

# LOCATIVE SUBJECT IN MANDARIN CHINESE

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## Abstract

This paper examines the various kinds of locative subject in Mandarin Chinese (MC). It is shown that the locative subjects in MC do not arise from locative inversion like the case of English, but are introduced by light verbs directly in the subject position. To account for the “locative prominence” of MC, it is suggested that a functional head Locus, dominated by TP, checks the status of the subject argument on the way of movement from  $vP$  Spec to TP Spec, which makes sure that the subject argument is locative in nature.

## 1. Introduction

Mandarin Chinese (MC), like other East Asian languages such as Japanese and Korean, is a topic prominent language (Li and Thompson 1981). But a less known fact about MC is that it is also a “locative prominent” language, in the sense that it frequently employs locative subject in its sentence structure. Locative subject is, in a general sense, a “marked” subject in languages like English, as it is derived through locative inversion. On the other hand, the locative subject in MC is special not only in its frequent use in the sentence structure, but also in its generation – it doesn’t need to arise from an internal locative expression through inversion. It can be the subject of an MC sentence just like an agent or a theme expression.

In this work we will present an introduction to the various kinds of locative subject in MC. Following Mei (2002a, b), we propose that a functional head, Locus, is responsible for the locative prominence of MC subject.

This paper is organized as follows. Section 2 reviews locative subject in English and makes a comparison with MC. Section 3-4 examine two kinds of locative subject, those introduced by the light verb EXIST and OCCUR. Section 5 examines a new kind of locative subject in MC, which we call the “agentive locative subject.” Section 6 introduces Mei’s (2002a, b) theory on the functional head Locus and proposes an analysis for the locative prominence of MC based on the function of Locus. Section 7 is the conclusion.

## 2. Locative Subjects

Before moving on to the locative subjects in MC, it may be beneficial to look at the

locative subjects in English first. With an understanding in the locative subjects in English, it will be easier to grasp the peculiarity of the locative subjects in MC. Locative subjects in English typically arise from an internal locative expression (argument or adjunct), which undergoes inversion to the subject position of the sentence. (See Coopmans 1989, Bresnan and Kanerva 1989, Bresnan 1994, Levin and Rappaport Hovav 1995, among many others.)<sup>1</sup> One usually observes it with verbs of appearance and existence, though other kinds of verbs may permit it as well (Levin and Rappaport Hovav 1995). See the following examples:

- (1) On the street stood a policeman.
- (2) Down the hill rolled John. ((25a), Collins 1997: 27)
- (3) In the distance appeared the towers and spires of a town which greatly resembled Oxford. ((1), Levin and Rappaport Hovav 1995: 218)
- (4) On the third floor worked two young women called Maryanne Thomson and Ava Brent, who ran the audio library and print room. ((19b), Levin and Rappaport Hovav 1995: 224)

Note that the locative subject in all these examples can be “restored” back to the predicate-internal position:

- (5) A policeman stood on the street.
- (6) John rolled down the hill. ((25b), Collins 1997: 27)
- (7) The towers and spires of a town which greatly resembled Oxford appeared in the distance. ((2), Levin and Rappaport Hovav 1995: 218)
- (8) Two young women called Maryanne Thomson and Ava Brent worked on the third floor...

Transitive verbs in English do not permit locative inversion ((16a-c), Levin and Rappaport Hovav 1995: 223):

- (9) Archeologists recovered sacrificial burials from this trench.
- (10) \* From this trench recovered archeologists sacrificial burials.
- (11) \* From this trench recovered sacrificial burials archeologists.

Locative subjects in MC sentences, on the other hand, are more varied and diversified.

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<sup>1</sup> Coopmans (1989) proposes that the so-called locative subject in English actually is not the subject of the sentence, but a topic in Comp. We will not go into the syntax of the locative subject in English, and therefore will not compare the different analyses.

There are several kinds, which we call the “canonical” locative subject, the existential locative subject, the occurrence locative subject, and the agentive locative subject. Below are examples.

(12) *The “canonical” locative subject*

Jie-shang zhan-zhe yi-ge jingcha.  
street-on stand-DUR one-CL policeman

‘On the street stood a policeman.’

(13) *Existential locative subject*

Zhe-zuo hu-li zhaodao-guo yi-ge da baozang.  
this-CL lake-in find-EXP one-CL big treasure

‘A big treasure has been found in this lake.’

(14) *“Occurrence” locative subject*

Women chunzi-li chen-le liang-sao chuan.  
our village-in sink-PERF two-CL boat

‘Two boats from our village sank.’

(15) *“Agentive” locative subject*

Zhangsan-de shou-li wo-zhe yi-ba shouqiang.  
Zhangsan’s hand-in hold-DUR one-CL pistol

‘Zhangsan holds a pistol in his hand.’

These locative subjects are very different from those in English. First, many of the locative subjects in MC cannot be “restored” to a predicate-internal position; in fact, among the four kinds of locative subject above, only the “canonical” locative subject can be “restored” into the predicate.

(16) Yi-ge jingcha zhan zai jie-shang.  
one-CL policeman stand at street-on

‘A policeman stood on the street.’

(17) \* Yi-ge da baozang zhaodao zai zhe-zuo hu-li.  
one-CL big treasure find at this-CL lake-in

(18) \* Liang-sao chuan chen zai women chunzi-li.  
two-CL boat sink at our village-in

(19) \* Wo-zhe yi-ba shouqiang zai Zhangsan-de shou-li.  
hold-DUR one-CL pistol at Zhangsan’s hand-in

This indicates that the locative subjects in MC may not arise from inversion of an internal

locative argument or adjunct. Second, as shown by the example (13) and (15), transitive verbs in MC can take a locative subject; this is not possible for English.

Thus, the locatives subjects in MC have their own peculiar properties that need special analyses. The questions that we will be asking are: What accounts for these locative subjects? And what makes MC such a language that permits so many different kinds of locative subject – in other words, what makes MC such a “locative prominent” language?

### 3. Locative Subjects in MC

There have been researchers who propose that MC exhibits locative inversion of the English kind, namely an internal locative argument raising to the subject position. For example, Li and Thompson (1981) note that there is a specific group of verbs in MC which can take locative subject. Li and Thompson (1981) call them “verbs of placement.” See the following examples.

- (20) Zhangsan fang yi-ben shu zai zhuo-shang.  
Zhangsan put one-CL book at table-on

‘Zhangsan put a book on the table.’

- (21) Zhuo-shang fang-zhe yi-ben shu.  
table-on put-DUR one-CL book

‘A book was on the table.’

- (22) Zhangsan xie-le jige da zi zai qiang-shang.  
Zhangsan write-PERF several big character at wall-on

‘Zhangsan wrote several characters on the wall.’

- (23) Qiang-shang xie-zhe jige da zi.  
wall-on write-DUR several big character

‘Several big characters are on the wall.’

According to Li and Thompson, verbs like *fang* ‘put’, *xie* ‘write’, and many more, such as *shui* ‘sleep’, *zhong* ‘plant’ and others, have an internal locative argument. These verbs can take a locative subject, as in (21) and (23), and this locative subject arises from the inversion of the internal locative argument. Another example is S. Huang (1982), who investigates compound verbs like *fei-man* ‘fly-full’ and suggests that they have an internal locative argument which may raise to subject position. The following two sentences show that either the theme *mifeng* ‘honeybee’ or the locative *huayuan* ‘garden’ can be the subject of the sentence. S. Huang (1982) proposes that such verbs have two internal arguments but no external argument, and either one of the two internal arguments can raise to subject position, resulting in sentences like (24) and (25).

(24) Mifeng fei-man-le huayuan.  
 honeybee fly-full-PERF garden  
 ‘Honeybees fill the garden flying.’

(25) Huayuan fei-man-le mifeng.  
 garden fly-full-PERF honeybee  
 ‘The garden is full of honeybees flying.’

But such locative-inversion analysis cannot be the basis for a general treatment of the locative prominence of MC. They are problematic in one way or another. The verb *xie* ‘write’ is considered a verb of placement taking an internal locative argument by Li and Thompson (1981) because it can take a locative subject, as in (23). However, it is conceptually difficult to accept that such verbs as *xie* ‘write’ (and many others) have an internal locative argument. Why does writing have anything to do with a location, other than it must happen somewhere? As to S. Huang’s (1982) analysis, it is sufficient to point out that many compound verbs in MC can take a locative subject, without its sub-component having anything to do with space or location. The following is an example with the compound verb *zhuang-si* ‘hit and cause to die’.

(26) Lu-bian zhuang-si-le san-zhi gou.  
 road-side hit-dead-PERF three-CL dog  
 ‘Three dogs were dead at the roadside being hit [by cars].’

Once again, there is no reason to assume that the compound verb *zhuang-si* ‘hit and cause to die’ has an internal locative argument. Any approach, therefore, that crucially relies on locative inversion for MC locative subjects cannot be successful.<sup>2</sup>

Lin (2001) proposes to account for the locative subjects in MC by the function of light verbs. He postulates two light verbs that license locative subject in MC: EXIST and OCCUR. Lin (2001) suggests that verbs in MC don’t have argument of their own, much less locative argument. What appears to be locative inversion is in fact a base-generated locative expression in the Spec position of the *vP* projected by the light verb EXIST or OCCUR, which then raises to the subject position of the sentence. See the following examples for illustration.

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<sup>2</sup> One question needs to be clarified. It is indeed true that the locative expressions ‘on the wall’ and ‘garden’ in (22) and (24) are complements to the verbs ‘write’ and ‘fly-full’. In MC a post-verbal locative expression must be a complement; it cannot be an adjunct. However, being a complement is different from being an internal locative argument. These two locative expressions are complements, but they are not the internal locative arguments of the verbs ‘write’ and ‘fly-full’. Lin (2007) argues that syntactic merger in MC is not dictated by the selection of the verb, because, according to Lin (2001), verbs in MC do not have arguments of their own. See Lin (2001, 2007) for more details.

- (27) Zhe-zuo hu-li zhaodao-guo yi-ge da baozang.  
This-CL lake-in find-EXP one-CL big treasure

‘A big treasure has been found in this lake.’

- (28) [IP in this lake<sub>i</sub> [VP *t<sub>i</sub>* EXIST [VP found a big treasure ]]]

- (29) Women chunzi-li chen-le liang-sao chuan.  
our village-in sink-PERF two-CL boat

‘Two boats from our village sank.’

- (30) [IP in our village<sub>i</sub> [VP *t<sub>i</sub>* OCCUR [VP sank two boats ]]]

If Lin’s (2001) theory is correct, there is no locative inversion in MC. The locative subject is introduced by the light verb and has no association with any predicate-internal position. This appears to be a desirable move, since it accounts for those locative subjects in MC which cannot be “restored” back to a predicate-internal position.

#### 4. EXIST and OCCUR

Here we will take a closer look at the light verbs EXIST and OCCUR. These two light verbs and the locative subjects they license have very different properties. The locative subject that EXIST introduces denotes the location where an entity exist in a particular mode; it is an existential construction. See the following sentences.

- (31) Qiang-shang gua-zhe yi-fu hua.  
wall-on hang-DUR one painting

‘A painting is hung on the wall.’ =

‘There is a painting on the wall hanging.’

- (32) Shan-shang gai-le yi-pai xiaomuwu.  
mountain build-PERF one-row small.cabin

‘A row of cabins were built on the top of mountain.’ =

‘There are a row of cabins built on the top of the mountain.’

As the glosses indicate, these two sentences can be understood as asserting the existence of certain thing (a painting and cabins respectively), and the “main verbs” of the sentences (*gua* ‘hang’ and *gai* ‘build’) are more or less like an adverbial element that denotes the manner or mode in which the thing exists. The locative subject, of course, denotes the location in which the thing exists or comes into existence.

On the other hand, the locative subject that OCCUR introduces typically denotes the location where an event happens. This construction highlights the happening of certain event,

rather than the existence of certain thing.<sup>3</sup> See the following example:

- (33) Women      chunzi-li      chen-le      liang-sao      chuan.  
our            village-in      sink-PERF      two-CL      boat

‘Two boats from our village sank.’

This sentence asserts the happening of an event, the event of two boats sinking. The locative subject denotes the location that the event happens. Notice that this doesn’t mean that the boats sink in the village; boats don’t sink in land. ‘Our village’ stands for the location to which the event has a direct impact, or the place the event happens to.

EXIST and OCCUR differ in a number of respects. First, OCCUR may take a time subject instead of a locative subject, whereas EXIST cannot. See (34) and (35). Second, the subject that OCCUR introduces can be phonetically empty, but this is impossible for EXIST. See (36) and (37).

- (34) Zuo-tian      chen-le      liang-sao      chuan.  
yesterday      sink-PERF      two-CL      boat

‘Two boats sank yesterday.’

- (35) \* Zuo-tian      gai-le                  yi-pai      xiaomu-wu.  
yesterday      build-PERF      one-row      small.cabin

- (36) Chen-le      liang-sao      chuan      (le).  
sink-PERF      two-CL      boat      PF

‘Two boats sank.’

- (37) \* Gai-le                  yi-pai      xiaomu-wu.  
build-PERF      one-row      small.cabin

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<sup>3</sup> The following two sentences can be regarded as the “prototypical form” of the EXIST- and OCCUR-sentences, with the verbs *you* ‘have, exist’ and *fasheng* ‘happen’:

- (i) Qiang-shang      you      yi-fu      hua.  
Wall-on                  have one-CL      painting

‘A painting exists on the wall.’

- (ii) Zhangsan-jia      fasheng-le      yi-jian      mousha-an.  
Zhangsan-home      happen-PERF      one-CL      murder

‘A murder happened at Zhangsan’s house.’

The sentence (i) asserts the existence of a certain thing, namely a painting, on the wall, and the sentence (ii) asserts the happening of an event, namely a murder. In (i) no happening is asserted, and in (ii), no existence of something is asserted.

Once more difference between OCCUR and EXIST is that, as we have shown above, the locative subject that the former introduces can denote the source of the event that happens; it doesn't have to be the precise location where the event happens. Compare the following two examples.

- (38) Women      chunzi-li      chen-le      liang-sao      chuan.  
       our          village-in      sink-PERF      two-CL      boat

'Two boats from our village sank.'

- (39) Hai-di      chen-le      liang-sao      chuan.  
       sea-bottom      sink-PERF      two-CL      boat

'Two boats were at the bottom of the sea sinking.'

(38) is an OCCUR sentence, the locative subject of which denotes the source of the event that happens, or the place which the event happens to. (39), on the other hand, is an EXIST sentence; its locative subject denotes the precise location where the two boats end up in. Of course, sometimes ambiguity arises, such as the following sentence:

- (40) Shan-shang gai-le      yi-dong fangzi.  
       mountain-on      build      one-CL      house

'There is a house built in the mountain.' or

'An event of house-building has happened in the mountain.'

To disambiguate the sentence, the participants of the conversation must know which element of the sentence is being asserted, the existence or coming into existence of an entity, or the happening of a particular event. But for sentences like (38), there is no ambiguity, since boats don't sink in land, and as a result only the OCCUR reading is acceptable.

This use of OCCUR may account for a well-known, yet hotly debated construction in MC, as follows (see Shen 2006 among others):

- (41) Wang Mien qi      sui      shang      si-le      fuqin.  
       Wang Mien      seven      year.old on      die-PERF      father

'Wang Mien had his father died when he was about seven years old.'

This sentence is adopted from a famous Chinese novel, *Ru-lin Wai-shi* ('The Scholars'), written in the first half of the 18th century. The intriguing point about this sentence is that the intransitive verb *si* 'die' is used as a transitive verb, and the subject argument assumes a sense of experiencer or sufferer. There have been different proposals on how this construction is derived in MC syntax; we will not go into detailed discussion. Our proposal is this. If we take the subject *Wang Mien* in (41) as a *locative* rather than an ordinary kind of subject (experiencer, for instance), the sentence can be well accounted for. The support for this analysis comes from the following fact: the verb *si* 'die' can also take a locative subject, a

time subject, or a phonetically empty subject, exactly the same as what we've seen with the OCCUR sentences:

(42) Chunzi-li si-le san-ge ren. (Locative subject)  
village-in die-PERF three-CL person

'Three persons died in the village.'

(43) Zuotian si-le san-ge ren. (Time subject)  
yesterday die-PERF three-CL person

'Three persons died yesterday.'

(44) Si-le san-ge ren (le) (Phonetically empty subject)  
die-PERF three-CL person PF

'Three persons have died.'

Based on such patterning, it is very likely that the sentence (41) is an OCCUR sentence, and its subject *Wang Mien* a locative subject.

Now we have a preliminary answer for the questions posed at the end of section 2 – namely, what accounts for the locative subjects in MC, and what makes MC such a “locative prominent” language. Our answer is: light verbs such as EXIST and OCCUR account for the locative subjects in MC, and, MC is “locative prominent” because of the functions of these light verbs.

## 5. The Agentive Locative Subject

There is evidence that indicates that locative subjects are more prevalent in MC than those introduced by EXIST and OCCUR. In fact, many sentences with agentive subjects can be converted into ones with locative sentences. We call them the *agentive locative subject*. Look at the following examples.<sup>4</sup>

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<sup>4</sup> The locatives in (46), (48), (50) and the like may occur in the form of an adverbial, as in the following example:

(i) Zhangsan (zai)shou-li wo-zhe yi-ba shouqiang.  
Zhangsan at hand-in hold-DUR one-CL pistol

'Zhangsan holds a pistol in his hand.'

We will not discuss this construction, as it is irrelevant to the point we are making.

- (45) Zhangsan wo-zhe yi-ba shouqiang.  
 Zhangsan hold-DUR one-CL pistol  
 ‘Zhangsan holds a pistol.’
- (46) Zhangsan-de shou-li wo-zhe yi-ba shouqiang.  
 Zhangsan’s hand-in hold-DUR one-CL pistol  
 ‘Zhangsan holds a pistol in his hand.’
- (47) Zhangsan qi-zhe yi-pi ma.  
 Zhangsan ride-DUR one-CL horse  
 ‘Zhangsan is riding a horse.’
- (48) Zhangsan-de pigu-xia qi-zhe yi-pi ma.  
 Zhangsan’s hip-under ride-DUR one-CL horse  
 ‘Zhangsan is riding a horse under his hip.’
- (49) Zhangsan ma-zhe zang-hua.  
 Zhangsan curse-DUR dirty-word  
 ‘Zhangsan is cursing with dirty words.’
- (50) Zhangsan-de zui-li ma-zhe zang-hua.  
 Zhangsan’s mouth-in curse-DUR dirty-word  
 ‘Zhangsan is cursing with dirty words in his mouth.’

The verbs *wo* ‘hold’, *qi* ‘ride’, and *ma* ‘curse’ in (45), (47) and (49) are agentive verbs, and their subject arguments are agents. However, we find that the subject arguments in these sentences can be transformed into locatives, as in (46), (48), and (50). This kind of locative subject is not limited to agentive verbs; stative verbs can take locative subjects as well.

- (51) Zhangsan xihuan Ahua.  
 Zhangsan like Ahua  
 ‘Zhangsan likes Ahua.’
- (52) Zhangsan-de xin-li xihuan Ahua.  
 Zhangsan’s heart-in like Ahua  
 ‘Zhangsan likes Ahua in his heart.’
- (53) Zhnagsan hen e.  
 Zhangsan very hungry  
 ‘Zhangsan is very hungry.’

- (54) Zhnagsan-de duzi hen e.  
 Zhangsan's stomach very hungry  
 'Zhangsan is very hungry in his stomach.'

Such locative subjects are not unrestricted, though. For the agentive locative subject to occur, the verb must be in the durative or progressive aspect. Compare the following examples. In (56) and (59), the verbs is suffixed with the perfective aspectual marker *-le* and hence assumes the perfective aspect. We find that the agentive locative subject is not acceptable with such verbs. On the other hand, in (57) and (60) the verbs take the durative aspectual marker *-zhe* (along with the progressive aspectual adverb *zheng* 'right now'), and the agentive locative subject is acceptable in these two sentences.<sup>5</sup>

- (55) Zhangsan chi-le liang-ge hanbao.  
 Zhangsan eat-PERF two-CL burger  
 'Zhangsan ate two burgers.'

- (56) \* Zhangsan-de zui-li chi-le liang-ge hanbao.  
 Zhangsan's mouth-in eat-PERF two-CL burger

- (57) Zhangsan-de zui-li zheng chi-zhe yi-ge hanbao.  
 Zhangsan's mouth-in right.now eat-DUR one-CL burger  
 'Zhangsan is eating a burger right now in his mouth.'

- (58) Zhangsan xie-le yi-feng xin.  
 Zhangsan write-PERF one-CL letter  
 'Zhangsan wrote a letter.'

- (59) \* Zhangsan-de shou-dixia xie-le yi-feng xin.  
 Zhangsan's hand-under write-PERF one-CL letter

- (60) Zhangsan-de shou-dixia zheng xie-zhe yi-feng xin.  
 Zhangsan's hand-under right.now write-DUR one-CL letter  
 'Zhangsan is writing a letter under his hand.'

Here we need to ask a question: Is the agentive locative subject an instance of the EXIST or OCCUR locative subjects, or is it an independent kind? There is evidence pointing to the latter. Crucially, sentences with EXIST or OCCUR locative subjects can take non-durative/progressive aspect. See the following examples for illustration, in which the verbs take the perfective aspectual marker *-le*.

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<sup>5</sup> This applies to the stative verbs in (52) and (54) as well. Though the verbs 'like' and 'hungry' do not take any aspect marker, the semantics of the two sentences (52) and (54) are such that the states are continually true. This makes them fairly like in the durative/progressive aspect.

- (61) Shan-shang gai-le yi-pai xiaomuwu.  
 mountain build-PERF one-row small.cabin  
 ‘A row of cabins were built on the top of mountain.’

- (62) Women chunzi-li chen-le liang-sao chuan.  
 our village-in sink-PERF two boat  
 ‘Two boats from our village sank.’

The “durative/progressive aspect requirement” of the agentive locative subject, therefore, indicates that the agentive locative subject is an independent kind, different from the locative subjects introduced by the light verbs EXIST and OCCUR.

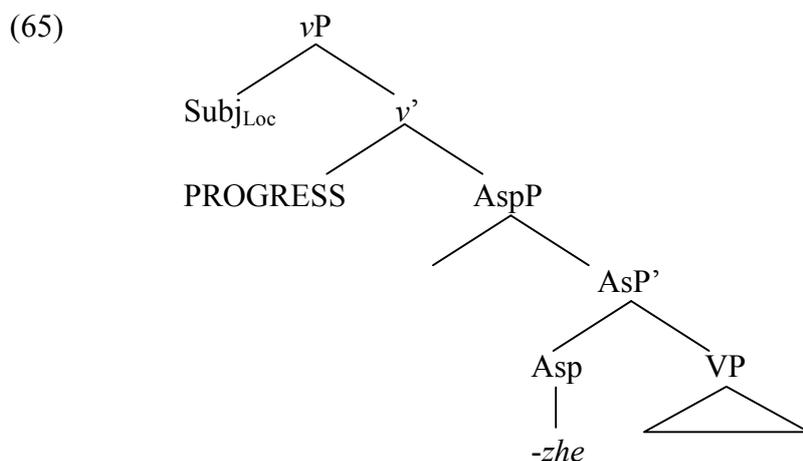
There is yet a different type of locative subject in MC that also requires durative/progressive aspect. In this construction the locative subject denotes the location where an event is *in progress*. Look at the following examples:

- (63) Litang-li zheng chang-zhe xiaoge.  
 auditorium-in right.now sing-DUR alma.mater  
 ‘The alma mater is being sung in the auditorium.’

- (64) Keting-li zheng he-zhe jiu ne!  
 living.room-in right.now drink-DUR wine PRT  
 ‘Wine is being drunk in the living room!’

Note that these two sentences are slightly different from the agentive locative subject construction that we saw above. In the previous examples the locative subject is a body part that is directly involved in the action denoted by the verb, but in (63)-(64), the locative subject is the location where the event is going on. But two things are the same: first, the verbs are highly agentive, and the second, the verbs take the durative/progressive aspect. For these reasons, we regard the sentences in (63)-(64) as of the same kind as the agentive locative subject construction.

How do we account for the agentive locative subject? Suppose a light verb is responsible for the agentive locative subjects. Call it PROGRESS. This light verb has the following property: it takes an AspP as complement, and it requires its AspP complement to be durative or progressive through head-complement concordance. (For the category AspP, see Cheng 1991 and Shen 2004.)



But a question still remains. Though we posit an independent light verb for the agentive locative subject, we still need an explanation for the question: Why are there so many different kinds of locative subject in MC? So far we have just been enumerating them and postulated light verbs that introduce them. Is there a deeper explanation for the prevalence of locative subjects in MC grammar? We believe there is. This has to do with the functional category *Locus*.

## 6. Locative as the Locus of Event

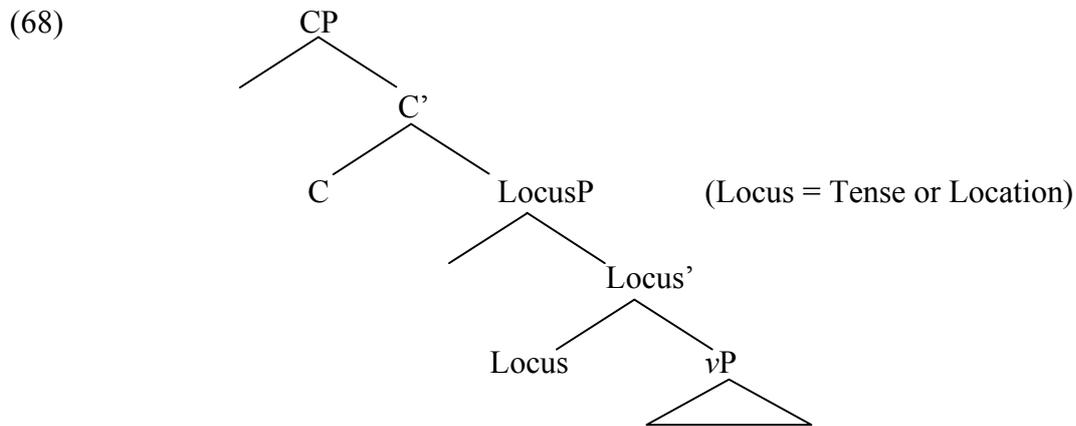
Mei (2002a, 2002b) shows that in some Tibeto-Berman languages, locatives are used to express time. The following examples are from Nusu, a minority language spoken in southwestern China (Mei 2002a: 46). The distal marker *u* implies that the event has occurred, and the proximal marker *ja* implies that the event is in progress.

(66) Nga golabatho u a (Distal; past)  
 I shoes put.on DISTAL REALIS  
 ‘I put on my shoes.’

(67) Nga golab tho ja (Proximal; progressive)  
 I shoes put.on PROXIMAL  
 ‘I am putting on my shoes.’

Based on examples like these, Mei (2002b) suggests that languages may be parameterized in such a way that they may choose Tense or Location as the head of a clause. Mei (2002b) subsumes these two as one and call it *Locus*. *Locus* can be time or location.<sup>6</sup>

<sup>6</sup> In Mei’s (2002b) system, *Locus* has two sub-components, the temporal locus and the spatial locus, each of which can be marked as strong or weak. In Tense language such as English the temporal locus is strong and the spatial locus is weak; in what Mei (2002b) calls the weakly tense language – such as Nusu – the spatial locus is strong but the temporal locus is weak. (Continued on next page.)



As a member of the Sino-Tibetan languages (of which the Tibeto-Berman languages are a sub-family), MC may have this Locus Phrase as well. One interesting phenomenon in MC indicates that location, indeed, plays a crucial role in the MC sentence structure. When an MC speaker challenges a proposition expressed by some other person, s/he may express doubt about the *location* of the proposition, even though the proposition may have nothing to do with location at all. See the following examples:

(69) A: Zhangsan chi-le yi-ge hanbao.  
Zhangsan eat-PERF one-CL burger

‘Zhangsan ate a burger.’

B: Zhangsan nali chi-le yi-ge hanbao?  
Zhangsan where eat-PERF one-CL burger

‘(Lit.) Where did Zhangsan eat a burger?’ =  
‘How could Zhangsan eat a burger? [He didn’t.]’

(70) A: Zhangsan hen you-qian.  
Zhangsan very have-money

‘Zhangsan is rich.’

B: Zhangsan nali hen you-qian?  
Zhangsan where very have-money

‘(Lit.) Where is Zhangsan rich?’ =  
‘How can Zhangsan be rich? [He isn’t.]’

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In this work we split the temporal locus and the spatial locus into separate parts, each of which has its own projection. This is more in line with recent ideas on the higher functional categories (e.g. Pollock 1989). So the structure in (68) is a reinterpretation of Mei’s (2002a, b) work.

(71) A: Zhangsan zai tushuguan nian-shu.  
Zhangsan at library read-book

‘Zhangsan is studying at the library.’

B: Zhangsan nali zai tushuguan nian-shu?  
Zhangsan where at library read-book

‘(Lit.) Where is Zhangsan studying at the library?’ =  
‘How can Zhangsan be studying at the library? [He isn’t.]’

Look at (69) first. Speaker B tries to challenge the truth of the proposition expressed by Speaker A, and s/he does so by questioning the location – notice the locative *wh*-phrase *nali* ‘where.’ This *wh*-phrase *nali* ‘where’ is not really meant to denote the location where the event occurs or the state exists. An individual-level predicate (‘be rich’) is generally incompatible with location in semantics – it makes no sense to say that someone is rich at a particular location. Yet in (70) *nali* ‘where’ occurs with this predicate. (71) shows that the sentence can have an independent locative expression that denotes the event location. Thus *nali* ‘where’ in these sentences has nothing to do with location at all.

In fact, *nali* ‘where’ in this use cannot denote the event location. When used as a location-denoting expression, it needs the preposition *zai* ‘at’. But in this use the presence of *zai* leads to ungrammaticality. In (72) *nali* ‘where’ is location-denoting, and the preposition *zai* ‘at’ occurs. Without the preposition the sentence is ungrammatical, as in (73). On the other hand, in the challenging/questioning use, the presence of *zai* ‘at’ causes ungrammaticality, as in (74)-(75).

(72) Zhangsan zai nali gongzuo?  
Zhangsan at where work

‘Where does Zhangsan work?’

(73) \* Zhangsan nali gongzuo?  
Zhangsan where work

‘(Intended) Where does Zhangsan work?’

(74) \* Zhangsan zai nali hen you-qian?  
Zhangsan at where very have-money

‘(Intended) How can Zhangsan be rich?’

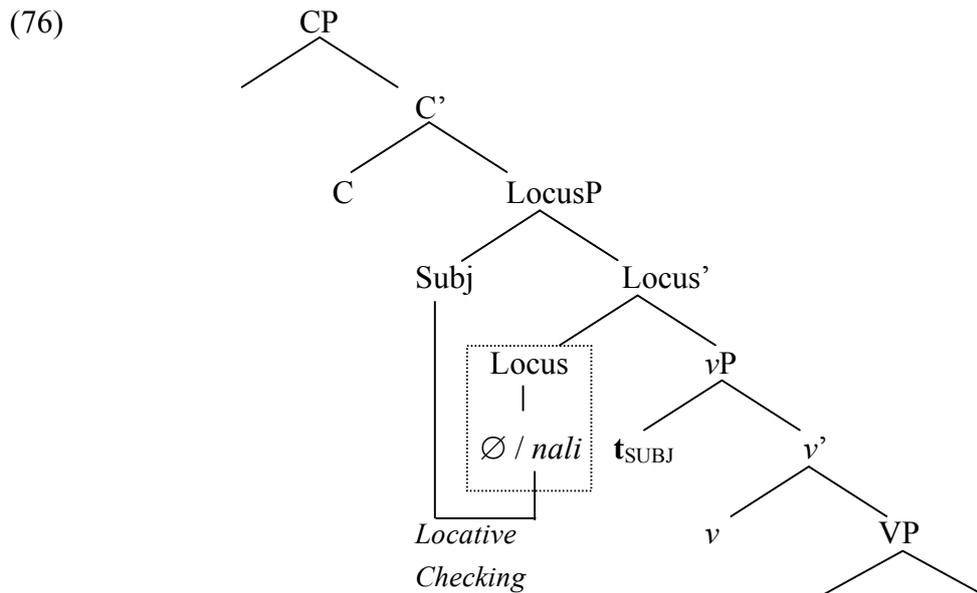
(75) \* Zhangsan zai nali zai tushuguan nian-shu.  
Zhangsan at where at library read-book

‘(Intended) How can Zhangsan be studying at the library?’

We can incorporate this use of *nali* ‘where’ into our analysis, in the following way. Suppose

that Locus is phonetically empty as its unmarked form, but it can also have a marked form *nali* ‘where,’ when the truth of the proposition or event is challenged or questioned. Furthermore, suppose that Locus is where the event argument is. (Kratzer (1995) suggest that the event argument is in Tense. If Locus is to replace Tense, then it is natural that the event argument is in Locus.) Thus questioning Locus is questioning the event. This is the origin of the challenging/questioning force of *nali* ‘where.’

Suppose that instead of TP, MC has a locational LocusP, as suggested above. The subject argument of a sentence is base-generated inside vP, and raises up to Spec of LocusP. Further suppose that Locus checks the element that moves into its Spec position to see if it is a locative. This then forces the subject argument of the sentence to be locative in nature.



Notice that all the different kinds of locative subject can appear with *nali* ‘where.’

- (77) Jie-shang nali zhan-zhe yi-ge jingcha?  
 street-on where stand-DUR one-CL policeman

‘How is there a policeman standing on the street? [There is none.]’

- (78) Zhe-zuo hu-li nali zhaodao-guo yi-ge da baozang?  
 this-CL lake-in where find-EXP one-CL big treasure

‘How could there be found a big treasure in this lake? [It’s not true.]’

- (79) Chunzi-li nali chen-le liang-sao chuan?  
 village-in where sink-PERF two-CL boat

‘How could it be the case that two boats sank from our village? [It’s not true.]’

- (80) Zhangsan-de shou-li nali wo-zhe yi-ba shouqiang?  
Zhangsan's hand-in where hold-DUR one-CL pistol

‘How could Zhangsan holds a pistol in his hand? [Not at all.]’

There is a potential problem with this analysis, however. The *nali* ‘where’ sentence can take a temporal adverbial, but the temporal adverbial must precede *nali* ‘where.’ See the following examples for demonstration.

- (81) Zhangsan zuotian zai tushuguan nian-shu.  
Zhangsan yesterday at library read-book

‘Zhangsan studied at the library yesterday.’

- (82) Zhangsan zuotian nali zai tushuguan nian-shu.  
Zhangsan yesterday where at library read-book

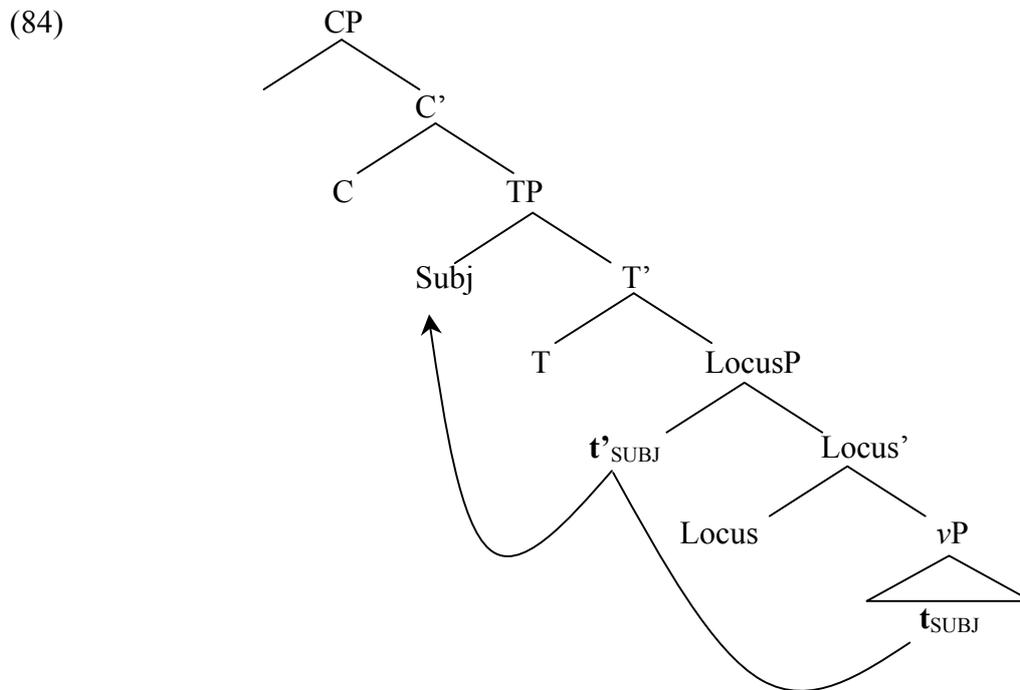
‘How could Zhangsan studied at the library yesterday? [He didn’t.]’

- (83) \* Zhangsan nali zuotian zai tushuguan nian-shu.  
Zhangsan where yesterday at library read-book

‘(Intended) How could Zhangsan studied at the library yesterday?’

Two questions need to be considered. First, how can a location head license a temporal adverbial? They don’t seem to be related. Second, if LocusP is in such a high position as TP in English, there is no reason to expect that the temporal adverbial would have to precede *nali* ‘where.’ Why can’t the temporal adverbial be preceded by *nali* ‘where’?

A solution to the two questions above can be this. Suppose that Locus is not really to replace Tense. Just like IP in English is split up into Tense, Neg, etc., IP in MC can be split into Tense and Locus, the former dominating the latter.



The subject argument of the sentence raises to Spec of TP from Spec of *vP* passing through Spec of LocusP. TP licenses the temporal adverbial, and this is why the temporal adverbial always precedes *nali* ‘where.’ LocusP amounts to a filter, which permits a locative subject to go through only. On the way to TP Spec, the subject argument has to move into the Spec of Locus first, where the subject argument is checked to see if it is a locative expression. Thus the subject has to be locative in nature.

If this analysis is correct, the real source of the locative subjects, as well as the locative prominancy of MC, is the function of the head Locus. It doesn’t generate locative subjects by itself; it just filters out non-locative subjects. It doesn’t replace TP. MC has the functional category Tense for independent reason (Sybesma 2007).

## 7. Conclusion

In this paper we recount the locative subjects in MC, and suggests that it is the function of the category Locus that is responsible for the locative prominancy of this language. There are many interesting consequences if our proposal is correct. The most important one is: if Locus is a permanent element in the sentence structure of MC, then what looks like a non-locative subject in MC is in fact a locative subject. For example, the agent subject in the following sentence has to be a locative due to the checking effect of Locus:

- (85) Zhangsan chi-le yi-ge hanbao.  
 Zhangsan eat-PERF one-CL burger  
 ‘Zhangsan ate a burger.’

Many questions, of course, need to be clarified before this view can be considered correct.

One of them is that the subject *Zhangsan* doesn't really look like a locative. But this may not be as far-fetched as one would think. It is known that some languages use locative constructions to represent possession (see Clark 1978). MC may very well be one of those languages. The possessive construction in MC makes use of the verb *you* 'have', as in (86). However, this same verb *you* 'have' is used as a locative-existential verb in (87).

(86) *Zhangsan you henduo qian.*  
*Zhangsan have much money*  
 'Zhangsan has much money,'

(87) *Zhuo-shang you henduo qian.*  
*Table-on have much money*  
 'There is much money on the table,'

Suppose that (86) and (87) are of the same construction, and that the verb *you* 'have' here is uniformly a locative-existential verb. Then *Zhangsan* in (86) is on a par with the locative *zhuo-shang* 'on the table' – in other words, *Zhangsan* is a locative. Thus, it is not unlikely that the subject *Zhangsan* in (85) is in fact a locative, even though it doesn't look like one. This is just one of the many questions that need to be solved along this line of thinking. We will leave those questions to future research.

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