

Triadic Encoding in Tsou^{*}

Henry Y. Chang

Academia Sinica

This paper investigates the grammatical realization of triadic arguments in Tsou in light of Levin's (1993) English transitive/ditransitive alternations. Major findings include the following: (i) Tsou is a language without double object construction—one of the triadic arguments must be in the oblique case; (ii) Tsou is an applicative-prominent language—triadic events are typically expressed by applicative constructions. Peripheral arguments such as a beneficiary are usually introduced by an applicative affix; even a triadic theme can be applicatively indexed; (iii) Tsou is an ergative language—transitive/applicative objects must align with intransitive agents and occur in the absolutive case; (iv) Tsou is basically an asymmetrical object language—only one of the two internal arguments is eligible for advancement; (v) a triadic source must occur in the genitive case (instead of the oblique case) if it is not advanced.

Key words: triadic, ditransitive, applicative-prominent language, ergative language, asymmetrical object language

1. Introduction

Research on triadic/ditransitive morphosyntax plays an important role in shaping linguistic theory. A remarkable example of this is Larson's (1988) analysis of the double object construction (hereafter DOC) in English. In this seminal work, Larson analyzes English DOC as being comprised of an inner VP core and an outer VP shell. Widely

^{*} Part of this paper was presented at several occasions (IsCLL-12, Academia Sinica, Taipei, 19-21 June 2010, public lecture series, Cairns Institute, James Cook University, Australia, 3 September 2010, and colloquium series, Institute of Linguistics, Academia Sinica, 15 November 2010). I am grateful to the audience there for their valuable comments, in particular, to Alexandra Aikhenvald, Robert Dixon, Haowen Jiang, Lillian M. Huang, Paul Li, Chia-jung Pan, Jackson Sun, Stacy F. Teng, C.-C. Jane Tang, and Elizabeth Zeitoun. I thank Malcolm Ross for reading an earlier version of this paper and giving me useful suggestions. I am indebted to anonymous reviewers for their critical comments. My gratitude also goes to my major language consultants Pasuya Tiakiana and Mo'o Peongsi. I thank my research assistants Sih-wei Chen and Chia-fen Wu for their assistance of various kinds. Any remaining error is my own responsibility.

recognized as the Larsonian approach, Larson's VP-shell analysis not only manages to uncover the binary-branching structural nature of DOC but also inspires the decomposition of what was taken as a simple VP into a little *v* plus a VP core (Chomsky 1995: 315, 331). Both the binary branching analysis and the light verb analysis have been accepted as the standard views of phrase structure under the current Minimalist Program (Chomsky 1995, 2000, 2001).

Nonetheless, triadic/ditransitive research has not received much attention in Formosan literature. A comprehensive survey of triadic/ditransitive constructions is yet to appear, let alone an in-depth analysis of them. Huang & Huang (2007) give a detailed description of a wide variety of verbs in Tsou, but they cover only a small number of triadic/ditransitive verbs in their survey. This paper aims to fill the gap, focusing on a comprehensive survey of triadic/ditransitive verbs in Tsou. Hopefully, this descriptive study might serve as a reliable reference for a more in-depth understanding of triadic/ditransitive construction.

In this paper, I use the term 'triadic' instead of 'ditransitive' because, unlike English, Tsou presumably has no ditransitive construction, as will be illustrated in subsequent sections. By 'triadic construction', I am referring to a dynamic event that involves three distinct participants, with the external argument as an agent, one of the internal arguments as a theme, and the other either as a recipient, a goal, a source, a location, a beneficiary, or an instrument.¹ As will become clear shortly, the two internal arguments do not surface as core arguments at a time in Tsou—either of them must be in the oblique case, whereas the external argument remains syntactically prominent throughout. To surface as a core argument, the internal arguments must appeal to either transitive or applicative devices.

The paper is organized as follows. Section 2 sketches some important aspects of Tsou grammar which have strong bearing on the subsequent discussions, including the case-marking system and the transitive-applicative distinction in Tsou. Sections 3 through 5 check triadic verbs of various kinds in Tsou in light of Levin's (1993) transitive/ditransitive alternations in English. Section 6 summarizes several important generalizations and general tendencies from the preceding sections and discusses their typological and theoretical implications. Section 7 concludes the paper and points out some directions for future inquiry.

¹ In Margetts' (2007) terminology, this is called 'three-participant event'. However, I stick to the term 'triadic' for ease of exposition.

2. A grammatical sketch

In this paper, I identify Tsou as an ergative language, along with many Philippine-type languages (Starosta 1997, Reid & Liao 2004, Aldridge 2004, among others). Following Aldridge (2004, 2008) and H. Chang (2011), I treat voice morphology as markers of transitivity in Tsou.² In the transitivity analysis, an actor voice is reanalyzed as an intransitive, as in (1a), a patient voice as a simple transitive, as in (1b), a locative voice as a locative applicative (LA), as in (1c), and a(n) benefactive/instrumental voice as a(n) benefactive/instrumental applicative (shortened as BA), as in (1d).³ What were earlier treated as nominative and genitive/oblique case markers are now re-labeled as absolutive and ergative/genitive case markers respectively. This paper also argues, along with H. Chang (2011), that despite sharing the same morphological forms, ergative/genitive and oblique case markers should be distinguished, with the former encoding core arguments and the latter peripheral arguments. The split analysis is driven by the fact that unlike oblique arguments, ergative arguments remain syntactically prominent. For example, ergative arguments trigger verbal agreement but oblique arguments never do so, as illustrated in (1b-d).⁴

(1) Tsou

- a. mi-ta m-onsi 'o oko
 INTR-3S INTR-cry ABS child
 'The child is crying.'
- b. i-ta_i eobak-a ta pasuya_i 'o oko
 TR-3S beat-TR ERG PN ABS child
 'Pasuya beat the child.'
- c. zou fatu i-ta_i yac'-i ta pasuya_i
 EMP stone TR-3S stand-LA ERG PN
 'The stone is where Pasuya stands.'

² The traditional voice analysis is undesirable since the so-called voice markers in Tsou can (i) introduce a peripheral argument (like applicative affixes), (ii) trigger meaning change (like transitivity markers), or (iii) co-occur (like transitive/applicative affixes). For a more comprehensive illustration, readers are referred to H. Chang (2011).

³ Ross & Teng (2005) also treat voice markers as transitivity markers, but they are not committed to the analysis of locative and instrumental voice as applicatives.

⁴ This paper adopts Leipzig Glossing Rules in glossing examples and assigning abbreviations, but with the following amendments: AGT=agent, CONJ=conjunct, BA=benefactive/instrumental applicative, EMP=emphatic marker, INST=instrumental case, LA=locative applicative, PN=personal name, PLN=place name, RCPT=recipient, TT=transported theme.

- d. i-ta_i teoc-neni to evi ta pasuya_i 'o pexcngx⁵
 TR-3S chop-BA OBL tree ERG PN ABS axe
 'Pasuya chopped trees with the axe.'

Semantic evidence also lends support to the split analysis. While ergative arguments invariably represent an agent/experiencer, oblique arguments vary considerably, ranging from a patient (2a), an instrument (2b), a location (2c), a time adverbial (2d), to a clausal reason (2e).⁶ The wide-ranging thematic coverage by the same set of case markers hints at its grammatical status. In particular, given that the time adverbial in (2d) and the reason adverbial in (2e) cannot be identified as a core argument, a logical reasoning follows—the patient/instrument/place arguments that are marked in the same way as time/reason adverbials should not be identified as core arguments either. After all, unlike ergative arguments, the alleged oblique arguments in (2a-e) do not show any core argumenthood in syntactic operations.

(2) Tsou

- a. mi-ta eobako **to** **oko** 'e mo'o (patient)
 INTR-3S beat(INTR) OBL child ABS PN
 'Mo'o is beating a child.'
- b. cuma na te-ko papas-a **ta** **fufu** (instrument)
 what ABS IRR-2S cut-TR OBL knife
 'What are you going to cut with a knife?'
- c. os-'o ait-i **to** **kuyai** nehucma taini (place)
 TR-1S see-LA OBL car yesterday 3S.ABS
 'I saw him on a bus yesterday.'
- d. te-ta uh ne fuengu **no** **taseona** (time)
 IRR-3S go LOC mountain OBL morning
 'He will go to the mountain in the morning.'
- e. mi-ta-cu o-noyxn **to** **la-ta** **an-a** (reason)
 INTR-3S-COS eat-fat OBL HAB-3S eat-TR
 'He becomes fat because of his (bad) eating habit.'

The split analysis yields a three-way case-marking distinction, as indicated in Table 1 below.

⁵ For typographic convenience, I substitute *x* for the high unrounded central vowel *ɨ*, *ng* for the velar nasal and ' for the glottal stop throughout the paper.

⁶ Readers are referred to Pan (2010) for a detailed description of various obliquely marked time adverbials in Tsou.

Table 1: A three-way case-marking distinction in Tsou

	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 ⁷	
but actually being somewhere nearby		nca	co
Non-existent		ci	

Note that the ergative set of case markers are further divided into two subtypes: ergative vs. genitive. They are subsumed under the same category because they are in complementary distribution—ergative arguments occur only in verb phrases but genitive ones only in noun phrases. They are assigned distinct case labels because they display different distributional patterns. While an ergative argument must occur between the verb and the absolutive argument, a genitive argument can move along with its head noun and end up sentence-finally. Compare:

(3) Tsou

- a. i-si_i f-a-eni to mo'o **to** pasuya_i 'o tposx-si_i
 TR-3S give-TR-BA OBL PN ERG PN ABS book-3S
 'Pasuya gave his book to Mo'o.'
- a'. *i-si_i f-a-eni to mo'o 'o tposx-si_i **to** pasuya_i
 TR-3S give-TR-BA OBL PN ABS book-3S ERG PN

⁷ 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.

- b. mi-ta m-eo'ei to f'ue **to** **pasuya** 'o mo'o
 INTR-3S INTR-steal OBL sweet.potato GEN PN ABS PN
 'Mo'o stole Pasuya's sweet potatoes.'
- b'. i-ta **peo'eo****-a** 'o f'ue **to** **pasuya**
 TR-3S steal-TR ABS sweet.potato GEN PN
 'He stole Pasuya's sweet potatoes.'

Meanwhile, the sentence-initial realis auxiliary which is said to distinguish voice is now taken to differentiate transitivity and to accord as such with the lexical verb following it. Viewed this way, Tsou is a language that displays transitivity concord. As illustrated in (1), the intransitive auxiliary *mi* is in agreement with the intransitive verb *mongs**i* and the transitive auxiliary *i* is in agreement with the transitive/applicative verbs *eobaka/yac* 'il/*teocneni*.

3. Realization of the agent, theme, and message

From this section on, I report on how triadic arguments are grammatically encoded in Tsou. This section checks the grammatical realization of the agent, the theme, and the (conveyed) message. Section 4 moves on to those thematic roles in connection with location, namely, the recipient, source, goal, and location. Section 5 turns to the beneficiary and instrument. For each thematic role, I discuss its realization in intransitive and transitive sentences respectively. I acknowledge that my triadic checklist is largely based on Levin's (1993) transitive/ditransitive alternations in English.

3.1 The agent

In English, a triadic agent has two ways of being realized. In active sentences, it surfaces as the subject, as in *John gave a book to Mary/John gave Mary a book*. Alternatively, it occurs as an oblique argument in passive constructions, as in *A book was given to Mary by John/Mary was given a book by John*. Interestingly, Tsou is different from English in this regard. In Tsou, a triadic agent consistently surfaces as a core argument. It either occurs in the absolutive case or in the ergative case, depending on whether the direct object of the verb undergoes object shift. If object shift is attested, the agent will be realized in the ergative case. As in (4a-b), the agent of the giving event, *pasuya*, is marked by the ergative case marker *to*. In these sentences, *pasuya* should surface as a core argument, as evidenced by the fact that it can trigger verbal agreement, hence the presence of the co-referential third-person singular suffix *-si* on the auxiliary.

(4) Tsou

- a. i-si_i f-a-eni to mo'o to **pasuya_i** 'o tposx-si_i
 TR-3S give-TR-BA OBL PN ERG PN ABS book-3S
 'Pasuya gave his book to Mo'o.'
- b. i-si_i fi-i to tposx to **pasuya_i** 'o mo'o
 TR-3S give-LA OBL book ERG PN ABS PN
 'Pasuya gave a book to Mo'o.'

Note also that the agent follows the recipient in (4a) and the theme in (4b). The reverse order is not allowed, as illustrated in (5a-b).

(5) Tsou

- a. *i-si_i f-a-eni to **pasuya_i** to mo'o 'o tposx-si_i⁸
 TR-3S give-TR-BA ERG PN OBL PN ABS book-3S.GEN
 Intended for 'Pasuya gave his book to Mo'o.'
- b. *i-si_i fi-i to **pasuya_i** to tposx 'o mo'o
 TR-3S give-LA ERG PN OBL book ABS PN
 Intended for 'Pasuya gave Mo'o a book.'

On the other hand, the agent is realized in the absolutive case if object shift does not occur. As in (6a-c), the agent appears sentence-finally and is marked by the absolutive case marker 'o, whereas the theme and the recipient/location appear between the verb and the agent, both of them marked by the oblique case marker *to*. Like those in transitive sentences in (4), the agents in intransitive sentences in (6) also trigger verbal agreement on the auxiliary and should thus be treated as core arguments as well.

(6) Tsou

- a. mi-ta_i mo-fi to tposx (to paicx 'o pasuya_i)
 INTR-3S INTR-give OBL book OBL PN ABS PN
 'Pasuya gives a book to Paicx.'
- b. mi-ta_i mo-si to tposx to pangka ('o pasuya_i)
 INTR-3S INTR-put OBL book OBL table ABS PN
 'Pasuya puts a book on the table.'

⁸ This sentence will be grammatical if it means 'Mo'o gave Pasuya his book'. On this reading, *Mo'o* serves as the agent and *Pasuya* as the recipient, consistent with the 'requirement of an agent following a recipient'.

- c. mi-ta_i meo'eo_i to f'ue-he ('o mo'o_i)
 INTR-3S steal(INTR) OBL sweet.potato-3P ABS PN
 'Mo'o steals their sweet potatoes.'

In this view, the agent should be the only core argument in (6), despite the presence of three thematic roles in the sentences. Apart from the agent, the other two thematic roles surface as peripheral arguments; they are marked by the oblique case marker and syntactically inactive (e.g. unlike the agent, they do not trigger verbal agreement on the auxiliary). In terms of intransitivity, the sentences in (6) behave like English constructions involving double PP complements, as shown in (7)–(8).

- (7) English (Jackendoff 1990:431)
 a. I talked **to John and Bill about themselves**.
 b. I heard **from John and Bill about themselves**.
 (8) English (Pesetsky 1995:161)
 a. Sue spoke **to these people about each other's friends**.
 b. Mary danced **with these people in each other's hometowns**.

One major difference is that multiple complements are led by the same oblique case marker in Tsou but by distinct prepositions in English. This might be due to a productive case syncretism in Tsou.⁹

3.2 The (transported) theme

In a triadic construction, the theme typically denotes an entity transferred from one location/person to another by an agent, hence also referred to as a transported theme (S. Huang 2005). In English, the grammatical realization of a transported theme varies

⁹ A similar pattern is also observed in Puyuma, as argued in Teng (2009). In other Formosan languages such as Mayrinax Atayal and Saisiyat, multiple complements parallel to (6) are marked by distinct case markers, as in (i–ii)

- (i) Mayrinax Atayal (L. Huang 1995:98)
 m<in>aiq=ci' cu' pila' cku' 'ulaqi'
 AF<PAST>give=1S.BN Acc.Nrf money DAT.Rf child
 'I gave money to the child.'
 (ii) Saisiyat (Hsieh & Huang 2006:101)
 sia 'am mo-bay ka 'aehae' kakaat 'ini' 'Obay
 3SG. PRON.NOM FUT AF-give ACC one pen DAT PN
 'She will give Obay one pen.'

from one verb to another. For a *give*-type verb, the transported theme typically occurs as a direct/secondary object, as in (9).

- (9) a. John **gave a book** to Mary.
 b. John **gave** Mary **a book**.

In contrast, for a *provide*-type verb and a *load*-type verb, the transported theme can occur either as a direct object or as a prepositional complement, as in (10)-(11).

- (10) Levin (1993:65)
 a. The judge presented **a prize** to the winner.
 b. The judge presented the winner **with a prize**.
 (11) Levin (1993:51)
 a. Jack sprayed **paint** on the wall.
 b. Jack sprayed the wall **with paint**.

In Tsou, the realization of the transported theme is also subject to variation, but the variation in Tsou is not only due to verb class but also due to verb marking, as will become clear shortly. In Tsou, a transported theme is grammatically distinguished from a patient, as will be discussed in §3.2.2. A transported theme is either realized in the oblique case or the absolutive case in Tsou. Unlike an agent, a transported theme never surfaces as an ergative argument. In §3.2.1, I shall deal with the oblique realization of a transported theme. In §3.2.2, I shall discuss its absolutive realization.

3.2.1 In the oblique case

In an intransitive triadic sentence, the transported theme surfaces as a peripheral argument, marked by an oblique case marker, as illustrated above in (6). Here are more examples of this sort.

- (12) Tsou
 a. mi-'o yuevaho **to** **emoo** **ta** **mo'o**
 INTR-1S borrow(INTR) OBL house GEN PN
 'I rent Mo'o's house.'
 b. mi-ta topco **to** **ongko to** **taicini** to tonghifza
 INTR-3S post(INTR) OBL photo GEN president OBL wall
 'He posts the president's photo on the wall.'

- c. mi-ta poe'ohx **to** **fatu** to aaskiti to ceonx
 INTR-3S push(INTR) OBL stone OBL edge GEN road
 'He pushes a rock to the roadside.'

Likewise, a transported theme is normally marked by an oblique case marker in a locative applicative construction, as indicated in (13).¹⁰

(13) Tsou

- a. os-'o fi-i **to** **tposx** 'o mo'o
 TR-1S give-LA OBL book ABS PN
 'I gave a book to Mo'o.'
- b. os-'o si-i **to** **tposx** 'o pangka
 TR-1S put-LA OBL book ABS table
 'I put a book on the table.'
- c. os-'o tokx-i **to** **fatu** 'o ceoyu
 TR-1S throw-LA OBL stone ABS wasp.nest
 'I throw a stone at the wasp's nest.'
- d. zou f'u-f'ue to voyu 'o i-ta peo'eozi
 EMP RED-sweet.potato GEN PN ABS TR-3S steal-LA
to **f'ue**
 OBL sweet.potato
 'Voyu's sweet potato field is where he stole sweet potatoes.'
- e. zou evi 'o os-'o teih-i **to** **nia** av'u
 EMP tree ABS TR-1S hang-LA OBL PST dog
 'This tree is where I hang a dead dog.'

It should be noted that a transported theme might also surface as a peripheral argument in a BA construction. However, this is restricted to verbs of creation, (caused) movement, and acquisition.

¹⁰ A noticeable exception to this observation comes from the verb for 'kick'. As shown below, the LA suffix indexes an absolutive theme rather than an absolutive goal.

- (i) os-'o **po'pot-i** 'o **mali**
 TR-1S kick-LA ABS ball
 'I kick the ball.'

I shall return to this in §6.2.

(14) Verbs of creation in Tsou

- a. os-'o tpos-neni **to** **tposx** 'e ino-'u
 TR-1S write-BA OBL letter ABS mother-1S.GEN
 'I wrote a letter for my mother.'
- b. os-'o tpos-neni **to** **tposx** 'o 'empicu
 TR-1S write-BA OBL letter ABS pencil
 'I wrote a letter with the pencil.'

(15) Verbs of (caused) movement in Tsou

- a. os-'o haf-neni **to** **tposx** 'o paicx
 TR-1S bring-BA OBL book ABS PN
 'I brought a book for Paicx.'
- b. os-'o poe'oh-neni **to** **kuyai** 'o paicx
 TR-1S push-BA OBL car ABS PN
 'I push a car for Paicx.'

(16) Verbs of acquisition in Tsou

- a. i-ta phin-i-neni **to** **simeo** 'o pasuya
 TR-3S buy-LA-BA OBL pork ABS PN
 'He bought pork for Pasuya.'
- b. os-'o peo'eoze-neni **to** **peisu** 'o paicx
 TR-1S steal(TR)-BA OBL money ABS PN
 'I steal money for Paicx.'
- c. os-'o ti'ingi-neni **to** **peisu** 'o mameoi
 TR-1S rob(TR)-BA OBL money ABS old.man
 'I rob money for the old man.'

By contrast, a transported theme occurs in the absolutive case in triadic constructions other than those involving verbs of creation, (caused) movement, and acquisition, as will be illustrated in the next section.

3.2.2 In the absolutive case

Triadic constructions can be divided into two classes with respect to whether the transported theme is encoded in the absolutive case by means of transitive or applicative devices. The absolutive transported theme is indexed by a transitive suffix *-a* in Class I but mostly by a BA suffix *-neni* in Class II.

3.2.2.1 The transported theme and transitive marking

This class includes verbs of placement, (caused) movement, and acquisition.

(17) Verbs of placement in Tsou

- a. os-'o **si-a** to takubingi 'o **naveu**
 TR-1S put-TR OBL bowl ABS rice
 'I put the rice into a bowl.'
- b. i-si **teaph-a** to kexpx 'o **huv'o**
 TR-3S fill-TR OBL backpack ABS orange
 'I fill the oranges into a backpack.'
- c. os-'o **teih-a** to sxesx 'o **yxsx-'u**
 TR-1S hang-TR OBL pole ABS clothes-1S.GEN
 'I hang my clothes on the pole.'
- d. os-'o **e'-usn-a** ne fuengu 'o **po'oyua**
 TR-1S pull-towards-TR LOC mountain ABS hose
 'I pull the hose towards the mountain.'

(18) Verbs of (caused) movement in Tsou

- a. os-'o **haf-a** uh to teova 'o **nia** **fou-'ua**
 TR-1S bring-TR go OBL hut ABS PST meat-deer
 'I brought the deer meat to a hut.'
- b. os-'o **poe'oh-a** 'o **fatu**
 TR-1S push-TR ABS stone
 'I push the rock.'
- c. i-si **cih-a** 'o **pucu**
 TR-3S throw.away-TR ABS garbage
 'He threw away the garbage.'

(19) Verbs of acquisition in Tsou¹¹

- a. os-'o **peo'eoze-a** 'o **f'ue-he**
 TR-1S steal-TR ABS sweet.potato-3P.GEN
 'I stole their sweet potatoes.'
- b. i-ta **ti'ing-a** 'o **peisu** to **mameoi**
 TR-3S rob-TR ABS money GEN old.man
 'He robbed the old man of his money.'

¹¹ There seems to be an accidental gap—the acquisition verb 'buy' does not bear the transitive suffix *-a*; hence **phina* is not attested in Tsou.

- c. i-ta **yuevah-a** 'o **emoo-'u**
 TR-3S borrow-TR ABS house-1S.GEN
 'He rented my house.'

In this respect, the transported theme is parallel to the patient of a dyadic transitive verb. Compare:

- (20) Tsou
 a. i-ta **eobak-a** 'o **oko**
 TR-3S beat-TR ABS child
 'He beat the child.'
 b. os-'o **af'oy-a** 'o **pethx'ta**
 TR-1S break-TR ABS window
 'I broke the window.'

It is noteworthy that for triadic verbs of this class, their BA marking normally indexes a thematic role other than the transported theme.¹²

- (21) Verbs of placement in Tsou
 a. os-'o **si-eni** to naveu to takubingi 'o **ba'i**
 TR-1S put-BA OBL rice OBL bowl ABS grandmother
 'I put rice into a bowl for Grandmother.'
 b. *os-'o **si-eni** to takubingi 'o **naveu**
 TR-1S put-BA OBL bowl ABS rice
 (22) Verbs of dyadic transitive verbs in Tsou
 a. os-'o **haf-neni** to tposx 'o **paicx**
 TR-1S bring-BA OBL book ABS PN
 'I brought a book for Paicx.'

¹² An alleged exception to this observation is the verb for 'steal'. While its BA marking usually cross-refers to the beneficiary, as in (ia), for a few informants its indexing of the transported theme is also acceptable, as in (ib).

- (i) a. os-'o **peo'eoze-neni** to peisu 'o **paicx**
 TR-1S steal-BA OBL money ABS PN
 'I stole money for Paicx.'
 b. os-'o **peo'eoze-neni** to paicx 'o **peisu**
 TR-1S steal-BA OBL PN ABS money
 'I stole the money from Paicx.' (# I stole the money for Paicx.)

This gives rise to a symmetrical applicative construction, an extremely rare configuration in Tsou.

- b. *os-'o **haf-neni** 'o **tposx**
 TR-1S bring-BA ABS book

(23) Verbs of acquisition in Tsou

- a. os-'o **ti'ingi-neni** to peisu 'o **mameoi**
 TR-1S rob(TR)-BA OBL money ABS old.man
 'I rob money for the old man.'
- b. *os-'o **ti'ingi-neni** 'o **peisu**
 TR-1S rob(TR)-BA ABS money

It seems that there is a division of labor between a transitive construction and an applicative construction. I shall return to this point later.

3.2.2.2 The transported theme and applicative marking

In Class II, the absolutive transported theme is typically associated with the BA suffix *-neni*. This applies to verbs of (caused) possession, some of the caused movement verbs, and a few of the placement verbs.

(24) Verbs of (caused) possession in Tsou

- a. os-'o **f-a-eni** to mo'o 'o **tposx**
 TR-1S give-TR-BA OBL PN ABS book
 'I gave the book to Mo'o.'
- b. i-ta **phi-eni** to pasuya 'o **simeo**
 TR-3S buy(TR)-BA OBL PN ABS pork
 'He sold the pork to Pasuya.'
- c. os-'o **pacohiv-eni** to 'o-'oko 'o **engo**
 TR-1S teach(TR)-BA OBL RED-child ABS English
 'I teach English to children.'

(25) Verbs of (caused) movement in Tsou

- a. os-'o **to's-eni** to evoza 'o **pucu**
 TR-1S throw-BA OBL valley ABS garbage
 'I throw the garbage to a valley.'
- b. os-'o **tokx-neni** to chumu 'o **fatu**
 TR-1S throw-BA OBL water ABS stone
 'I throw the stone to water.'

(26) Verbs of placement in Tsou

- a. os-'o **ngov'-eni** to sxesx 'o **yxsx-'u**
 TR-1S hang-BA OBL pole ABS clothes-1S.GEN
 'I hang my clothes on the pole.'
- b. os-'o **topc-eni** to tonghifza 'o **ongko-'u**
 TR-1S post-BA OBL wall ABS photo-1S.GEN
 'I post my photo on a wall.'

It is noteworthy that triadic verbs of this class do not stand alone with the transitive suffix *-a*. This is evidenced by the fact that the replacement of the BA suffix *-neni* with the transitive suffix *-a* on the verbs in (27)-(29) all result in ungrammaticality, as shown below.

(27) Verbs of (caused) GENession in Tsou

- a. *os-'o **fi-a** to mo'o 'o **tposx**
 TR-1S give-TR OBL PN ABS book
- b. *i-ta **phi-a** to pasuya 'o **simeo**
 TR-3S buy-TR OBL PN ABS pork
- c. *os-'o **pacohiv-a** to 'o-'oko 'o **engo**
 TR-1S teach-TR OBL RED-child ABS English

(28) Verbs of (caused) movement in Tsou

- a. *os-'o **to's-a** to evoza 'o **pucu**
 TR-1S throw-TR OBL valley ABS garbage
- b. *os-'o **tokx-a** to chumu 'o **fatu**
 TR-1S throw-TR OBL water ABS stone

(29) Verbs of placement in Tsou

- a. *os-'o **ngov'-a** to sxesx 'o **yxsx-'u**
 TR-1S hang-TR OBL pole ABS clothes-1S.GEN
- b. *os-'o **topc-a** to tonghifza 'o **ongko-'u**
 TR-1S post-TR OBL wall ABS photo-1S.GEN

In this respect, triadic verbs of Class II should be differentiated from those of Class I. In Class I, triadic verbs are compatible with both the transitive suffix *-a* and the BA suffix *-neni*, with the former indexing an absolutive theme and the latter an absolutive beneficiary/instrument, as illustrated above in (17)-(19) and (21)-(23). By contrast, triadic verbs of Class II do not stand alone with the transitive suffix *-a*, as indicated in (27)-(29). With the BA suffix *-neni*, triadic verbs of Class II index an absolutive

transported theme rather than an absolute beneficiary/instrument, as shown in (24)-(26). To sum up, the BA suffix *-neni* has two distinct functions: it advances a(n) beneficiary/instrument on the one hand and a transported theme on the other, as diagrammed below.

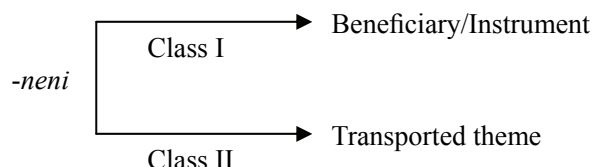


Figure 1: The functional split of the BA suffix *-neni* in Tsou

It remains to be worked out how the two distinct functions are conditioned.

3.2.3 The conveyed message

Triadic verbs of message-conveying such as ‘tell’ and ‘ask’ semantically select a conveyed message rather than a transported theme as the third argument, along with an agent and a goal. Apart from being realized as a noun phrase, the conveyed message can also occur as a clausal complement. This contrasts with the realization of a transported theme. Compare:

- (30) Levin (1993:203)
- a. Ellen told **a story** to Helen.
 - b. Ellen told Helen **a story**.
- (31) Levin (1993:203)
- a. Ellen told Helen **that the party would be tonight**.
 - b. Ellen told Helen **how to avoid the crowd**.
 - c. Ellen told Helen **to come**.

The grammatical duality is also found in Tsou, as reported in the next two sections.

3.2.3.1 In the oblique case

A conveyed message behaves like a transported theme in occurring in the oblique case in an intransitive construction. As in (32a-b), the conveyed messages are marked by the oblique case markers *to* and *no* respectively, with the verbs in their intransitive forms *exsvxtx* and *tuocox*.

(32) Tsou

- a. mi-'o exsvxtx **to** **te** **uh** **ne** **fuengu**
 INTR-1S tell(INTR) OBL IRR go LOC mountain
 'I tell (them) that I will go hunting on the mountain.'
- b. mi-'o tuocosx **no** **te-ta** **hioa**
 INTR-1S ask(INTR) OBL IRR-3S work(TR)
 'I ask (him) about what he is going to do.'

3.2.3.2 In the absolutive case?

However, as noted by Huang & Huang (2007), the realization of a conveyed message might vary from one verb to another in Tsou. This is particularly true in transitive/applicative contexts. For the applicative verbs *tuocosi*/*tuocosneni*, the conveyed message is normally encoded in the oblique case, as illustrated below:

(33) Tsou

- a. os-'o tuocos-i 'e mo'o **no** **te-'o** **hioa**¹³
 TR-1S ask-LA ABS PN OBL IRR-1S work(TR)
 'I ask Mo'o what I shall do.'
- b. os-'o tuocos-neni **no** **te-ta** **hioa** 'e pasuya
 TR-1S ask-BA OBL IRR-3S work(TR) ABS PN
 'I ask on Pasuya's behalf what he shall do.'

For the LA verb *tuocosi*, the conveyed message can also be realized in the absolutive case position:

(34) Tsou

- os-'o tuocos-i **na** **te-ta** **hioa**
 TR-1S ask-LA ABS IRR-3S work(TR)
 'I ask about what he is going to do.'

¹³ As suggested in earlier examples, the canonical word order in Tsou is that an oblique argument precedes the absolutive argument. However, the oblique argument follows the absolutive argument in (33a). The deviation from the canonical word order might be due to a syntactic movement analogous to the Heavy NP Shift in English, i.e. the sentence-final oblique argument might be originated within vP but moved out of vP due to its heavy phonological weight; witness (33b), where the oblique argument appears before the absolutive argument.

Nonetheless, for the transitive/applicative verbs *exsvxta*, *exsvxti*, and *exsvxtneni*, the conveyed message typically occurs as a clausal complement, led by the conjunctor-turned-complementizer *ho* rather than by any case marker.¹⁴

(35) Tsou

- a. os-'o exsvxt-a to mo'o **ho** **te** **uh** **ne** **fuengu**
 TR-1S tell-TR OBL PN COMP IRR go LOC mountain
 'I tell Mo'o that I will go hunting on the mountain.'
- b. os-'o exsvxt-i 'o haah'o **ho** **te** **uh** **ne** **fuengu**
 TR-1S tell-LA ABS everybody COMP IRR go LOC mountain
 'I tell everybody that I will go hunting on the mountain.'
- c. te-ko exsvxt-neni (na) a'o **ho** **o'a** **te-'o** **maine'e**
 IRR-2S tell-BA ABS 1S COMP NEG IRR-1S return
 'Please tell (him/her) on my behalf that I will not return home.'

There do not seem to be any absolutive argument in the sentences in (35a-c). Still, the conveyed message of the transitive verb *exsvxta* can occur in the absolutive case if it is realized as a noun phrase. Compare:

(36) Tsou

- os-'o exsvxt-a to mo'o 'o **ongko-'u**
 TR-1S tell-TR OBL PN ABS name-1S.GEN
 'I tell Mo'o my name.'

It is evident that a conveyed message has wider realizations than a transported theme in Tsou. It is thus necessary to differentiate a conveyed message from a transported theme in Tsou.

4. Location and its kind

In this section, I explore the grammatical realization of location-related thematic roles in triadic constructions, including the recipient, source, goal, and location.

4.1 The recipient

As is well-known, a recipient might be eligible for dative shift and advanced from a prepositional complement to a direct object in English.

¹⁴ See Tsai (2007) for an account of the evolution of the conjunctor *ho*.

- (37) a. John gave a book to **Mary**. (dative construction)
 b. John gave **Mary** a book. (double object construction)

The advancement of a recipient from an oblique position to a core argument position is also attested in Tsou. However, unlike English, the advancement does not yield a double object construction in Tsou.

4.1.1 In the oblique case

In Tsou, an oblique recipient is normally associated with an applied verb. This is already illustrated in (24), repeated below as (38).

- (38) Oblique recipients in Tsou
- | | | | | | | |
|----|--------------------------------|--------------------|-----------|----------------|-----|---------|
| a. | os-'o | f-a-eni | to | mo'o | 'o | tposx |
| | TR-1S | give-TR-BA | OBL | PN | ABS | book |
| | 'I gave the book to Mo'o.' | | | | | |
| b. | i-ta | phi-eni | to | pasuya | 'o | simeo |
| | TR-3S | buy(TR)-BA | OBL | PN | ABS | pork |
| | 'He sold the pork to Pasuya.' | | | | | |
| c. | os-'o | pacohiv-eni | to | 'o-'oko | 'o | engo |
| | TR-1S | teach(TR)-BA | OBL | RED-child | ABS | English |
| | 'I teach English to children.' | | | | | |

More examples of this sort are given in (39):

- (39) Oblique recipients in Tsou
- | | | | | | | |
|----|---------------------------------|--------------------|-----------|-------------|-----|--------------|
| a. | os-'o | pa'iun-eni | to | mo'o | 'o | tposx |
| | TR-1S | send(TR)-BA | OBL | PN | ABS | book |
| | 'I send the book to Mo'o.' | | | | | |
| b. | os-'o | yoovei-neni | to | mo'o | 'o | peisu |
| | TR-1S | return(TR)-BA | OBL | PN | ABS | money |
| | 'I return the money to Mo'o.' | | | | | |
| c. | os-'o | yuevah-neni | to | voyu | 'o | emoo-'u |
| | TR-1S | lend(TR)-BA | OBL | PN | ABS | house-1S.GEN |
| | 'I lend/rent my house to Voyu.' | | | | | |

For my informants, the co-occurrence of an oblique recipient with an intransitive verb is not preferred. Compare:

(40) Tsou

- a. mi-'o **mo-fi** to tposx (**to** **paicx**)
 INTR-1S INTR-give OBL book (OBL PN)
 'I give a book to Paicx.'
- b. mi-'o **m-achio** to engo (**?to** **paicx**)
 INTR-1S INTR-teach OBL English (OBL PN)
 Intended for 'I teach English to Paicx.'
- c. mi-'o **m-a'iunu** to tposx (**?to** **paicx**)
 INTR-1S INTR-send OBL letter (OBL PN)
 Intended for 'I send a letter to Paicx.'

There is evidence that the above observation should be on the right track. Note that the intransitive form for 'return' is unavailable in Tsou. Compare (41) with (39b).

(41) Tsou

- *mi-'o **yoovei** to peisu **to** **mo'o**
 INTR-1S return(INTR) OBL money OBL PN
 Intended for 'I return money to Mo'o.'

In a similar vein, the intransitive form for 'to lend' has a different meaning from its applicative counterpart *yuevahneni*. As shown in (42), *yuevaho* means 'to borrow' rather than 'to lend'. Compare:

(42) Tsou

- a. mi-'o **yuevaho** to tposx to paicx
 INTR-1S borrow(INTR) OBL book GEN PN
 'I borrow Paicx's book.'
- b. os-'o **yuevah-neni** to voyu 'o emoo-'u
 TR-1S borrow(TR)-BA OBL PN ABS house-1S.GEN
 'I lend/rent my house to Voyu.'

A similar meaning shift is also observed with the verb for 'to sell'. Compare:

(43) Tsou

- a. mi-'o **m-ihino** to tposx to paicx
 INTR-1S INTR-buy OBL book GEN PN
 'I buy Paicx's book.'

- b. i-ta **phi-eni** to pasuya 'o simeo
 TR-3S sell(TR)-BA OBL PN ABS pork
 'He sold the pork to Pasuya.'

An interesting observation induced from (41)-(43) is that oblique recipients are not compatible with the intransitive verbs in question. The incompatibility is achieved either by ruling out the intransitive form, as in *yoovei*, or taking out the oblique recipients from the constructions, as in *yuevaho* and *mihino*. For *yuevaho* and *mihino*, the obliquely marked arguments refer to a possessor/source instead of a recipient. To sum up, an oblique recipient is dis-preferred in intransitive constructions.

4.1.2 In the absolutive case

In an LA construction, the recipient is almost always encoded in the absolutive case. Consider:

- (44) Tsou
- a. os-'o **fi-i** to tposx 'o **mo'o**
 TR-1S give-LA OBL book ABS PN
 'I gave a book to Mo'o.'
- b. os-'o **pacohiv-i** to engo 'o **oko**
 TR-1S teach-LA OBL English ABS child
 'I teach the children English.'
- c. os-'o **pai'un-i** to tposx 'o **mo'o**
 TR-1S send-LA OBL book ABS PN
 'I send a book to Mo'o.'

One might find apparent counterexamples to this rule with verbs of creation. As in (45), the verb marked with the LA suffix puts the theme in the absolutive position.

- (45) Tsou
- os-'o **tpos-i** 'o **tposx**
 TR-1S write-LA ABS letter
 'I wrote the letter.'

Note, however, that the recipient is absent from (45). The sentence will be ungrammatical once the intended recipient is introduced as an oblique argument, as in (46).

- (46) Tsou
 *os-'o tpos-i to paicx 'o tposx
 TR-1S write-LA OBL PN ABS letter
 Intended for 'I wrote the letter to Paicx.'

To encode the receptive reading, my informants prefer to apply bi-clausal structure instead. Compare:

- (47) Tsou
 os-'o tpos-i 'o tposx
 TR-1S write-LA ABS letter
ho f-a-eni to paicx
 COMP give-TR-BA OBL PN
 'I wrote the letter to Paicx.'

Accordingly, I maintain my original observation that a recipient should be advanced to the absolutive position in an LA construction. Sentences like (45) are not true counter-examples to the observation, since they do not host a recipient at all. In other words, the observation is a one-way entailment: it states that an absolutive recipient must be indexed by the LA suffix but does not entail that an LA suffix cannot bear cross-reference to other thematic roles (if the recipient is absent).

4.2 The source

In English, a source argument can either surface as a prepositional complement or a direct object (if it is animate).

- (48) a. The judge robbed money **from John**. (Larson 1988:375)
 b. John robbed **Sue** of her money. (Pesetsky 1995:150)
- (49) Levin (1993:52)
 a. The thief stole the painting **from the museum**.
 b. *The thief stole **the museum** of the painting.

As in English, a source argument is eligible for alternative distribution in Tsou. Nonetheless, a Tsou source argument differs slightly from its English counterpart in that the former does not occur in the oblique but the latter does, as will be illustrated in §4.2.1. Besides, a source argument distinguishes itself from a recipient argument in its realization in intransitive constructions. Still, a source and a recipient converge in locative

applicative constructions—both can be present in the absolutive position and indexed by the LA suffix, as will be illustrated in §4.2.2.

4.2.1 In the genitive case

Unlike a recipient, a source may occur in the genitive case in an intransitive construction. Consider:

(50) Tsou

- a. mi-ta **m-eo'eo**i to f'ue **to** voyu
 INTR-3S INTR-steal OBL sweet.potato GEN PN
 'He stole sweet potatoes from Voyu.' (lit. 'He stole Voyu's sweet-potatoes.')
- b. mi-ta **ti'ingi** to peisu **to** mameoi
 INTR-3S rob(INTR) OBL money GEN old.man
 'He robbed money from the old man.' (lit. 'He robbed the old man's money.')
- c. mi-'o **yuevaho** to emoo **to** mo'o
 INTR-1S borrow(INTR) OBL house GEN PN
 'I rent Mo'o's house.'

There is evidence that the case marker *to* in (50a-c) should occur as a genitive case marker rather than as an oblique case marker. In syntactic operation, the source argument moves along with the theme argument as a syntactic constituent, as illustrated in (51a-c), which are paraphrases to (50a-c) respectively.

(51) Tsou

- a. i-ta **peo'eo**-a 'o f'ue **to** voyu
 TR-3S steal-TR ABS sweet.potato GEN PN
 'He stole Voyu's sweet potatoes.'
- b. i-ta **ti'ing-a** 'o peisu **to** mameoi
 TR-3S rob-TR ABS money GEN old.man
 'He robbed the old man's money.'
- c. os-'o **yuevah-a** 'o emoo **to** mo'o
 TR-1S borrow-TR ABS house GEN PN
 'I rent Mo'o's house.'

This indicates that the source argument in question is in conjunction with the theme argument and parallel to a possessor. An oblique argument does not behave this way.

In addition, as mentioned in §2, an oblique argument normally does not surface in the sentence-final position in Tsou. However, the *to*-marked arguments in (51a-c) end up sentence-finally. The oblique analysis will leave these facts unexplained.

4.2.2 In the absolutive case

A source argument may be advanced to the absolutive position by the LA suffix *-i*, as shown below in (52a-b).

(52) Tsou

- a. zou **f'u-f'ue** **to** **voyu** 'o i-ta **peo'eo*z*-i** to
 EMP RED-sweet.potato GEN PN ABS TR-3S steal-LA OBL
 f'ue
 sweet.potato
 'Voyu's sweet potato field is where he stole sweet potatoes.'
- b. zou **teova** 'o os-'o **ya-i** to yungku
 EMP hut ABS TR-1S take-LA OBL basket
 'The hut is the place from which I took a basket.'
- c. os-'o **tuocos-i** 'o **mo'o** no te-'o hioa
 TR-1S ask-LA ABS PN COMP IRR-1S work(TR)
 'I asked Mo'o about what I should do.'

Unlike a recipient, a source argument often surfaces as a nominal predicate, followed by a complex noun phrase which contains an unpronounced source argument that is co-indexed with the source predicate. The derivation is evidenced by (52c), where the source argument straightforwardly surfaces as the absolutive argument.

4.3 The goal

In a triadic construction, the goal argument denotes the destination to which a theme is moved or a message is conveyed by an agent. In English, a triadic goal normally occurs as a prepositional complement, as in (53a). For a few triadic verbs, the goal can be advanced to the direct object position if it is animate; a triadic goal is not eligible for the advancement if it is inanimate, as in (53b). For others, the goal consistently occurs only as an oblique argument; the DOC variant is simply not available, as in (54b).

- (53) Pesetsky (1995:137)
- a. Mary kicked the ball **to John/the field**.
 - b. Mary kicked **John/*the field** the ball.
- (54) Pesetsky (1995:137)
- a. Mary pushed the boulder **to John**.
 - b. *Mary pushed **John** the boulder.

A similar tendency is also attested in Tsou, as will become clear shortly.

4.3.1 In the oblique case

In Tsou, the most natural way for a triadic goal to occur as an oblique argument is to put it in the BA construction, where the transported theme occurs as the absolutive argument. As in (55a-b), the triadic goals ‘valley’ and ‘water’ are marked by the oblique case marker *to* and associated with the verbs marked with the BA suffix *-neni*.

- (55) Tsou
- a. os-’o to’s-eni **to** **evoza** ’o pucu
 TR-1S throw-BA OBL valley ABS garbage
 ‘I throw the garbage to a valley.’
 - b. os-’o tokx-neni **to** **chumu** ’o fatu
 TR-1S throw-BA OBL water ABS stone
 ‘I throw the stone to water.’

The observation also holds of a message-conveying verb like ‘tell’, although the conveyed message might not surface in the absolutive case. In (56a-b), the message surfaces as a clausal complement.

- (56) Tsou
- a. os-’o exsvxt-neni **to** **amo** ho te uh ne fuengu
 TR-1S tell-BA OBL father COMP IRR go LOC mountain
 ‘I told my father that I will go hunting on the mountain.’
 - b. os-’o exsvxt-a **to** **mo’o** ho te uh ne fuengu
 TR-1S tell-TR OBL PN COMP IRR go LOC mountain
 ‘I told Mo’o that I will go hunting on the mountain.’

Alternatively, the oblique goal argument can occur in a complement clause, following the matrix clause headed by a verb of caused movement, as in (57).

- (57) Tsou
 os-'o po'pot-i 'o mali ho poa-su' **to fofeova**
 TR-1S kick-LA ABS ball COMP CAUS-fall OBL ditch
 'I kick the ball to a ditch.'

It is also possible to place a triadic goal in an intransitive oblique position, as shown in (58a-b), but examples like these are not common.

- (58) Tsou
 a. mi-'o to'so to pucu **(to evoza)**
 INTR-1S throw(INTR) OBL garbage OBL valley
 'I throw garbage to a valley.'
 b. mi-'o m-tokx to fatu **(to pethxta-he)**
 INTR-1S INTR-throw OBL stone OBL window-3P.GEN
 'I throw a stone to their window.'

Note that like a recipient, a triadic goal must follow the transported theme in an intransitive sentence, as demonstrated above in (58a-b). The reverse word order will give rise to ungrammaticality. Compare:

- (59) Tsou
 a. *mi-'o to'so **to evoza** to pucu
 INTR-1S throw(INTR) OBL valley OBL garbage
 b. *mi-'o m-tokx **to pethxta-he** to fatu
 INTR-1S INTR-throw OBL window-3P.GEN OBL stone

4.3.2 In the absolutive case

For message-conveying verbs, the triadic goal can be advanced to the absolutive position by the LA suffix *-i*. Consider:

- (60) Tsou
 os-'o exsvxt-i 'o **haah'o** ho te uh ne fuengu
 TR-1S tell-LA ABS everybody COMP IRR go LOC mountain
 'I tell everybody that I will go hunting on the mountain.'

Meanwhile, it is not very common for a verb of caused movement to advance its goal to the absolutive position by an LA suffix. Sentence (61) is the only example I have in my field notes.

- (61) Tsou
 mi-'o boemi to mali ho tokx-i 'o pethxta-he
 INTR-1S use(INTR) OBL ball COMP throw-LA ABS window-3P.GEN
 'I throw a ball to their window.'

4.4 The location

In a triadic construction, the location denotes the place where a theme is situated by an agent. In English, a triadic location is normally realized as a prepositional complement, as shown below.

- (62) Levin (1993:111)
 a. I put the book **on the table**.
 b. *I put **the table** with the book.

Only for a small set of verbs (e.g. *load*-type verbs), a triadic location can be promoted to the direct object position, as in (63).

- (63) Levin (1993:51)
 a. Jack sprayed **paint** on the wall.
 b. Jack sprayed the wall **with paint**.

The advancement of a triadic location is relatively more productive in Tsou, as will be demonstrated shortly.

4.4.1 In the oblique case

Like a triadic goal, an oblique location typically patterns with a(n) transitive/applicative verb in Tsou. As in (64a-b), the triadic locations 'pole' and 'wall' are marked by the oblique case marker *to* in the BA constructions.

- (64) Tsou
 a. os-'o ngov'-eni to sxesx 'o yxsx-'u
 TR-1S hang-BA OBL pole ABS clothes-1S.GEN
 'I hang my clothes on the pole.'
 b. os-'o topc-eni to tonghifza 'o ongko-'u
 TR-1S post-BA OBL wall ABS photo-1S.GEN
 'I post my photo on a wall.'

In (65a-b), the obliquely marked locations co-occur with transitive verbs.

- (65) Tsou
- a. os-'o **si-a** **to** **takubingi** 'o naveu
 TR-1S put-TR OBL bowl ABS rice
 'I put the rice in a bowl.'
- b. os-'o **teih-a** **to** **sxesx** 'o yxsx-'u
 TR-1S hang-TR OBL pole ABS clothes-1S.GEN
 'I hang my clothes on the pole.'

In contrast, the co-occurrence of an oblique location with a three-place predicate in an intransitive sentence is not natural, albeit possible. Compare:

- (66) Tsou
- a. ?mi-ta topco to ongko to taicini (**to tonghifza**)
 INTR-3S post(INTR) OBL photo GEN president OBL wall
 Intended for 'He posts the president's photo on the wall.'
- b. ?mi-ta mo-si to tposx (**to pangka**)
 INTR-3S INTR-put OBL book OBL table
 Intended for 'He puts a book on a table.'

4.4.2 In the absolutive case

In Tsou, the advancement of a triadic location is usually attested in equational constructions. As shown in (67), the location 'the tree' occurs as a nominal predicate, followed by a subject of complex noun phrase 'the place where the bird rests'. The complex noun phrase is comprised of an unpronounced head noun ('the place' in the English translation) and a modifying relative clause ('where the bird rests' in the English translation). The head noun plays a pivotal role: it is predicated of the overt location on the one hand and co-referential with the null location in the absolutive position within the relative clause on the other.

- (67) Tsou
- a. 'a **evi** 'o i-si tosv-i to zomx
 tree ABS TR-3S stop-LA ERG bird
 'The tree is where the bird rests.'
- b. zou **evi** 'o os-'o teih-i to nia av'u
 EMP tree ABS TR-1S hang-LA OBL PST dog
 'The tree is where I hung a dead dog.'

It is occasionally observed that a triadic location is overtly realized as the absolutive argument, as in (68).

- (68) Tsou
- a. os-'o si-i to tposx 'o **pangka**
 TR-1S put-LA OBL book ABS table
 'I put a book on the table.'
- b. os-'o topc-i to ongko-taini 'o **tonghifza**
 TR-1S post-LA OBL photo-3S.GEN ABS wall
 'I post his photo on the wall.'

5. The beneficiary and instrument

In this section, I illustrate how peripheral arguments such as beneficiary and instrument, are grammatically encoded in a triadic construction. Verbs that will be discussed include—but are not limited to—verbs of creation and acquisition.

5.1 The beneficiary

A beneficiary that is not semantically selected by the base verb can surface as a core argument (typically as a direct object) via applicativization. In a language that is rich in applicativization (e.g. *Tukang Besi*), the applied verb is morphologically marked by benefactive applicative morphology, as in (69b).

- (69) *Tukang Besi* (Donohue 1999:231)
- a. no-ala te kau
 3.REALIS-fetch the wood
 'She fetched the wood.'
- b. no-ala-**ako** te ina-su te kau
 3.REALIS-fetch-APPL the mother-my the wood
 'She fetched the wood (as a favor) for my mother.'

In English, benefactive applicativization is achieved simply through word order change; there is no overt benefactive applicative morphology realized on the verb, as in (70) and (71).

(70) Verbs of creation (Gropen 1989:204)

- a. Tim built a house **for Spot**.
- b. Tim built **Spot** a house.

(71) Verbs of acquisition (Levin 1993:142)

- a. Carmen bought a dress **for Mary**.
- b. Carmen bought **Mary** a dress.

In this regard, Tsou behaves more like *Tukang Besi*—benefactive applicativization is morphologically marked on the verb. As in (72) and (73), the applied beneficiaries ‘my mother’, ‘my father’, ‘Pasyua’, and ‘Paicx’ are all indexed by the BA suffix *-neni*.

(72) Tsou

- a. os-’o **tpos-neni** to tposx ’e **ino-’u**
 TR-IS write-BA OBL letter ABS mother-IS.GEN
 ‘I wrote a letter for my mother.’
- b. os-’o **teai-neni** to emoo ’e **amo-’u**
 TR-IS make-BA OBL house ABS father-IS.GEN
 ‘I built a house for my father.’

(73) Verbs of acquisition in Tsou

- a. i-ta **phin-i-neni** to simeo ’o **pasuya**
 TR-3S buy-LA-BA OBL pork ABS PN
 ‘He bought pork for Pasuya.’
- b. os-’o **peo’eo-z-neni** to peisu ’o **paicx**
 TR-IS steal(TR)-BA OBL money ABS PN
 ‘I steal money for Paicx.’

While the suffix *-neni* has various functions, its typical function is to index an applied beneficiary. As shown in the Appendix, there are 23 tokens out of a total of 48 *neni*-marked verbs that manifest benefactive applicative. This is the reason why I choose the benefactive function as the representative function of the suffix *-neni* and gloss it as the BA suffix.¹⁵

¹⁵ Meanwhile, S. Huang (2005) observes that the BA suffix is mostly associated with a transported theme (TT) and argues that the multiple functions of the BA suffix originated from its TT-indexing function. I do not adopt S. Huang’s view for both conceptual and grammatical reasons. Conceptually, TT is not a peripheral argument and hence unlikely to serve as the starting point for deriving applicative functions, which typically introduce peripheral arguments. Grammatically, BA verbs that index TT might be morphologically more complex than those

However, note that, unlike *Tukang Besi* and English, a beneficiary normally surfaces as an applied argument in Tsou; an oblique beneficiary is very rare, albeit possible. This leads Huang & Huang (2007) to a strong claim that a beneficiary does not occur as an oblique argument in Tsou. In my field notes, I found only one example of oblique beneficiary, as shown below.

- (74) Tsou
 os-'o peo'eoʒ-neni **to** **paicx** 'o peisu
 TR-1S steal(TR)-BA OBL PN ABS money
 'I steal the money for Paicx.'

5.2 The instrument

In English, a triadic instrument is typically realized as a prepositional complement, as in (75).

- (75) Larson (1988:372)
 a. I cut the salami **with a knife**.
 b. *I cut **a knife** the salami.

Only for *hit*-type verbs, a triadic instrument can be advanced to the direct object position, as in (76).

- (76) Levin (1993:67)
 a. Brian hit the fence with **the stick**.
 b. Brian hit **the stick** against the fence.

The scenario seems to be the other way around in Tsou—a triadic instrument normally occurs as a core argument in Tsou, as noted in Huang & Huang (2007). Compare:

- (77) Tsou
 a. os-'o **fut-neni** to tupzu 'o **teisi**
 TR-1S tie.up-BA OBL wood ABS rope
 'I tied up wood with the rope.'

indexing peripheral arguments; witness, for instance, *f-a-eni* 'give' (as in (24a)) vs. *si-eni* 'put' (as in (21a)). This suggests that the TT-indexing function is more marked than its applicative counterparts and thus unlikely to serve as the derivational basis.

- b. os-’o **pahisi-neni** ta pangka **si** **yxsx-’u**
 TR-1S wipe-BA OBL table ABS clothes-1S.GEN
 ‘I wiped the table with my clothes.’

For a few verbs, the BA suffix *-neni* either cross-refers to a beneficiary or an instrument, depending on the event intended. Compare:

- (78) Tsou
- a. os-’o **teoc-neni** to evi ’o **mameoi** (Beneficiary)
 TR-1S chop-BA OBL tree ABS old.man
 ‘I chopped a tree for the old man.’
- b. os-’o **teoc-neni** to evi ’o **pexcngx** (Instrument)
 TR-1S chop-BA OBL tree ABS axe
 ‘I chopped a tree with the axe.’
- (79) Tsou
- a. os-’o **tpos-neni** to tposx ’e **ino’u** (Beneficiary)
 TR-1S write-BA OBL letter ABS mother-1S.GEN
 ‘I wrote a letter for my mother.’
- b. os-’o **tpos-neni** to tposx ’o **’empicu** (Instrument)
 TR-1S write-BA OBL letter ABS pencil
 ‘I wrote a letter with the pencil.’

Despite being rare, an oblique instrument is by no means impossible in Tsou, as in (80).

- (80) The oblique instrument in Tsou
- cuma na te-ko papas-a **ta** **f’uf’u**
 what ABS IRR-2S cut-TR OBL knife
 ‘What are you going to cut with a knife?’

6. Generalizations and implications

6.1 Summary

In terms of verb marking and case marking, the grammatical coding of three-participant events in Tsou can be summarized in Table 2.

Table 2: The triadic encoding in Tsou

Verb marking	INTR	TR	LA	BA
Case marking				
Agent	ABS	ERG	ERG	ERG
Theme	OBL	ABS	OBL	ABS/OBL
Message	OBL	<i>ho</i> -clause/ABS	OBL/ABS	<i>ho</i> -clause/OBL
Recipient	(OBL)	OBL	ABS	OBL
Source	GEN	GEN	ABS	GEN
Goal	OBL	OBL	ABS	OBL
Location	(OBL)	OBL	ABS	OBL
Beneficiary	NA	NA	NA	ABS/(OBL)
Instrument	OBL	OBL	OBL	ABS

A number of important generalizations and implications follow from the summary, as will be discussed shortly.

6.2 Generalizations and general tendencies

6.2.1 Generalizations

At first glance, Table 2 looks messy. As Huang & Huang (2007) point out, argument realization in Tsou is to a certain extent lexically specified. Idiosyncrasies are found from time to time. Verbs of caused movement are a case in point. For some of them, the BA marking is intended for an absolutive beneficiary, as in (81).

- (81) Tsou
i-si **cih-neni** to pucu 'o ino-si
TR-3S throw.away-BA OBL garbage ABS mother-3S.GEN
‘He threw away garbage for his mother.’

However, for others, the very same marking designates the transported theme as the absolutive argument, as in (82).

- (82) Tsou
os-'o **to's-eni** to evoza 'o **pucu**
TR-1S throw-BA OBL valley ABS garbage
‘I throw the garbage to a valley.’

However, a closer inspection still indicates that a number of important generalizations can be induced from Table 2.

Generalization I: Agent vs. the others

A triadic agent surfaces in the absolutive case only in an intransitive clause, whereas other triadic arguments occur in the absolutive case only in transitive/applicative constructions.

This generalization echoes what has been referred to as the AF-NAF asymmetries in Formosan literature (Chang 1997). It can be captured in a generalized approach to grammatical relations—it can be translated into an S-O contrast in Dixon's (1994) framework or as an Actor-Undergoer distinction in Van Valin's (1999) theory. The former approach is adopted by S. Huang (2005) for several Formosan languages and the latter by Wu (2007) for Amis.

Generalization II: Ergative vs. Absolutive

A triadic agent surfaces in the ergative case in transitive/applicative constructions but in the absolutive case in intransitive sentences.

This suggests that Tsou is an ergative language—the transitive/applicative agent is in the A function and thus in the ergative case, as opposed to the intransitive agent's realization in the S function and hence in the absolutive case. It is also noted that Generalization I and II both point to the fact that a triadic agent consistently serves as a core argument in Tsou. Unlike other thematic roles, a triadic agent does not occur in the oblique case in Tsou. It follows that passivization is not attested in the language.

Generalization III: Theme/Message-only restriction

In simple transitive triadic constructions, only the transported theme/conveyed message can surface in the absolutive case.

If we look down the third column in Table 2, we find this peculiar restriction. Note that this is simply a one-way entailment. It says that if a triadic verb is marked with the transitive suffix, it must advance the transported theme/conveyed message rather than other thematic roles, as illustrated above in §3.2.2.1. But it does not say that a triadic theme/message must be advanced by the transitive suffix. Actually, as shown in row three, an absolutive transported theme/conveyed message can be either indexed by a transitive suffix or a BA suffix.

Generalization IV: LA-only restriction

A Location-related triadic argument surfaces in the absolutive case in an LA construction but in the oblique elsewhere.

This is quite straightforward, given the name **Locative Applicative**. Nonetheless, it should be noted that this generalization does not entail that an LA suffix indexes only location-related thematic roles. As suggested in footnote 10, repeated below as (83a), an LA suffix can be attached to a movement verb and advance its theme. The same observation also holds true of the creation verb ‘to write’, as illustrated below in (83b).

- (83) Tsou
- | | | | | |
|----|------------------------|-----------------|-----------|--------------|
| a. | os-’o | po’pot-i | ’o | mali |
| | TR-1S | kick-LA | ABS | ball |
| | ‘I kick the ball.’ | | | |
| b. | i-ta | tpos-i | ’o | tposx |
| | TR-3S | write-LA | ABS | letter |
| | ‘He wrote the letter.’ | | | |

Importantly, location-related triadic arguments are missing in (83a-b). Note that the goal and recipient which are logically compatible with the movement verb ‘to kick’ and the creation verb ‘to write’ are not present in (83a-b). This suggests that the special grammatical patterns in question are not true triadic constructions; instead, they are dyadic, involving only an agent and a theme, but without invoking a goal or a recipient. In these special constructions, the occurrence of a goal/recipient will lead to ungrammaticality, as in (84). Compare:

- (84) Tsou
- | | | | | | | |
|----|---|----------|-----------|----------------|-----------|--------------|
| a. | *os-’o | po’pot-i | to | fofeova | ’o | mali |
| | TR-1S | kick-LA | OBL | ditch | ABS | ball |
| | Intended for ‘I kick the ball to a ditch.’ | | | | | |
| b. | *os-’o | tpos-i | to | paicx | ’o | tposx |
| | TR-1S | write-LA | OBL | PN | ABS | letter |
| | Intended for ‘I wrote the letter to Paicx.’ | | | | | |

Generalization V: BA-only restriction

A(n) benefactive/instrumental absolutive must be indexed by the BA suffix.

This is not surprising either, as the name **Benefactive Applicative** suggests. What is unusual is that a beneficiary does not occur in the oblique case in constructions other than the BA. Meanwhile, it should be pointed out that this generalization is also a one-way entailment. It does not assert that a BA suffix promotes only a(n) beneficiary/instrument. Actually, as Figure 1 suggests, a BA suffix can advance a transported theme

in certain constructions, notably the constructions involving transfer of possession. I also came across a verb that displays symmetrical object shift—either the applied object or the base object is eligible for advancement in a BA construction, as illustrated below.

- (85) Tsou
- | | | | | | | | |
|----|--------------------------------|--------------|-----------|-------|-----|--------------|---------------------|
| a. | os-’o | peo’eoZ-neni | to | peisu | ’o | paicx | (Beneficiary) |
| | TR-1S | steal(TR)-BA | OBL | money | ABS | PN | |
| | ‘I steal money for Paicx.’ | | | | | | |
| b. | os-’o | peo’eoZ-neni | to | paicx | ’o | peisu | (Transported theme) |
| | TR-1S | steal(TR)-BA | OBL | PN | ABS | money | |
| | ‘I steal the money for Paicx.’ | | | | | | |

Generalization VI: Genitive source

A triadic source surfaces in the absolutive case in LA constructions but in the genitive case elsewhere.

This differentiates a source argument from other location-related thematic roles. As indicated in Table 2, other location-related thematic roles (i.e. recipient, goal, and location) occur in the oblique rather than the genitive case in non-LA constructions. In the genitive case, a triadic source forms a constituent with the possessee. In that case, the construction will look like a dyadic rather than a triadic construction.

Generalization VII: Ditransitive/DOC-less

Ditransitive/DOC is not attested in Tsou.

This is self-evident for intransitive triadic constructions, given that among the three triadic arguments, only the agent occurs as a core argument, with the other two in the oblique case. For transitive and applicative constructions, there are only two core arguments: the agent in the ergative case and the direct/applied object in the absolutive case; there is no third core argument. Take the triadic verb ‘give’ for example. In the LA form, its triadic encoding looks like Figure 2; in the BA, its triadic encoding reads like Figure 3. In either case, one of its three triadic arguments must be in the oblique case.

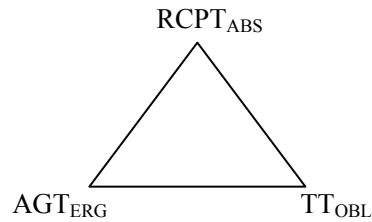


Figure 2: The triadic encoding of the LA verb *fii* ‘give’

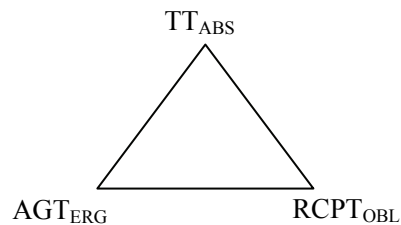


Figure 3: The triadic encoding of the BA verb *faeni* ‘give’

In addition to these generalizations, there are also a few general tendencies that follow from the preceding sections, as will be discussed shortly.

6.2.2 General tendencies

In §6.2.1, I have generalized seven rules based on Table 2. In this section, I report a few observations that indicate general tendencies but not rules concerning the triadic encoding in Tsou.

Tendency I: One oblique per clause

A triadic construction tends to host one and only one oblique argument.

For the informants I consulted, the best way to encode a triadic event in Tsou is to apply either transitive or applicative devices, in a manner analogous to what had been depicted in Figures 2 and 3. In a(n) transitive/applicative construction, the external argument will be in the ergative case, with one of the two internal arguments advanced to the absolutive position and the other left in the oblique case. The realization of both internal arguments in the oblique case is extremely rare.

Tendency II: BA-TR division of labor

For a triadic verb that can bear both BA suffix and TR suffix, it will index an absolutive beneficiary/instrument in its BA form and an absolutive theme/message in its TR form.

I have shown in §3.2.2.1 and §3.2.2.2 that a triadic verb which takes the BA suffix and advances the transported theme/conveyed message normally does not bear the TR suffix. Recall, for example, the morphological gap observed with the verb ‘to give’: *mofi/*fiə/fii/faeni*. On the other hand, a triadic verb that bears both BA suffix and TR suffix divides the labor between the two suffixes (e.g., *sia/sieni* ‘to put’). The only exception to my knowledge comes from the verb for ‘to steal’, as already illustrated in (85).

6.3 Implications

The above generalizations and observations yield a number of important typological and theoretical implications, as will be explored in the next two sections.

6.3.1 Typological implications

Tsou as an ergative language: Generalizations I and II confirm that Tsou should be identified as an ergative language (H. Chang 2011). It is evident that in Tsou, transitive agents are in the A function and marked differently from intransitive agents (S) and transitive/applicative objects (O)—the former surfaces in the ergative case but the latter in the absolutive case. This explains the consistent differences between Tsou and English triadic constructions: triadic objects (including theme, recipient, source, goal, location, beneficiary, and instrument) end up in the absolutive position in Tsou, whereas their English counterparts remain as direct objects.¹⁶

Tsou as an applicative-prominent language: Applicative devices are very productive and pervasive in Tsou. Triadic events are typically expressed by applicative constructions. Peripheral arguments such as a beneficiary are almost always introduced by an applicative affix; even a triadic theme can be indexed by applicative morphology in Tsou.

Tsou as a language without DOC: Generalization VII clearly indicates that DOC is not attested in Tsou. The two internal arguments of a triadic verb never appear as core arguments at a time. In this regard, Tsou parallels many Oceanic languages (Margetts

¹⁶ In H. Chang (2011), I point out that the landing site of the absolutive argument must be higher above *vP* in Tsou, but I do not pinpoint its exact position. I leave this for future study.

2007) but contrasts with Mayrinax Atayal (L. Huang 1995), Saisiyat (Hsieh & Huang 2006), Bajau (Donohue 1996), and Tukang Besi (Donohue 1999).

Tsou as an asymmetrical object language: So far, I came across only one Tsou example in which both the applied object and the base object are eligible for advancement in a triadic construction. This example aside, Tsou is arguably an asymmetrical object language (Bresnan & Moshi 1990, Donohue 1996, among others). In this respect, Tsou behaves like Chichewa rather than Kichaga or Bajau.

6.3.2 Theoretical implications

Triadic as applicative: In the generative literature, a triadic construction is either analyzed as a causative structure (Pesetsky 1995, Harley 2002) or an applicative structure (Marantz 1993, Pykkänen 2002). The regular and robust applicative coding of three-participant events in Tsou is in favor of the Marantzian approach.

Non-transformational: In generative tradition, a DOC is generally taken as deriving from its syntactically synonymous dative construction by means of dative shift.¹⁷ Larson (1988, 1990) best represents this transformational view. Larson (1988, 1990) claims that triadic arguments are built into the phrase structure according to a universal thematic hierarchy along the projection principle of agent > theme > goal > oblique; i.e. an argument that is higher on the hierarchy is projected to a higher structural position than an argument that is lower on the hierarchy. Accordingly, a triadic theme is mapped into a position higher than a triadic goal in the underlying structure, a structure embodied by dative constructions. Hence, dative constructions are postulated as the underlying structures from which DOCs are transformationally derived. However, this transformational approach faces tough challenges recently (Jackendoff 1990, Marantz 1993, Pesetsky 1995, Pykkänen 2002, Harley 2002, among others). Marantz (1993) argues against the transformational approach and the universal projection principle. He contends that the realization of a triadic argument is determined by its role in the event rather than by a fixed universal projection principle. In his view, a DOC has a structure distinct from its dative counterpart. In a DOC, the goal is more affected and therefore projected to a higher position than the theme. On the other hand, in a dative construction, the argument realization is the other way around—the theme is more affected and thus mapped to a higher position than the goal. Despite there being a lack of DOC, as mentioned above, Tsou has a structural analogue of DOC, namely, the LA construction. In the meantime, Tsou also has a structure type which is analogous to English dative construction, i.e. the BA construction. Most importantly, the LA and the BA constructions

¹⁷ Dryer (1986) takes a dissenting view and argues for the opposite direction of derivation—a dative construction is derived from a DOC by antidative operation.

are arguably of distinct structure type, as implied in the preceding sections.¹⁸ This would favor Marantz's non-transformational analysis over Larson's transformational approach.

7. Concluding remarks

I have described in detail the grammatical realizations of triadic arguments in Tsou and discussed the implications that follow. It is now evident that triadic encoding in Tsou differs significantly from familiar languages like English and from other languages of the Austronesian family such as Mayrinax Atayal, Saisiyat, Bajau, and Tukang Besi. Hopefully, this survey has enhanced our understanding of the triadic grammar in Tsou and has provided useful information for pinpointing Tsou's position in triadic typology and theory.

Due to space and time limitations, I leave a few important questions open for further investigation, including (i) grammatical/semantic conditions for the functional split of the BA suffix; (ii) derivation of the absolutive theme in a BA construction; (iii) hierarchical structures of triadic constructions; and (iv) syntactic position of the absolutive argument. These issues go beyond the scope of the present paper and deserve at least another research paper.

¹⁸ This receives further support from M. Chang's (2004) segregation of the BA construction from the LA construction. Following Pytkänen (2002), M. Chang (2004) identifies the BA construction as a high applicative and the LA construction as a low applicative. A similar dichotomy is also made in Chen (2007) for Squliq Atayal.

Appendix:
The suffix *-neni* and its absolutive argument in Tsou

The absolutive arguments		BA verb
Peripheral argument	BEN	<i>aangaezneni</i> ‘distribute’, <i>cfueni</i> ‘wrap’, <i>cihnenei</i> ‘throw away’, <i>ebkocneni</i> ‘beat’, <i>emxtneni</i> ‘close’, <i>e’txneni</i> ‘pull’, <i>hafneni</i> ‘bring’, <i>peo’eozeneni</i> ‘steal’, <i>phinineni</i> ‘buy’, <i>pnaeni</i> ‘shoot’, <i>poe’ohneni</i> ‘push’, <i>po’oyuneni</i> ‘roast’, <i>po’potneni</i> ‘kick’, <i>sieni</i> ‘put’, <i>soupuzneni</i> ‘start fire’, <i>teaineni</i> ‘make’, <i>teocneni</i> ‘chop’, <i>ti’ingineni</i> ‘rob’, <i>tposneni</i> ‘write’, <i>tuocosneni</i> ‘ask’, <i>tveocneni</i> ‘pick up’, <i>yaeni</i> ‘take’, <i>yuevahneni</i> ‘borrow’
	INST	<i>ekuyingveni</i> ‘surround’, <i>futneni</i> ‘tie up’, <i>pahisinineni</i> ‘wipe’, <i>pnaeni</i> ‘shoot’, <i>teocneni</i> ‘chop’, <i>tposneni</i> ‘write’
TT		<i>ebakneni</i> ‘take to finish up’, <i>faeni</i> ‘give’, <i>ngov’eni</i> ‘hang onto’, <i>pacohivneni</i> ‘teach’, <i>paecx’heni</i> ‘throw to’, <i>paenx’veni</i> ‘plant and disregard’, <i>paelxneni</i> ‘throw and hit’, <i>paesngxcveni</i> ‘throw straight at’, <i>pahafneni</i> ‘cause to bring’, <i>peo’eozeneni</i> ‘steal’, <i>phieni</i> ‘sell’, <i>poaapayo’neni</i> ‘cause to melt (ice)’, <i>sof’uf’eni</i> ‘put down’, <i>tokxneni</i> ‘pitch, throw at’, <i>topceni</i> ‘post/stick to’, <i>toxsvxsvxtx</i> ‘bring up and discuss’, <i>to’seni</i> ‘toss’, <i>tupuzneni</i> ‘take to burn’, <i>yooveineni</i> ‘give back’, <i>yuevahneni</i> ‘lend’

Note: BEN=beneficiary, INST=instrument, TT=transported theme

References

- Aldridge, Edith. 2004. *Ergativity and Word Order in Austronesian Languages*. Ithaca: Cornell University dissertation.
- Aldridge, Edith. 2008. Minimalist analysis of ergativity. *Sophia Linguistica: Working Papers in Linguistics* 55:123-142.
- Bresnan, Joan, and Lioba Moshi. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21.2:147-185.
- Chang, Henry Y. 1997. *Voice, Case, and Agreement in Seediq and Kavalan*. Hsinchu: National Tsing Hua University dissertation.
- Chang, Henry Y. 2011. Transitivity, ergativity, and status of O in Tsou. *Language and Cognition: Festschrift in Honor of James H-Y. Tai on His 70th Birthday*, ed. by Jung-hsing Chang & Jenny Y.-C. Kuo, 277-308. Taipei: Crane.
- Chang, Melody Ya-yin. 2004. *Subjecthood in Tsou Grammar*. Hsinchu: National Tsing Hua University dissertation.
- Chen, Sih-wei. 2007. *Applicative Constructions in Atayal*. Hsinchu: National Tsing Hua University MA thesis.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: the framework. *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels & Juan Uriagereka, 89-155. Cambridge: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 1- 52. Cambridge: MIT Press.
- Dixon, R. M. W. 1994. *Ergativity*. Cambridge & New York: Cambridge University Press.
- Donohue, Mark. 1996. Bajau: a symmetrical Austronesian language. *Language* 72.4: 782-793.
- Donohue, Mark. 1999. *A Grammar of Tukang Besi*. Berlin & New York: Mouton de Gruyter.
- Dryer, Matthew S. 1986. Primary objects, secondary objects, and antitativity. *Language* 62.4:808-845.
- Gropen, Jess. 1989. *Learning Locative Verbs: How Universal Linking Rules Constrain Productivity*. Cambridge: MIT dissertation.
- Harley, Heidi. 2002. Possession and the double object construction. *Linguistic Variation Yearbook*, Vol. 2, ed. by Pierre Pica & Johan Rooryck, 31-70. Amsterdam & Philadelphia: John Benjamins.
- Hsieh, Fuhui, and Shuanfan Huang. 2006. The pragmatics of case marking in Saisiyat. *Oceanic Linguistics* 45.1:91-109.
- Huang, Lillian M. 1995. *A Study of Mayrinax Syntax*. Taipei: Crane.

- Huang, Shuanfan. 2005. Split O in Formosan languages—a localist interpretation. *Language and Linguistics* 6.4:783-806.
- Huang, Hwei-ju, and Shuanfan Huang. 2007. Lexical perspectives on voice constructions in Tsou. *Oceanic Linguistics* 46.2:424-455.
- Jackendoff, Ray S. 1990. On Larson's treatment of the double object construction. *Linguistic Inquiry* 21.3:427-456.
- Larson, Richard K. 1988. On the double object construction. *Linguistic Inquiry* 19.3: 335-391.
- Larson, Richard K. 1990. Double objects revisited: reply to Jackendoff. *Linguistic Inquiry* 21.4:589-632.
- Levin, Beth. 1993. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.
- Marantz, Alec. 1993. Implications of asymmetries in double object constructions. *Theoretical Aspects of Bantu Grammar*, Vol. 1, ed. by Sam A. Mchombo, 113-150. Stanford: CSLI.
- Margetts, Anna. 2007. Three-participant events in Oceanic languages. *Oceanic Linguistics* 46.1:71-127.
- Margetts, Anna, and Peter K. Austin. 2007. Three-participant events in the languages of the world: towards a crosslinguistic typology. *Linguistics* 45.3:393-451.
- Pan, Chia-jung. 2010. *The Grammatical Realization of Temporal Expressions in Tsou*. München: LINCOM Europa.
- Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge: MIT Press.
- Pylkkänen, Liina. 2002. *Introducing Arguments*. Cambridge: MIT dissertation.
- Reid, Lawrence A., and Hsiu-chuan Liao. 2004. A brief syntactic typology of Philippine languages. *Language and Linguistics* 5.2:433-490.
- Ross, Malcolm, and Stacy Fang-ching Teng. 2005. Formosan languages and linguistic typology. *Language and Linguistics* 6.4:739-781.
- Starosta, Stanley. 1997. Formosan clause structure: transitivity, ergativity, and case marking. *Chinese Languages and Linguistics*, Vol. 4: *Typological Studies of Languages in China*, ed. by Chiu-yu Tseng, 125-154. Taipei: Institute of History and Philology, Academia Sinica.
- Teng, Stacy Fang-ching. 2009. Case syncretism in Puyuma. *Language and Linguistics* 10.4:819-844.
- Tsai, Wei-tien Dylan. 2007. Conjunctive reduction and its origin: a comparative study of Tsou, Amis, and Sqliq Atayal. *Oceanic Linguistics* 46.2:585-602.
- Tung, T'ung-ho, Sung-hsing Wang, Tung-kuei Kuan, Tsai-fa Cheng, and Margaret Yan. 1964. *A Descriptive Study of the Tsou Language, Formosa*. Taipei: Institute of

History and Philology, Academia Sinica.

- Van Valin, Robert D., Jr. 1999. Generalized semantic roles and the syntax-semantics interface. *Empirical Issues in Formal Syntax and Semantics*, Vol. 2, ed. by Francis Corblin, Carmen Dobrovie-Sorin & Jean-Marie Marandin, 373-389. The Hague: Thesus.
- Wu, Joy. 2007. "Voice" markers in Amis: a Role and Reference Grammar analysis. *Language and Linguistics* 8.1:95-142.
- Zeitoun, Elizabeth. 2000. *A Reference Grammar of Tsou*. Taipei: Yuan-Liou. (In Chinese)
- Zeitoun, Elizabeth. 2005. Tsou. *The Austronesian Languages of Asia and Madagascar*, ed. by K. Alexander Adelaar & Nikolaus P. Himmelmann, 259-290. London & New York: Routledge.

[Received 14 September 2010; revised 24 November 2010; accepted 15 July 2011]

Institute of Linguistics
Academia Sinica
130, Sec. 2, Academia Road
Nankang, Taipei 115, Taiwan
henryylc@gate.sinica.edu.tw

鄒語三元述語的論元體現

張永利

中央研究院

本文根據 Levin (1993) 的及物和雙及物變換句型來探討鄒語三元述語的論元體現，主要的研究發現如下：(1) 鄒語沒有雙賓結構——三個論元其中有一個必須以斜格方式出現；(2) 鄒語為一個活用結構發達的語言——三元述語通常出現在活用結構，邊緣性論元如受惠者及工具通常以活用結構來引介，甚至連三元述語的客體也是採活用標記；(3) 鄒語為作格語言——及物句的賓語和不及物句的主語的格位標記相同；(4) 鄒語基本上是一個不對稱賓語的語言——兩個域內論元只有其中一個可以提升；(5) 在三元述語結構裡，來源論元如果沒有提升則必須以屬格方式出現，而非以斜格方式出現。

關鍵詞：三元述語，雙及物，活用結構發達語言，作格語言，不對稱賓語語言