

Tsou is different: A cognitive perspective on language, emotion, and body*

SHUANFAN HUANG

Abstract

Three cultural models for discourses on emotion are distinguished: the metaphorical model, the metonymic model, and the grammatical model. The purpose of this article is to examine the grammatical model that speakers of Tsou use when talking about emotions, with particular reference to emotional expressions involving body parts and bodily action. It is argued that Tsou differs significantly from English and Chinese in that the metaphorical way of talking about emotions, which is the preferred strategy for English, and the metonymic way of talking about emotions, which is the preferred strategy for Chinese, are generally dispreferred or simply unavailable. Tsou is shown to be a type of “macro-event” language in which the causal event antecedent to the onset of emotion is conceptualized as an integral part of the lexicalized emotion verb concept. This grammatical prefixation model, the preferred strategy for Tsou, makes it possible, indeed necessary, to conceptualize bodily actions and emotions as being more intimately intertwined, part of an integrated emotion concept, in a way that a non-macro-event language, such as English, seems inherently less capable of. Given the grammatical prefixation strategy, it seems eminently plausible to make the experimentally testable claim that Tsou speakers should be more sensitive to the co-presence of emotion and action, and that the core of an emotion, to Tsou speakers, is not simply a psychological state or process, but a readiness to act in a certain way, the acts being coded in the language with the prefixes for bodily actions.

Keywords: emotion and body; cultural model; verb-framed languages; macro-event language; grammatical prefixation strategy.

1. Introduction

In this article I examine linguistic strategies that speakers of Tsou use when talking about emotions, with particular reference to emotional

expressions involving body parts and body action. I will show that the conceptual domain of emotions in Tsou depends on behavioral reactions or bodily accompaniments commonly associated, in folk models, with the experience of emotions. Emotion concepts in human languages are known to make use of metaphors and metonymies relating to physiological effects and behavioral reactions. Metaphors and metonymies are fundamental types of cognitive models, both experientially motivated. Lakoff and Turner (1989), Lakoff (1993) and Kövecses (1990, 1995a, 1995b, 2000), in particular, have shown that English metaphors and metonymies used in our folk models of emotions are motivated by our bodies and physiology. Recent research has shown that it is largely both the conceptual mappings from the various source domains of metaphors to the target domains of emotion and the metonymic mappings within one common domain that constitute our understanding of emotion concepts (e.g., Kövecses 2000; Barcelona 2000; Gibbs and Steen 1999; Panther and Radden 1999, among many others). This and other findings concerning the more universal aspects of the conceptualization of emotion concepts form the basis for an inquiry into the way emotion language varies cross-culturally. Indeed, Kövecses (2000: 165) has proposed that the following areas are all potential sources for cross-cultural variation:

1. The content of prototypical cultural models of emotions;
2. The general content and specific key concepts of the broader cultural context;
3. The range of conceptual metaphors and conceptual metonymies;
4. The special elaborations of conceptual metaphors and metonymies;
5. Emphasis on metaphor versus metonymy, or the other way around.

Of these, the areas in (3), (4), and (5) are of special relevance in the context of the present article. I will simply observe for now that there is currently a great deal of suggestive evidence that grammatical or lexical patterns lead speakers of different languages to describe emotion in “typologically” distinct ways. It is safe to say, for instance, that, based on a count of the number of types of metaphors and metonymies for English emotion concepts given in Kövecses (2000: 216–223), English prefers to use conceptual metaphors to structure emotion language.¹ On the other hand, metonymic processes play a much bigger role in the understandings of emotion in Chinese than in English. (Yu 1998, Kövecses 2000; cf. Huang 1994). The main purpose of this article is to make some contribution to furthering our understanding of emotive language by showing some of the unique ways in which the human body and bodily actions act as a point of departure for the conceptualization of emotion concepts in Tsou. I will

demonstrate that Tsou differs decidedly from both English and Chinese in that the metaphorical way of talking about emotions (which is the preferred strategy for English) and the metonymic way of talking about emotions (which is the preferred strategy for Chinese) are generally dispreferred (see Lakoff and Johnson 1980, Kövecses 1990 for English; Huang 1994, King 1989, Yu 1998 for Chinese). It will be shown that Tsou is a type of “macro-event” language in the sense that the antecedent causal event prior to the onset of emotion is conceptualized as an integral part of the lexicalized emotion verb concept (see section 4). This grammatical prefixation strategy, the preferred strategy for Tsou, depends to a certain extent on a system of metonymies to elaborate perceived bodily experiences, but in a way different from that which operates in a language like Chinese.

The organization of this article is as follows. First, the basic structural features of the Tsou language are introduced in section 2. Section 3 takes up the characteristics of emotion concepts in Tsou, including a short discussion on the role of *koyu* ‘ear’, seat of emotion and mentation, in structuring metaphorical expressions in the language. This is followed by an extended examination of the interesting semantic properties of the prefixes for perception and for bodily actions. There the unique way of structuring macro-events in emotion and in motion in Tsou is demonstrated. Section 5 turns to the prefix for thinking *ma*’- and to its role in the formation of complex emotion concepts. Section 6 is the conclusion.

2. The Tsou language

Tsou, a moderately endangered Austronesian language spoken in the highlands of Southwest Taiwan, has about 4500 speakers distributed among three major dialects. The dialect described here is the Tfuya dialect. Tsou belongs to the Tsouic branch of the Austronesian family. The genetic classification of Tsou within the family is shown in Figure 1 (Blust 1999, Diamond 2000; but see Li 1990, Dyen 1990, and Starosta 1995 for dissenting views).

Tsou, a VOS language, has a Philippine-style focus system characteristic of Western Austronesian languages. This is a system of verbal affixation which allows different arguments to be placed in “subject” position, thereby marking them as identifiable and which signals the presence of a particular semantic role associated with the subject.² Three focus forms will be distinguished for purposes of this study: agent focus (AF), patient focus (PF) and benefactive focus (BF). Not all emotion verbs can readily appear in all three of the focus forms. Expressions in (1) illustrate the

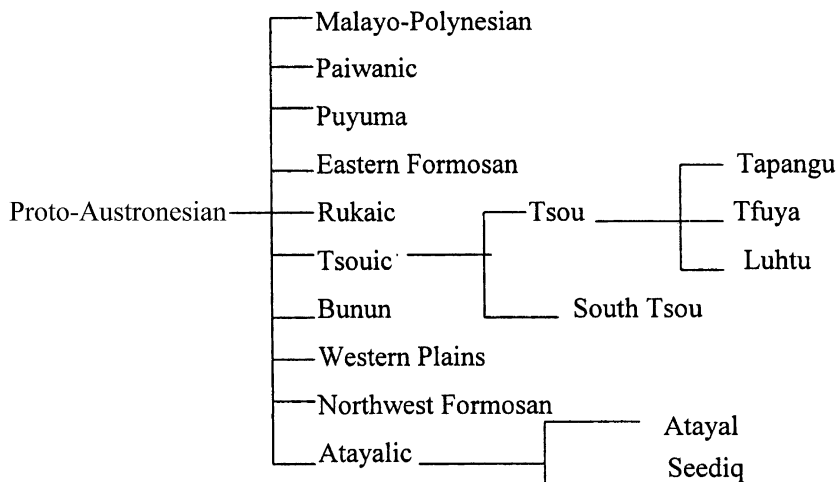


Figure 1. *Language family tree for Tsou*

verbs *kaebU* ‘to be happy’ and *cong’o* ‘to hurt; to be distressed’ in various focus forms and sentences in (2) exemplify their usage.³

- (1) a. *kaebU* ‘to be happy (about)’ (AF)
 b. *kaeba* ‘to be happy (about)’ (PF)
 c. *kaebeneneni* ‘to be happy for’ (BF)
 d. *ma’cocongo* ‘to be distressed (about)’ (AF)
 e. *ta’cocongva* ‘to be distressed (about)’ (PF)
 f. *cong’eneneni* ‘to be distressed for’ (BF)
- (2) a. *Mo congo co tohUngU-’u.*
 Aux distressed Nom mind-my
 ‘I am distressed’ (Literally: ‘My mind pains.’)
 b. *I-ta cong’eneneni tohUngU ‘e o’okko-taini.*
 Aux-3rd.sg distressed mind Nom children-3rd.gen.
 ‘S/he is distressed about his/her children.’
 c. *Mi-’o na’no kaebU.*
 Aux-1st.sg very happy
 ‘I am very happy.’
 d. *Os-’o kaebeneneni ‘e Pasuya ho mita eaa av’u.*
 Aux-1st.sg happy for Nom PN conj Aux-3rd.sg have dog
 ‘Pasuya has a dog and I am happy for him.’

The pragmatics of focus in Austronesian languages has been a topic of recent intense research (cf. Cooreman et al. 1984; Cumming and Wouk 1987; Hopper 1986; Wouk 1999; Payne 1994; and Huang 2001; among

many others). It would be clearly inappropriate for me to attempt to summarize even the major findings on the topic within the confines of this article given the vast literature that is currently available. Suffice it to say that functionally, patient-focus forms are far more common than agent-focus forms in Tsou and the use of focus is determined to a statistically significant extent by discourse transitivity and topicality metrics rather than by thematicity. A check through eight narrative texts in the corpus, which run to 532 clauses, shows that emotion verbs are, as expected, predominantly used in patient-focus forms (65 percent as against 35 percent in agent-focus forms), a result that appears to be consistent with both the distribution pattern of other clause types in the language and with what is known about the behavior of emotion verbs in other Western Austronesian languages (cf. Yeh, to appear). Some emotion expressions, however, appear typically in patient-focus forms (e.g., *smoeoa* 'to be afraid'), others only in agent-focus forms (e.g., *aveoveoeU* 'to be glad').

3. Characteristics of Tsou emotion concepts

3.1. Koyu 'ear' as seat of emotion and mentation

Tsou makes do with a fairly limited repertoire of grammatical categories, making no syntactic distinction among such categories as verb, adjective, adverb, and preposition. In derivational morphology, deverbal nouns are practically nonexistent. Emotion concepts must be realized syntactically as verbs in the language and can never be nominalized, a point alluded to in the previous section. By contrast, in English (and numerous other languages), reification of emotion concepts is pervasive. Thus, the word *fear* is a noun that is treated like a concrete noun and is talked about in much the same way (e.g., *A fear* is the unpleasant feeling you have when you are in danger; you talk about your hopes and *fears* to your friends.) Much of the conceptual domain of fear (and other emotions) is understood in English by a set of conceptual metaphors. However, much of the comparable metaphorical way of talking about fear (as well as other emotions) is impossible in Tsou, since emotion concepts can never be reified as nominals. Whereas in English we find conceptual metaphors that elaborate the domain of emotional experience, like FEAR IS A FLUID IN A CONTAINER (as seen in *The sight filled her with fear*), FEAR IS AN OPPONENT (as seen in *Fear took hold of me*), or FEAR IS A NATURAL FORCE (as seen in *She was engulfed by panic*), such metaphors can never be constructed for Tsou because of morphosyntactic constraints on nominalization. However, a deeper explanation for the morphosyntactic constraints derives from the observation that Tsou does not and cannot exploit what

Lakoff and Johnson (1980) call “ontological metaphors”, which view states, events, and activities as discrete entities that exist in space and time with well-defined boundaries. Since Tsou does not work with this kind of ontology, it follows that the conceptual metaphors for fear such as those mentioned cannot exist.

The body part most intimately associated with cognition (thinking or intending) or feeling in Tsou is *koyu* ‘ear’, the seat of Tsou emotion and mentation. This can be seen from the following sentences.

- (3) a. *Micu nac'o co koyu-taini.*
 Aux sad Nom ear-3rd.sg.gen
 ‘S/he has been sad.’ (Literally: ‘His/her ear has been sad.’)
- b. *Os'o cong'eneni koyu 'e o'oko'u.*
 PF-1st.sg hurt-BF ear Nom children-1st.gen
 ‘I feel distressed about my children.’ (Literally: ‘My ear aches for my children.’)
- c. *La'u eainca no koyu'u mita sU'no.*
 Hab-1st.sg say-PF Obl ear-1st.gen Aux-3rd.sg angry
 ‘I think s/he is angry.’ (Literally: ‘My ear says s/he is angry.’)
- d. *Mi'o ya koyu no tmopsu no taigaku.*
 Aux-1st.sg have ear Comp study Obl college
 ‘I am inclined to go to college.’ (Literally: ‘I have the ear to study at a college.’)
- e. *Mi'o a-koyu no tmopsu no taigaku.*
 Aux-1st.sg Pre-ear Comp study Obl college
 ‘I will be going to college.’
- f. *Ta-ko a-ko-koyu no uso a'o hohucma.*
 Aux-2nd.sg Pre-Rdp-ear Obl come me tomorrow
 ‘Remember to come to my place tomorrow.’

In (3a) and (3b) *koyu* is where sadness or distress is experienced; in (3c), (3d), (3e), and (3f) *koyu* is where thinking, intending, and remembering originate. Note that the generic emotion term *tohUngU* ‘feeling, mind, thought, emotion’ can be substituted for *koyu* in these sentences without any significant change in meaning. Example (4a) is pragmatically equivalent to (3a) and (4b) to (3b), although they are distinct in imagery.⁴

- (4) a. *Micu nac'o co tohUngU-taini.*
 Aux sad Nom feeling-3rd.sg
 ‘S/he has been sad.’
- b. *Os-'o cong'eneni tohUngU 'e o'oko-'u.*
 PF-1st.sg hurt-BF feeling Nom children-1st.gen
 ‘I feel distressed about my children.’

It is interesting to observe that both *koyu* ‘ear’ and *tohUngU* ‘feeling, mind, thought, emotion’ are always marked with the nominative case marker *co* if they function as the “subject” of a sentence, to signal that they are invisible or abstract entities. *Co* is used to mark entities that can be felt, sensed, or imagined but not seen. Mental states, feelings or sensations (e.g., hunger and pain) as well as ears and (head) hair and the wind all belong to this category of objects for the purposes of case-marking in Tsou.

A related piece of evidence that suggests that in Tsou *koyu* ‘ear’ or the sense of hearing bears a close connection to feelings and emotions comes from the meaning of the lexeme *t’mahongU* (agent focus)/*ta’hongi* (patient focus). It has two related senses: (a) to hear and understand; (b) to feel (a bodily sensation), as shown in (5):

- (5) a. *I-o ta’hongi si e’e-su.*
 PF-1st.sg hear-and-understand Nom word-2nd.gen
 ‘I hear and understand what you say.’
 b. *I-si ta’hongi ta oko ho mo cogo co koyu-si.*
 PF-3rd.sg feel-PF Obl child when Aux pain Nom ear-3rd.gen
 ‘The child feels pain in his ear.’

Koyu ‘ear’, as the seat of emotion and mentation, predictably plays an important role in the emotional lexicon of the language just as *heart* does in English. Like *heart* in English, *koyu* is also conceptualized as a metaphorical container for emotions. This point can be appreciated from the following comparison. English has the following metaphorical expressions with the heart as a container for emotions:

- (6) a. She knew all the secrets of my heart.
 b. The news filled my heart with deep sorrow.
 c. You should listen to the troubled heart of the young man.

English also has the following metonymic expressions in which the heart acts as an instrument for emotions:

- (7) a. My heart ached for the child.
 b. My heart pounded with joy.
 c. No one had the heart to tell her the truth.

In Tsou, these kinds of metaphorical expressions with *koyu* ‘ear’ as a container for emotions are also available:

- (8) *Ci os’-ko cohivi co koyu-’u?*
 How PF-2nd.sg know-PF Nom ear-my
 ‘How did you know what I think?’ (Literally: ‘How did you know my ear?’)

(9) *Ci na'on kuici koyu?*

How very bad ear

'Why are you in such a bad mood?' (Literally: 'Why are your ears so bad?')

And, of course, as the sentences in (3) show, *koyu* can, much like *heart* in English, participate in metonymic expressions to elaborate aspects of the domain of emotional experience. However, if we turn to physiological effects involving other body parts and body organs, then one must conclude that the reification of emotional states as nominal entities is largely absent in the language. Metonymic expressions that exploit the physiological effects of these other body parts are generally unavailable in Tsou. On the other hand, body parts and organs like heart, face, eye, eyebrow, hair, blood flow, artery, head, toe, body fluids (tears, sweat, and urine), *qi* (internal flow of energy), physical agitation, and disturbances are known to have been harnessed for use in the expression of emotions and account for an important part of the emotion lexicon in either Chinese or English or both.

3.2. *Breath, fire, and anger metaphor*

We have seen in the previous section that in Tsou the system of ontological metaphors for emotions is simply unavailable to structure emotion concepts. Since ontological metaphors for emotion concepts in at least some languages are connected with a wide range of emotional experience and contribute much information to the content of emotion concepts, the unavailability of this system of metaphors must be counted as a unique feature in the structure of emotion expressions in Tsou.

It is true that when no reference is made to a trigger event that figures in the expression of emotions, Tsou does make a limited use of one of the primary conceptual metaphors, ANGER IS EXCESS AIR IN A CONTAINER, to structure the emotion of anger. (See Grady 1997, Lakoff and Johnson 1999 for the notion of primary metaphor.) This container metaphor is needed to account for some, but certainly not all, of the expressions used to talk about anger. According to a Tsou folk belief, anger is caused by an excess of air or breath (*nsou*) in the body:

(10) *Mita yu-nso-nsou.*

Aux-3rd.sg exhale-Rdp-breath

'S/he fumed.'

When the excess air is released, a person cools down and returns to calmness:

- (11) *Mita yu-epUngi.*
 Aux-3rd.sg exhale-finish
 ‘S/he calmed down.’ (Literally: ‘S/he finished expelling the breath.’)

If the air continues to build up, a person will explode:

- (12) *Mita yu-smoebako.*
 Aux-3rd.sg exhale-explode
 ‘S/he exploded.’

Alternatively, a person in anger is also conceptualized as someone who suffocates, unable to breath freely:

- (13) *Mita yu-bupciki.*
 Aux-3rd.sg exhale-suffocate
 ‘S/he was furious.’

Another container metaphor conceptualizes anger as having excess fire in a container. For example, *ma’puzupuzu* means ‘to burn with anger’ (from *puzu* ‘fire’). The foregoing examples are familiar from the Western way of characterizing this emotion, since a large number of English expressions are known to conceptualize anger in terms of feelings of internal pressure (see Lakoff 1994 and Kövecses 1995a, 1995b, 2000, among many others).

4. Grammatical models involving the use of prefixes for bodily actions

It is in the expression of emotion involving an external trigger event that Tsou can be shown to exhibit unique features. In a rare linguistic strategy, Tsou has morphologized prefixes for bodily actions as part of lexicalized verbal expressions that indicate either antecedent trigger events leading to emotional onset or behavioral consequences of emotions. This section will look into some of the interesting morphosyntactic and semantic properties associated with the prefixes for bodily actions in emotion expressions. First, I illustrate usages of two prefixes for perceptual triggers. The prefix *buh-* (agent focus)/*hu-* (patient focus) ‘to see’ is used to indicate that the emotion experienced is triggered by a visual event; the prefix *tma-* (agent focus)/*ta-* ‘to hear’ indicates that the emotional trigger is an auditory event.

- (14) a. *Mita buh-nac’o ta mo eobai’e Pasuya.*
 Aux-3rd.sg see-sad Obl Aux fight Nom PN
 ‘Pasuya feels sad as he sees the people fighting.’ (Literally: ‘Pasuya see-sad people fighting.’)

- b. *Mi'o buh-sU'no ta Pasuya.*
AF-1st.sg see-angry Obl PN
'I get angry looking at Pasuya.' (Literally: 'I see-angry Pasuya.')
- c. *Os'o hu-sU'nova 'e Pasuya.*
PF-1st.sg see-angry Nom PN
'I get angry looking at Pasuya.' (Literally: 'I see-angry Pasuya.')
- (15) a. *Os'o ta-sU'nova co e's-su.*
PF-1st.sg hear-angry Nom word-your
'I get angry hearing what you have said/are saying.'
(Literally: 'I hear-angry your words.')
- b. *Os'o ta-cocvi co e'e ta Pasuya.*
PF-1st.sg hear-laugh Nom word Obl PN
'I felt like laughing when I heard what Pasuya said.'
(Literally: 'I hear-laugh Pasuya's words.')

Sentences in (14) and (15) show that what is expressed in English by the use of a separate adverbial clause is accomplished in Tsou through the incorporation of a prefix into the emotion verbs (or verbs of emotional reaction in the case of *cocvo* [AF]/*cocvi* [PF] 'to laugh'), forming complex lexicalized emotion concepts. Prefixes for bodily activity work analogously, but with more nuanced meaning. Consider the prefixes *pe-/peu-* 'to drink' and the lexicalized verbal expressions *pse-sU'no* 'drink-angry' and *peu-sU'no* 'drink-angry' in (16):

- (16) a. *Mita pe-sU'no ta emi 'e Mo'o.*
AF-3rd.sg drink-angry Obl wine Nom PN
'Mo'o drank to the point of becoming angry.'; 'Mo'o got angrier and angrier as he drank.'
- b. *Mita peu-sU'no ta emi 'e Mo'o.*
AF-3rd.sg drink-angry Obl wine Nom PN
'Mo'o vented his anger by drinking.'

In (16a), the interpretation is that Mo'o begins by drinking, but as he thinks about the frustrating happenings of the day, he becomes more and more angry. In (16b), the interpretation is that Mo'o's anger may be said to precede his drinking and the more he drinks, the angrier he gets. Alternatively, Mo'o may be angry to begin with, but the point is that Mo'o means to vent his anger by drinking. In other words, in (16a), the action of drinking precedes and causes, often indirectly, the emotional onset; in (16b), anger precedes and causes Mo'o's drinking. Thus Tsou makes an important distinction between an interpretation in which actions precede and cause the onset of emotion and an interpretation in which emotions precede and lead to actions. This distinction is part

of the Tsou strategy for structuring emotion language, as elaborated further in the following.

The sentences in (14), (15), and (16) suggest a fundamental difference between English and Tsou in the strategies for structuring emotion concepts. While English characteristically expresses causes of emotions in a clause or a constituent that is satellite to the main clause, in Tsou on the other hand, the antecedent causal event prior to the onset of emotion is expressed via prefixes for bodily actions. The prefixation strategy with regard to emotion expressions turns out to be part of a large set of macro-events recently analyzed by Talmy (2000: vol. 2, 213–221) involving the conceptual domains of motion, aspect, change of state, action correlation, and event realization. The way a macro-event in emotion in Tsou is structured exactly parallels the way a macro-event in motion is structured, a point missed by Talmy (2000) and therefore worth stressing since it is only through investigating both the language of space and the language of emotion in Tsou that their structural commonality has to light.⁵

In addition to the prefixes for perception (*buh-*, *tma-*), there are a host of other prefixes for bodily actions that function either as behavioral causes for emotional experience or as bodily accompaniments to emotions. These prefixes are, as we have seen, incorporable into more basic emotion verb stems to form complex lexicalized emotion expressions. Based on fieldwork with the language, it seems safe to say that such prefix incorporation is a fairly productive process in Tsou. The following is a partial listing of the prefixes for bodily actions:

- (17) a. *o-/ou-* ‘to eat’
- b. *pe-/peu-* ‘to drink’
- c. *ti-/tiu-* ‘to play around with hand’
- (18) a. *e-* ‘to beat’
- b. *bohi-* ‘to chop with knife’
- c. *tma-* ‘to write’
- d. *to-* ‘to fish’
- e. *mateo-* ‘to bathe’
- f. *boe-* ‘to hunt; to trap’
- g. *smái-* ‘to walk’
- h. *pei-* ‘to work’

The prefix pairs in (17) make the same kind of distinction as that illustrated in (16) with the prefixes *pe-/peu-*. Most of the prefixes, such as those in (18), however, do not come in pairs and Tsou speakers readily form, upon request, lexicalized emotion expressions incorporating any of these or other prefixes for situations in which emotions and bodily actions

are seen as concurrent events or so intimately intertwined that we cannot or do not really isolate them. The sentences in (19) exemplify the use of the prefixes in (14):

- (19) a. *Mita e-sU'no ta av'u 'e PaicU.*
 Aux-3rd.sg beat-angry Obl dog Nom PN
 'PaicU got angrier and angrier as she beat the dog.'
 b. *Mita ausuhcu tma-ka-kaebU tmopsu 'e Mo'o.*
 Aux-3rd.sg gradually write-Rdp-happy word Nom PN
 'Mo'o got happier and happier as he wrote.'
 c. *Mita toka-kaebU to alungu 'e Pasuya.*
 Aux-3rd.sg fish-Rdp-happy Obl fish Nom PN
 'Pasuya got happier and happier as he fished.'

5. The prefix *ma'*- 'to think; to feel'

We have thus far examined two broad types of prefixes important for the formation of emotion concepts, i.e., the prefixes for perception and those for bodily actions. A third type of prefix that figures prominently in the emotion lexicon of Tsou is the prefix *ma'*- 'to think; to feel'. Tsou makes the interesting distinction between simple emotions and more intense emotions that ensue as a result of the subject's thinking more and more about whatever it is that initially triggers the emotional reaction. The concepts for these more intense emotions are formed by attaching the prefix *ma'*- (agent focus)/*ta'*- (patient focus) to simple emotion verbs. For example, *nac'o* 'to feel sad (about)'; *ma'nac'o* (agent focus)/*ta'nac'ova* (patient focus) 'to feel sadder and sadder about something the more one thinks about it'; *kuv'o* 'to worry'; *ma'kuv'o* (agent focus)/*ta'kuv'a* 'to worry more and more about something as one thinks more and more about it'. Examples (20) and (21) are illustrations:

- (20) *Mi'o ma'-sUsU'no ta Pasuya.*
 Aux-1st.sg think-angry Obl PN
 'I am really mad at Pasuya (when I think about what he did).'
 (21) *Ausuhcu ma'-sUsU'no 'e PaicU ho mo 'oha tmalulu*
 Gradually think-angry Nom PN conj Aux not listen to
'e oko.
 Nom child
 'PaicU got really angry when her child did not listen to her.'

These *ma'*- prefixed emotion expressions can optionally take the generic emotion term *tohUngU* 'feeling; emotion; thought' as subject of a sentence. Thus sentences in (22), (23), and (24) are functionally indistinguishable:

- (22) *Mi'o sop'o co tohUngU'u ho micu aepUngU siken.*
 Aux-1st.sg relaxed Nom feeling-my Conj Aux finish exam
 'I feel relaxed after the exams are over.'
- (23) *Mi'o ma'-so-sop'o ho micu aepUngU siken.*
 Aux-1st.sg think-Rdp-relaxed Conj Aux finish exam
 'I feel really relaxed when I think about the fact that the exams are over.'
- (24) *Mi'o ma'-so-sop'o co tohUngU'u ho micu*
 Aux-1st.sg think-Rdp-relaxed Nom feeling-my Conj Aux
aepUngU siken.
 finish exam
 'I feel really relaxed when I think about the fact that the exams are over.'

In (22) the simple emotion verb *sop'o* 'relaxed' takes the subject NP *co tohUngU* 'the feeling', where *co* is the nominative case marker for invisible or abstract objects. In (23) the complex emotion verb *ma'sosop'o* stands on its own, and there is no need for it to take the subject NP *co tohUngU*, but it can if it chooses to, as in (24).

To summarize what we have established thus far, it is instructive to observe that the interpretations for the three types of prefixed emotion expressions we have examined basically follow one of two patterns: with the prefixes for perception (*buh-*, *tma-*) and for thinking (*ma'-/ta'-*), the perceptual events or acts of thinking precipitate emotional reactions, but with the prefixes for bodily actions, actions and emotions are often seen as concurrent events, or at least intimately interconnected and the point of the prefixed lexicalized emotion expressions is to underscore the concurrent, interconnected nature of actions and emotions. More fine-grained semantic distinctions are possible in the language. We have already demonstrated, for example, that with some prefixes for bodily actions, such as *o-/ou-* 'to eat', *pe-/peu-* 'to drink', and *ti-/tiu-* 'to play with one's hand', Tsou makes a fine distinction between interpretations where bodily actions precede and (indirectly) cause the onset of emotion and interpretations where emotions precede and lead to bodily actions. Further research may yet turn up further prefix pairs of this nature. Table 1 summarizes the findings in this and the previous sections.

6. Concluding remarks

I hope to have shown that much of the apparatus of conceptual metaphors which elaborate the domain of emotional experience that is readily available in a language such as English is completely absent from Tsou.

Table 1. Prefixes for bodily actions and their co-occurrence with some emotion words

	<i>tma</i> - 'to write'	<i>o</i> - 'to eat'	<i>ou</i> - 'to eat'	<i>pei</i> - 'to work'	<i>tii</i> - 'to play around with one's hand'	<i>pe</i> - 'to drink'	<i>bohi</i> - 'to chop'	<i>e</i> - 'to beat'	
<i>kaebU</i> 'happy'	Agent focus	<i>tma-kaebU</i>	<i>o-kaebU</i>	<i>ou-kaebU</i>	<i>pei-kaebU</i>	<i>tii-kaebU</i>	<i>pe-kaebU</i>	<i>bohi-kaebU</i>	<i>e-kaebU</i>
<i>sU'sU</i> no 'angry'	Patient focus	<i>ta-kaebUva</i>	<i>o-kaebUva</i>	<i>ou-kaebUva</i>	<i>pei-kaebUva</i>	<i>tii-kaebUva</i>	<i>pe-kaebUva</i>	<i>bohi-kaebUva</i>	<i>e-kaebUva</i>
	Agent focus	<i>tma-sU'no</i>	<i>o-sU'no</i>	<i>ou-sU'no</i>	<i>pei-sU'no</i>	<i>tii-sU'no</i>	<i>pe-sU'no</i>	<i>bohi-sU'no</i>	<i>e-sU'no</i>
<i>smoeo</i> 'afraid'	Patient focus	<i>ta-sU'nova</i>	<i>o-sU'nova</i>	<i>ou-sU'nova</i>	<i>pei-sU'nova</i>	<i>tii-sU'nova</i>	<i>pe-sU'nova</i>	<i>bohi-sU'nova</i>	<i>e-sU'nova</i>
	Agent focus	<i>tma-smoeo</i>	<i>o-smoeo</i>	<i>ou-smoeo</i>	<i>pei-smoeo</i>	<i>tii-smoeo</i>	<i>pe-smoeo</i>	<i>bohi-smoeo</i>	<i>e-smoeo</i>
<i>nac'o</i> 'sad'	Patient focus	<i>ta-smoeoa</i>	<i>o-smoeoa</i>	<i>ou-smoeoa</i>	<i>pei-smoeoa</i>	<i>tii-smoeoa</i>	<i>pe-smoeoa</i>	<i>bohi-smoeoa</i>	<i>e-smoeoa</i>
	Agent focus	<i>tma-nac'o</i>	<i>o-nac'o</i>	<i>ou-nac'o</i>	<i>pei-nac'o</i>	<i>tii-nac'o</i>	<i>pe-nac'o</i>	<i>bohi-nac'o</i>	<i>e-nac'o</i>
	Patient focus	<i>ta-nac'ova</i>	<i>o-nac'ova</i>	<i>ou-nac'ova</i>	<i>pei-nac'ova</i>	<i>tii-nac'ova</i>	<i>pe-nac'ova</i>	<i>bohi-nac'ova</i>	<i>e-nac'ova</i>

There is a sharp morphosyntactic constraint on nominalization in the language, making it impossible to reify emotional concepts. A routine sentence like *The sight filled her with fear*, which depends on the availability of a strategy of nominalizing some perceptual experience into the subject nominal *the sight* and some emotional experience into the prepositional object nominal *fear* cannot be constructed for Tsou. Consequently, ‘ontological metaphors’ that view states, events, and activities as discrete entities which exist in space and time with well-defined boundaries are largely absent from the language, making the elaboration of emotional experience through conceptual metaphors a distinctly dispreferred strategy.

The grammatical prefixation strategy in Tsou makes it possible, indeed necessary, to conceptualize actions and emotions as being more intimately intertwined, part of an integrated emotion concept, in a way that languages such as English seem inherently less capable of. One might even venture the claim that the core of an emotion, to Tsou speakers, is not simply a psychological state or process, but a readiness to act in a certain way, the acts being coded in the language with the prefixes for bodily actions.

The conceptual metonymies built into the prefixation strategy refer only to behavioral responses, namely, bodily actions, but never to physiological effects. This does not mean, of course, that physiological effects play no role in the emotional experience of Tsou speakers. They do, since there are expressions like *teonanac’o* ‘sad-looking (from the way one’s eyes look)’, where *teo-* comes from *teolu* ‘to eye’, or *fuhhuhngoya* ‘shy; blushing’, where *fuhngoya* means ‘red-faced’.

By contrast, the scope of conceptual metonymies used in the structuring of emotion concepts in Chinese is far more extensive, covering not only behavioral responses, but also fairly detailed aspects of physiological effects, including physical agitation and disturbances for communicating negative emotions or emotional distress (see King 1989 and the references cited therein).

The present findings as well as those of other emotion researchers suggest the following cross-linguistic differences in the way emotion concepts are conceptualized in Tsou, English, and Chinese:

- i. While Tsou makes minimal use of conceptual metaphors, especially ontological metaphors, the conceptual structure of the emotions in English depends to a considerable extent on the use of metaphor models and to a lesser extent on the use of metonymic models.
- ii. The strategy of using grammatical models involving prefixation in Tsou makes it far more sensitive to the copresence of emotions and

behavioral responses at the expense of physiological effects in emotional experiences. Chinese, on the other hand, embraces both behavioral reactions and physiological effects, both in considerable detail, in its folk models of emotional experience. The psychological implications of these three types of languages for language production appear to be a fertile area of research, along the same line as that explored in a series of papers by Slobin (1996, 1997) for motion events.

The present study is of course far from being an exhaustive account of the emotional life of the speakers of Tsou. A full account of the Tsou conceptualization of emotions needs to be complemented by an investigation of the cultural models of emotion that filter, screen, amplify, or mute primary or core affects in interaction or communication. Hopefully, the present analysis has succeeded in showing emotional language in Tsou to be sufficiently distinct from what is generally known about how emotion concepts are structured based on data from major languages of the world. In turn, these findings have important ramifications for a cross-cultural study of emotional experience. An emotion concept, as Kövecses (2000: 186) has insightfully observed, typically evokes content pertaining to all aspects of experience—social, cognitive, and physiological—and this complex of content is organized as a more or less stable configuration. It is in this complex of content that languages and cultures can be shown to vary. Indeed, cross-cultural comparisons have shown that there are differences in emotional life in different cultures, in the elicitors and interpretations of emotion, in display rules, in the social functions of emotion and in differential emphasis on the metaphoric and metonymic understanding of a given emotion. In some cultures some emotions are hypercognized while others are hypocognized (see, for example, Lutz 1988; Mesquita and Frijda 1992; Wierzbicka 1993, 1994). In short, what is sorely needed is a Geertzian thick description of the cultural models of emotion in Tsou, but that would be a project worthy of a book-length treatment in its own right.

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Notes

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1. The count stands at 310 metaphors and 48 metonymies.
2. The use of the term *subject* in Austronesian linguistics has been controversial. By subject here I simply mean the noun phrase that bears nominative case marking and is roughly equivalent to what is elsewhere referred to as *topic* or *trigger* (cf. Cumming and Wouk 1987).
3. Much of the data cited in this article is based on a corpus of conversations and narratives collected during fieldwork trips, during October 1999 and March 2000, to the Tfuya village in Southwest Taiwan where Tsou is spoken. The following abbreviations are used in glossing in Tsou data:

AF = agent focus;

Aux = auxiliary verb (tense and aspect);

BF = benefactive focus;

Comp = complementizer;

Conj = conjunction;

Nom = nominative case marker;

Obl = oblique case marker;

PF = patient focus;

PN = proper name;

Rdp = reduplication.

The following native orthographic conventions are adopted:

‘ = glottal stop;

b = voiced bilabial implosive;

c = ts;

l = voiced lateral implosive;

h = voiceless glottal fricative;

ng = velar nasal;

U = unrounded high back vowel.

4. I thank one of the reviewers for drawing my attention to the Langackerian idea that meaning is identified with conceptualization and that conceptualization subsumes not only abstract concepts but also immediate sensory, motor, and emotive experience. Two sentences may be used to describe the same objective scene, yet embody different images and hence be semantically distinct.
5. A macro-event in Talmy's typology of event integration (Talmy 2000) refers to a fundamental category of complex events that is prone to conceptual integration and representation by a single clause. The way a macro-event in motion in Tsou is structured parallels the way a macro-event in emotion as well as in other domains is structured. For example, the verbal satellite suffix expresses any of the following conceptual domains:

- (i) The path in an event of motion:

Mo cu tmai'-aemonU si mali.

Aux Perf roll-in Nom ball

'The ball rolled in.'

- (ii) The mental state in an emotional experience:
Mi'o buh-sU'no ta Pasuya.
 AF-1st.sg see-angry Obl PPN
 'I get angry looking at Pasuya.'
- (iii) The aspect in an event of temporal contouring:
Mihin'I e'unu maita'e.
 Aux-3rd.pl talk-toward thus
 'The talked on.'

See Huang 2002 for further details.

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