noun phrases *ongkosu* ‘your name’ and *ongkosi* ‘his name’, both of which are definite in reference.

- (3) a. *te-’o-n’a tuocos-i na ongko-su*  
 IRR-1S.ERG-DT ask-LA ABS name-2S.GEN  
 ‘I would ask your name.’
- b. *na nia atuhcu mameoi ta niahosa, zou bania na ongko-si*  
 TOP PST mainly old.man GEN PN EMP PN ABS name-3S.GEN  
 ‘As for Niahosa’s main ancestor, his name is Bania.’

It is not true that *na* cannot mark definite NPs. Zeitoun’s ungrammatical example in (1c) will become grammatical if the auxiliary and the lexical verb are replaced with what accord with the invisible and unwitnessed case marker *na*, as indicated below.

- (4) *o’a mocu oh-’u la aht-a ait-i na oko-su*  
 NEG PFV TR-1S HAB ever-TR see-LA ABS child-2S.GEN  
 ‘I have never seen your child.’

As illustrated in (5), *na* can also pattern with personal names, which are typically definite. There is no evidence proving that the *na* in this usage is distinct from the one attested in (3-4).

- (5) a. *zou atotavei yuozomx<sup>6</sup> ta peongsi na nia voekautu*  
 EMP last warrior GEN PN ABS PST PN  
 ‘Voekautu was the last warrior of the Peongsi’s family.’
- b. *moso i’mi vayayaiana ci nat’ohaesa ci yuozomx na yaipuku*  
 INTR be.from PN REL brothers REL warrior ABS PN  
 ‘Yaipuku was a warrior out of the brothers from the Vayayaiana’s family.’

It is evident that *na* can mark a definite NP. It follows that the analysis of *na* as a marker of indefiniteness/nonspecificity is not correct. An alternative characterization is in order.

<sup>6</sup> For typographic convenience, I substitute *x* for the high unrounded vowel *i/#* and *ng* for the velar nasal throughout the paper.

### 3.1.2 The Co-occurrence Patterns of *na*

If *na* does not indicate referentiality, what else does it encode apart from being an invisible absolutive case marker? To answer the question, we shall first examine in detail the co-occurrence patterns of *na*. In addition to definite NPs, *na* also co-occurs with the following types of NPs:

#### Type I: Interrogative NPs

There are two types of interrogative sentences which *na* patterns with. The first type is pseudo-cleft wh-question, as in (6a-d).

- (6) a. **sia na mo maavo to phingi?**  
 who ABS INTR open(INTR) OBL door  
 ‘Who opened the door?’
- b. **cuma na i-ko ait-i?**  
 what ABS TR-2S see-TR  
 ‘What are you reading?’
- c. **mo pio na mi-mu cono emoo?**  
 INTR how.many ABS INTR-2P one house  
 ‘How many people are there in your family?’
- d. **mo mainenu na a’a’ausna to hosa-muu ho moso cmoehu?**  
 INTR how ABS situation GEN village-2P CONJ INTR typhoon  
 ‘How is it going about your village after the typhoon?’

The other is concerned with yes-no question, as illustrated in (7a-b).

- (7) a. **i-si cohiv-i to inguyu na ongko-su?**  
 TR-3S know-LA ERG PN ABS name-2S.GEN  
 ‘Does Inguyu know your name?’
- b. **mo-c’o yoso na mo esmi ci cou?**  
 INTR-only two ABS INTR come REL Tsou.person  
 ‘Are there only two persons coming?’

#### Type II: Generic NPs

In this type, *na* co-occurs with a kind-referring NP. As in (8a), the *na*-marked NP *hangx* ‘enemy’ refers to an enemy in general rather than a particular enemy; as in (8b),

the *na*-marked NP *kuisipsipa* ‘evil spirit’ denotes the kind of evil spirit instead of a specific evil spirit. Note that the *na*-marked NPs pattern with the habitual auxiliary *la* in both cases, revealing their generic propensity.

- (8) H. Chang and Cheng (2010)
- a. 'upena     **na**   **hangx**, la    yaez-a   coveoz-a  
       even.though ABS enemy   HAB also-TR show.mercy-TR  
       ‘Show mercy even to your enemy.’
- b. la-si     tomxt-i   ta    fiteu       **na**   **kuisipsipa**  
       HAB-3S   block-LA   ERG golden.plant<sup>7</sup> ABS evil.spirit  
       ‘The golden plant can ward off the evil spirit.’

### Type III: Legendary NPs

In this usage, *na*-marked NPs are concerned with knowledge which the speaker learns from indirect sources (e.g. hearsay, story, folklore, etc.) rather than from his/her own visual experience. I refer to NPs of this type as legendary NPs. Legendary NPs either denote personal names, as already shown in (5), or persons/things in general, as illustrated below in (9).

- (9) H. Chang and Cheng (2010)
- a. la     nana     atfxngx   mo-asoe   no   oko   **na**   **meefucu**  
       HAB   reportedly intentionally take-stealthily OBL child ABS dwarf  
       ‘It was said that the dwarf would take away children stealthily.’
- b. oh   la     yainc-a   lea   uhne   hohcxbx   **na**   **mo**   **xmnx**   **ci**   **iepia**  
       TR   HAB said-TR   HAB get.to   PLN       ABS INTR good   REL soul  
       ‘It is said that a good soul will rest in the Hohcxbx (Tsou’s scared mountain).’

It is worth noting that examples of this type often contain the hearsay marker *nana* and the remote past auxiliaries *moso/oh*.

### Type IV: Unrealized NPs

In this usage, *na*-marked NPs denote an entity that is associated with an unrealized event. Accordingly, they typically pattern with irrealis auxiliaries *te/ta*. For

<sup>7</sup> ‘Golden plant’ is academically known as yellow-flowered Dendrobium (木樨蘭).

example, the *na*-marked NP refers to the tomorrow's work in (10a) and to the planned gift in (10b).

- (10) H. Chang and Cheng (2010)
- a. te-ta-cu    exsvxt-a    **na**    **te**    **hioa**    **ho**    **hucma**  
 IRR-3S-COS    discuss-TR    ABS    IRR    work    FUT    the.other.day  
 'He will report what he is going to do tomorrow.'
- b. te-ko    poa    maamtanx    **na**    **te**    **fa-eni**    **to**    **maameoi**  
 IRR-2S    CAUS    bulky    ABS    IRR    give-BA    OBL    elders  
 'You should give the bulky to elders.'

### Type V: Spiritual/Supernatural NPs

In this type, *na* is associated with NPs that denote spiritual/supernatural entities. As in (11a-b), *na* marks the unique spiritual entity *hamo* 'God'; as in (12), *na* marks a supernatural entity *hicu* 'ghost/god'.

- (11) H. Chang and Cheng (2010)
- a. poa    yuovei    no    'oyona-si    ne    pepe    **na**    **hamo**  
 CAUS    return    OBL    place-3S.GEN    LOC    heaven    ABS    God  
 'Send God back to his place in heaven.'
- b. la    yoho'-a    **na**    **hamo**    ho    mo    pasu-ehoi  
 HAB    call-TR    ABS    God    when    INTR    sing-reception  
 'People call God when they sing the reception song.'
- (12) lea-'u    smoyo-a    **na**    **mo**    **kuici**    **hicu**  
 HAB-1S    fear-TR    ABS    INTR    bad    god/ghost  
 'I fear ghosts.'

### Type VI: Abstract NPs

In this usage, *na* marks NPs that denote abstract entities such as thought, mind, intention, etc., as shown in (13a-b).

- (13) a. mo    xmnx    **na**    **to'hxngx-taini**  
 INTR    good    ABS    thought-3S.GEN  
 'He/She is kind.'

- b. o'a os-'o cohiv-i **na to'hxngx-taini**  
 NEG TR-3S know-LA ABS thought-3S.GEN  
 'I don't know his/her intention.'

### Type VII: Independent pronouns

As noted in H. Huang (2010), *na* can mark independent pronouns. As in (14a-c), *na* marks free-standing personal pronouns; as in (14d), *na* leads a demonstrative pronoun.

- (14) H. Chang and Cheng (2010)
- a. i-ta emx'-neni to chae **na a'o**  
 TR-3S plant-BA OBL vegetable ABS 1S.ABS  
 'He planted vegetable for me.'
- b. moh-ta la asonghoi heeku **na taini**  
 INTR-3S HAB inherent asthma ABS 3S.ABS  
 'He was born with asthma.'
- c. i-ta moh'up-i **na suu**  
 TR-3S sleep.with-LA ABS 2S.ABS  
 'He sleeps with you.'
- d. zou 'oyuhsunga' ta icangaya **na eni**  
 EMP seat GEN chief ABS this  
 'This is the chief's seat.'

### 3.1.3 Summary and discussion: *na* as an invisible/unwitnessed marker

We have seen that *na* marks NPs of various kinds, including interrogative, definite, generic, legendary, unrealized, spiritual/supernatural, abstract, and pronominal NPs. An important question to ask is whether these NPs have anything in common and thus share the same marker. Leaving independent pronouns aside, the answer seems to be positive. Previous researchers agree on the existence of the shared property but differ in its nature. For Tung (1964), it is invisibility; for Szakos (1994), M. Chang (1998), and Zeitoun (2000, 2005), it is non-referentiality; for Yang (2001), it is lack of knowledge; for H. Huang (2010), it is non-factuality/imagination. In what follows, I will evaluate these accounts and attempt to formulate a more proper characterization of the functions of *na*.

Consider first the referential analysis. Given that *na* can pattern with both

definite and non-specific generic NPs, the analysis of *na* as a marker of indefiniteness/nonspecificity is evidently undesirable.

H. Huang's (2010) analysis of *na* as a marker of nonfactuality/imagination is interesting but leaves some room for improvement, since it fails to account for the generic and abstract usages of *na*. Consider, for example, (13a). This is a proposition with truth value and hence should be a factual statement rather than a(n) nonfactual/imaginary statement. A similar challenge is also found in examples like (15)—the *na*-marked NP is associated with a fact rather than an imagination.

- (15)    aconx 'o psoetiskova to hie **na mo sofxecx'za**  
                   ABS light            GEN sun    ABS INTR brightest  
                   'The brightest is sunlight.'

Yang's (2001) evidential analysis is good but sometimes difficult to apply. In interrogative contexts, Yang's evidential analysis successfully differentiates NPs which are led by different invisible absolutive case markers. In the case of *na*-marked interrogative phrases, the speaker inquires without prior knowledge of the entity in question, as in (16a). By contrast, in the case of *'o*-marked NPs, he/she should be previously informed about the inquired entity. Accordingly, (16b) might contrast with (16a) by implicating that the speaker might have known of the identity of the opener.

- (16) a.    sia **na mo maavo to phingi?**  
                   who ABS INTR open(INTR) OBL door  
                   'Who opened the door?'  
       b.    sia **'o mo maavo to phingi?**  
                   who ABS INTR open(INTR) OBL door  
                   'Who opened the door?'

However, Yang's evidential analysis leaves examples like (13a), repeated below as (17), unexplained. It is unlikely that the speaker has no prior knowledge of the third party's thoughts/behavior while making the judgment.

- (17)    mo xmnx **na to'hxngx-taini**  
                   INTR good    ABS thought-3S.GEN  
                   'He/She is kind.'

On the other hand, Tung's (1964) visual account is empirically supported. Tung (1964: 147, 218) characterizes *na* as a marker of vision, marking something which is invisible at the utterance time and has never been seen by the speaker before. This account seems to be correct. In all the cases discussed in section 3.1.2, the sentences describe a situation where the speaker does not see the entity represented by the *na*-marked NP at the utterance time and has never seen it before. This explains why spiritual/supernatural entities such as *hicu* 'god/ghost' and legendary objects such as *meefucu* 'dwarf' must be marked by *na*. The replacement of *na* with other invisible case markers normally leads to ungrammaticality in these contexts, as in (18a-b).

- (18) a. \**la nana atfxngx mo-aseo no oko 'o meefucu* (cf. (9a))  
 HAB reportedly intentionally take-stealthily OBL child ABS dwarf  
 Intended for 'It was said that the dwarf would take away children stealthily.'
- b. \**lea-'u smoyo-a 'o mo kuici hicu* (cf. (12))  
 HAB-1S fear-TR ABS INTR bad god/ghost  
 Intended for 'I fear ghosts.'

Furthermore, Tung's visual analysis also accounts for why abstract NPs can be marked by *na*, but not by *'o*, given that abstract entities are invisible all the times. Consider:

- (19) a. *mo xmnx na/\*'o to'hxngx-taini* (cf. (13a))  
 INTR good ABS thought-3S.GEN  
 'He/She is kind.'
- b. *o'a os-'o cohiv-i na/\*'o to'hxngx-taini* (cf. (13b))  
 NEG TR-3S know-LA ABS thought-3S.GEN  
 'I don't know his/her intention.'

In the meantime, Tung's visual analysis is able to evade the problems the other previous accounts encountered. Examples like (13a) and (15) pose no problem for Tung's analysis, given that the abstract entities are marked by *na* in those sentences, as predicted by his analysis.

For the reasons mentioned above, I adopt Tung's analysis of *na* throughout the paper. However, for brevity, I change Tung's lengthy description 'has never seen before' (as in Table 1) to 'unwitnessed'. In this revision, *na* will be analyzed as an

invisible and unwitnessed marker. The same analysis also carries over to *na*'s ergative/genitive/oblique counterpart *no*, as will be discussed shortly.

### 3.2 The pragmatic functions of *no*

As argued in H. Chang (2011a), the functions of *no* can be classified into three subtypes with respect to its grammatical functions, namely, genitive *no*<sub>GEN</sub>, ergative *no*<sub>ERG</sub>, and oblique *no*<sub>OBL</sub>. While I distinguish these three functions in their glosses, I lump them together as a group in this section, given that this section is mainly concerned with its pragmatic functions rather than its grammatical functions.

#### 3.2.1 *no* and definite NPs

In spite of its frequent co-occurrence with non-specific NPs, *no* has no difficulty in marking definite NPs. Here are some representative examples drawn from H. Chang and Cheng (2010).

- (20) H. Chang and Cheng (2010)
- a. maitan'e zou hie-si **no** **yayo ta** 'avai  
 today EMP day-3S GEN be.born GEN PN  
 'Today is 'avai's birthday.'
- b. os-'o asvxt-a engh-a 'o os-'o talx-i ci e'e **no** **sbukunu**  
 TR-1S try-TR say-TR ABS TR-1S hear-LA REL word GEN Bunun  
 'I tried to speak the Bunun words which I heard from somewhere.'
- c. te-ko-n'a tuocos-neni a'o **no** **huphina-si pohe-taini**  
 IRR-2S-DT ask-BA 1S.ABS OBL price-3S.GEN corn-3S.GEN  
 'You should ask the price of his corns for me.'
- d. mo payo'x **no** **ino** 'o oko  
 INTR lose OBL mother ABS child  
 'The child misses his mother.'

Examples of this kind pose challenges for the analysis of *no* as a(n) indefinite/non-specific marker. An alternative analysis is thus necessary. Before putting forward my alternative analysis, I scrutinize *no*-marked NPs and classify them into several types according to their semantic/pragmatic properties, as will be illustrated shortly.

#### 3.2.2 The co-occurrence patterns of *no*

In addition to definite NPs, *no* can also mark the following types of NPs:

### Type I: Interrogative phrases

An interrogative phrase is typically marked by *no*, if it does not occur as a nominal predicate. Compare (21) with (6).

- (21) H. Chang and Cheng (2010)
- a. mi-ko yumzo **no** **cuma** ho mi-ko aha'o na'no sx'no ?  
 INTR-2S encounter OBL what CONJ INTR-2S suddenly very angry  
 'What makes you so angry?'
- b. i-si paav-i **no** **sia** 'o phingi?  
 TR-3S open-LA ERG who ABS door  
 'Who opened the door?'
- c. te mahmaceofx **no** **mo** **mainenu**, te xmnx?  
 IRR wear OBL INTR which IRR good  
 'How should I wear to be appropriate?'

### Type II: Nonspecific/Generic NPs

There are a great number of *no*-marked NPs which are of this type. It is thus not surprising that *no* was traditionally taken as a marker of nonspecificity, as surveyed in section 2. It should suffice to give a few sample sentences to illustrate this point. Note that the examples in (22a-d) are typically contexts where a nonspecific NP appears: (22a-b) represent habitual contexts, (22c) an imperative context, and (22d) a nominal predicate.

- (22) H. Chang and Cheng (2010)
- a. la-ta meelx mooyai ceopngu **no** **hici**  
 HAB-3S can make hat GEN leather  
 'He can make leather hat.'
- b. la nana atfxngx mo-asoe **no** **oko** na meefucu  
 HAB reportedly intentionally take-stealthily OBL child ABS dwarf  
 'It was said that the dwarf used to take away children stealthily.'
- c. ake'i-n'a baito **no** **tposx** ci ta-ko-cu sikeng  
 a.little-DT see OBL book because IRR-2S-COS examine  
 'Have a little bit of reading! Your examination is coming close.'

- d. zou ongko **no mamespingi** 'e upi'i  
 EMP name GEN woman ABS PN  
 'Upi'i is a woman's name.'

### Type III: Legendary NPs

In this usage, *no* is associated with something which the speaker knows of through hearsay. Consider:

- (23) H. Chang and Cheng (2010)  
 moso la nana acni yuso na la-si kexp **no nia beoku**  
 INTR ASP reportedly always two ABS HAB-3S bag GEN PST PN  
 'It is said that Beoku's bags used to be always two (in a pair).'

### Type IV: Unrealized NPs

In this type, *no* co-occurs with NPs that represent entities which are associated with unrealized events. The entity can be either specific, as in (24a, c, d), or nonspecific, as in (24b), but it must be invisible. Note that the *no*-marked NPs in this usage consistently pattern with the irrealis auxiliaries *ta* and *te*.

- (24) H. Chang and Cheng (2010)
- a. mi-hin'i ti-bangnu **no ta-hin'i emx'i no cuc'u axlx**  
 INTR-3P do-fertile.soil OBL IRR-3P plant-LA OBL ginger real  
 'They use hoes to dig the soil where they are going to plant gingers.'
- b. mi-'o biebimi **no te-'o yon-i miski**  
 INTR-1S look.for OBL IRR-1S stay-LA stay.overnight  
 'I am looking for a place where I can stay overnight.'
- c. 'ote ma'pecvai **no te-ko akoev-a no hioa**  
 NEG indecisive OBL IRR-2S intend-TR NO work(TR)  
 'You should not be indecisive over what you intend to do.'
- d. te-ko epei **no te-ko an-a**  
 IRR-2S choose OBL IRR-2S eat-TR  
 'You should choose what you will eat.'

### Type V: Spiritual/Supernatural NPs

In this type, *no* is associated with entities that exist in the speaker's belief world

rather than the real world.

- (25) H. Chang and Cheng (2010)
- a. la smoyo **no hicu** 'o 'o'-oko  
 HAB fear OBL god/ghost ABS RED-child  
 'Children fear ghosts.'
- b. la boemi to haengu ho epsxpsx **no h'akukuv'o**  
 HAB use OBL weed COMP dispel OBL devil  
 'They use the weed to dispel the devil.'
- c. zou eni 'e o-si la ohpuehi **no hamo**  
 EMP this ABS TR-3S HAB descend ERG God  
 'This is where God descended.'

### Type VI: Abstract NPs

In this type, *no* marks NPs that denote abstract entities, including reason, as in (26), time, as in (27), wish/thought, as in (28), and so on.

- (26) H. Chang and Cheng (2010)
- a. mi-ta amamzo **no cong'ehie**  
 INTR-3S lazy OBL hot.weather  
 'He is lazy due to the heat.'
- b. mi-ta ma'eyao **no o'te meelx maine'e**  
 INTR-3S worry OBL NEG can return  
 'He is worried that he cannot return.'
- (27) H. Chang and Cheng (2010)
- a. mi-cu masvoyu **no taseona** 'o huomzahie  
 INTR-COS 8.o'clock GEN morning ABS clock  
 'It is already eight o'clock in the morning.'
- b. mo mokvo'x to tota'esi **no cohzona**  
 INTR dark OBL after GEN noon  
 'It turns dark in the afternoon.'
- (28) H. Chang and Cheng (2010)
- a. mi-ta-cu ma'-mamso **no lea-ta to'tohxngx**  
 INTR-3S-COS think-enough OBL HAB-3S. thought  
 'He is already satisfied (with his wishes).'

- b. ho mi-cu tononmxha, mi-cu yx-'sxftonx **no to'tohxngx**  
 SUB INTR-COS 60.years.old INTR-COS become-rich OBL thought  
 'A person who is over sixty years old will be thoughtful.'

### 3.2.3 Summary and discussion: *no* as an invisible/unwitnessed marker

We have seen that with independent pronouns being left aside, *no* displays co-occurrence patterns exactly parallel to *na*: it marks interrogative, specific/nonspecific, legendary, unrealized, spiritual/supernatural and abstract NPs. It is thus natural to apply the analysis that applies to *na* to *no*, that is, to treat *no* as an invisible and unwitnessed marker on a par with *na*. The traditional analysis of *no* as a(n) indefinite/nonspecific marker is inadequate, given that *no* is unselective to referentiality.

While the invisible property of *no*-marking has been widely observed in the literature, the characterization of *no* as an unwitnessed marker represents a new attempt. This new way of characterization enjoys a lot of advantages. It not only better captures the co-occurrence patterns of *no* but also clearly distinguishes *no* from other closely related invisible case markers. In what follows, I give examples of minimal pair to illustrate this point.

Consider the interrogative contexts first. The subtle semantic difference between (29a) and (29b) is that there is a presupposition with the b-example but not with the a-example—the speaker might have some information about the identity of the opener in the context of the b-example.

- (29) a. i-si paav-i **no sia** 'o phingi? (=21b)  
 TR-3S open-LA ERG who ABS door  
 'Who opened the door?'  
 b. i-si paav-i **to sia** 'o phingi?  
 TR-3S open-LA ERG who ABS door  
 'Who opened the door?' (the opening event witnessed by the speaker)

For supernatural/legendary NPs, their denotations are normally assumed to be invisible/unwitnessed and hence the marker *no* (instead of *to*) is in place. Compare (30b) with (23a), repeated below as (30a): the case marker is changed from *no* to *to* when the fearsome entity is shifted from an invisible/unwitnessed ghost to an invisible but witnessed snake.

- (30) a. la smoyo **no/\*to** **hicu** 'o 'o'-oko  
 HAB fear OBL god/ghost ABS RED-child  
 'Children fear ghosts.'
- b. la smoyo **to** **fkoi** 'o 'o'-oko  
 HAB fear OBL snake ABS RED-child  
 'Children fear snakes.'

A similar contrast is also found in the case-marking of location. In the negative contexts shown below in (31a-b), *no* indicates that the speaker has never been to (i.e. never witness) the destination, whereas *to* suggests that he/she has been to the destination but has not gone there at the utterance time.

- (31) a. o'a mocu mi-'o ahtu uh **no/\*to** **amelika**  
 NEG PFV INTR-1S ever get.to OBL PLN  
 'I have never been to America.'
- b. o'a-s'a mi-'o uh **to** **amelika**  
 NEG NTR-1S get.to OBL PLN  
 'I have not gone to America.'

It is also noteworthy that the choice of a case marker might be perceptually determined and thus vary with the speaker's perception. The spiritual expression *hamo* 'God' is a case in point. It is typically perceived as an invisible and unwitnessed entity by an atheist, hence marked by *no*, as illustrated in (32a). In contrast, it might be conceived as an invisible but witnessed entity by a Christian, hence preceded by *to*, as in (32b).

- (32) a. i-si ngohi-a **no** **hamo** 'e eatatiskova  
 TR-3S love-TR ERG God ABS human.beings  
 'God loves people.' (for an atheist)
- b. i-si ngohi-a **to** **hamo** 'e eatatiskova  
 TR-3S love-TR ERG God ABS human.beings  
 'God loves people.' (for a Christian)

In this respect, *no* behaves like an evidential marker, as suggested by Yang (2001).

#### 4. More comments on the referential analysis

In the referential analysis, *'e/si/ta/o/to* are treated as definite/specific case markers, as indicated in Tables 2, 3, and 4. This section dismisses the referential analysis by demonstrating that these case markers are not sensitive to referentiality.

#### 4.1 *'o/to* and nonspecific NPs

The case markers *'o/to* can mark nonspecific NPs, in particular, when they appear under the scope of the habitual auxiliary *la*, as in (33) and (34).

- (33) H. Chang and Cheng (2010)
- a. *la ngoveo ho i-si apcia 'o mo kaceo*  
 HAB difficult COMP TR-3S chop ABS INTR hard stone  
 'It is difficult to chop hard stones.'
- b. *la-he na'nosi no tith-a moyai sume ci emi 'o batayx.*  
 HAB mostly LNK use-TR make strong.wine REL wine ABS sorghum  
 'They usually use sorghum to make strong wine.'
- c. *la couno coca'i 'o fex'x.*  
 HAB always dirty ABS pig  
 'Pigs are always dirty.'
- d. *la kaebx to mo cohxm 'o sosea.*  
 HAB like OBL INTR sweet ABS ant  
 'Ants like sweets.'
- e. *la anana'v-a einv-a 'o maamameoi.*  
 HAB surely-TR respect-TR ABS elders  
 'We should respect elders.'
- (34) H. Chang and Cheng (2010)
- a. *la-si atva'es-a xmnx-a to nghou 'o cnxmx.*  
 HAB-3S most-TR good-TR ERG monkey ABS banana  
 'Monkeys like bananas most.'
- b. *la koa kuzo to feango ho mo angu petmuzu to emi.*  
 HAB cause bad OBLbody CONJ INTR too overdrink OBL wine  
 'Drinking too much wine is bad for the body.'
- c. *la peel-a teai si'ngi 'o esou to kaapana.*  
 HAB can-TR make(TR) broom ABS branch GEN bamboo  
 'The twigs of bamboos can be used to make brooms.'

- d. moso la titho **to** **pcoknx** ho moyai hiapeoza.  
 INTR HAB use OBL bamboo CONJ make bridge  
 ‘In the past, bamboos were used to make bridges.’

## 4.2 The pragmatic functions of *'o/to*

Like *na* and *no*, *'o* and *to* indicate something invisible to the speaker at the utterance time. Accordingly, they are usually used to encode entities which are in association with past events and had been witnessed by the speaker before, as in (35).

- (35) H. Chang and Cheng (2010)
- a. moso la maezo musuyu to kuipacu **'o** **haahocngx**.  
 INTR HAB also wear OBL earring ABS men  
 ‘Men used to wear earrings as well.’
- b. moso la mahsiu ho te opaski **'o** **nia maameoi-to**  
 INTR HAB put.salt CONJ IRR make.side.dish ABS PST elder-1P.GEN  
 ‘Our elders used to take salt as a side dish.’
- c. mo yonenu **'o** **lungu-'u?**  
 INTR be.where ABS fishing.hook-1S.GEN  
 ‘Where is my fishing hook?’

It is expected that they cannot pattern with proximal objects and immediate events that are visible to the speaker. As in (36a-b), *'o* and *to* do not co-occur with the first person in connection with the immediate/progressive tense/aspect.

- (36) a. mi-'o-n'a seolxa no baito **ta/\*to** **tposx**  
 INTR-1S-CONT still LNK see OBL book  
 ‘I am still reading books.’
- b. os-'o-n'a seolxa no ait-i **'e/\*'o** **tposx**  
 TR-1S-CONT still LNK see-LA ABS book  
 ‘I am still reading the books.’

Also, they can be associated with the distal and invisible locative pronoun *ne'e* ‘over there’, but not with the proximal and visible locative pronoun *tan'e* ‘right here’, as in (37a-b).

- (37) a. te-ko-n'a uh **to** **ne'e** ho mayo no emi  
 IRR-2S-DT get.to OBL there CONJ take OBL wine  
 'Please go there and get some wine!'
- b. \*te-ko-n'a uh **to** **tan'e** ho mayo ta emi  
 IRR-2S-DT get.to OBL here CONJ take OBL wine  
 Intended for 'Please come here and get some wine!'

On the other hand, unlike *na* and *no*, *'o* and *to* indicate the speaker's previous witness of the marked object. Therefore, they cannot mark spiritual and abstract NPs, as already shown in (18-19) and (30). Neither can they mark legendary entities which the speaker learns through hearsay instead of his/her direct visual experience, hence their incompatibility with the hearsay marker *nana*, as in (38a-b). Compare:

- (38) a. moso la **nana** mahsiu ho te opaski **na/\*'o nia maameoi-to**  
 INTR HAB reportedly salt C IRR side.dish ABS PST elder-1P.GEN  
 'It is said that our elders used to take salt as a side dish.'
- b. moso la **nana** acni yuso na la-si kexp **no/\*to nia beoku**  
 INTR HAB reportedly always two ABS HAB-3S bag GEN PST PN  
 'It is said that Beoku's bags used to be always two (in a pair).'

It is also not surprising that they do not mark the entities which exist in the real world but have never been seen by the speaker, as shown in (39a-b).

- (39) a. \*o'a mocu oh-'u la aht-a ait-i **'o oko-su** (cf. (4))  
 NEG PFV TR-1S LA ever-TR see-LA ABS child-2S.GEN  
 'I have never seen your child.'
- b. \*o'a mocu mi-'o ahtu uh **to amelika** (cf. (31a))  
 NEG PFV INTR-1S ever get.to OBL PLN  
 'I have never been to America.'

It is thus concluded that *'o* and *to* are invisible and witnessed markers instead of specific/definite markers.

### 4.3 *'e/si/ta*<sub>ABS</sub>/*ta*<sub>OBL</sub> and nonspecific NPs

In the literature, the visible case markers *'e/si/ta*<sub>ABS</sub>/*ta*<sub>OBL</sub> are usually analyzed as definite/specific markers (see Tables 2, 3, and 4). This section argues with Tung (1964)

and H. Huang (2010) instead that they are markers of visibility/proximity rather than referentiality.

The definite/specific analysis of *'e/si/ta<sub>ABS</sub>/ta<sub>OBL</sub>* is problematic, given that *'e/si/ta<sub>ABS</sub>/ta<sub>OBL</sub>* can pattern with nonspecific NPs, as demonstrated extensively in (40) through (43).

- (40) a. la emocucu **'e** **cou** ho mo sx'tx.  
 HAB rituals ABS Tsou CONJ INTR perform.a.sacrificing.ritual  
 'Tsou people hold emocucu as a sacrificing ritual.'
- b. la tith-a ho la homeaya **'e** **evomx**.  
 HAB use-TR CONJ HAB Harvest.ritual ABS loop  
 'Loops are used in the Harvest Ritual.'
- c. la iceopngu to hici **'e** **haahocngx**.  
 HAB put.on.hat OBL leather ABS men  
 'Men wear leather hats.'
- d. mo maskx **'e** **lulku** ta yatatiskova  
 INTR ten ABS finger GEN human beings  
 'Human beings have ten fingers.'
- (41) a. mo na'no mahtxicx ho i-si papas-a **si** **textfsx**  
 INTR very hard CONJ TR-3S cut-TR ABS beech  
 'Beeches are hard to cut.'
- b. na'no sxngcx **si** **na'si ta fi'i**.  
 very straight ABS trunk GEN betel.nuts  
 'The trunks of betel nuts are very straight.'
- c. mo nakuzo **si** **poesosva no av'u**.  
 INTR rotten ABS excrement GEN dog  
 'Dogs' excrement stinks.'
- d. i-ta uci-a an-a **si** **foufuzu**.  
 TR-3S intend-TR eat-TR ABS wild.boar.meat  
 'He wants to eat wild boar meat.'
- (42) 'ote la leoknuyu **ta** **mamameoi**.  
 NEG HAB cheat ABS elders  
 'Don't cheat elders.'

- (43) a. la peepuci **ta ngxcx** 'o piengu  
 HAB blow OBL nose ABS nose.flute  
 'A nose flute is usually played by the nose.'
- b. taucunu 'e fnguu **ta yatatiskova.**  
 round ABS head GEN huaman.beings  
 'Human's head is round.'
- c. yucxcxhi **ta laksu** 'e poneo  
 grow OBL azalea ABS plain  
 'Only azaleas grow in the plain.'
- d. mo koa xmnx **ta feango** ho la asngxcx mimo to chumu.  
 INTR cause good OBL body CONJ HAB often drink OBL water  
 'Drinking water frequently is good for the body.'

#### 4.4 The pragmatic functions of 'e/si/ta<sub>ABS</sub>/ta<sub>OBL</sub>

It is generally agreed that 'e/si/ta<sub>ABS</sub>/ta<sub>OBL</sub> encode visibility. Therefore, they are often found in imperative contexts, which typically accommodate visible entities, as in (44a-b).

- (44) H. Chang and Cheng (2010)
- a. nahocu poa uh-ta aemana 'e **haah'o!**  
 might CAUS get.to-OBL inside ABS everyone  
 'Everyone, please come in!'
- b. teav'a-n'a patvahi **si oko!**  
 NEG-DT beat ABS child  
 'Please stop beating the child!'

Furthermore, it should be noted that imperatives differentiate proximity—they are usually associated with proximal entities rather than distal ones. Thus, in the visible category, the distal ta<sub>ABS</sub> is difficult to occur in imperatives. This contrast also holds of constructions comparable to English present progressive sentences uttered by the speaker. As in (45a-b), 'e/si/ta<sub>OBL</sub> can easily co-occur with the immediate tense/aspectual string *mi'o seolxa* 'I am...', but ta<sub>ABS</sub> cannot.

- (45) a. mi-'o-n'a seolxa no bonx **ta naveu**  
 INTR-1S-CONT still LNK eat OBL rice  
 'I am still eating rice.'

- b. os-'o-n'a    seolxa    no    an-a    'e/si/\*ta    naveu  
 TR-1S-CONT    still        LNK    eat-TR    ABS        rice  
 'I am still eating the rice.'

In the meantime, *si* and *'e* differ in proximity: the former indicates that an entity is a bit away from the speaker and the latter indicates that an entity is very close to the speaker. Accordingly, the former is in a better position than the latter in describing the sun's rising in front of the speaker, as in (46).

- (46)        mi-cu        espayo    si/??'e    hie.  
 INTR-COS    appear    ABS        sun  
 'The sun is rising.'

To sum up, *'e/si/ta<sub>ABS</sub>/ta<sub>OBL</sub>* are visible rather than definite/specific case markers. In addition, they distinguish degree of proximity, with *'e/ta<sub>OBL</sub>* encoding proximal entities, *si/ta<sub>OBL</sub>* immediate ones, and *ta<sub>ABS</sub>/ta<sub>OBL</sub>* distal ones. This conclusion is very much in line with the previous analyses.

#### 4.5 The pragmatic functions of *co/nca/ne*

I agree with previous researchers that *co/nca* mark invisible entities that are perceptible (specifically, audible/touchable/smellable/feelable), as shown in (47-48). The marked NPs can be either definite, as in (47b-d) and (48) or indefinite, as in (47a).

- (47) a. mo    moengx        co    fihngau    no    zomx  
 INTR    have.good.voice    ABS    sonorous    GEN    bird  
 'Birds sing sonorously and beautifully.'
- b. mo    nahaengi    co    h'ih'i-'u.  
 INTR    perspiration    ABS    armpit-1S.GEN  
 'My armpits have a body odor.'
- c. asngxcx        congo    co    fnguu-'u.  
 uninterruptedly    painful    ABS    head-1S.GEN  
 'My head is uninterruptedly painful.'
- d. na'no    mahtxicx    co    'tohxngx-taini  
 very    hard        ABS    thought-3S.GEN  
 'She/He is very stubborn.'

- (48) ma                    ngiau **co mo mooskopx nca sofx**  
 it turns out that cat ABS INTR walk.on the top OBL roof  
 ‘It turns out that the cat walks on the roof.’

I therefore identify *co/nca* as perceptible but invisible case markers.

Besides, following the previous analyses, I treat *ne* as an invisible locative case marker, as illustrated in (49). This is particularly obvious in (49c), where *ne* marks the invisible place *pepe* ‘heaven’, with the reported event anchored in the remote past (hence the occurrence of the remote past auxiliary *moso*).

- (49) a. mo-c’o    anou **ne emoo** ’o oko.  
 INTR-only merely LOC home ABS child  
 ‘The child is at home alone.’  
 b. la        bumemealx ho    te    co-coeconx **ne fuengu**.  
 HAB careful        CONJ IRR RED-walk LOC mountain  
 ‘Be careful when walking in the mountains.’  
 c. moso la    nana    i’mi **ne pepe** ’o taucunu ta kuba.  
 INTR HAB reportedly from LOC high ABS divine.stone OBL ritual.place  
 ‘It is said that the divine stone in the sacred ritual place came from the heaven.’

The invisible property of *ne* is also found in the locative compound *ne’e* ‘over there’, a compound presumably derived from *ne*. Note that *ne’e* can co-occur with the invisible case markers *to/ne* but not with the visible case marker *ta*. Compare:

- (50) a. te-ko-n’a uh **to/ne ne’e** ho    mayo no emi  
 IRR-2S-DT get.to OBL there CONJ take OBL wine  
 ‘Please go there and get some wine!’  
 b. \*te-ko-n’a uh **ta ne’e** ho    mayo no emi  
 IRR-2S-DT get.to OBL there CONJ take OBL wine

Conversely, *ta’e* ‘there’, a locative compound arguably derived from the visible case marker *ta*, can pattern with *ta* but not with *to/ne*. Compare:

- (51) a. te-ko-n'a uh **ta ta'e** ho mayo no emi  
 IRR-2S-DT get.to OBL there CONJ take OBL wine  
 'Please go there and get some wine!'
- b. \*te-ko-n'a uh **to/ne ta'e** ho mayo no emi  
 IRR-2S-DT get.to OBL there CONJ take OBL wine

This lends support to the analysis of *ne* as an invisible locative case marker.

## 5. Concluding remarks

### 5.1 Summary

We have demonstrated that in addition to grammatical functions, Tsou case markers also perform pragmatic and sensory/perceptual functions. Their pragmatic functions are to indicate visibility and proximity and their sensory/perceptual functions are to specify sensory experiences and perception. These findings yield a revised version of Tsou case-marking system, as indicated in Table 8. As in Table 8, Tsou case markers are divided into two categories: visible versus invisible. The visible case markers are further classified into three subtypes with respect to proximity, namely, proximal, intermediate, and distal. On the other hand, the invisible case markers are further classified into four subtypes according to the speaker's sensory experiences and perception: unwitnessed, witnessed, perceptible, and locative.

**Table 8:** A Case-marking System in Tsou

Visibility	Proximity/Sensation/ Perception	Ergative/ Genitive	Oblique	Absolutive
Visible	proximal	ta	ta	'e
	intermediate	ta	ta	si
	distal	ta	ta	ta
Invisible	witnessed	to	to	'o
	unwitnessed	no	no	na
	perceptible	--	nca	co
	locative	--	ne	--

### 5.2 Advantages

The present perception-based analysis gains advantages over the previous accounts. First, it correctly predicts that Tsou case markers are unselective to

referentiality—each of the case markers can co-occur with both definite/specific NPs and indefinite/nonspecific NPs. This also holds true of interrogative phrases. It is found that interrogative phrases can pattern with any of the case markers and that each co-occurring pattern indicates the speaker’s knowledge/perception of the inquired entity, as predicted by the approach outlined above. I have illustrated the epistemological/perceptual contrast between *na/’o* and *no/to* in sections 3.1.3 and 3.2.3. Here are more examples involving other case markers along this line. I indicate the pragmatic/cognitive status of each example in the parenthesis after the translation.

- (52) a. *cuma na i-ko ait-i?*  
 what ABS TR-2S see-TR  
 ‘What are you reading?’ (invisible and unwitnessed, non-presuppositional)
- b. *cuma ’o i-ko ait-i?*  
 what ABS TR-2S see-TR  
 ‘What are you reading?’ (invisible but witnessed, presuppositional)
- c. *cuma co i-ko ait-i?*  
 what ABS TR-2S see-TR  
 ‘What are you reading?’ (invisible but perceptible)
- d. *cuma si i-ko ait-i?*  
 what ABS TR-2S see-TR  
 ‘What are you reading?’ (visible and immediate)
- e. *cuma ’e i-ko ait-i?*  
 what ABS TR-2S see-TR  
 ‘What are you reading?’ (visible and proximal)

This contrasts with the previous observation made by Zeitoun (2000, 2005), who claims that interrogative phrases must take the case markers *na/no* and must not alternate with other case markers.

Second, the present analysis explains the parallelism in case marking between ordinary NPs and locative/temporal NPs. It has been noted in Pan (2010) as well as in the preceding sections that locative and temporal NPs can also be case-marked in Tsou. Significantly, the case-marking of locative and temporal NPs is governed by the same principles that govern the case-marking of ordinary NPs. I have illustrated the case-marking of locative NPs along this line of thought in section 4.5. In (52), I give a three-way case distinction of a temporal NP to demonstrate the parallelism in question. The visible and proximal oblique case marker *ta<sub>OBL</sub>* must pattern with immediate

temporal expression *maitan'e* 'today', as in (53a); the invisible but witnessed oblique case marker *to* must be associated with the past temporal expression *nehucma* 'yesterday', as in (53b); the invisible and unwitnessed oblique case marker *no* must go with the future expression *hohucma* 'tomorrow', as in (53c). There is deictic concord between the case markers and the temporal expressions.

- (53) H. Chang and Cheng (2010)
- a. mi-mza    noc'xhx    **ta/\*no/\*to**    **cohzona**    maitan'e  
 INTR-1S.PL    stay    OBL    noon    today  
 'We are going to stay till noon today.'
- b. mi-mza    noc'xhx    **to/\*no/\*ta**    **cohzona**    ne    hucma  
 INTR-1S.PL    stay    OBL    noon    PST    the.other.day  
 'We stayed till noon yesterday.'
- c. ta-mza    noc'xhx    **no/\*to/\*ta**    **cohzona**    ho    hucma  
 IRR-1S.PL    stay    OBL    noon    FUT    the.other.day  
 'We will stay till noon tomorrow.'

Third, the present analysis might explain why the NPs denoting interrogative, spiritual, legendary, unrealized, and abstract entities are case-marked in the same manner, viz., typically marked by *na/no*. Given that *na/no* encode invisible entities, they are expected to mark spiritual, legendary, unrealized, and abstract NPs; also, since *na/no* encode unwitnessed entities, they are expected to mark interrogative, spiritual, unrealized, and abstract NPs.

### 5.3 Implications

It is now clear that case-marking involves a variety of factors in Tsou. In addition to grammatical functions and semantic relations, a Tsou case marker also encodes contextual/extra-linguistic information, centering around the speaker's sensory experiences and perception. In this regard, Tsou case markers behave on a par with deictics. No wonder why many previous researchers give up the label 'case marker' and rename Tsou case markers as articles (Szakos 1994), evidential markers (Yang 2001), locational determiners (M. Chang 2004), and nominal markers (H. Huang 2010). As argued elsewhere (H. Chang 2011a, b), I believe that they are indeed case markers. However, I should add here that they are multifunctional case markers: in addition to grammatical functions, they also perform pragmatic and sensory/perceptual functions.

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