

CHAPTER 3

UNSELECTIVENESS OF SUBJECT IN MANDARIN CHINESE

1. Introduction

In this chapter, we discuss the selection of the subject arguments in Mandarin Chinese, and show that it is a function of eventuality predicates. Since this and next chapter contain lengthy and very detailed discussions on the related questions, below we provide an overview as a guide on the data, analyses, and proposals in these two chapters. After the overview is a brief discussion on the problem of subject licensing in HK's theory. With this as a background, we turn to the main concern in this chapter, starting with the discussion on the verbs of placement in Mandarin Chinese.

1.1 An overview

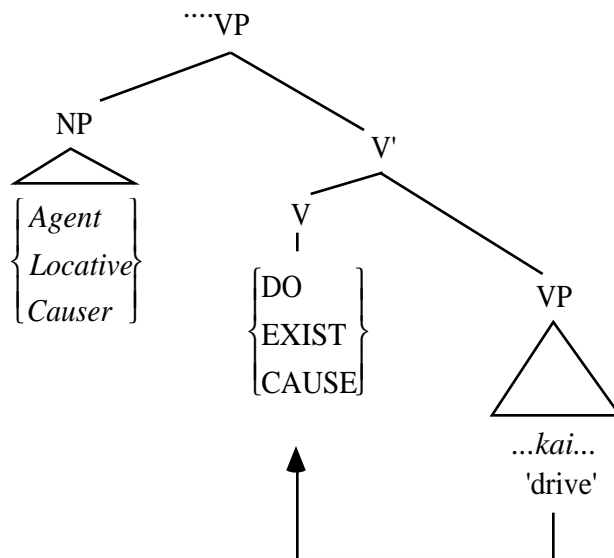
In Chapter 2, we introduced the conception of light verbs as eventuality predicates, and presented sample analyses for their uses in the phrase structures of Mandarin Chinese. In this and the following two chapters (Chapter 3-5), we will focus on the light verb syntax in Chinese. We will concentrate on the interesting array of phenomena that we call the *unselectiveness of subject and object* in Mandarin Chinese. These phenomena indicate that, in Mandarin Chinese, eventuality predicates play a substantial role in the construction of phrase structures and licensing of arguments. Before going into the detailed analyses and discussions, we would like to present an overview on the proposal. The unselectiveness of subject and object in Mandarin Chinese can be illustrated by the following sets of examples:

- (1) *Unselectiveness of subject in Mandarin Chinese*
- a. Laozhang **kai**-le yi-liang tanke-che. (Agentive)
 p.n. drive-Perf one-Cl tank
 'Laozheng drove a tank.'
- b. Gaosu-gonglu-shang **kai**-zhe yi-pai tanke-che. (Existential)
 expressway-on drive-Dur one-line tank
 'There is a line of tanks on the expressway.'
- c. Zhe-liang po-che **kai**-de wo xia-si le. (Causative)
 this-Cl broken-car drive-Ext I scare-dead Prt
 'Driving this broken car made me scared to death.'
- (2) *Unselectiveness of object in Mandarin Chinese*
- a. **chi** niu-rou mian (Theme/patient)
 eat beef noodle
 'eat beef noodle'
- b. **chi** da-wan (Instrument)
 eat big-bowl
 'use a big bowl to eat'
- c. **chi** guanzi (Location)
 eat restaurant
 'dine at some restaurant'
- d. **chi** tou-tong (Reason)
 eat head-ache
 'eat for [curing] headache'

The examples in (1a-c) and (2a-d) illustrate certain important properties of verbs in Mandarin Chinese. In (1a-c), we see that an action verb like *kai* 'drive' doesn't need to occur with an agentive external argument; its external argument can be a locative or a causer (or

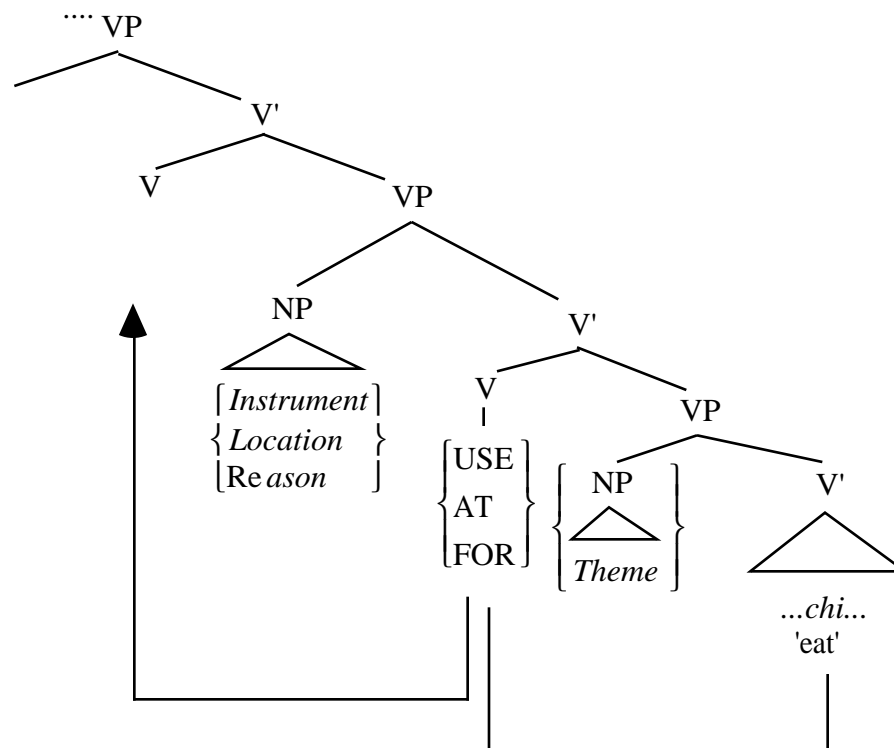
some other thematic expression; see section 4 in this chapter). These different subjects, however, don't seem to fall within the selectional domain of the verb *kai* 'drive'. As this kind of phenomena are very productive in Mandarin Chinese, the existence of these "non-selected" subjects suggests that the subject of a Mandarin Chinese sentence, in fact, is *not* selected by the main verb. The same conclusion is obtained for the object argument, as shown in (2a-d). In these examples, we see that a transitive verb in Mandarin Chinese, such as *chi* 'eat', doesn't need to occur with the regular theme object; it can take an instrument, a location, or a reason expression (or some other thematic expression; see Chapter 4) as the surface object, which, again, don't seem to fall within the selectional domain of the verb *chi* 'eat'. Thus, just like the subject argument, the object argument in Mandarin Chinese sentences is *not* selected by the main verb in a sentence. The account that we propose for the unselectiveness of subject and object in Mandarin Chinese is based on the light verb syntax postulated in Chapter 2. We propose that, in Mandarin Chinese, the subject and object arguments are licensed by light verbs in Syntax. The main verb incorporates to those argument-selecting light verbs, resulting in the phenomenon that verbs in Mandarin Chinese take non-selected expressions as surface subjects and objects. The structural analyses for (1a-c) and (2a-d) are represented in the diagrams below. First let's look at the subjects:

(3) *Selection of subjects in Mandarin Chinese*



As shown in (3), the different subjects are licensed by different light verbs -- the agent licensed by DO, locative by EXIST, and causer by CAUSE. The subject-selecting light verb takes a VP as complement, and the main verb, in the present case *kai* 'drive', incorporates to the light verb. Thus, the surface unselectiveness of subject in Mandarin Chinese actually results from underlying selection by a light verb and the incorporation of the main verb to the light verb. Next, let's look at the objects, The analysis is similar to the case of subjects:

(4) *Selection of object in Mandarin Chinese*



The case of the objects is basically the same as the subjects -- the different objects, i.e. the instrument, the location, and the reason, are licensed by the light verbs, USE, AT, and FOR, respectively. The main verb incorporates to them, and subsequently to the subject-selecting light verb. There is a slight complication in the case of objects, though. As shown in (4), we don't postulate an independent light verb for the selection of the regular theme/patient object for the transitive verbs, like *chi* 'eat'. Instead, we assume that the regular theme/patient object of a transitive verb occurs as the specifier of the verb. However, this doesn't mean that the theme/patient object is selected by the transitive verb in the traditional sense; it is licensed by the V' to which it is a sister. The situation is the same for all other arguments -- they are the specifier of the light VP. Thus, the arguments in Mandarin Chinese are licensed via *predication*, rather than θ -binding of an argument variable. For detailed discussion, see Chapter 4 and 7.

In this analysis, the light verbs in Mandarin Chinese are entities in Syntax. Arguments in a sentence are all introduced in Syntax too, via the function of the light verbs and the verbs. Since the phrase structures in Mandarin Chinese are composed of eventuality structures, Mandarin Chinese can be said to be a "Davidsonian language," as there is a one-to-one correspondence between the syntactic predicates and the semantic predicates. We will come back to this point in Chapter 5.

1.2 The problem of the inchoatives in English and licensing of subject

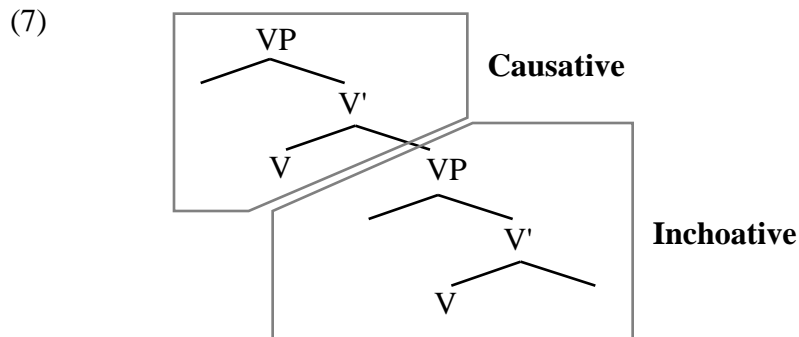
Now let's return to the central concern of this chapter, the unselectiveness of subject in Mandarin Chinese. We start with a problem that HK (1993) point out in their discussion on the transitivity alternation in English.

Remember from section 3.3.2 in Chapter 2 that inchoatives in English are quite restricted -- though some verbs undergo inchoative-causative alternation quite freely, some others do not. The relevant examples are repeated below ((56) and (57) in Chapter 2):

- (5) a. John broke the window.
b. The window broke.
c. The pigs splashed mud on the wall.
d. Mud splashed on the wall.
- (6) a. John put a book on the table.
b. *The book put on the table.
c. We smeared mud on the wall.
d. *Mud smeared on the wall.

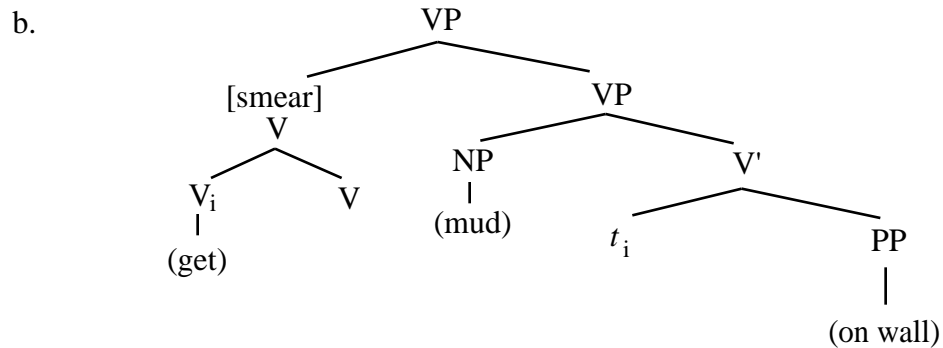
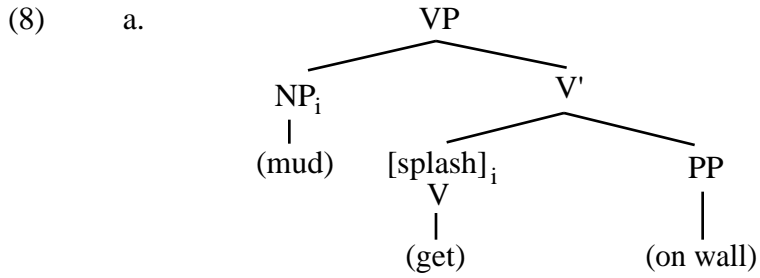
The question here is this. Since both groups of verbs, *break* and *splash* on the one hand, and *put* and *smear* on the other, are causatives in HK's analysis, they should exhibit the same set of properties with respect to the transitivity alternation. But the problem is that

only the former group of verbs exhibit transitivity alternation. This question is puzzling in view of the proposal that syntactic structures determine event structures. The causative structure for (5a,c) and (6a,c), in HK's analysis, involve the following schematic structure:



Both groups of verbs project to the inchoative VP in (7). Then an additional VP layer is merged to the structure, the causative VP in (7). The lower V then incorporates to the higher V, yielding a causative structure. A natural line of thinking with this analysis, as we pointed out in section 3.3 of Chapter 2, is that, without merging the causative VP to the structure, we should be able to obtain an inchoative structure. But this is correct only for *break* and *splash*, not for *put* and *smear*. Why?

HK (1993) try to explain this unexpected asymmetry in terms of the licensing of manner and means component in the semantics of the verb. HK assume that in the *splash* type of verbs, the manner-means component is "oriented" predicate-internally to the internal subject of the predicate (HK 1993:90), so it is permitted not to merge the higher causative VP and the external argument to the structure. But in the *smear* type of verbs, the manner-means component of the verb is externally related to the external argument, ungrammaticality will follow is the causative VP fails to merge to the structure. HK's account is represented in the following diagrams:



This account, however, seems to just restate the facts. All it says is that the *splash* type of verbs don't have to be agentive, but the *smear* type of verbs must be agentive. The fundamental question as to why there is such an asymmetry remains unclear.

We will leave the discussion of this question to Chapter 6. Here we suggest an alternative view on the asymmetry between (5) and (6). We can simply assume that the eventuality predicate CAUSE is a necessary element in the lexical specification of the *smear* type of verbs, but not for the *splash* type of verbs. Thus the manner-means component in HK's account can be just a different term for the light verb CAUSE. The question then reduces to why CAUSE is not a necessary element for the *splash* type of verbs, but a necessary element for the *smear* type of verbs.

In fact we don't have a satisfactory answer for this question. At some point we have to resort to the lexical properties of the different types of verbs. However, we can look at the question from a different perspective. In the following discussions, we will see that, in Mandarin Chinese, even for the *smear* type of verbs, CAUSE is not a necessary element. It can be removed from the structure without causing any ungrammaticality. What is more,

this is a general property of the *verbs of placement* in Mandarin -- that is, all verbs of placement in Mandarin Chinese can freely assume non-agentive use. The contrast between the verbs of placement in Mandarin Chinese and those in English is remarkable, since it constitutes a piece of evidence for the claim that light verbs in Mandarin Chinese are syntactic in nature. Below we will look at the verbs of placement in Mandarin Chinese in a detailed fashion. Furthermore, we will show that the non-agentive use is not limited to the verbs of placement; it is a general characteristic of all action verbs in Mandarin Chinese. This fact further confirms that light verbs and their thematic functions must play a crucial role in Syntax in the Mandarin Chinese grammar.

2. Verbs of placement in the existential construction

The verbs of placement in Mandarin Chinese have been subject to extensive discussions.

This class of verbs include the following instances (cf. Li and Thompson 1981):

- | | | | | | |
|-----|--------------|---------|-------------|---------|------|
| (9) | <i>fang</i> | 'put' | <i>cang</i> | 'hide' | |
| | <i>zhong</i> | 'plant' | <i>xie</i> | 'write' | |
| | <i>hua</i> | 'paint' | <i>yin</i> | 'print' | |
| | <i>tu</i> | 'smear' | <i>ke</i> | 'carve' | |
| | <i>sa</i> | 'spill' | <i>gua</i> | 'hang' | etc. |

These verbs are usually discussed in the context of the existential construction in Mandarin Chinese, since they can freely take a locative subject that denotes the place where the entity that the object of the verb refers to ends up existing. Thus, the most remarkable property of the verbs of placement in Mandarin Chinese is their stative/existential use, a property that we don't observe in their English counterparts. In the following we will first examine the stative

use of the verbs of placement in Mandarin Chinese, and then review some earlier analyses on the existential construction.

2.1 Stative use of verbs of placement

2.1.1 On fang 'put'

As mentioned earlier, the *smear* type of verbs in English cannot assume the inchoative use - it must be agentive at all time. To recapitulate this point, let's take the verb *put* as an example. The verb *put* is known to have three arguments: an external agent argument, an internal theme argument, and an internal location argument. Thus the verb *put* must have the argument structure specified below:

(10) *put*: <1, 2, 3> (AGENT (THEME (LOCATION)))

This specification states that the verb *put* has three arguments hierarchically organized such that (as a function of the universal thematic hierarchy) AGENT is the external argument, THEME is the next one, and LOCATION is the innermost argument. As required by this specification, a sentence with *put* as the main verb must have all the three arguments present. Without either of them, the sentence is ungrammatical:

- (11) a. John put a book on the table.
b. *There put a book on the table.
c. *John put a book.
d. *John put on the table.

In Mandarin Chinese, the verb *fang* 'put' seems to have similar properties. In particular, *fang* takes an internal theme and an internal location, too. Thus one may assume the same specification, namely (10), for the verb *fang* 'put' in Mandarin Chinese.¹

(12) *fang* 'put': <1, 2, 3> (AGENT (THEME (LOCATION)))

- (13) a. Laowang fang-le yi-ben shu zai zhuo-shang.
 p.n. put-Perf one-Cl book at table-on
 'Laowang put a book on the table.'
- b. *Fang-le yi-ben shu zai zhuo-shang.²
 put-Perf one-Cl book at table-on
 'Put a book on the table.'
- c. *Laowang fang-le yi-ben shu.
 p.n. put-Perf one-Cl book
 'Laowang put a book.'
- d. *Laowang fang zai zhuo-shang.
 p.n. put at table-on
 'Laowang put on the table.'

There is an intriguing property, however, that dramatically distinguishes the verbs of placement in Mandarin Chinese from their counterparts in English. Some researchers observe that, besides the agentive use represented in (13a), verbs of placement in Mandarin Chinese, such as *fang* 'put', can assume existential use and take a locative subject (Hou 1979, S. Huang 1982, Pan 1996, among others). What is more, *fang* 'put' can take the

¹ We ignore the readings for (13b-d) where the location and the theme are present but phonetically null. In those readings, (13b-d) are grammatical.

² In English example (11c) we insert the expletive subject *there* to the structure. Since there is no expletive element in Mandarin Chinese equivalent to *there*, we just leave the subject position empty.

theme argument as the subject, without any sense of agentivity. Thus, a verb of placement like *fang* 'put' has three options in taking subject: an agent, as in (13a), a locative, as in (14a), or a theme, as in (14b):

- (14) a. Zhuo-shang fang-zhe san-ben shu. (*Locative subject*)
 table-on put-Dur three-Cl book
 'On the table put three book.' =
 'There are three book on the table.'
- b. Na san-ben shu fang zai zhuo-shang. (*Theme subject*)
 that three-Cl book put at table-on
 'Those three books put on the table.' =
 'Those three books are on the table.'

The interesting point about the verb *fang* 'put' is that, when it takes a locative or a theme as subject, it is used as a *stative* verb -- in (14a-b), it doesn't have a sense of action or agentivity. Stativity is quite clear in (14a), since there is a stative aspectual verbal suffix, the durative marker, *-zhe*, that attaches to the verb *fang* 'put' and "stativizes" it (Pan 1996; see discussion in the next subsection). As to (14b), we have the following example proving its stativity:

- (15) Na san-ben shu fang zai shu-jia-shang shi nian le,
 that three-Cl book put at book-shelf-on ten year Prt
 conglai meiyou ren dong-guo.
 ever no person touch-Exp
 'Those three book have been on the bookshelf for ten years;
 no one ever touches it.'

According to this sentence, *na san-ben shu* 'those three books' keeps on the shelf for ten years. If *fang* 'put' resembled its English counterpart *put* and involve causativity plus inchoativity, the sentence (15) would be very odd, comparable to ungrammatical English sentences like **John discovered the buried treasure in his backyard for six weeks* (see Dowty 1979). But (15) is not odd at all; it simply states that *na san-ben shu* 'those three books' have existed for ten years. In conclusion, (14a-b) are stative, and the verb *fang* 'put' in these two sentences is used as a stative verb.

All verbs of placement can be used in such a way. Below are some more examples:

(16) *Locative subject*

- a. Qiang-shang **tu**-zhe henduo niba.
 wall-on smear-Dur much mud
 'On the wall smears much mud' =
 'There is much mud smeared on the wall.'
- b. Zhi-shang **xie**-zhe ji-ge da-zi.
 paper-on write-Dur several big-character
 'On the paper write several big characters.' =
 'There are several big characters written on the paper.'

(17) *Theme subject*

- a. Henduo niba **tu** zai qiang-shang.
 much mud smear at wall-on
 'Much mud smears on the wall.' =
 'Much mud is on the wall.'
- b. Ji-ge da-zi **xie** zai zhi-shang.
 several big-character write at paper-on
 'Several big characters write on the paper.' =
 'Several big characters are on the paper.'

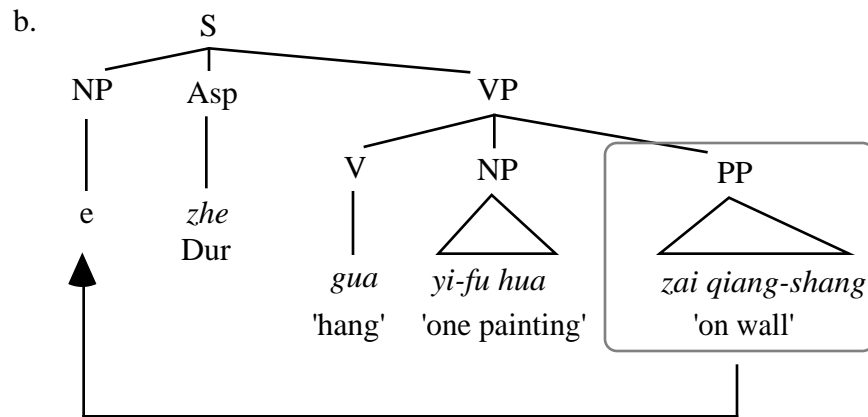
The verbs *tu* 'smear' and *xie* 'write' are all stative in (16) and (17) -- in (16a-b), they are suffixed with the durative aspectual marker *-zhe*, and (17a-b) can be expanded in the same way that (14b) is expanded into (15). Thus the verbs of placement in Mandarin Chinese contrast sharply with the *smear* type of verbs in English, which cannot assume stative use:

- (18) a. *On the table put three books.
 b. *On the wall smears much mud.
 c. *On the paper write several words.
- (19) a. *Those three books put on the table.
 b. *Much mud smears on the wall.
 c. *Several words write on the paper.

2.1.2 Earlier analyses

The stative use of the verbs of placement in Mandarin Chinese has attracted much attention from researchers of Chinese syntax, particularly in the context of the existential construction. Tang (1979) has pointed out that sentences of (14) and (16-17) type, particularly the locative subject sentences (14a) and (16a-b), have strong existential connotation. Works discussing this kind of sentences include Hou (1979), S. Huang (1982), Pan (1996), and others. Most of these works argue that the locative subject originates from locative inversion of an internal location argument. S. Huang (1982), for example, assumes the structure and derivation in (20b) for sentence (20a) (adapted from (62), S. Huang 1982: 20):

- (20) a. Qiang-shang gua-zhe yi-fu hua.
 wall-on hang-Dur one-Cl painting
 'On the wall hangs a painting.'



S. Huang's (1982) analysis is based on locative inversion: the verb of placement *gua* 'hang' takes two internal argument, a theme and a location; the internal location argument undergoes locative inversion and becomes the subject of the sentence. Thus, according to this analysis, the locative subject sentences with verbs of placement in Mandarin Chinese are no different from those English sentences that involve locative inversion, such as *On the street stand a lot of policemen*.

But resorting to locative inversion doesn't seem to account for all the problems. In particular, the loss of agentivity for *fang* 'put' and *gua* 'hang' is not explained when they take a locative subject. Locative inversion can only account for the origin of the locative subject, but not the concomitant suppression of the external agent argument. This question is especially important in view of the fact that, though *put* (and the *smear* type of verbs in general) in English has an internal location argument too, it doesn't permit locative inversion, nor suppression of the external agent argument. How can this question be accounted for?

This question is the central concern in Pan's (1996) analysis. Pan (1996) proposes to account for the loss of the external agent argument in (14a) and (16a-b) by the proposed function of the durative marker *-zhe*. Notice that in (14a) and (16a-b), the verbs are all suffixed with the durative aspectual marker *-zhe*, which, according to Pan (1996), has the function to "stativize" the verb. The durative marker *-zhe*, according to Pan (1996) (who refers to Smith 1992 and Yeh 1996), is an imperfective aspect marker. It is suffixed to a

stative but non-individual-level predicate, denoting the (continuation of) the resultant state of the action. Due to the function of *-zhe*, the verb to which it is suffixed must be stative and durative. Pan (1996) contends that, since agentivity is quite incompatible with the stativity that *-zhe* induces, the suffixation of *-zhe* naturally leads to the suppression of the external agent argument. This is a lexical process that Pan (1996) refers to as the *Zhe* Operation ((57), Pan 1996: 428):

(21) *Zhe* Operation: <agent, theme, location> → <theme, location>

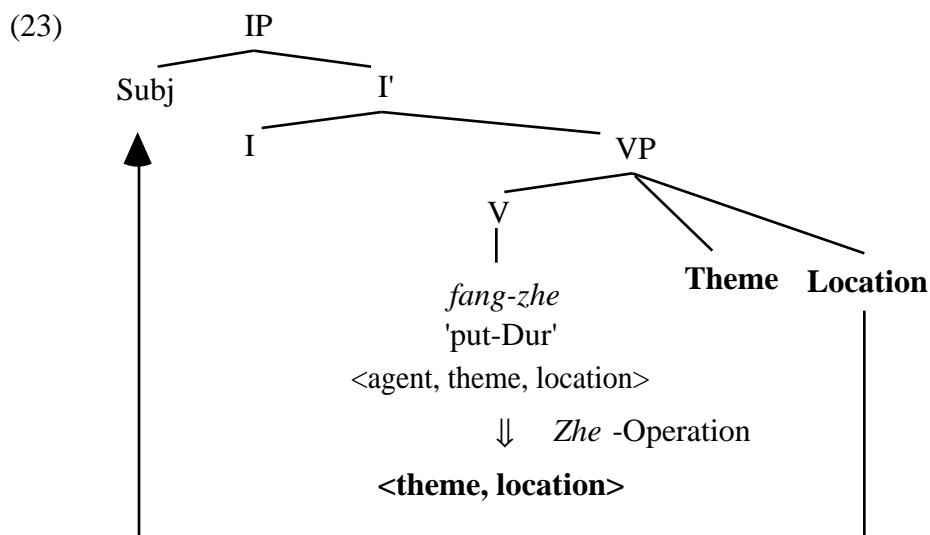
Below are some examples illustrating the function of *-zhe*:

(22)	a.	<i>pao</i>	'run'	<i>pao-zhe</i>	'in the state of running'
	b.	<i>du</i>	'read'	<i>du-zhe</i>	'in the state of reading'
	c.	<i>tang</i>	'lie'	<i>tang-zhe</i>	'in the state of lying'
	d.	<i>xihuan</i>	'like'	* <i>xihuan-zhe</i>	'in the state of liking'
	e.	<i>kanjian</i>	'see'	* <i>kanjian-zhe</i>	'in the state of seeing'
	f.	<i>faxian</i>	'find'	* <i>faxian-zhe</i>	'in the state of finding'

From (22a-f), it is clear that *-zhe* can only be suffixed to activity verbs, as in (22a-c). If it is suffixed to a state, an accomplishment, or an achievement, as in (22d-f), ungrammaticality ensues. Pan's (1996) *Zhe*-Operation appears to be based on such a distinction.

With the *Zhe* Operation, Pan (1996) postulates the following account for the stative use of the verbs of placement with locative subject. Sentences of (14a) and (16a-b) type are derived via locative inversion (cf. Bresnan and Kanerva 1989). Verbs of placement have internal location arguments, therefore locative inversion applies to them. Other verbs in Mandarin Chinese, Pan (1996) emphasizes, don't have internal location arguments, so they cannot take locative subject.

The crucial point in Pan's (1996) analysis, however, is that, before the application of locative inversion, the *Zhe* Operation must apply. The proposal of *Zhe* Operation makes Pan's (1996) analysis substantially different from earlier accounts based on locative inversion. The application of the *Zhe*-Operation is a crucial step, since the external agent argument in the argument structure of the verb must be deleted first, so that the subject position of the sentence can be vacated for the internal location argument to move in. Pan's (1996) analysis can be represented in the following diagram:



In (23), the verb *fang* 'put' originally has the argument structure <agent, theme, location>. But the durative marker *-zhe* is suffixed to it, therefore the *Zhe* Operation deletes the agent argument and yields the argument structure <theme, location>. Locative inversion then applies, raising the internal location argument to subject. The situation, thus, is quite similar to the process of passivization in English -- the external agent argument is suppressed by the passive morphology (suffixation of *-en*), and as a result the subject position is vacated for the internal argument to move in. In both cases -- locative inversion in Mandarin Chinese and passivization in English -- the process is driven by morphology.

Though Pan's (1996) analysis is more explanatory than accounts based simply on locative inversion, such as S. Huang's (1982), it still suffers a number of problems. In the next subsection we will look at these problems.

2.1.3 Problems with Pan's (1996) analysis

A conceptual problem in Pan's (1996) proposal is his morphological analysis for the suppression of the external agent argument. Mandarin Chinese has been known to lack observable morphological or lexical processes. Pan's (1996) *Zhe* Operation is an instance of such processes, a very isolated one to say the least. Beside, it is not clear why and how the imperfectiveness of the durative marker *-zhe* triggers suppression of the external agent argument. It can be true that a stative predicate doesn't take an agent subject, but the function of *-zhe*, more appropriately described, should be turning a predicate into an atelic one (Smith 1994). Its function has more to do with the temporal property of the predicate than its transitivity. To justify the *Zhe* Operation, more evidence should be given.

But the more serious problems in Pan's proposal are those factual ones -- that is, his proposal is empirically incorrect. There are at least two aspects where Pan's proposal deviates from the linguistic facts.

The first factual problem with Pan's (1996) analysis is that the *Zhe* Operation actually *doesn't exist*. The gist of this operation is that the durative marker *-zhe* somehow licenses the occurrence of a locative expression as the subject of a sentence. An immediate consequence from this proposal is that, without *-zhe*, a verb of placement should not be able to take a locative subject. Indeed Pan gives examples in support of this point:

- (24) a. Shui-li piao-**zhe** yi-kuai mutou.
 water-in float-Dur one-Cl wood
 'In the water is floating a piece of wood.'

- b. *Shui-li piao-**le** yi-kuai mutou.
 water-in float-Perf one-Cl wood
 'In the water is floating a piece of wood.'

In (24a-b), the main verb is *piao* 'float', a verb of placement. In (24a), the verb *piao* 'float' is suffixed with the durative marker *-she*, and the sentence is grammatical. But in (24b), the aspectual suffix is changed to the perfective marker *-le*, and the sentence becomes ungrammatical. Based on observations like the contrast between (24a) and (24b), Pan (1996) postulates the *Zhe*-Operation. However, an important thing to point out here is that, the contrast between (24a) and (24b) is not a real one. As a matter of fact, *all aspectual suffixes may occur in a locative subject sentence*. In Mandarin Chinese, there are three post-verbal aspectual suffixes: the perfective *-le*, the durative *-zhe*, and the experiential *-guo*. We find that all these three aspectual markers can occur in the locative subject sentence, as shown in the following examples:

(25) *Perfective -le*

- a. Zhe-zhang zhuozi-shang zonggong fang-**le** san-ben shu.
 this-Cl table-on altogether put-Perf three-Cl book
 'On this table altogether put three books.' =
 'There are altogether three books on this table.'
- b. Zhuotian xia da-yu, jintian zaoshang
 yesterday rain big-rain today morning
 he-li jiu piao-**le** yi-da-dui lese.
 river-in then float-Perf a-lot-of garbage
 'It rained heavily yesterday, [as a result] there floated
 a lot of garbage in the river this morning.'

(26) *Durative -zhe* (repeated from (14a) and (20a))

a. Zhuo-shang fang-**zhe** san-ben shu.

table-on put-Dur three-Cl book

'On the table put three book.' =

'There are three book on the table.'

b. Qiang-shang gua-**zhe** yi-fu hua.

wall-on hang-Dur one-Cl painting

'On the wall hangs a painting.'

(27) *Experiential -guo*

a. Zhe-zuo qiang-shang ke-**guo** zi.

this-Cl wall-on carve-Exp character

'On this wall have been carved characters.' =

'There had been characters carved on this wall.'

b. Zhe-zhang yizi-shang zuo-**guo** henduo da-renwu.

this-Cl chair-on sit-Exp many big-person

'On this chair have sat many important persons.' =

'There had been many important persons sitting in this chair.'

As shown in (25) and (27), locative subjects are not limited to those sentences with the durative *-zhe*; the perfective *-le* and the experiential *-guo* are acceptable too. There are subtle distinctions in the semantic functions of these different aspectual markers, though. It seems that, though all the sentences in (25-27) are existential, the perfective *-le* and experiential *-guo* have a strong entailment of *coming into being*, an entailment that makes them different from *-zhe*, which simply entails *being* when used with the locative subject. This is exactly why the perfective *-le* is unacceptable in sentences like (24b), which Pan (1996) alludes to. Without prior contexts that hint on a possible *coming into being* event, the perfective *-le* in a locative subject sentence is hard to accept.

It is therefore clear that the locative subject doesn't need to be licensed by some particular aspectual marker. Thus the *Zhe* Operation that Pan (1996) postulates doesn't exist. The aspectual markers are irrelevant from the licensing of the locative subject; they are only relevant to the telicity of the eventuality.

The second factual problem with Pan's (1996) proposal is his view on the origin of the locative subject. Pan (1996) follows Bresnan and Kanerva (1989) and assumes that locative subjects originate from locative inversion -- that is, the locative subject comes from the internal location argument. Without an internal location argument, locative subject is not possible. But this assumption is wrong. Consider the following examples:

- (28) a. Guozi-li dun-zhe yi-jin niurou.
pot-in stew-Dur one-Msr beef
'In the pot is stewing one Jin of beef.' =
'There is one-Jin of beef that is being stewed in the pot.'
- b. Shan-ding-shang gai-le henduo fangzi.
mountain-top-on build-Perf many house
'On the top of the mountain built many houses.' =
'There are many houses that have been built on the top of the mountain.'
- c. Gaosugonglu-shang kai-zhe yi-pai tanke-che.
expressway-on drive-Dur one-line tank
'On the expressway drive a line of tanks.' =
'There is a line of tanks running on the expressway.'

In (28a-c) we have the ordinary kind of action verbs, *dun* 'stew', *gai* 'build', and *kai* 'drive', all of which arguably don't have an internal location argument. But in (28a-c) we see that they occur with locative subject. This observation falsifies Pan's (1996) proposal. Thus, Pan's (1996) assumption that the locative subject originates from locative inversion is incorrect.

We do have locative subjects in Mandarin Chinese that appear to come from nowhere. In the following we will look at this intriguing phenomenon more closely.

2.2 Unselective locative subjects in Mandarin Chinese

In this subsection we argue that the locative subject in Mandarin Chinese is *unselective*, in the sense that it is not selected by the main verb of the sentence. Descriptively, *all kinds of action verbs can take locative subject*. An immediate consequence from this discovery is that, subjects, in Mandarin Chinese, is not selected by the main verb. We propose a light verb analysis for subject selection in Mandarin Chinese sentences. That is, the subject of a sentence in Mandarin Chinese is licensed by a light verb, not by the main verb.

2.2.1 Locative subjects in a "locative prominent" language

In examples (28a-c) we saw that action verbs such as *dun* 'stew', *gai* 'build', and *kai* 'drive' in Mandarin Chinese can take locative subject, though arguably they don't have an internal location argument. The locative subject is unselective. Below are examples of locative subject in sentences with activity, accomplishment, and achievement verbs (Vendler 1967, Dowty 1979, Tai 1984):³

(29) *Activity*

- a. Luzi-shang zheng **dun**-zhe yi-guo niu-rou.
stove-on right-now stew-Dur one-pot beef
'On the pot is stewing a pot of beef.' =
'There is a pot of beef being stewed on the stove.'

³ Thanks to Kuang Mei and Dylan Tsai for discussions on questions related to the examples in (29).

- b. Women chang-li zheng **xiu**-zhe ji-liang ka-che.
 our studio-in right-now repair-Dur several-Cl truck
 'In our factory are repairing several trucks.' =
 'There are several trucks be repaired in our factory.'
- c. Litang-li zheng **chang**-zhe xiao-ge ne.
 auditorium-in right-now sing-Dur school-song Prt
 'In the auditorium is singing the school's song.' =
 'The singing-the-school's-song event is happening in the auditorium.'
- d. Wuzi-li he jiu zheng **he**-de renau ne.
 house-in drink wine right-now drink-Ext lively Prt
 'In the house drinking wine is drinking lively.' =
 'In the house the drink-wine event is happening in a lively fashion.'

(30) *Accomplishment*

- a. Shan-shang **gai**-le henduo xiao-muwu.
 mountain-on build-Perf many small-hut
 'On the mountain built many huts.' =
 'There are many huts built on the mountain.'
- b. Luzi-li **kao**-le yi-kuai da-dangao.
 oven-in bake-Perf one-Cl big-cake
 'In the oven baked a big cake.' =
 'There is a big cake baked in the oven.'
- c. Jintian xitai-shang **yan**-le wu-chu Gezai xi.
 today drama-platform play-Perf five-Cl Gezai drama
 'Today on the platform played five Gezai dramas.' =
 'There were five Gezai dramas played on the platform today.'

(31) *Achievement*

- a. Zuotian chezhan-li zonggong **diao**-le san-ge qianbao,
yesterday station-in altogether lose-Perf three-Cl wallet
wu-ba yusan.
five-Cl umbrella
'Yesterday, in the station lost three wallets, five umbrellas.' =
'There occurred losing of three wallets and five umbrellas
in the station yesterday.'
- b. Zhe-zuo shan-li **faxian**-guo yi-ge da-baozang.
this-Cl mountain-in find-Exp one-Cl big-treasure
'In this mountain has found a big treasure.' =
'There has been a big treasure discovered in this mountain.'
- c. Cai-shichang-li **da-si** ren le!
food-market-in hit-die person Prt
'In the market killed someone!' =
'Someone was killed in the market!'

Furthermore, the locative subject can occur with both transitive and intransitive verbs, as shown in the following examples:⁴

⁴ (32a) and (32c) involve what is known as the "verb copying" construction in Mandarin Chinese. We ignore the related questions. For discussion, see Huang (1982) and Li (1990), among others.

(32) *Transitive*

- a. Jiuba-li **he** jiu **he**-de yi-ta-hu-tu, ye meiyou ren guan.
pub-in drink liquor drink-Ext messy, still no person care
'In the pub drinks liquor to a messy state, yet there's no one cares.' =
'The drinking-liquor event in the pub has reached a messy state,
yet there's still no one who cares.'
- b. Jiaotang-li yijing **chang**-le san-ge xiaoshi-de shengshi le.
church-in already sing-Perf three-Cl hour Mod hymnal Prt
'In the church has kept singing hymnals for three hours.' =
'The singing-hymnal event has been lasting for three hours.'
- c. Chufang-li **jian** yu **jian**-de zhen xiang.
kitchen-in fry fish fry-Ext really fragrant
'In the kitchen fries the fish so that it smells really good.' =
'The frying-fish event is now occurring in the kitchen that
it smells so good.'

(33) *Intransitive*

- a. Cai-shichang-li zheng **da**-de renao.
food-market-in right-now fight-Ext lively
'In the market is fighting so violently.' =
'The fighting event in the market is occurring so violently.'
- b. Zheng-ge xi yuan-li **jianjiao**-de wuding dou chayidian kua-le xia-lai.
whole-Cl theater-in scream-Ext roof even almost collapses-Perf down
'In the whole theater screamed so much that the roof
even almost collapsed.' =
'The scream event over theater occurred so much that the roof
even almost collapsed.'

- c. Tianjing-chang-li **pao**-de zheng jilie,
 sport-field-in run-Ext right-now hot
 turan chuan-lai yi-sheng qiang-xiang.
 suddenly pass-come one-sound gun-sound
 'In the sports field is running so competitively; suddenly there comes a
 sound of gun fire.' =
 'The running event [for race] is going on so competitively, suddenly there
 comes a sound of gun fire.'

The only class of verbs that can't readily take a locative subject is the states. Some examples are given below:

- (34) a. Naxie xuesheng xihuan Malilien Monglu.
 those student like Marilyn Monroe
 'Those students like Marilyn Monroe.'
- b. *Xuexiao-li xihuan Malilien Monglu.
 school-in like Marilyn Monroe
 'In the school are liking Marilyn Monroe.'
- (35) a. Naxie xuesheng zhidao zhe-ge wenti de da'an.
 those student know this-CI question Mod answer
 'Those students know the answer of this question.'
- b. *Jiaoshi-li zhidao henduo wenti de da'an.
 classroom-in know many question Mod answer
 'In the classroom are knowing the answers of many questions.'

But interestingly, if a verb of state is used as an active predicate, the locative subject becomes more acceptable. The following examples illustrate this effect:⁵

- (36) a. ??Yanhui-chang-li dao chu dou zai renshi xin pengyou.
 banquet-place-in everywhere all at know new friend
 'In the banquet place everywhere is knowing new friend.' =
 'In the banquet place, knowing-new-friend event occurs everywhere.'
- b. ??Dang'an-shi de ren yuan dangzhong zhidao-le tai-duo de mimi.
 file-room Mod personnel among know-Perf too-many Mod secret
 'Among the personnel of the file preservation department know too many secrets.' =
 'Too many knowing-secret events occur among the personnel of the file preservation department.'

Verbs of state such as *know* and *like* have been thought to lack internal telicity and hence lack internal event structure (cf. Dowty 1979, Bach 1981, Kratzer 1988; also see section 4.2.1 in Chapter 2). But this point doesn't seem to hold absolutely in Mandarin Chinese. Though verbs such as *zhidao* 'know' and *xihuan* 'like' are no doubt states and show

⁵ In Mandarin Chinese, the boundary between stative predicates and action predicates doesn't seem to be very rigid (see Chapter 7). The key point is that, if we insert an aspectual marker into the sentence (such as the pre-verbal progressive morpheme *zai* in (36a) and the perfective verbal suffix *-le* in (36b)), a stative verb is interpreted as active. In example (74c) and (74d) in Chapter 2, we have two instances of the predicate *pang* 'fat'. In (74d), *pang* is a state, with the light verb HOLD, whereas in (74c), it is an inchoative, with the light verb BECOME. The two uses of *pang* 'fat' are illustrated in the following two examples:

- (i) a. Laowang hen pang. (state)
 p.n. very fat
 'Laowang is fat.'
- b. Laowang pang-le shi bang. (Inchoative)
 p.n. fat-Perf ten pound
 'Laowang becomes fat by ten pounds.'

As shown in these two examples, the crucial thing that makes *pang* 'fat' an inchoative is the suffixation of the perfective aspectual marker *-le* in (ib). Thus the insertion/suffixation of an aspectual marker into the sentence or to the verb has the effect of turning a stative predicate into an active predicate, probably due to the superimposition of telic properties upon the predicate. In this thesis we ignore the relevant questions.

characteristics of stativity, they nonetheless can be used in active ways. In (36a), the phrase *renshi xin pengyou* 'know new friend' has a sense of *becoming*, i.e. 'get into a state of knowing-friend with new persons' (i.e. 'making new friends'). In (36b), the perfective marker *-le* suffixed to *zhidao* 'know' imposes a sense of accomplishment or achievement to the verb. In view of (36a-b), it seems reasonable to conclude that the locative subjects in these examples arise from the active use of the originally stative verbs. This further confirms our earlier observation that all kinds of action verb can take a locative subject.

So we have the following generalization for Mandarin Chinese:

(37) *All kinds of action verbs in Mandarin Chinese can take locative subject in an unselective way.*

An even more intriguing fact concerning the locative subject in Mandarin Chinese is that an agentive sentence can take a locative subject. In that case, the agent is simply "locativized." Look at the following agentive sentences:

- (38) a. Laowang chuan-zhe yi-jian xin yifu.
p.n. wear-Dur one-Cl new cloth
'Laowang wears a new cloth.'
- b. Laowang qi-zhe yi-pi ma.
p.n. ride-Dur one-Cl horse
'Laowang is riding a horse.'
- c. Laowang shasi-guo bu-shao ren.
p.n. kill-Perf not-few person
'Laowang have killed quite a few people.'

- d. Laowang shuo-le yi-da-dui bu-san-bu-si de zang-hua.
 p.n. say-Perf a-lot-of indecent Mod dirty-word
 'Laowang said a lot of indecent dirty words.'
- e. Laowang dai-le yi-zhi jin-guang-shanshan de Laolishi.
 p.n. wear-Perf one-Cl gold-light-shining Mod Rolex
 'Laowang is wearing a shining golden Rolex.'

In (38a-e), the subject *Laowang* is the agent of the actions *chuan* 'wear (cloth)', *qi* 'ride', *dasi* 'kill', *shuo* 'say', and *dai* 'wear (watch)'. The interesting thing is that, for all the examples, the agent subject *Laowang* can be "locativized" and transformed into an locative expression denoting the location where a particular action takes place. Look at (39a-e):

- (39) a. Laowang-de shen-shang chuan-zhe yi-jian xin yifu.
 p.n.-Mod body-on wear-Dur one-Cl new cloth
 '(Lit.) On Laowang's body wears a new cloth.'
- b. Laowang-de pigu-xia qi-zhe yi-pi ma.
 p.n.-Mod hips-under ride-Dur one-Cl horse
 '(Lit.) Under Laowang's hips rides a horse.'
- c. Laowang-de shou-xia shasi-guo bu-shao ren.
 p.n.-Mod hand-under kill-Exp not-few person
 '(Lit.) Under Laowang's hand has killed quite a few people.'
- d. Laowang-de zui-li shuo-le yi-da-dui bu-san-bu-si-de zang-hua.
 p.n.-Mod mouth-in say-Perf a-lot-of indecent-Mod dirty-word
 '(Lit.) In Laowang's mouth says a lot of indecent dirty words.'
- e. Laowang-de shou-shang dai-le yi-zhi jin-guang-shanshan-de Laolishi.
 p.n.-Mod hand-on wear-Perf 1-Cl gold-light-shining-Mod Rolex
 '(Lit.) On Laowang's hand wears a shining golden Rolex.'

In (39a-e), we have 'on Laowang's body' as the location where *chuan* 'wear' occurs, 'under Laowang's hips' as the location where *qi* 'ride' occurs, 'under Laowang's hand' as the location where *shasi* 'kill' have occurred, and so on and so forth. In all these examples, the agent is transformed into a locative expression. These examples indicate that Mandarin Chinese is a "locative prominent" language. How can this "locative prominence" be accounted for? In the following we propose a light verb analysis.⁶

2.2.2 A light verb account: the light verb EXIST

To account for the unselective locative subject in Mandarin Chinese, we need to consider the following things. First, we cannot simply say that all action verbs in Mandarin Chinese have an internal location argument, since this amounts to restating the fact. Furthermore, if we make such a hypothesis, the question still exists as to how the location argument is suppressed when the verb assumes agentive use. Thus resorting to a location argument in the argument structure doesn't solve the problem. Second, we need to consider the fact that, in all the relevant examples, the action verb is used *existentially*. As a matter of fact, we

⁶ K. Mei (1999) notices the locative prominence of Mandarin Chinese, but he considers this phenomenon from a different point of view. Mei (1999) observes that locative prominence is a general characteristic among the Sino-Tibetan family of languages, and, furthermore, in some Tibetan-Burmese languages, the locative expressions apparently serve a function fairly like *tense* in the Western languages -- if the locative expression denotes a location close to the speaker, then the event that happens is close to the speech time; if the locative expression denotes a location far away from the speaker, the event that happens is located in a distant point of time. For detailed discussions, see Mei (1999, 2001). Based on these observations, Mei (1999) proposes to take location as a central dimension in the grammatical architecture of languages, Locus, on a par with Tense in the Western languages. Furthermore, as the Western languages have Tense projection (TP) in the phrase structure, the Sino-Tibetan languages have Locus projection (LP). The choice between TP and LP is a parametric variation among languages. Mei (1999) suggests that the locative prominence of Mandarin Chinese is a function of LP, and the unselective locative subjects in Mandarin Chinese is licensed by the head Locus.

We don't think that Mei's (1999) proposal on LP is necessarily incompatible with ours. As shown in the following discussion, we postulate a light verb, EXIST, that licenses locative subjects in Mandarin Chinese. It is possible that Locus and EXIST are the same thing. However, there is a divergence between Mei's (1999) proposal and mine. In Chapter 5 we will propose that Mandarin Chinese does have the TP projection, and the head T hosts an empty operator Op, which is interpreted via antecedent binding. If this proposal is correct, then LP doesn't replace TP. In fact, Kuang Mei (p.c.) points out a possibility that TP and LP can co-occur in some languages. (Japanese can be a possible case in this regard, since it is locative prominent, too (cf. Chapter 6), but it also has tense projection TP.) If that's the case, Mei's (1999) LP analysis can be unified with the light verb EXIST without problems.

observe that (29-31), for example, can be rephrased in such a way that the action verb is replaced by *you* 'have' or *fasheng* 'happen', both being existential verbs in Mandarin Chinese:⁷

(40) *Rephrases of (29a-d)*

- a. Luzi-shang (zheng **dun**-zhe) **you** yi-guo niu-rou.
stove-on (right-now stew-Dur) have one-pot beef
'There is a pot of beef on the stove (being stewed).'
- b. Women chang-li (zheng **xiu**-zhe) **you** ji-liang kache.
our studio-in (right-now repair-Dur) have several-CI truck
'There are several trucks in our factory (being repaired).'
- c. Litang-li (**chang** xiao-ge de shi) zheng **fasheng**-zhe.
auditorium-in (sing school-song Mod event) right-now happen-Dur
'The singing-the-school's-song event is happening in the auditorium.'
- d. Wuzi-li (**he** jiu de shi) zheng renau-di **fasheng**-zhe.
house-in (drink-wine Mod event) right-now lively happen-Dur
'In the house the drink-wine event is lively happening.'

(41) *Rephrases of (30a-c)*

- a. Shan-shang (**gai**-le) **you** henduo xiao-muwu.
mountain-on (build-Perf) have many small-hut
'There are many huts built on the mountain.'

⁷ (40-42) are just paraphrases for (29-31); they are not the underlying structures for (29-31) in any sense. In fact they can't be the underlying structures for (29-31), since the derivations would violate some grammatical principles like CED (Huang 1982). The point in (40-42) is simply to explicate the existentiality in (29-31) via paraphrasing. Incidentally, some speakers that I consulted don't accept some of the sentences in (40-42). But this doesn't pose a problem for the discussion here, since (40-42) are presented just for expository purposes.

There are many complicated problems involved in the existential sentences with *you* 'have' and *fasheng* 'happen'. We will leave them open here. See Huang (1987) for some discussion.

- b. Luzi-li (**kao-le**) **you** yi-kuai da-dangao.
oven-in (bake-Perf) have one-Cl big-cake
'There is a big cake baked in the oven.'
- c. Jintian xitai-shang (zonggong **yan-le**) **you** wu-chu Gezai xi.
today drama-platform (altogether play-Perf) have five-Cl Gezai drama
'There were five Gezai dramas altogether played on the platform today.'

(42) *Rephrases for (31a-c)*

- a. Zuotian chezhan-li zonggong (**diao-le**) **you** san-ge qianbao,
yesterday station-in altogether (lose-Perf) have three-Cl wallet
wu-ba yusan.
five-Cl umbrella
'There were three wallets and five umbrellas lost in the station yesterday.'
- b. Zhe-zuo shan-li (**faxian-guo**) **you** yi-ge da-baozang.
this-Cl mountain-in (find-Exp) have one-Cl big-treasure
'There has been a big treasure discovered in this mountain.'
- c. Cai-shichang-li (**da-si** ren de shi) **fasheng** le!
food-market-in (hit-die human Mod event) happen Prt
'There was someone killed in the market!'

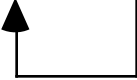
In (40-42), the action verbs are bracketed and function as adverbials modifying the manner/mode of existence or happening. The locative subjects in these sentences have nothing to do with the action verbs; rather, they come from the existential verbs *you* 'have' and *fasheng* 'happen'. Below are some examples demonstrating the locative-taking property of the existential verbs *you* 'have' and *fasheng* 'happen' (cf. Tang 1979, Huang 1987):

- (43) a. Zhuo-shang **you** san-ben shu.
 table-on have three-CI book
 'There are three books on the table.'
- b. Jie-shang **you** henduo lese.
 street-on have much garbage
 'There is much garbage on the street.'
- c. Taiwan **fasheng** da dizhen.
 Taiwan happen great earthquake
 'There happened a great earthquake in Taiwan.'
- d. Laowang jia-li **fasheng**-le xongsha-an.
 p.n. home-in happen-Perf homicide-case
 'There happened a homicide in Laowang's house.'

Though we don't assume that (29-31) are literally derived from (40-42) (cf. footnote 7), the correspondence between the two sets of examples nonetheless provides a hint for the analysis of the locative subjects. That is, they are instances of *conflation*. We assume that the existential use of an action verb results from the conflation of the action verb with an existential verb in the sentence. Thus we propose the following analysis for the locative subject in Mandarin Chinese.

Assume that an action verb in Mandarin Chinese actually doesn't select an external agent argument. The external argument is actually licensed by a light verb that dominates the VP projected by the action verb. For an agent subject, the selecting light verb is DO, as illustrated by following examples:⁸

⁸ For now we ignore questions related to the perfective aspectual marker *-le* and the raising of the subject *Laowang* to some higher syntactic position in (44). We will come back to them in Chapter 5.

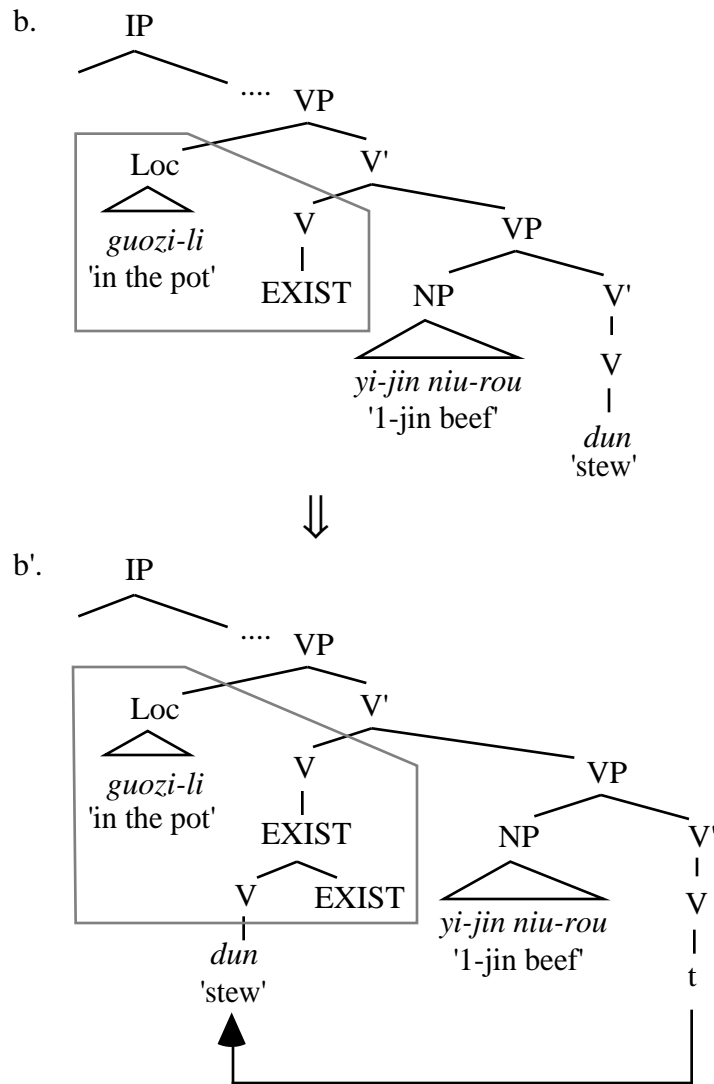
- (44) a. Laowang dun-le yi-guo niu-rou.
 p.n. stew-Perf one-pot beef
 'Laowang stewed a pot of beef.'
- b. [IP ... [VP *Laowang* [V DO [VP stew one pot of beef]]]
- 

In (44b), the agentive subject *Laowang* is the subject of the light verb DO, which takes the VP *dun yi-guo niu-rou* 'stew one-pot of beef' as complement. The action verb *dun* 'stew' moves to DO and conflates with it. In this analysis, the verb *dun* 'stew' and the agentive subject *Laowang* are not related to each other in a direct way; it is the verb movement of the main verb *dun* 'stew' to DO that strings them together. Thus, the subject of a Mandarin Chinese sentence is not an item specified in the argument structure of a verb.

Now come back to the locative subject. If it's indeed the case that the agent subject in a sentence is not selected by the main verb, but by the higher light verb DO, then, likewise, a locative subject in a sentence must be licensed by some light verb too. Let's call it EXIST, a light verb that encompasses the meanings of both "exist" and "happen."⁹ EXIST takes a locative as specifier, and a VP as complement. The main verb incorporates to it, yielding the existential use of the verb. The analysis is illustrated below:

- (45) a. Guozi-li **dun**-le yi-jin niu-rou.
 pot-in stew-Perf one-Msr beef
 'In the pot stewed one-jin of beef.' =
 'There is one-jin of beef stewed in the pot.'

⁹ For our purposes, the distinction between the two meanings "exist" and "happen" doesn't seem to substantially matter -- both take a locative subject, and both are existential. For one thing, in some uses of the verb *fasheng* 'happen', (e.g. (40c,d)), the mode of "happening" is continuous rather than instantaneous, and this make it not so much different from the verb *you* 'have', which has the mode of constant existing. We leave the relevant questions open.



As we have proposed, the action verb *dun* 'stew' in (45a) doesn't select any external argument. This is represented in (45b). In (45b), the locative expression *guozi-li* 'in the pot' is licensed by the light verb EXIST, which takes the VP projected by *dun* 'stew' as complement. The action verb *dun* 'stew' further incorporates to the light verb EXIST, as shown in (45b'). The resulting verbal complex undergoes conflation and yields an individual surface verb *dun*, meaning "stew" + existentiality. The resulting conflated verb *dun* therefore has the meaning of 'to exist / happen in a stewing manner', the same case as the examples in (40-42).

The postulation of the light verb EXIST enables us to account for the unselective locative subjects and the existential use of action verbs in Mandarin Chinese. The light verb EXIST has a specific function; that is, just like DO, which specifically licenses an agent, EXIST licenses a location where the eventuality denoted by the predicate exists or happens. This light verb analysis of the locative subject in Mandarin Chinese thus renders further support to the notion of light verbs as eventuality predicates proposed in Chapter 2.

2.2.3 Locative subjects and verbs of placement

With the light verb analysis proposed above, we can now turn back to the question that motivated the present discussion, namely, the stative use of the verbs of placement. As we saw earlier, when a verb of placement assumes stative use, it can take a locative subject or a theme subject. We will leave the theme subject to section 4.1, and concentrate on the locative subject here. Once again, we look at the verb *fang* 'put'. The relevant examples are repeated below:

- (46) a. Laowang fang-le san-ben shu zai zuo-shang.
 p.n. put-Perf three-Cl book at table-on
 'Laowang put three books on the table.'
- b. Zuo-shang fang-le san-ben shu.
 table-on put-Perf three-Cl book
 'On the table put three books.' =
 'There are three books on the table.'

The verb of placement *fang* 'put' can assume agent use, as in (46a), or existential use, as in (46b). According to our light verb analysis, the agentive use and the existential use of the verb *fang* 'put' depend on the two different light verbs, CAUSE and EXIST, the former licensing a causing agent, and the latter, a locative:

- (47) a. [IP ... [VP Laowang CAUSE [VP *put three books on the table*]]]
 b. [IP ... [VP On the table EXIST [VP *put three books*]]]

A question that arises here is where the locative expression in (47b) comes from. Earlier analyses (e.g. S. Huang 1982, Pan 1996; see section 2.1.2) assume that the locative subject of a verb of placement arises from locative inversion of an internal location argument. But in our light verb analysis, the light verb EXIST licenses a locative subject independently. Thus two possibilities emerge: the locative subject of a verb of placement such as *fang* 'put' may come from the internal location argument (if we suppose there is one), or it may be licensed directly by EXIST. What is the correct choice between the two possibilities?

We propose that the locative subject of a verb of placement is *unselective*, namely, licensed by EXIST but not by the verb of placement. In other words, we claim that the verb *fang* 'put', and other verbs of placement in Mandarin Chinese, don't have an internal location argument.

To support this claim, let's first look at a potential counterexample. If it's the case that EXIST selects a locative independent from the selection of the verb *fang* 'put', then it should be possible to have *two* locative expressions in a sentence with *fang* 'put'. But we find that this kind of examples are ungrammatical:

- (48) ***Wuzi-li** fang-le san-ben shu **zai zhuo-shang**.
 house-in put-Perf three-Cl book at table-on
 'In the house, there are three books on the table.'

Thus it looks that the predicate-internal locative and the predicate-external locative are in complementary distribution, hence they should be one and the same expression realized in different syntactic positions. But there is a problem with this view. It has been a classic

observation that, in Mandarin Chinese, a predicate-internal (post-verbal) locative denotes the *goal* where an object ends up in as a result of the action, whereas a predicate-external locative denotes the location where an action occurs (Tai 1975). Thus, in Mandarin Chinese, a locative expression may have different thematic interpretations (as a pure location or a goal of some action) depending on the syntactic position (pre-verbal or post-verbal) in which it occurs. The following examples demonstrate this effect:

- (49) a. Na-zhi houzi [**zai ma-bei-shang**] tiao. (Location)
 that-Cl monkey at horse-back-on jump
 'That monkey is jumping on the horse back.'
- b. Na-zhi houzi tiao [**zai ma-bei-shang**]. (Goal)
 that-Cl monkey jump at horse-back-on
 'That monkey jumps unto the horse back.'

It is possible for a sentence to take two different locatives, one for the general location where an action occurs, and the other for the goal where the object ends up in:

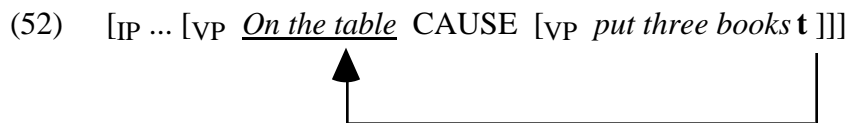
- (50) Laowang **zai wuzi-li** fang-le san-ben shu **zai zhuo-shang**.
 p.n. at house-in put-Perf three-Cl book at table-on
 'Laowang put three books on the table in the house.'

But one thing to be noticed is that, the post-verbal goal locative may undergo focus movement or topicalization to some predicate-external position. When that happens, the sense of goal still retains:¹⁰

¹⁰ But this statement seems to be true only for the verbs of placement, not for other types of verbs, such as *tiao* 'jump' in (49). In (49a-b), we saw that the locative expression has the sense of goal only when it occurs in post-verbal position. If it is moved to pre-verbal position, as in (49b), the sense of goal ceases to exist. At this point we don't have an explanation for why there is such a discrepancy between the verbs of placement and other kind of verbs. Even so, however, the point we are going to make in the text still

- (51) a. Laowang [**zai zhuo-shang**] fang-le san-ben shu *t*. (*Goal*)
 p.n. at table-on put-Perf three-CI books
 'Laowang put three books on the table.'
- b. [**Zai zhuo-shang**], Laowang fang-le san-ben shu *t*. (*Goal*)
 at table-on p.n. put-Perf three-CI book
 'On the table, Laowang put three books.'

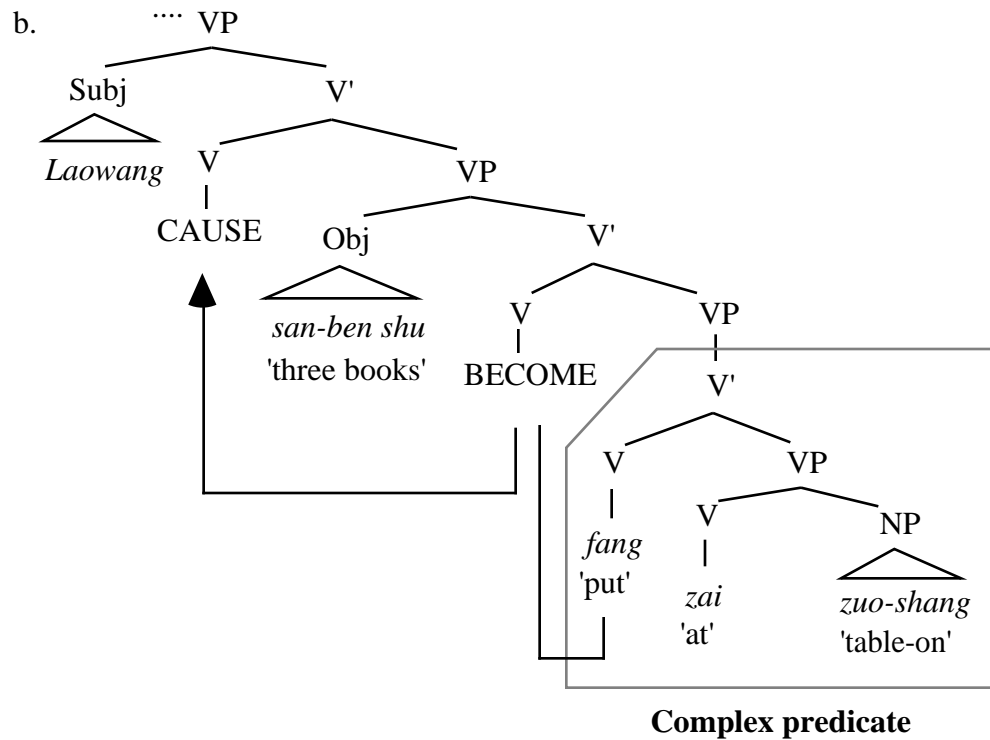
Now the problem comes as follows. If post-verbal locatives are invariably interpreted as goals of certain actions,¹¹ then the head of the predicate should be the light verb CAUSE -- there should have been actions before there are goals. Furthermore, CAUSE should be present in the structure of the sentence, since displacement of the goal locative doesn't alter the meaning of the sentence. But this will be a serious problem for the locative inversion analysis for sentence (46b), since the semantics doesn't fit. That is, if the locative subject really originates from locative inversion of the internal location argument in the predicate, then the resulting structure will be one in which the location argument occupies the Spec position of CAUSE, an uninterpretable structure. This point is shown in the following diagram:



The representation in (52) underlies a sentence that oddly states that *some location* performs an action such that *it* puts three books on itself. To avoid such undesirable result,

won't be affected -- the locative expression *zai zhuo-shang* 'on the table' in (51a-b) has the interpretation of the goal for the action of putting, no matter where it is moved to.

¹¹ As far as my knowledge goes, this statement seems to be exceptionless. For detailed discussion, see Tai (1975).



In (53b), the verb *fang* 'put' and the locative VP *zai zhuo-shang* '[be] on the table' constitute a complex predicate, the former taking the latter as complement. This complex predicate, in turn, is taken as complement by the light verb BECOME, which licenses the object of the sentence, *san-ben shu* 'three books'. As such, the object *san-ben shu* 'three books' is the "internal subject" of the predicate or the "secondary subject" of the sentence. The verb *fang* 'put' then incorporates to BECOME and CAUSE cyclically, resulting in the surface structure in (53a).

Notice that, with the analysis in (53b), we are in fact claiming that the verb of placement *fang* 'put' *doesn't have any argument* -- the predicate-internal locative expression has the status of a secondary predicate, and the object of the sentence is licensed by the light verb BECOME. Indeed, this is the claim that we will put forth in Chapter 4. We have evidence for this claim. First of all, we have seen in Chapter 2 that a verb of placement in Mandarin Chinese doesn't need to occur with the theme object. We repeat the example below:

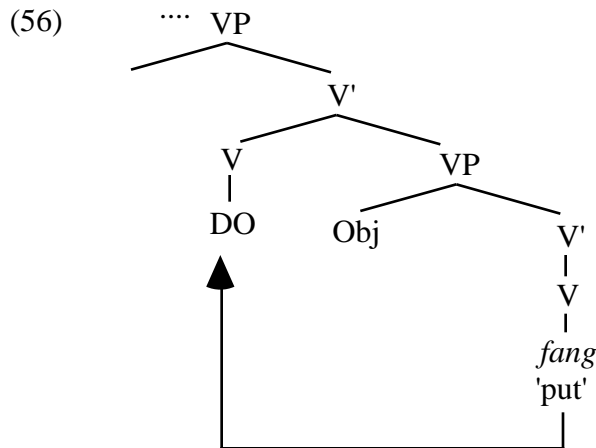
- (54) Naxie shu fang-le **san-ge xiangzi**. (= (109b) of Chapter 2)
 those book put-Perf three-CI box
 'Those books put three boxes.' =
 'It takes three boxes to put these books in.'

In (54), the verb *fang* 'put' is not followed by a theme object; instead, it takes an instrument object, *san-ge xiangzi* 'three boxes'. Thus, the theme object appears to be inessential for the verb *fang* 'put'. Furthermore, we have evidence that the location argument is not essential to *fang* 'put' either. The following examples show that it is possible to do away with the locative when the verb *fang* 'put' assumes agentive use:

- (55) a. Women fang-le xingli, ranhou chuqu chi fan.
 we put-Perf luggage then go-out eat meal
 'Let's leave the luggage [somewhere], then go out for dining.'
- b. Ba qian fang-zhe, bu-yao luan dong!
 Disp money put-Dur don't arbitrarily move
 'Put the money [down], and don't move!'

In these two examples, *fang* 'put' is headed by a the light verb DO, not CAUSE.¹² (55a-b) thus have a schematic structure as in (56):

¹² For (55b), due to the function of the durative marker *-zhe* is suffixed to *fang* 'put', the action of "putting" is temporally continuous, without an inchoative sub-eventuality. As to (55a), though the predicate looks like an accomplishment, it is arguable that the sense of accomplishing arises from the function of the perfective marker *-le*, not inherent in the semantics of *fang* 'put' here. One thing worth mentioning in this regard is Sybesma's (1997) observation that, though some researchers consider *-le* a marker that provides an end bound for a telic eventuality, the eventuality with *-le* in fact doesn't need to be completely finished. Also see Li and Thompson (1981) for similar observations. Thus (55a) doesn't necessarily involve an inchoative sub-eventuality. More precisely, *-le* doesn't entail a resultant interrelation between the object (*xingli* 'luggage') and the action of putting. An example that demonstrates this point is the following, where a duration complement is added to the sentence:



In (56), the verb *fang* 'put' heads a VP that is the complement of the light verb DO. The locative expression doesn't occur.¹³ This fact indicates that the locative is not a necessary item in the argument structure of *fang* 'put'. Since neither arguments, the theme and the location, is in the argument structure of the verb *fang* 'put', *fang* 'put' doesn't have any argument, as we claim.

An amazing thing that arises from the discussions above is that, for a verb like *fang* 'put', it doesn't need to be an accomplishment/causative verb. It can be embedded in different light verb structures, with different arguments. None of the arguments, however, is in the argument structure of *fang* 'put'. The verb *fang* 'put' actually doesn't have any argument. The locative expression gets into the structure as a secondary predicate

-
- (i) Women ba xingli fang-le san-ge xiaoshi.
 we Disp luggage put-Perf three-Cl hour
 'We have left the luggage [somewhere] for three hours.'

In (i), the perfectivity of *-le* goes to the duration phrase *san-ge xiaoshi* 'three hours'; within this duration, the action of putting is temporally continuous.

¹³ In fact the locative expression *cannot* occur. Consider the following examples, which are ungrammatical:

- (i) a. *Women fang-le xingli [**zai fangjian-li**], ranhou chugu chi fan.
 we put-Perf luggage at room-in then go-out eat meal
 'Let's leave the luggage in the room, then go out for dining.'
 b. *Ba qian fang-zhe [**zai zhuo-shang**], bu-yao luan dong!
 Disp money put-Dur at table-on don't arbitrarily move
 'Put the money on the table, and don't move!'

In (57b), the verb *fang* 'put' projects a VP and takes Obj *san-ben shu* 'three books' as specifier. The VP itself is the complement of the light verb EXIST, which licenses a locative *zhuo-shang* 'on the table' as specifier. In this analysis, there's no role for an internal location argument, since there isn't one. In conclusion, the locative subject *zhuo-shang* 'on the table' comes from the function of EXIST, in exactly the same way as other locative subject sentences in Mandarin Chinese. The locative subjects uniformly arise from the licensing of the light verb EXIST.

2.2.4 Verbs of state

There is still one more question that we have to deal with related to the light verb EXIST, that is, the incompatibility of the verbs of state with locative subject. The relevant examples are repeated below (=34-35), section 2.2.1):

- (58) a. Naxie xuesheng xihuan Malilien Monglu.
 those student like Marilyn Monroe
 'Those students like Marilyn Monroe.'
- b. *Xuexiao-li xihuan Malilien Monglu.
 school-in like Marilyn Monroe
 'In the school are liking Marilyn Monroe.'
- (59) a. Naxie xuesheng zhidao zhe-ge wenti de da'an.
 those student know this-Cl question Mod answer
 'Those students know the answer of this question.'
- b. *Jiaoshi-li zhidao henduo wenti de da'an.
 classroom-in know many question Mod answer
 'In the classroom are knowing the answers of many questions.'

We suggest that the incompatibility of the verbs of state with locative subject results from lack of inherent "temporality" in these verbs. It is known that stative, individual-level predicates are "atemporal," as in the following examples (Bach 1981, Dowty 1979, Kratzer 1988):

- (60) a. When Mary smokes a cigar, she smokes it elegantly.
b. *When Mary knows French, she knows it competently.

This phenomenon is observed in Mandarin Chinese, too:

- (61) a. Xiaoli chou yan de-shihou, wo tongchang bu darao ta.
p.n. smoke cigarette when I usually not bother him
'When Xiaoli smokes, I usually don't bother him.'
b. *Xiaoli xihuan gou de-shihou, wo tongchang bu darao ta.
p.n. like dog when I usually not bother him
'When Xiaoli likes dogs, I usually don't bother him.'

It seems that EXIST is typically predicated of an episodic, stage-level eventuality; that is, the predicate it is predicated of is temporal. This point is evidenced by the fact that all the examples of locative subject have an aspectual marker suffixed to the verb. The function of the aspectual markers in Mandarin Chinese, according to Smith (1994), is to superimpose a temporal viewpoint on the verb, thus all the examples of locative subject we have seen are temporal. What is more, without an aspectual marker suffixed to it, an action verb cannot take a locative subject. Compare (62) and (63):¹⁴

¹⁴ Usually action verbs in Mandarin Chinese, including activities, accomplishments, and achievements, have to be suffixed with an aspectual marker, unless they are in modal contexts. Thus (ia) is very odd if it occurs as an event-reporting sentence. But if it is used as a generic sentence, or embedded into a conditional as in (ib), it can be fully acceptable.

- (62) a. Gaosu-gonglu-shang kai-**zhe** xuduo che.
 expressway-on drive-Dur many car
 'On the expressway drive many cars.' =
 'There are many cars on the expressway.'
- b. Zhe-zuo qiang-shang ke-**le** si-ge da-zi.
 this-Cl wall-on carve-Perf four-Cl big-character
 'On this wall carved four big characters.' =
 'There are four characters carved on this wall.'
- c. Zhe-zuo hu-li zhaodao-**guo** jinzi.
 this-Cl lake-in find-Exp gold
 'In this lake has found gold before.' =
 'There has been gold found in this lake.'
- (63) a. *Gaosu-gonglu-shang kai xuduo che.
 expressway-on drive many car
 'On the expressway drive many cars.'
- b. *Zhe-zuo qiang-shang ke si-ge da-zi.
 this-Cl wall-on carve four-Cl big-character
 'On this wall carved four big characters.'
- c. *Zhe-zuo hu-li zhaodao jinzi.
 this-Cl lake-in find gold
 'In this lake has found gold before.'

-
- (i) a. Laowang chi wulong-mian.
 p.n. eat udon-noodle
 'Laowang eats Udon.'
- b. Ruguo Laowang chi wulong-mian...
 if p.n. eat udon-noodle
 'If Laowang eats Udon...'

See Smith (1994) for further discussion of the relevant questions.

The consequence from the temporal requirement of EXIST is that the stative, individual-level verbs cannot occur with it, due to their atemporalness. This point is particularly clear in view of the fact that most stative, individual-level verbs resist taking aspectual markers:¹⁵

- (64) a. *Laozhang dong-**zhe**/**-le** Fa-wen.
 p.n. understand-Dur/-Perf French
 'Laozhang understands French.'
- b. *Laozhang xihuan-**zhe**/**-le** Malilien Monglu.
 p.n. like-Dur/-Perf Marilyn Monroe
 'Laozhang likes Marilyn Monroe.'

So we conclude that the general incompatibility of the stative verbs with locative subjects results from the temporal incompatibility between these verbs and EXIST.¹⁶

¹⁵ But see example (36a-b) in section 2.2.1, where we gave examples for verbs of state with aspectual markers. As we pointed out, in those cases, locative subjects are more or less acceptable. It seems that some stative verbs don't resist suffixation of aspectual marker as much as in (64a-b). For example, *zhidao* 'know':

- (i) Xiaowang zhidao-le wenti de da'an zhi-hou, jiu shang-chuang shui-jiao le.
 p.n. know-Perf question Mod answer after then go-to-bed sleep Prt
 'After Xiaoli came to know the answer of the question, he went to bed.'

As Kratzer (1988) emphasizes, sometimes the boundary between the stage-level predicates and the individual-level predicates is not so clear. In the case at hand, it seems that some verbs of state are easier than others for action uses, so that they can take aspectual markers.

¹⁶ A problem remains anticipating the proposal we will advance in Chapter 7, namely, the proposal that verbs in Mandarin Chinese lack inherent telicity. If all verbs in Mandarin Chinese lack inherent eventuality information, then the eventuality structure for a verb must depend exclusively on the light verb structure within which the verb is embedded. But if this claim is correct, the statement is no more justified that a stative, individual-level verb in Mandarin Chinese is inherently atemporal. In other words, the following two structures should be equally grammatical, though we supposed that the second one is bad:

- (i) a. [...HOLD [...*xihuan* 'like'...]]
 b. [...EXIST [...*xihuan* 'like'...]]

Though there are many questions related to this point that are still not clear at the present point, there is a possibility that (ib) can be made grammatical under some specific circumstances. Consider the following examples:

2.3 Summary

In this section we showed that, in Mandarin Chinese, the subject of a sentence is not selected by the main verb. Rather, it is licensed by a light verb that dominates the VP which the main verb projects. The evidence for this claim comes from the locative subjects in Mandarin Chinese. We showed that locative subjects are extremely productive in Mandarin Chinese. This observation led to the postulation of a light verb, EXIST. Different subjects occur in Mandarin Chinese sentences depending on different light verbs: if the light verb is CAUSE, the subject is a causing agent; if the light verb is EXIST, the subject is a locative. The main verb of the sentence incorporates to the light verb. All these illustrates the essential role of light verbs, as eventuality predicates, in the syntax of Mandarin Chinese. They are fundamental to the construction of sentence structures and licensing of arguments in Mandarin Chinese. In the next section, we will see that the same generalization is obtained in a different construction, the causatives, where unselectiveness of subject is observed as well.

-
- (ii) a. Zheng-ge xuexiao-li dou **zai** xihuan Malilien Monglu.
whole-Cl school-in all right-now like Marilyn Monroe
'In the whole school is liking Marilyn Monroe.' =
'The whole school is full of a ferment in fond of Marilyn Monroe.'
- b. Women shiyanshi-li zheng xiang banfa **zai** dong zhe-ge xianxiang de
our lab-in now think way right-now understand this-Cl phenomenon Mod
yuanyin (dangzhong).
cause (in the middle of time)
'In our lab is now figuring ways to understand the cause of this
phenomenon.' =
'Our lab is [in a process of getting] understanding on the cause of this
phenomenon.'

In (iia-b), we have the stative verbs *xihuan* 'like' and *dong* 'understand' as the main verbs, but they are used with an active sense and occur with a locative subject. In other words, they have EXIST as the head of the predicate. What we should notice is that, in (iia-b), the pre-verbal, progressive aspectual marker *zai* occurs and attributes the sense of progression to the predicate. We have seen in some earlier examples that most verbs of state resist taking an aspectual marker, such as the perfective *-le* and the durative *-zhe*. From (iia-b), however, it seems that the progressive *zai* fares much better than those post-verbal aspectual suffixes. At this point we don't have an explanation for this discrepancy, though it is clear that the natures and functions of the different aspectual markers matter.

3. Unselective causer subjects in Mandarin Chinese

In this section, we investigate the causer subjects in Mandarin Chinese, and show that an independent light verb, CAUSE, is responsible for them in Mandarin Chinese. Though the causer subjects in Mandarin Chinese are a little more restricted than the locative subjects, its productivity suffices to show that they are unselective with respect to the selection of the main verbs.

3.1 Causer subjects

Huang (1988), among others, notices that Mandarin Chinese is quite free in having a causer subject in a sentence. Consider the following examples (cited from (55) and (56), Huang 1988: 294):

- (65) a. Zhe-ping jiu **zui**-de Zhangsan zhan-bu-qilai.
 this-bottle wine drunk-Ext p.n. stand-not-up
 'This bottle of wine got Zhangsan so drunk that he couldn't stand up.'
- b. Zhe-jian shi **jidong**-de Zhangsan shuo-bu-chu hua lai.
 this-Cl matter excite-Ext p.n. speak-not-out word come
 'This matter got Zhangsan so excited that he couldn't speak a word.'

Typically, the verbs *zui* '[get] drunk' and *jidong* '[get] excited' in Mandarin Chinese are used as intransitive verbs, taking an animate NP as subject. In (65a-b), however, they are used causatively. As a matter of fact, causer subjects in Mandarin Chinese are far more productive than just these -- *almost all kinds of action verbs can take a causer subject*.

Below are some examples:

- (66) a. Zhe-guo niu-rou **dun**-de wo lei-de ban-si.
 this-pot beef stew-Ext I tire-Ext half-dead
 '(Lit.) This pot of beef stews me to be extremely exhausted.' =
 'Stewing this pot of beef makes me extremely exhausted.'
- b. Zhe-liang che **xiu**-de dajia man-shen you-wu.
 this-Cl car repair-Ext everyone whole-body oil-dirty
 '(Lit.) This car repairs everyone to be dirty with oil in the whole body.' =
 'Repairing this car makes everyone dirty with oil in the whole body.'
- c. Zhe-liang tanke-che **kai**-de wo chuan-shen fa ma.
 this-Cl tank drive-Ext I whole-body grow numb
 '(Lit.) This tank drives me to become numb with my whole body.' =
 'Driving this tank makes me become numb with my whole body.'
- d. Zhe-dun fan **chi**-de wo xin-jing-dan-zhan.
 this-Cl meal eat-Ext I heart-frightened-gut-thrilled
 '(Lit.) This meal eats me to be so thrilled.' =
 'Eating this meal makes me so thrilled.'

In (66a-d), we have the simple transitive activity verbs *dun* 'stew', *xiu* 'repair', *kai* 'drive', and *chi* 'eat',¹⁷ all used as causative verbs. We also have examples with intransitive verbs, as follow:

¹⁷ By "simple" we mean that these verbs are elementary in semantics and monosyllabic in their phonetic composition. They are contrasted with compound verbs, such as *dun-huai* 'stew-spoiled (stew to the extent that [the food] gets spoiled)', *xiu-hao* 'repair-fine (repair [something and make it] resume function)', *kai-lei* 'drive-tired (drive [a car] to the extent that [the driver gets] tired)', *chi-bao* 'eat-full (eat [meal] to the extent the [the eater gets] full)', etc.. These compound verbs have received intensive discussions in the literature, mostly in the context of the causative construction in Mandarin Chinese; cf. Cheng (1997), Gu (1992), Huang (1982, 1988, 1992), Y. Li (1990, 1993, 1995), among many others. Different approaches have been proposed to account for the relevant phenomena, including the syntactic approach (e.g. Huang 1992), the lexical approach (e.g. Li 1990), and the syntax-lexicon mixed approach (Cheng 1997). In this thesis we don't plan to go into the relevant questions, as they involve many complications. But here we would like to point out that the compound verbs can be subject to the same light verb analysis as we propose in this thesis. Just as an example: the compound verbs in Mandarin Chinese can take locative subject too:

- (67) a. Zhe-ge xiaohua **xiao**-de wo duzi dou teng le.
 this-Cl joke laugh-Ext I stomach even ache Prt
 '(Lit.) This joke laughs me such that even my stomach aches.' =
 'This joke makes me laugh so much that even my stomach hurts.'
- b. Na-chang yanchang-hui **jiao**-de dajia houlong dou ya le.
 that-Cl concert scream-Ext everyone throat even coarse Prt
 '(Lit.) That concert screams everyone such that even their throats become
 coarse.' =
 'That concert makes everyone scream so much that even their throats
 become coarse.'
- c. Zhe-chang bisai **pao**-de meige-ren shang-qi bu-jie xia-qi.
 this-Cl race run-Ext everyone up-breath not-continue down-breath
 '(Lit.) This race runs everyone so much such that they can't breath
 normally.' =
 'This race makes everyone run so much such that they can't breath
 normally.'
- d. Da-huo de nong-yan **ke**-de Laowang mei banfa shuohua.
 big-fire Mod thick-smoke cough-Ext p.n. no way speak
 '(Lit.) The thick smoke from the big coughs Laowang unable to speak.' =
 'The thick smoke from the big fire makes Laowang cough so much that he
 is unable to speak.'

-
- (i) a. Lu-bian **zui-dao**-le yi-pi ren.
 road-side **drunk-fall**-Perf one-bunch person
 'There are a bunch of people who got drunk and lay on the road side.'
- b. Qiang-shang **gua-man**-le hua.
 wall-on **hang-full**-Perf painting
 'There are paintings hung on the wall that fully cover it.'

In our analysis, the light verb EXIST occur in the structures of the sentences in (ia-b).

Here in (67a-d), the verbs, *xiao* 'laugh', *jiao* 'scream', *pao* 'run', and *ke* 'cough' are all intransitive. They can all be used as causative verbs.¹⁸

(66-67) are all examples of activity verbs. As for other types of eventualities, it seems that the accomplishments can readily be used as causative verbs, too:

- (68) a. Zhe-dong fangzi **gai**-de Laowang de chunkuan dou yong-guang le.
 this-Cl house build-Ext p.n. Mod savings all use-up Prt.
 '(Lit.) This house builds Laowang such that all his savings are
 exhausted.' =
 'Building this house makes Laowang exhaust all his savings.'
- b. Na-kuai dangao **kao**-de zheng chufang xiang-penpen-de.
 that-Cl cake bake-Ext whole kitchen aromatic
 '(Lit.) That cake bakes the whole kitchen so aromatic.' =
 'Baking that cake makes the whole kitchen so aromatic.'

¹⁸ Kuang Mei (personal communication) has a quite different interpretation for such sentences as (65-67). To him, these sentences are not real causatives, but some kind of middle construction. His point is that, the so-called causer subjects in (65-67) more or less have some thematic ties with the main verbs. If the causer subject has no thematic tie with the verb, according to Kuang Mei, the sentence will be ungrammatical. (Mei judges sentences like (67b) as unacceptable.) A piece of evidence that he provides is the following kind of sentence:

- (i) *Zhe-ping anmian-yao shui-de wo pa-bu-qi-lai.
 this-bottle sleeping-pill sleep-Ext I cannot-get-up
 'This bottle of sleeping pills made me to sleep to such an extent that I couldn't get up.'

Mei points out, if (65a-b) are grammatical, then (i) should be grammatical too, since (i) involves the same type of intransitive verb as (65a-b) do. The fact that (i) is ungrammatical indicates that the causative construction of (65a-b) type is actually very limited and exceptional.

I think that Mei's comment is correct in some important aspects. But I would like to interpret the matter in the following way: probably there are dialectal or idiolectal variations with respect to the grammatical judgments on the relevant causative sentences. For example, sentences of (67b) type are fairly good to my and some people's ears, though imaginably some others (including Kuang Mei) would consider it unacceptable. For those that takes (67b) and other similar sentences to be unproblematic, the causative construction would be much more liberal. Even so, however, we still don't have an explanation for the ungrammaticality of (i). (Interestingly, Jim Huang (personal communication) informs me that (i) is not so bad to him.) We will leave the relevant questions open. Thanks to Kuang Mei and Jim Huang for discussions.

But like the case of the locative subject construction, verbs of state cannot take a causer subject:¹⁹

- (69) a. *Fawen **dong**-de Laowang jiao'ao buyi.
French understand-Ext p.n. arrogant not-stop
'Understanding French makes Laowang so arrogant.'
- b. *Malilian Monglu **xihuan**-de Xiaoli wanshang shui-bu-zhao-jiao
Marilyn Monroe like-Ext p.n. night cannot-sleep
'Liking Marilyn Monroe makes Xiaoli unable to fall asleep in the night.'

A special thing about the causatives compared to the locatives is that the achievement verbs don't seem to be compatible with causer subject. This point is illustrated by the following examples:

- (70) a. *Na-zhi shoubiao **faxian**-de Laowang hao gaoxing.
that-Cl watch find-Ext p.n. so happy
'Finding that watch makes Laowang so happy.'
- b. *San-nian-qian na-chang chehuo **si**-de Xiaoli zhen qican.
three-year-before that-Cl car-accident die-Ext p.n. really miserable
'The car accident three years ago made Xiaoli die miserably.'

In summary, the causer subjects, as well as the causative use of verbs, are very productive in Mandarin Chinese sentences, similar to the locative subjects. In the following subsection,

¹⁹ In this regard, it seems necessary to make a distinction between individual-level statives and stage-level statives. The latter seem to be quite acceptable in the causative construction:

- (i) Zhe-jian shi **gaoxing**-de Xiaoli shui-bu-zhao-jiao.
this-Cl matter happy-Ext p.n. cannot-sleep
'This matter made Xiaoli so happy that he couldn't fall asleep.'

We leave this question open. See Huang (1997) for some relevant discussion.

we propose a light verb analysis for the causative sentences, along the same line as the analysis for the locative subject sentences.

3.2 Light verb syntax for the causer subject

There are a number of interesting questions related to the formation of the causatives in Mandarin Chinese. For example, as the reader may have already found, throughout the examples of the causer subjects given above, there is a morpheme, *-de*, that is suffixed to the verb. The morpheme *-de* is glossed as Ext (extension marker) in the examples. It has the function to introduce a descriptive or resultative clause to the structure as the secondary predicate (cf. Huang 1982, 1988, Li 1990, among many others). Can it be the case that it is actually the extension marker *-de* that is responsible for the causative reading of the verb, on a par with the causative morphemes *-(s)ase* in Japanese or *-en* in English? Furthermore, the relationship between the causer subject and the causativized verb is a question too. In the case of the intransitive verbs (cf. (67a-d)), the role of the causer subject is straightforward; it simply denotes the entity that causes an eventuality, such as a concert causing everyone's throat becoming coarse (cf. (67b)). But in the case of the transitive verbs, complication arises, since in the examples we have seen, the causer subject typically denotes an entity that is also the theme/patient object of the transitive verb causativized; cf. (66a-d). These questions must be answered. As we will see, the effort to answer these questions leads to an understanding of the causatives in a quite different way from the traditional one. First let's look at the light verb analysis for the causer subject.

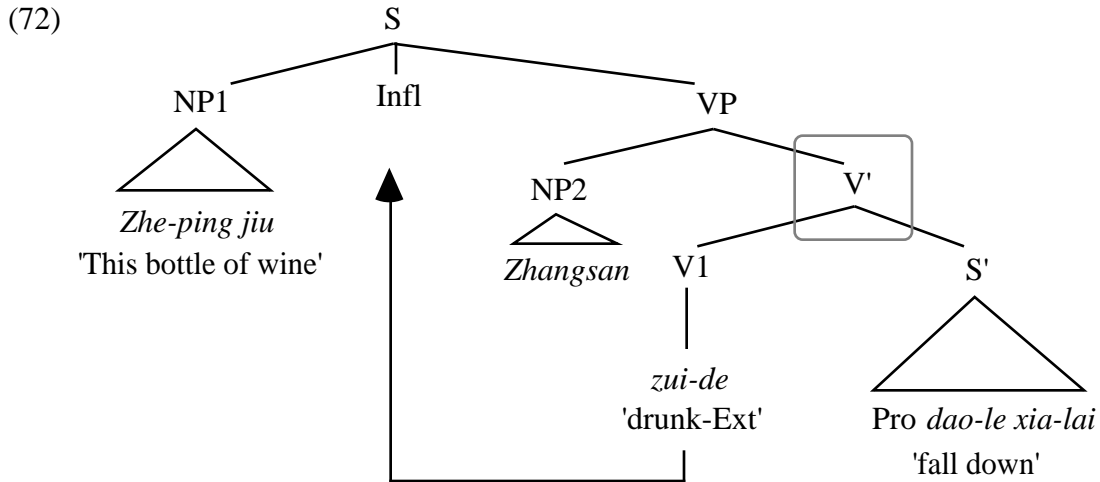
3.2.1 The light verb CAUSE

Huang (1988) has proposed an insightful analysis for the causatives in Mandarin Chinese, which is a complex predicate analysis. Huang (1988) notices that there is a strong parallelism between the "phrasal causatives" and the "lexical causatives" in Mandarin Chinese. Consider the following two causative sentences:

- (71) a. Zhe-ping jiu **zui-dao**-le Zhangsan. (Lexical)
 this-bottle wine drunk-fall-Perf p.n.
 'This bottle of wine got Zhansan so drunk that he fell.'
- b. Zhe-ping jiu **zui**-de Zhangsan **dao**-le xia-lai. (Phrasal)
 this-bottle wine drunk-Ext p.n. fall-Perf down-come
 'This bottle of wine got Zhangsan so drunk that he fell down.'

(71a), a lexical causative, and (71b), a phrasal causative, differ in whether the two components of the causation constitute a unitary element in the surface representation or not. In (71a), the verbs *zui* 'drunk' and *dao* 'fall' are compounded with each other and constitute an integral word, but in (71b), they are separate and exhibit phrasal characteristics. An intriguing point in (71a-b), however, is that neither *zui* 'drunk' nor *dao* 'fall' is really causative in semantics. Thus, it is clear that the causativity in (71a-b) comes from the interrelation between the two verbs.

To capture the parallelism between (71a) and (71b), Huang (1988) proposes that *zui* 'drunk' and *dao* 'fall' in the phrasal (71b), though discrete, actually constitute an unitary expression in the underlying structure of the sentence, in parallel with the lexical (71a). The structural analysis for (71b) are represented in the following diagram (cited from Figure 6, Huang 1988: 299):



In (72), the boxed V' is a complex predicate composed of the verb *zui* 'drunk' and the clausal expression *dao-le xia-lai* 'fall down'. The complex predicate V' licenses NP2 *Zhangsan* as an "outer object." Thus *Zhangsan* is the theme/patient of the complex eventuality "get drunk so that *Pro* fell down." The main verb *zui* 'drunk' (along with *-de*), according to Huang (1988), further incorporates to Infl, yielding the surface structure in (71b). The spirit of this analysis, to wit, is to take the complex predicate *zui-de Pro dao-le xia-lai* 'got drunk so that *Pro* fell down' on a par with the lexically unitary expression *zui-dao* 'drunk-fall' in (71a)²⁰ -- it is the verbs *zui* 'drunk' and *dao* 'fall' that conjointly compose a causative predicate.

We adopt Huang's (1988) proposal in its essence with some adjustments. We retain the complex predicate in the structure, but we propose that, in a causative sentence in Mandarin Chinese, the higher head to which the main verb moves up is the light verb CAUSE, not Infl.²¹ This adjustment is essential -- simply assuming that the verb moves to some higher head without explicitly specifying its semantic function cannot account for the problem. Consider the following examples:

²⁰ Huang (1988) remains vague on the relationship between the lexical causatives and the phrasal causatives. But in Huang (1992) it is explicitly proposed that the lexical causatives are derived from the phrasal causatives via lexicalization of the complex predicate V'.

²¹ See Tang (1998) for the proposal that the verb in the Mandarin Chinese only moves to *v*, not to Infl.

- (73) a. Zhe-ping jiu **zui-dao**-le yi-pi ren. (Causative)
 this-bottle wine drunk-fall-Perf a-bunch-of people
 'This bottle of wine made a bunch of people drunk.'
- b. Wuzi-li **zui-dao**-le yi-pi ren. (Locative)
 house-in drunk-fall-Perf a-bunch-of people
 'There are a bunch of people drunk in the house.'

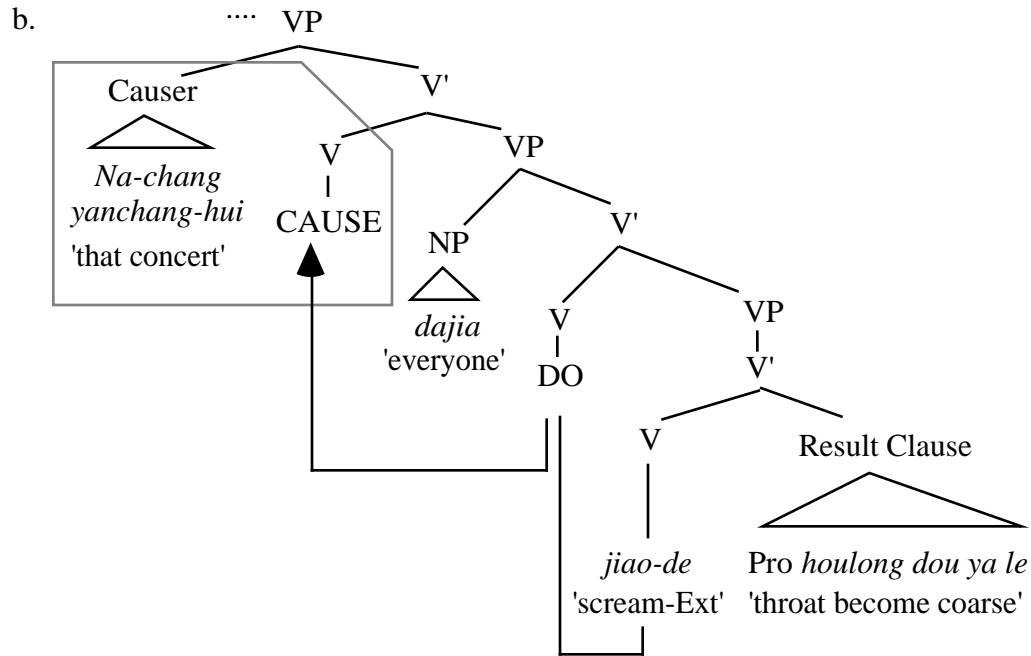
In (73a) and (73b), the predicates are exactly the same: *zui-dao-le yi-pi ren* 'drunk-fall a bunch of people'. However, while the subject in (73a), *zhe-ping jiu* 'this bottle of wine' is a causer, the subject in (73b) is a locative, *wuzi-li* 'in the house'. Without an explicit specification of the higher heads that the verbs move to, the distinction between (73a) and (73b) cannot be made. Thus it is essential to postulate the light verb CAUSE. (73a-b), then, can be represented as in (74a-b):

- (74) a. [IP This bottle of wine **CAUSE** [VP drunk-fall a bunch of people]]
 b. [IP In the house **EXIST** [VP drunk-fall a bunch of people]]

In both structures, the verb *zui-dao* 'drunk-fall' incorporates to the subject-selecting light verbs, CAUSE and EXIST, respectively. In this way (73a-b) and other similar examples receive an appropriate characterization.

With the light verb CAUSE, we are now ready to analyze the causer subject construction in Mandarin Chinese. The most straightforward case is an intransitive verb with a causer subject, such as (75a), with the structural analysis in (75b):

- (75) a. Na-chang yanchang-hui **jiao**-de dajia houlong dou ya le. (=67b)
 that-Cl concert **scream**-Ext everyone throat even coarse Prt
 'That concert makes everyone scream so much that even their throats'



In (75b), the causer subject *na-chang yanchang hui* 'that concert' is licensed by the light verb CAUSE, which takes a DO-VP as complement.²² This DO-VP has *dajia* 'everyone' as its subject, the "outer object" in Huang's (1988) sense (= inner subject in HK's (1993) sense). Thus the outer object in Huang's (1988) complex predicate analysis, in our analysis, is re-identified as the subject of the light verb DO. This DO-VP, in turn, takes the complex predicate *jiao-de Pro houlong dou ya le* 'scream so that Pro even throat become coarse' as complement. The verb *jiao*'scream' (with the extension marker *-de*) incorporates to DO, and

²² In (75b), the occurrence of the light verb DO seems essential, since it is possible to replace it by EXIST:

- (i) Na-chang yanchang-hui jiao-de **zhengge hui-chang-li** houlong dou ya le.
 that-Cl concert scream-Ext **whole auditorium-in** throat even coarse Prt
 '(Lit.) That concert screamed to the extent that in the whole auditorium become coarse with the throats.'

then to CAUSE, yielding the surface structure in (75a). In this way, the causer subject construction is accounted for by the postulation of the light verb CAUSE.

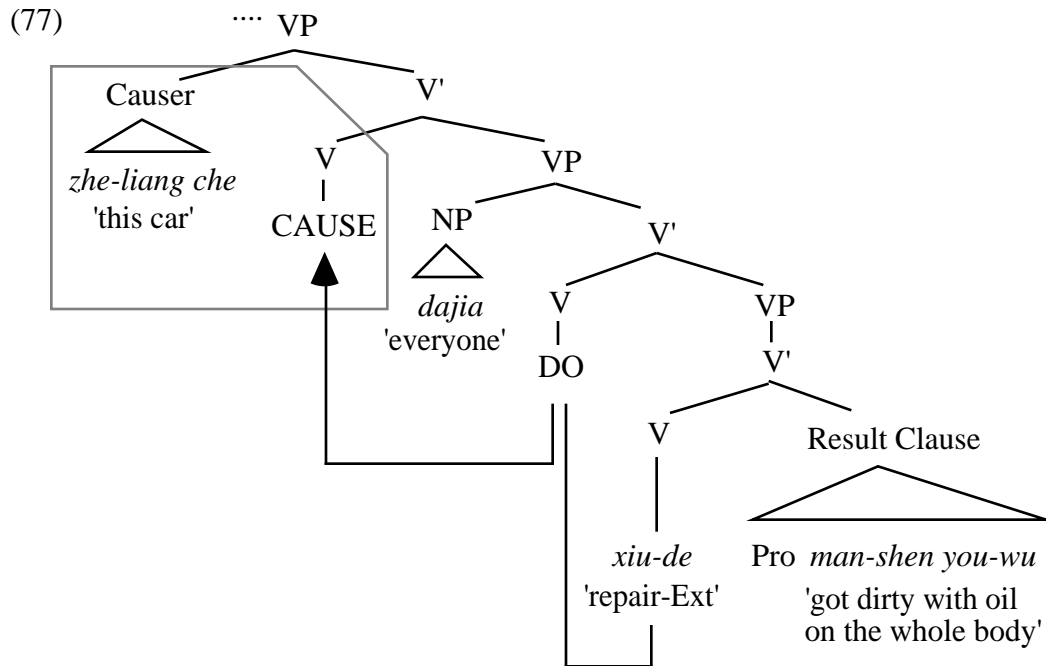
3.2.2 Transitive verbs

Next we look at the case of the transitive verb. There are several questions to be answered in this relevance. Consider the following sentence:

- (76) Zhe-liang che **xiu**-de dajia man-shen you-wu. (= (66b))
this-CI car repair-Ext everyone whole-body oil-dirty
'Repairing this car makes everyone dirty with oil on the whole body.'

Notice that, in (76), the causer subject *zhe-liang che* 'this car' is also the theme/patient of the main verb *xiu* 'repair' (cf. footnote 22). This is a general phenomenon in the transitive causatives in Mandarin Chinese, also seen in (66a-d). But from the analysis of the intransitive causative represented in (75a-b), the causer subject doesn't have anything to do with the selection of the main verb. What is the right treatment for the transitive causatives, to analyze them in the same way as the intransitive causatives, or to assume that the causer subject actually moves from within the predicate, as a case of object raising and multiple theta-role assignment?

Here we analyze (76) and other transitive causatives in the same way as the intransitive causatives. That is, in (76), the causer subject *zhe-liang che* 'this car' comes into the structure introduced by the light verb CAUSE, not by the main verb *xiu* 'repair'. The analysis is represented below:



The same as the case of the intransitive causatives, the verb *xiu-de* 'repair-Ext' and the result clause *Pro man-shen you-wu* 'Pro got dirty with oil on the whole body' in (76) constitute a complex predicate. This complex predicate is taken as complement by the light verb DO, which takes *dajia* 'everyone' as subject. The light verb CAUSE then takes the DO-VP as complement. The main verb *xiu-de* 'repair' incorporates to the light verbs DO and CAUSE, yielding the surface structure in (76).

The reason for assuming that the causer subject doesn't have any selectional relationship with the main verb is that, it is actually possible to use a transitive verb, such as *xiu* 'repair', in a causer subject sentence where the causer doesn't have any thematic tie with it, as in the following example:

- (78) (Laoban laoshi jiao wo xiu che,) keshi zhe-zhong tianqi **xiu**-de
boss always ask me repair car but this-kind whether **repai**-Ext
wo quan-sheng bu-duijin.
I whole-body not-in-shape
'(The boss always asks me to repair the car,) but this kind of whether makes me
feel bad with my body as I am repairing the car.'

The important point here seems to be, we need to have some contextual clues so that the non-thematic causer subject, like *zhe-zhong tianqi* 'this kind of whether', can be fully understood as a cause. It is likely that, if the causer subject denotes the theme/patient of the action that the verb denotes, the nature of the causative eventuality is easier to understand. Right now the relevant questions are still unclear, so we will leave them open.

Notice that the structure here in (77) is very similar to the case of the verbs of placement in Mandarin Chinese. In section 2.2.3, we proposed that the verb of placement *fang* 'put' actually doesn't select any argument. Though the conventional view about *fang* 'put' is that it selects a theme and a location as internal arguments, we propose that the internal locative expression, headed by *zai* 'at', is actually a secondary predicate that combines with *fang* 'put' to form a complex predicate (cf. (53b) in section 2.2.3). Here in (77) the situation is the same. Though the conventional view on transitive verbs such as *xiu* 'repair' is that they take an internal theme/patient argument, in our view they actually don't. Thus there's no problem with how the internal argument position is discharged or saturated, and the question doesn't even arise whether the causer subject *zhe-liang che* 'this car' originates from within the predicate and undergoes NP raising.

3.2.3 The -de causatives and -le causatives

As mentioned earlier, throughout the discussion so far, all the causer subject sentences contain the extension marker *-de* suffixed to the verb. One may reasonably wonder if *-de* is

in fact a causative morpheme responsible for the causative reading of the verb, like *-(s)ase* in Japanese and *-en* in English. We will have some discussion on the *-de* construction to Chapter 5. Here it suffices to point out that *-de* cannot be the source of causativity in all the examples above. The evidence for this claim is, there are causer subject sentences that don't have *-de* suffixed to the verb. They are the *-le* causatives, exemplified below:

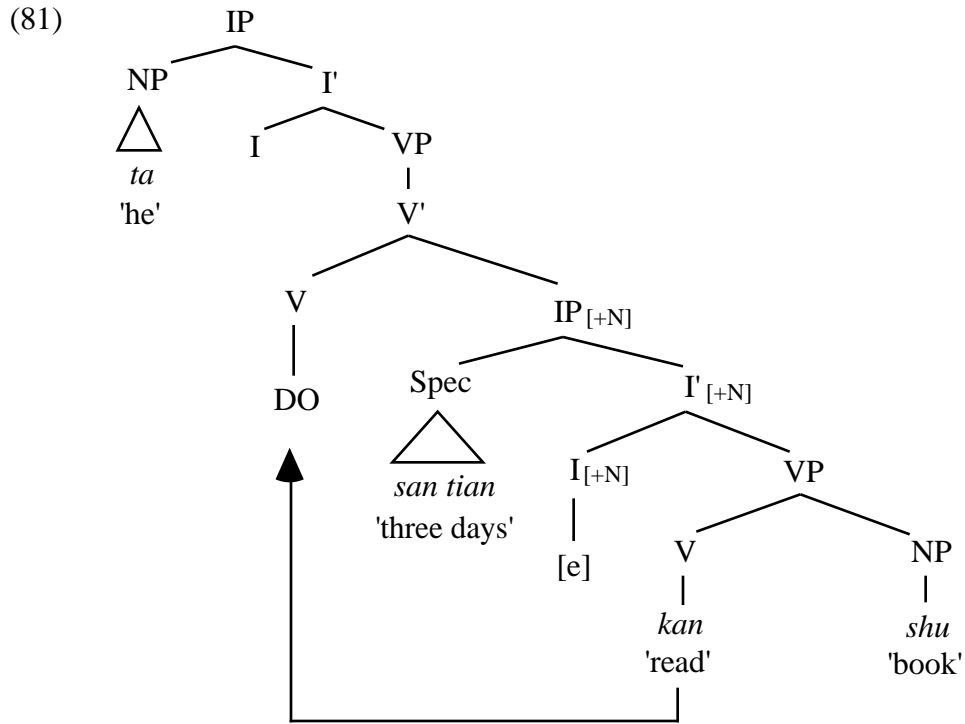
- (79) a. Zhe-ge xiaohua **xiao-le** Laowang zhengzheng san tian.
 this-Cl joke **laugh-Perf** p.n. whole three day
 'This joke made Laowang keep laughing for three whole days.'
- b. Na-gu nong-yan **ke-le** wo yi-ge libai.
 that-Cl thick-smoke **cough-Perf** I one-Cl week
 'That thick smoke made me cough for a week.'
- c. Zhe-liang po-che **xiu-le** wo hao-ji-bai kuai-qian.
 this-Cl broken-car **repair-Perf** I several-hundred dollar
 'This broken car took me several hundred dollars to repair.'
- d. Zhe-tang lu **kai-le** wo yi-tian yi-ye de che.
 this-Cl journey **drive-Perf** I one-day one-night Mod car.
 'This journey took me a whole day and night to drive.'

The post-verbal suffix *-le* is typically understood as a perfective aspectual marker. The function of *-le* in (79a-d), however, is a little peculiar. Here *-le* introduces a duration or frequency phrase that measures the action or the resulting state. The function of the extension marker *-de*, on the other hand, is to introduce a descriptive or resultative phrase. The morphemes *-le* and *-de* have quite different semantics, but both of them occur in the causer subject construction. Thus the causativity in the causer subject sentences with *-de* doesn't arise from this morpheme.

We tentatively assume that the duration/frequency *-le* and the perfective *-le* are one and the same morpheme. On the duration and frequency phrases, Huang (1997) proposes an interesting analysis, according to which the duration and frequency phrases are event quantifiers. In some cases, the duration and frequency phrases occur with the modification marker *de* (different from the extension marker *-de*) adjoined to the object, and hence look as if they were quantifiers of the object NP. The following examples illustrate this phenomenon (from (20a-b), Huang 1997: 57):

- (80) a. Ta kan-le san tian (de) shu.
he read-Perf three day (Mod) book
'He read (books) for three days.'
- b. Ta chang-le liang ci (de) ge.
he sing-Perf two time (Mod) song
'He sang twice.'

On a par with the possessive agent construction discussed in Chapter 2, Huang (1997) proposes a light verb analysis for the duration and the frequency phrases. The following is the structural analysis for (80a) (adapted from (21), Huang 1997:58):

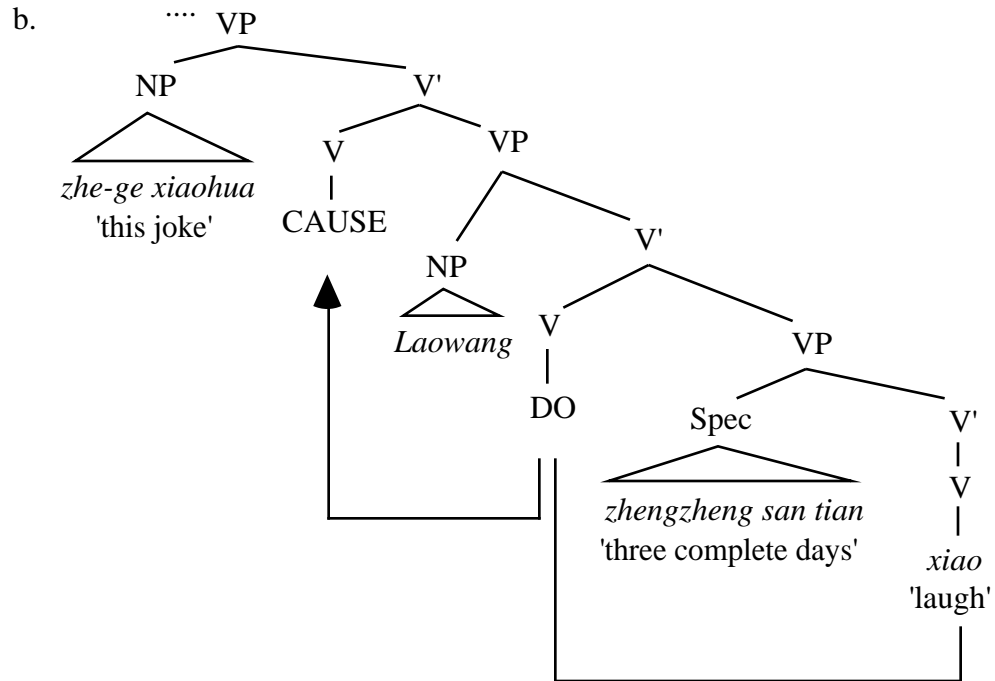


(81) has the meaning that "he does three days of reading books." Notice that the duration phrase *san tian* 'three days' occupies the Spec position of the embedded (nominalized) IP, and therefore functions as a subject, licensed by the (nominalized) predicate *kan shu* 'read book'. The verb *kan* 'read' moves up to the light verb DO, yielding the surface structure (80a).

With this analysis, we can now go on to see how the *-le* causatives in (79-b) can be analyzed. First let's look at the intransitive (79b-b). The analysis for these two examples, just like the intransitive *-de* causatives, is straightforward. We simply have to merge a CAUSE-VP to the DO predicate. The structural analysis is represented as follows, with some adjustments on Huang's (1997) original analysis:²³

²³ As shown in (81), in Huang's (1997) original analysis of the duration and frequency phrases in Mandarin Chinese, the IP embedded under the light verb DO is nominalized. This is so because, as we mentioned, these phrases often can occur with the modification marker *de*, which, in this case, is equivalent to the genitive or possessive marker in other languages. If we are to follow Huang (1997) on this point, the VP embedded under DO in (82b) must be nominalized. We omit this point.

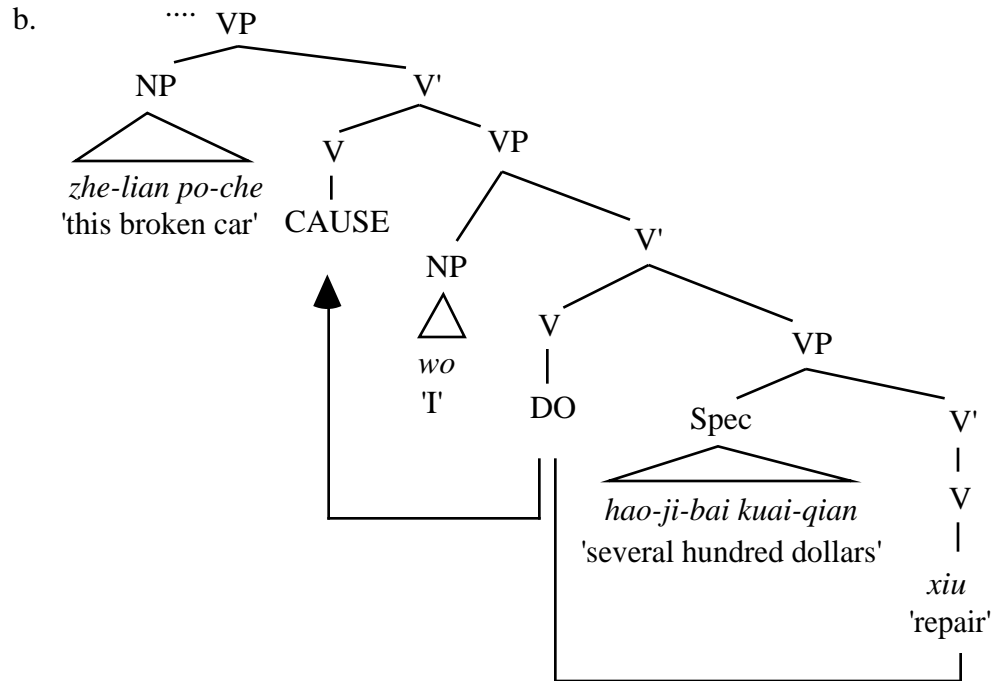
- (82) a. Zhe-ge xiaohua xiao-le Laowang zhengzheng san tian. (=79a)
 this-Cl joke laugh-Perf p.n. whole three day
 'This joke made Laowang keep laughing for three whole days.'



In (82b), the duration phrase *zhengzheng san tian* 'three complete days' occurs in the Spec position of the most embedded VP, fairly like a real object. The intransitive verb *xiao* 'laugh' incorporates to DO and then to CAUSE, yielding the surface structure (81a).

The analysis for the transitive causatives is similar, with the assumption that the transitive verbs in Mandarin Chinese actually don't select any internal argument. Consider the following example:

- (83) a. Zhe-liang po-che xiu-le wo hao-ji-bai kuai-qian. (=80c)
 this-Cl broken-car repair I several-hundred dollar
 'This broken car took me several hundred dollars to repair.'



In (83b), again, the measure phrase *hao-ji-bai kuai-qian* 'several hundred dollars' occupies the Spec position of the most embedded VP. The main verb *xiu* 'repair' incorporates to DO and CAUSE, yielding the surface structure (83a).

3.2.4 States and achievements

In section 3.1 we observed that the verbs of states and achievement verbs cannot assume causative use. The examples are repeated below:

(84) *Statives*

- a. *Fawen **dong**-de Laowang jiao'ao buyi.
 French understand-Ext p.n. arrogant not-stop
 'Understanding French makes Laowang so arrogant.'
- b. *Malilian Monglu **xihuan**-de Xiaoli wanshang shui-bu-zhao-jiao
 Marilyn Monroe like-Ext p.n. night cannot-sleep
 'Liking Marilyn Monroe makes Xiaoli unable to fall asleep in the night.'

(85) *Achievements*

- a. *Na-zhi shoubiao **faxian**-de Laowang hao gaoxing.
that-Cl watch find-Ext p.n. so happy
'Finding that watch makes Laowang so happy.'
- b. *San-nian-qian na-chang chehuo **si**-de Xiaoli zhen qican.
three-year-before that-Cl car-accident die-Ext p.n. really miserable
'The car accident three years ago made Xiaoli die miserably.'

We assume that the ungrammaticality of (84a-b), the case of verbs of states, is for the same reason of the ungrammaticality with EXIST -- that is, the atemporalness of the states (cf. section 2.2.4). Causativity necessarily involves change of states, a temporal property. Thus it is natural to expect the states to be incompatible with CAUSE too.

As to the achievements in (84a-b), it seems that their ungrammaticality has to do with the general structure of causativity. In Mandarin Chinese, a causative eventuality is typically expressed by a complex syntactic structure, including a causative-agentive component and an inchoative-resultative component (cf. sections 3.1-3.2 of Chapter 2, and section 3.2.1 of this chapter). Huang (1988) notices that the causative-agentive component must be expressed by an action verb, usually an activity, that can bring about a change and a resultant state. But an achievement verb denotes a change *and* the resulting state that it brings about (cf. Dowty (1979) on von Wright's "logic of change"). As such, the achievement verbs cannot be used in a causative structure representing the causative-agentive component of the causative eventuality.

An interesting observation in this regard is the co-occurrence restriction between the achievement verbs and the *-de* complements. Earlier we introduced the extension marker *-de* and mentioned that it can take a descriptive or a resultative phrase. The two different types of phrases are exemplified below (cf. Huang (1988) and references cited):

- (86) a. Laowang pao-de hen kuai. (Descriptive)
 p.n. run-Ext very fast
 'Laowang runs fast.'
- b. Laowang pao-de hen lei. (Resultative)
 p.n. run-Ext very tired
 'Laowang runs to the extent that he gets tired.'

All *-de* causatives that we gave as examples in earlier discussions involve the resultative *-de* phrase -- in fact, the causatives *cannot* take a descriptive *-de* phrase. This claim is evidenced by the following examples:

- (87) *Resultative*
- a. Laowang chi na-dun fan chi-de chuan-shen mao-han.
 p.n. eat that-Cl meal eat-Ext whole body grow-sweat
 'Laowang ate that meal and [as a result] he sweat in his whole body.'
- b. Na-dun fan chi-de Laowang chuan-shen mao-han.
 that-Cl meal eat-Ext p.n. whole-body grow-sweat
 'Eating that meal made Laowang sweat in his whole body.'
- (88) *Descriptive*
- a. Laowang chi na-dun fan chi-de feichang xunsu.
 p.n. (eat that-Cl meal) eat-Ext very swift
 'Laowang ate that meal swiftly.'
- b. *Na-dun fan chi-de Laowang feichang xunsu.
 that-Cl meal eat-Ext p.n. very swift
 'Eating that meal made Laowang very swift.'

Now, we find that the achievement verbs can only take a descriptive *-de* phrase, but not a resultative *-de* phrase:

- (89) a. Laowang faxian wenti faxian-de hen xunsu. (Descriptive)
p.n. find problem find-Ext very swift
'Laowang found the question very swiftly.'
- b. *Laowang faxian wenti faxian-de hen tou-tong. (Resultative)
p.n. find question find-Ext very head-ache
'Laowang found the question and [as a result] he was disturbed [by it].'
- (90) a. Xiaoli si-de hen qican. (Descriptive)
p.n. die-Ext very miserable
'Xiaoli died in a miserable way.'
- b. *Xiaoli si-de dajia dou hen shangxin. (Resultative)
p.n. die-Ext everyone all very sad
'Xiaoli died and [as a result] everyone was so sad.'

Since the achievement verbs already contain a resultant state in its denotation, it cannot be followed by an expression denoting another resultant state. We believe this is why it cannot take a resultative *-de* phrase, and also why it cannot be used as a causative verb in Mandarin Chinese.

3.3 Conclusion

In this section, we proposed an analysis for the causer subject sentences in Mandarin Chinese, an analysis based on CAUSE, on a par with the locative subject sentences, which is based on the light verb EXIST. CAUSE takes a causer as subject, and a VP as complement. Though the causer subjects in Mandarin Chinese are more restricted than the locative

subjects, they are still very productive. The causer subject construction, once again, supports our claim that, in Mandarin Chinese, the subject of a sentence is not selected by the main verb, but by a light verb.

4. Theme subjects and other subject matters

In this section we look at some other constructions in Mandarin Chinese related to questions on subject. First, we will have a brief discussion on the theme subject, and then see other possible subject-selecting light verbs.

4.1 Theme subjects

Let's go back to the verbs of placement again. Remember that the verb of placement *fang* 'put' in Mandarin Chinese has two stative uses, one with a locative subject and the other with a theme subject. The relevant examples are repeated below (cf. section 2.2.1):

- (91) a. Zhuo-shang fang-zhe san-ben shu. (*Locative subject*)
table-on put-Dur three-Cl book
'On the table put three book.' =
'There are three book on the table.'
- b. Na san-ben shu fang zai zhuo-shang. (*Theme subject*)
that three-Cl book put at table-on
'Those three books put on the table.' =
'Those three books are on the table.'

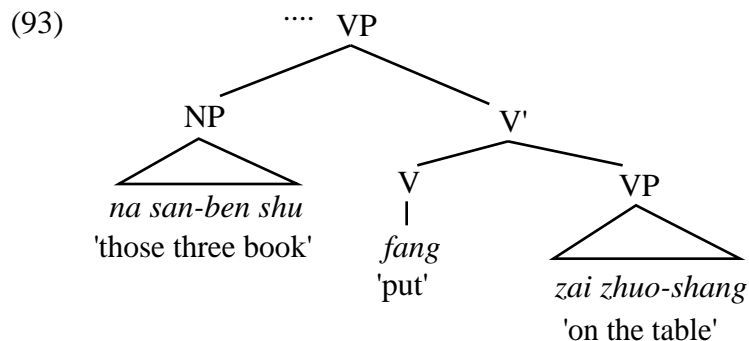
We have accounted for (91a). In our analysis, the locative subject *zhuo-shang* 'on the table' comes from the light verb EXIST. Now we have to account for (91b).

Recall that, in section 2.2.3, we proposed that neither the location nor the theme is selected by the verb *fang* 'put'. The location expression in fact is a secondary predicate. The theme occurs as the subject of the BECOME-VP. The relevant points are recapitulated below:

- (92) a. Laowang fang-le san-ben zai zhuo-shang.
 p.n. put-Perf three-Cl book at table-on
 'Laowang put three book on the table.'
- b. [...[Laowang CAUSE [three books BECOME [**put** [on the table]]]]]
-

For the present concern, we hypothesize that, for the verb *fang* 'put', the introduction of the theme argument and its semantic interpretation crucially relies on the eventuality structure in which *fang* 'put' occurs. Holding this assumption, we propose that the theme subject is licensed as a subject from the beginning.

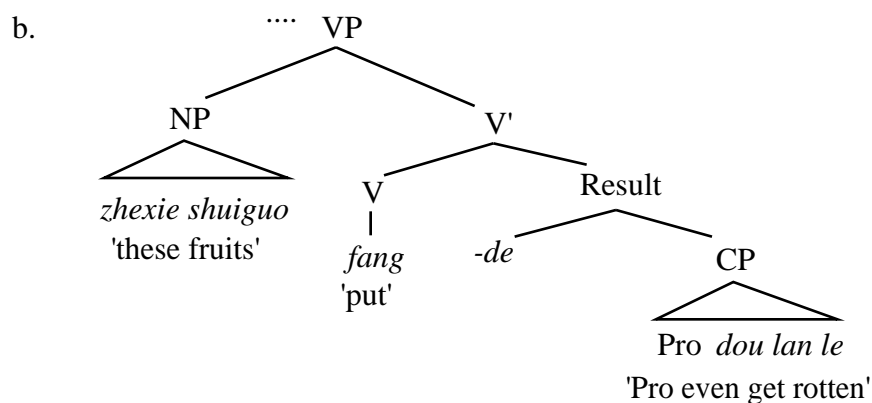
Notice that the theme subject sentence in (91b) is eventuality-wise much more impoverished than the accomplishment use in (92). It seems to express a pure state, without causing, becoming, or doing. Our analysis for the theme subject sentence in (91b), therefore, is correspondingly simple: it involves a complex predicates of *fang* 'put' conjoined with the locative expression, which licenses a theme subject. The relevant points are represented in the following diagram:



In (93), the verb *fang* 'put' and the locative expression *zai zhuo-shang* 'on the table' compose a complex predicate. The whole complex predicate licenses the subject *na san-ben shu* 'those three books' at the Spec position.

Here we would like to emphasize that, complex predicate formation and free licensing of the subject are very productive in Mandarin Chinese. Other sentences in Mandarin Chinese are susceptible to similar analyses. An example is the *-de* resultative with *fang* 'put', as below:

- (94) a. *Zhexie shuiguo fang-de dou lan le.*
 these fruit put-Ext even rotten
 'These fruits have been put [somewhere so long] such that they
 even get rotten.'

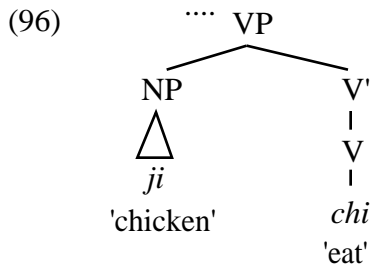


(94b) is the syntactic representation for (94a). Here the situation is similar to the one in (93): the verb *fang* 'put' and the *-de* resultative conjoin together as a complex predicate, and the complex predicate licenses a subject. As we propose, (94), and other similar examples, indicate that complex predicate formation is an important means for sentence construction and argument licensing in Mandarin Chinese.

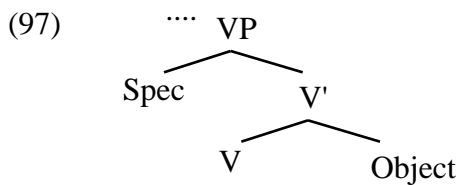
The theme subject sentence is prevalent in Mandarin Chinese. It is not limited to the verbs of placement; in fact, *all transitive action verbs* can take a theme subject. Below are some examples:

- (95) a. Ji chi le.
chicken eat Prt
'The chicken has been eaten.'
- b. Zhe-chang bisai ying le.
this-CI game win Prt
'[Someone] has won the game.'
- c. Fangzi gai le.
house build Prt
'The house has been built.'
- d. Baogao xie le.
report write Prt
'The report has been written.'

There have been debates on whether sentences like (95a-d) are really agentless, or they are just action sentences with the agent omitted; see Cheng (1989), Pan (1996), and Cheng and Huang (1996). Though Pan (1996) insists that all these sentences involve a phonetically null agent and therefore are agentive, we do find examples that shows that the theme subject sentences can be truly agentless, such as (91b) (also see the discussion in section 2.2.1). To us, sentences like (95a-d) involve a simple structure of VP with the theme as the specifier:



At this point, some words are necessary on the status of the theme/patient object of a transitive verb. The theme *ji* 'chicken' in (96) is conventionally understood as the internal argument of the verb *chi* 'eat'. In the traditional view, an object is the complement of a transitive verb, as below:



Here, we adopt the position of Johnson (1991), HK (1993), Bowers (1993), and Kratzer (1996) that the object of a sentence occurs in the Spec position of the VP, not the complement position. But notice that, according to the current assumptions (cf. HK 1993, Chomsky 1995), if the theme argument occurs as the specifier of the VP, then it cannot be directly selected by the verb. Rather, it is licensed by the V', as we have assumed throughout the discussion. This amounts to claiming that, in Mandarin Chinese, *even a transitive verb doesn't select any internal argument*. There are no objects, but only internal subjects. The verb acquires an internal subject because the V', as a predicate, requires a subject. An important character about the internal subject is that it is optional. We will come back to the relevant questions in Chapter 4.

4.2 Other subject matters

Before closing this chapter, we would like to look at more examples for the unselectiveness of subject in Mandarin Chinese. In this chapter we have seen two subject-selecting light verbs in Mandarin Chinese, EXIST and CAUSE. But there can be more subject-selecting light verbs in the grammar of Mandarin Chinese. Consider the following examples:

- (98) a. Zhe-chang malasong yijing **pao**-le er-shi gongli le.
this-Cl marathon already **run**-Perf twenty km Prt
'This marathon has been running for twenty km's.' =
'This marathon has proceeded for twenty km's.'
- b. Jihou-sai yijing **da**-le wu-chang, Gongniu-dui duding
play-off-game already **play**-Perf five-Cl the-Bulls definitely
ying-de kuanjun
win-get champion
'The playoffs have played five games; the Bulls definitely will get the
championship.' =
'The playoffs have proceeded with five games...'
- (99) a. Zhe-ge jihua zonggong **xie**-le wu-pian baogao.
this-Cl project altogether **write**-Perf five-Cl report
'This project has written five reports altogether.' =
'This project has resulted in five reports altogether.'
- b. Zhe-bi qian zhonggong **gai**-le wu-dong fangzi.
this-Cl money altogether **build**-Perf five-Cl house
'This money built five houses altogether.' =
'This money has enabled the construction of five houses.'

Here in (98a-b) and (99a-b), we once again observe syntax-semantics mismatch between the subject and the verb: a marathon doesn't run, playoffs don't play games, a project doesn't write anything, and money won't build houses. Following the strategy we have been adhering to, there must be a light verb in each of the sentences that licenses a particular subject, and the main verb incorporates to it. We tentatively propose the following two: PROCEED and INCLUDE. Notice that (98a-b) have to do with the progress of things, and (99a-b) have to do with the products resulted from some source. The underlying syntactic representations for (98a) and (99a), then, are as follow:

- (100) a. [IP ... [VP this marathon PROCEED [VP run 20 km's]]
- ↑
- └───┘
- b. [IP ... [VP this project INCLUDE [VP write five reports]]
- ↑
- └───┘

In (100a), the light verb PROCEED takes a domain, 'this marathon', as specifier, and the main verb 'run' incorporates to it. Thus, 'running' is the manner/mode with which the marathon proceeds. Likewise, in (100b), the light verb INCLUDE takes a source, 'this project', as specifier, and the main verb 'write' incorporates to it. Though here we don't plan to work out the properties of these light verbs, we do want to point out that PROCEED and INCLUDE, as well as EXIST and CAUSE, are all *aspects of eventualities*. As we assumed in section 4.2.1 of Chapter 2, there can be many aspects in an eventuality. Mandarin Chinese has the special character that many of these aspects (semantically, eventuality predicates) are represented in the syntactic structures as light verbs. In Chapter 4 we will see more light verbs, with even more specific thematic functions.

The last subject-selecting light verb that we would like to suggest is OCCUR. Huang (1997) uses the light verb OCCUR to head a predicate with an achievement verb such as *pao* 'escape' and *diao* 'lose'. Some examples are given below:

- (101) a. Tushuguan-li diao-le wu-ben shu.
 library-in lose-Perf five-Cl book
 'There lost five books in the library.'
- b. Zhen-li lai-le san-ge muosheng-ren.
 town-in come-Perf three-Cl stranger
 'In the town came three strangers.'
- c. Zuotian si-le yi-ge liulang-han.
 yesterday die one-Cl homeless
 'A homeless died yesterday.'
- d. Quonian zonggong pao-le san-ge fan ren.
 last-year altogether escape-Perf three-Cl prisoner
 'There escaped three prisoners altogether last year.'

In all these examples, the light verb OCCUR takes a location or time as subject, denoting the location or time at which the eventuality is located. The syntactic representation for an OCCUR predicate is as the following:

$$(102) \text{ [IP [VP } \left. \begin{array}{l} \text{Location} \\ \text{Time} \end{array} \right\} \text{ OCCUR [VP Object V]]}$$

As in all other cases, the main verb V incorporates to the light verb OCCUR.

Though OCCUR can take a locative subject, it has some properties that distinguish it from EXIST as an independent subject-selecting light verb. First, as shown in (101c-d), OCCUR can take a time expression as subject. This is not possible for EXIST, as shown below:

- (103) a. Gaosugonglu-shang kai-zhe henduo che.
 expressway-on drive-Dur many car
 'There are many cars on the expressway.'
- b. *Zuotian kai-zhe henduo che.
 yesterday drive-Dur many car
 'There are many cars yesterday.'
- (104) a. Zuo-shang fang-le san-ben shu.
 table-on put-Perf three-Cl book
 'There are three books on the table.'
- b. *Qian-ji-tian fang-le san-ben shu.
 several-day-ago put-Perf three-Cl book
 'There are three books several days ago.'

Second, the subject of OCCUR can be missing, as the following examples show:

- (105) a. Diao-le wu-bai kuai!
 lose-Perf five-hundred dollar
 'Five hundred dollars are lost!'
- b. Pao-le san-ge fanren le!
 escape-Perf three-Cl prisoner Prt
 'Three prisoners escaped!'

EXIST doesn't permit such subject missing:

- (106) a. *Kai-zhe henduo che.
 drive-Dur many car
 'There are many cars being driven.'

- b. *Fang-le san-ben shu.
 put-Perf three-CI book
 'There are three books put [somewhere].'

It thus seems legitimate to propose OCCUR as an independent light verb in Mandarin Chinese, distinct from EXIST.

Notice that, though in (105a-b) the subject is missing, there is actually an understood locative/time subject there. That is, (105a) has the implicit presupposition that it is "here" or "now" that the money-missing event occurs, and (105b) has the implicit presupposition that it is "in this jail" or "right now" that escaping occurs. Therefore, it seems reasonable to suppose that an empty subject is present in all these sentences, anaphoric to the location-time setting in the context:

(107) [IP [VP **Pro** location-time OCCUR [VP V Object]]]

The idea about an empty location-time subject is useful in characterizing other subject-less sentences in Mandarin Chinese, such as the whether expressions. In Mandarin Chinese, the whether expressions typically involve the verb *xia* 'fall' and a whether-denoting NP, like *yu* 'rain', *xue* 'snow', etc.. The whether-denoting NP can occur pre-verbally as the subject of the sentence, or post-verbally as object. In the latter case, the sentence can be subjectless.

Some examples are given below:

(108) *Whether expressions with subjects*

- a. Yu xia-de hen da.
 rain fall-Ext very heavy
 'It rains hard.'

- b. Xue xia-le san tian le
snow fall-Perf three days Prt
'It has been snowing for three days.'

(109) *Subjectless whether expressions*

- a. Xia yu le.
fall rain Prt
'It rains.'
- b. Xia-le da xue le
fall-Perf big snow Prt
'It snows hard.'

We suggest that here in (109a-b) an empty location-temporal subject is present. For one thing, (109a-b) are not really the "subjectless versions" of the English sentences *It rains* and *It snowed hard*. In English, the subject *it* in the whether sentences is an expletive without any meaning, but the empty subject in (109a-b) is meaningful -- it denotes the location-time setting understood in the context (also see Li 1990, who argues that there is no "empty expletive" in Mandarin Chinese). As a matter of fact, the location-time expression can be lexically realized:

- (110) a. Taipei xia yu le.
Taipei fall rain Prt
'It rains in Taipei.'
- b. Zuotian xia-le da xue le
yesterday fall-Perf big snow Prt
'It snowed hard yesterday.'

Thus the structure of (109a-b) should be like (107); that is, a empty location/time subject is present in the sentence licensed by OCCUR.

There are still other subjectless sentences in Mandarin Chinese that involve the function of OCCUR. Consider the following examples:

- (111) a. Sha ren le!
 kill person Prt
 'There occurs a murder!'
- b. Zhuang che le!
 hit car Prt
 'There occurs a car-collision accident!'
- c. Zhao-dao shiti le!
 find-get corpse Prt
 'The body is found!'

(111a-c) are similar to the subjectless sentences in (105a-b), except that, here in (111a-c), we have activity verbs, rather than achievement verbs. Again, we assume that, in these sentences, OCCUR heads the predicate, taking a location-time Pro as subject and a VP as complement. The location-time subject, of course, can be lexically realized, specifying the location or time where the eventuality occurs, as shown below:

- (112) a. Cai-shichang-li sha ren le!
 food-market-in kill person Prt
 'There occurs a murder in the marketplace!'
- b. Qianmian zhuang che le!
 front hit car Prt
 'There occurs a car-collision accident in the front!'

- c. Zuotian zhao-dao shiti le!
 yesterday find-get corpse
 'The body was found yesterday!'

We suggest that OCCUR is responsible for all the subjectless sentences in Mandarin Chinese.²⁴ Furthermore, these sentences are not real subjectless; they have an empty location-time Pro as their subject, licensed by OCCUR.²⁵

5. Concluding remarks

To conclude this chapter, we would like to emphasize the grammatical significance of the phenomena of unselectiveness of subject in Mandarin Chinese sentences. These phenomena indicate that the subject of a sentence is not selected by the main verb; instead, it is licensed by a higher, independent light verb. The light verbs that we have proposed include EXIST and CAUSE, PROCEED, INCLUDE and OCCUR. An interesting consequence from the unselectiveness of subject in Mandarin Chinese is that a particular verb may assume quite diverse uses and take different subjects accordingly. Below we have the verb *kai* 'drive' as an example:

²⁴ This statement doesn't cover those cases involving Pro-drop phenomena, where a non-time-location Pro occurs denoting an individual.

²⁵ We assume that OCCUR and BECOME are both independent light verbs in Mandarin Chinese. As shown in the text, OCCUR takes a location/time subject. BECOME, on the other hand, takes a theme subject. An examples for BECOME is as follows:

- (i) Hua hong le.
 flower red Prt
 'The flower becomes red.'

A special property of BECOME is that the arguments that it introduces can be the subject or the object of a sentence. When BECOME heads the predicate, as in (i), the argument that it takes is the subject of the sentence; but if it is embedded in another light VP, as in the case of the unaccusative-causative alternation in Mandarin Chinese (section 3.1 of Chapter 2), the argument it takes becomes the object of the sentence. OCCUR, on the other hand, doesn't exhibit such a property. The location/time argument that OCCUR takes supposedly appears in a very high position in the structure, taking all other arguments in its scope. Thus the location/time argument of OCCUR is always the subject of the sentence.

- (113) a. Laozhang **kai**-le yi-liang tanke-che. *(Agentive)*
 p.n. drive-Perf one-Cl tank
 'Laozheng drove a tank.'
- b. Gaosu-gonglu-shang **kai**-zhe yi-pai tanke-che. *(Existential)*
 expressway-on drive-Dur one-line tank
 'There is a line of tanks on the expressway.'
- c. Zhe-liang po-che **kai**-de wo xia-si le. *(Causative)*
 this-Cl broken-car drive-Ext I scare-dead Prt
 'Driving this broken car made me scared to death.'
- d. Zhe-chang changtu sai-che yijing **kai**-le *(Progress)*
 this-Cl long-distance car-racing already drive-Perf
 san-fen-zhi-yi de lucheng le.
 one-third Mod journey Prt
 'This long-distance car racing has proceeded for
 one third of the journey.'
- e. Zhe-tang renwu zonggong **kai**-le ba-tang che, *(Inclusion)*
 this-Cl mission altogether drive-Perf eight-time car
 ünsong qishi dun wuzi.
 transport seventy ton material
 'This mission has had eight times of car transportation,
 sending seventy tons of material.'
- f. Mashang jiu **kai** che le, zuo hao! *(Occurrence)*
 Right-now then drive car sit well
 'The car is starting immediately, sit well!'

- g. Zhe-lian tanke-che cong Er-Ci Da-Zhan **kai** dao (Theme)
 this-CI tank from Second World-War drive to
 xianzai, kuai pao-mao le.
 now soon broken-down Prt
 'This tank has been driven since the Second World War
 to now; it will be broken down soon.'

In (113a-g), the activity verb *kai* 'drive' assumes a variety of uses -- in (113a), it is agentive, taking an agent subject; in (113b), it is existential, taking a locative subject; and so on and so forth. In our theory, different light verbs are responsible for these different uses, such as DO for the agentive use, EXIST for the existential use, etc. The last example, (113g), is an instance of the theme subject construction, where no light verb is present in the structure. This paradigm argues convincingly for the proposal that the verb in Mandarin Chinese doesn't select the external argument of the sentence. It is the light verb that does the work.