

The Distributions of the Aspect Markers *Zhe* and *Le* in the Chinese *You-coda* Constructions¹

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According to Huang (1987), all Chinese existential sentences involve the string of "... (NP) ... V ... NP ... (XP) ...". When the V position is occupied by the verb *you*, the XP is referred to as *you-coda*. It has been observed that although the aspect markers *zhe* and *le* may alternate in the locative inversion construction (LIC), the superficially identical V-*le* and V-*zhe* sequences cannot appear in the *you-coda* construction. Moreover, the *you-coda* construction with V-*le* is more unacceptable than those with V-*zhe*. We assume that the ungrammatical *you-coda* constructions with V-*le* involve the sentence-final *le*₂ (or perhaps '*le*₁ + *le*₂') being used in construction with the wrong choice of verbs. While, the marginality of the *you-coda* structure with V-*zhe* is due to *zhe*'s being incapable of anchoring tense of the CP complement of *you*.

1. Introduction

According to Huang (1987), all Chinese existential sentences involve the following string as in (1)². The XP in position 4 is also called the 'coda' of existential sentences, such as in Zhang's (2008) work. When the verb in position 2 is *you* 'have', we shall refer to the coda existential sentences as *you-coda* constructions.

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² Abbreviations used in this paper are as follows: CL: classifier; CP: complementizer phrase; DE: attributive particle; DP: distinguished phrase; Exp: experiential marker; LE1 or *le*₁: the verb-final *le*; LE2 or *le*₂: the sentence-final *le*; LICs: locative inversion constructions; NP: noun phrase; PART: particle; PASS: passive; Prg: progressive; V: verb.

- (1) ... (NP) ... V ... NP ... (XP) ...
 1 2 3 4

It has been observed in the literature that the aspect markers *zhe* and *le* may alternate in locative inversion constructions (LICs), as in (2).

- (2) a. Qiangshang tie-zhe liang-zhang bugao (Nie 1989)
 On the wall stick-ZHE two-CL placards
 ‘On the wall are stuck two placards’
 b. Qiangshang tie-le liang-zhang bugao
 On the wall stick-LE two-CL placards
 ‘On the wall are stuck two placards’

However, as can be seen below, when the two aspect markers appear in *you*-coda constructions, the sentences derived are ill-formed. What is more interesting is that the *you*-sentence with *V-le* in the coda is in a greater degree of unacceptability than that with *V-zhe* in the same situation, as shown in (3a-b).

- (3) a. ?? Qiangshang you liang-zhang bugao tie-zhe (Nie 1989)
 On the wall have two-CL placards stick-ZHE
 ‘On the wall there are stuck two placards.’
 b. * Qiangshang you liang-zhang bugao tie-le
 On the wall have two-CL placards stick-LE
 ‘On the wall there are stuck two placards.’

The goal of this paper is to offer an explanation for the failure of *zhe* and *le* to appear in *you*-coda constructions and discuss its implications for the syntax of the complement of *you*. The paper is organized as follows. In section 2, we adopt Lin’s (2002) explanation of *zhe/le* alternation in LICs. In section 3, we will show that there are two factors that affect the distribution of *le* in *you*-coda constructions and how they interact with each other to contribute to the (un)grammaticality of the sentences. In section 4, we put forward the analysis of the distribution of *zhe* in post-*you* structures, which is controlled by a different mechanism from that affecting the distribution of *le*. Section 5 indicates that the distributions of *zhe/le* in the post-*you* construction imply that the verb *you* may syntactically be followed by a clause and more evidence will be put forward to support this hypothesis. Finally, section 6 draws the conclusion.

2. Lin’s (2002) analysis of the *zhe/le* alternation in LICs

According to Lin (2002), the alteration of *zhe* and *le* in LICs does not seem to affect the meaning of the sentence in certain contexts. For example, both (2a) and (2b) can be used

to express the state of two placards being stuck on the wall at the speech time.

However, it is generally agreed that *le* and *zhe* are two separate aspectual morphemes, *le* being the perfective aspect and *zhe* being the durative or imperfective aspect. The question is then how we can account for the neutralization of *zhe* and *le* in locational verb existential sentences. According to Lin's explanation, the neutralization of *zhe* and *le* in LICs is not a special property of this sentence pattern, since it can also happen in an ergative construction, as in (4), a passive construction, as in (5), and a normal active sentence, as in (6).

- (4) a. Men kai-zhe
 door open-ZHE
 'The door is in a state of being open.'
 b. Men kai-le
 door open-LE
 'The door is opened.'
- (5) a. Ta de shuang-shou bei fan-bang-zhe
 he DE two-hand PASS reverse-tie-ZHE
 'His hands are in a state of being tied on the back.'
 b. Ta de shuang-shou bei fan-bang-le
 he DE two-hand PASS reverse-tie-LE
 'His hands are tied on the back.'
- (6) a. Ni ti-zhe zheme duo shu, yao qu nali?
 You carry-ZHE this many book want go where
 'Where are you going, carrying so many books?'
 b. Ni ti-le zheme duo shu, yao qu nali?
 You carry-LE this many book want go where
 'Where are you going, carrying so many books?'

Therefore, he assumes that the neutralization of *zhe* and *le* should be attributed to the semantics of the two aspect markers and proposes the meanings of *le* and *zhe* as follows.

- (7) *Le* (φ) is true at a reference time t if and only if the initial subinterval of $f_{DP}(\varphi)$ precedes t .
- (8) *Zhe* (φ) is true at a reference time t if and only if t overlaps with $f_{DP}(\varphi)$.

(7) represents "the meaning of *le* with respect to a proposition φ which requires the initial subinterval of the 'distinguished phase' corresponding to φ precede a pragmatically determined reference time t , which is usually the speech time by default if no other

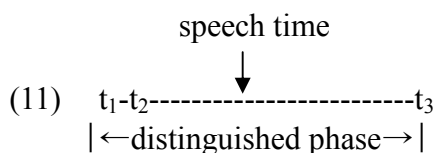
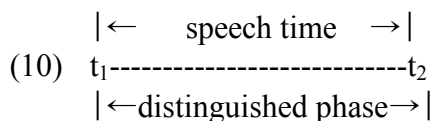
reference time is available.” (Lin 2002:29) While, (8) states that the reference time t , usually the speech time by default, overlaps with the whole distinguished phase corresponding to the proposition ϕ .

Lin’s definition involves the notion of a “distinguished phase” defined by Klein et al (2000). According to them, there are three distinguished times: the time of utterance (TU), the time of situation (T-SIT) and the time span about which an assertion is made (TT or topic time). Tense is concerned with the relations between TT and TU, and aspect expresses the relations between TT and T-SIT. There are different types of lexical contents of verbs. For example, some verbs “are true at some time t , then there is a contrasting time t' at which they are not true”. Such verb contents are referred to as 1-phase contents, such as *to sleep* or *to work*. Some verb contents describe a change of state within a certain time span. That is a situation that may first obtain and then still within the same time span, does not obtain, or vice versa. They are referred to as 2-phase contents, such as *dao* ‘to arrive’ or the resultative verb *ti-dao* ‘kick-fall’. They also regard the phase (or time interval) to which TT is related as the distinguished phase (DP). For 1-phase verbs, T-SIT only involves one time interval, so TT can only be related to this interval. Therefore, the only phase is the DP. However, 2-phase expressions involve two time intervals: the one for the source phase and the one for the target phase. Languages may select either of them related to TT and the selected phase is the DP. In English, DP is the source phase, whereas in Chinese, DP is the target phase, since English is more “action-oriented” while Chinese is “result-oriented”(Chu1976, Li1990, Yong1997).

Lin (2002) also defines the notions of the Initial Subinterval and the Final Subinterval of the distinguished phase as in (9).

- (9) Let I' be a member of $[T]$. I is a (PROPER) SUBINTERVAL OF I' if and only if $I \in [T]$ and $I \subseteq I'$ ($I \subseteq I'$ and not $I = I'$). I is an INITIAL SUBINTERVAL OF I' if and only if I is a subinterval of I' and there do not exist $t' \in I' - I$ and $t \in I$ such that $t' < t$. I is a FINAL SUBINTERVAL of I' if and only if I is a subinterval of I' and there do not exist $t' \in I' - I$ and $t \in I$ such that $t < t'$.

According to Lin’s definitions of *zhe* and *le*, the conditions for (2a) and (2b) to be true should be illustrated as (10) and (11) respectively.



(10) represents the case where the proposition *zhe* (*qiang shang tie liang-zhang bugao*) is true at the speech time if and only if the speech time overlaps with the interval at which the distinguished phase, represented as $[t_1, t_2]$, corresponding to the proposition (*qiang shang tie liang-zhang bugao*) holds. That is to say, the speech time overlaps with the whole distinguished phase from t_1 to t_2 .

In (11), $[t_1, t_3]$ represents the distinguished phase of the two placards being stuck on the wall and $[t_1, t_2]$ the initial subinterval of the distinguished phase. The vertical arrow denotes the speech time. Then, (11) shows that the proposition *le* (*qiang shang tie liang-zhang bugao*) is true at the speech time if and only if the initial subinterval of the interval at which the distinguished phase corresponding to the proposition (*qiang shang tie liang-zhang bugao*) holds precedes the speech time. That is to say, the speech time falls between t_2 and t_3 .

In sum, in the case of *zhe*, the speech time overlaps with the whole distinguished phase, and in the case of *le*, the speech time overlaps with the part of the distinguished phase between the initial subinterval and the final subinterval. Anyway, in both cases, there is an overlapping of the speech time with the distinguished phase. Therefore, the truth conditions of (2a) and (2b) are equivalent so far as temporal reference is concerned.

Although we agree with Lin that the *zhe/le* alternation is caused by the overlapping in one part of their meanings: they both assert that the situation (of two placards being on the wall) is true at the speech time (or a given reference time), we would like to argue that (2a) and (2b) do not have the same truth conditions. At the initial subinterval of the DP, the meaning of *le* involves a change of state, and then, from t_2 to t_3 , the result state exists. While, *zhe* denotes that a state exists during the whole DP. Therefore, as suggested by C.-T. James Huang (p.c.), (2a) and (2b) do not have the same truth conditions, but in the given speech context, the difference in truth conditions doesn't matter. That is to say, given that a sentence introduced by a locative subject is primarily presenting a scene to the addressee, the minor difference between the perfective *le* and the durative *zhe* is ignorable. Hence the two sentences are inter-changeable in usage.

In fact, the speech context does play an important role in *zhe/le* alternation. When it changes, even a little bit, the *zhe/le* alternation might disappear. The alternation of the sentences (12a) and (12b) disappears when the verb *tie-zhe* 'stick-ZHE' in (12a) and *tie-le* 'stick-LE' in (12b) are modified by the adverb *ganggang* 'just now'.

- (12) a. qiang-shang ganggang tie-zhe liang-fu hua. (zenmo zhuanyan-jian
 wall-on just now stick-ZHE two-CL picture how come blink eye-in
 jiu bu jian-le?)
 just not see-LE
 'On the wall were hanging two pictures just now. (How come they disappeared just in the blink of an eye?)'

- b. qiang-shang ganggang tie-le liang-fu hua. (fangjian haokan duo le)
 wall-on just now stick-LE two-CL picture room beautiful much LE
 ‘On the wall hung two pictures just now. (The room looks much better.)’

In (12a), the adverb *ganggang* ‘just now’ makes it necessary for *zhe* to describe a past state (by implicature, a state that does not obtain now). That is to say, the reference time that overlaps with the DP precedes the speech time. While, (12b) implies that the two pictures were hanged on the wall and still exist there. Furthermore, it seems that in this sentence, *le* has the function of ‘telicizing’ an atelic. Even though *le* and *zhe* are similar when used to present a given state (in which case the most relevant part for *le* is the state that obtains in t_2 - t_3)—the present perfective says that a certain new state obtains now, the use of *ganggang* ‘just now’ makes it necessary to refer to t_1 - t_2 , and therefore it is possible for t_2 - t_3 to refer to the speech time. Hence, the superficially alternating sentences (12a) and (12b) do not alternate at all.

Some *zhe/le* alternations do not hold even superficially when the context is changed. As shown in (13), when the context implies a change of state, it is necessary for *le* to refer to t_1 - t_2 , not t_2 - t_3 , so *zhe* is ruled out in such a situation.

- (13) Gangcai dianli yige ren ye meiyou, zenme yixiazi (Liu 2007)
 just-now store-in one-CL person also not-exist how-come suddenly
 wei -le/ *-zhe zheme duo ren
 gather-LE/-ZHE so many people
 ‘Just now there was nobody in the store; how come suddenly gathered so many people?’

3. The distribution of *le* in *you*-coda constructions

3.1 The two factors affecting the distribution

As mentioned in section 1, *le* alternates with *zhe* in LICs but the superficially identical V-*le* sequence cannot appear in *you*-coda constructions, as shown in the contrast between (2b) and (3b), repeated below.

- (2) b. Qiangshang tie-le liang-zhang bugao
 On the wall stick-LE two-CL placards
 ‘On the wall are stuck two placards’
- (3) b. * Qiangshang you liang-zhang bugao tie-le
 On the wall have two-CL placards stick- LE
 ‘On the wall there are stuck two placards.’

We try to achieve a unified account for these two sentences, since they have some structural similarities. They are both existential constructions, including some common

constituents, such as the locative subject *qiangshang* ‘on the wall’, the locational verb *tie* ‘stick’ and the theme argument of the verb *liang-zhang bugao* ‘two placards’. The differences between them are first, the sentence pattern of (2b) is the LIC and that of (3b) is the *you*-sentence; second, the constituent *V-le* in (2b) is in the middle of the main clause, while the one in (3b) is in the coda of *you* and at the sentence final position. As we have discussed in section 2, *zhe/le* alternation is not unique to LICs. That is to say, *tie-le* ‘stick-LE’ in (2b) may also appear in other constructions, such as the *you*-coda construction. What else may block *V-le* to appear in post-*you* construction but allow it to occur in the LIC? As a first approximation, one might have the idea that the two sentences are derivationally related, but that the ill-formedness of (3b) comes from the perfective *le* being stranded at the end of the sentence, which for some reason is prohibited. In particular, if we treat *tie* ‘stick’ as an unaccusative verb with its agent theta role deleted in both (2b) and (3b), the theme argument is base-generated as the complement of *tie* ‘stick’. In (2b), it remains in that position, while in (3b), it is raised to preverbal position with a trace left, as shown in (14).

- (14) [qiangshang you [... [liang-zhang bugao_i ... [VP tie-le t_i]]]]
 Wall-on have two-CL placards stick-LE

One immediate problem with this idea, however, is that there is no independent reason why the representation (14) is ill-formed. In fact, the sentence (15a), with a similar structural representation as in (15b), is entirely natural:

- (15) a. jianyu-li you wu-ge fanren pao-le
 jail-inside have five-CL prisoners escape-LE
 ‘From the jail, there are five prisoners who escaped.’
 b. [jianyu-li [you [... wu-ge fanren_i ... [VP pao-le t_i]]]]
 jail-inside have five-CL prisoners escape-LE

The contrast between (14) and (15b) shows that the grammaticality depends, in part at least, on verb choice. More examples in (16) and (17) strengthen the point that when the verb changes, the grammaticality of the sentences varies.

- (16) Menkou you yi-ge xiaohai ku-le
 doorway have one-CL child cry-LE
 ‘At the doorway, there is a child crying.’
 (17) * Jieshang you xuduo xin dalou gai-le.
 street-on have many new building build-LE
 ‘On the street, there are many new buildings built.’

But the choice of verbs alone cannot be the whole explanation for the ungrammaticality of (3b), given the grammaticality of (2b), which differs from (3b) not in the choice of verbs (except for the presence of *you*), but in the position of the *V-le* phrase. And if the sentence-final *V-le* (in 3b) is identical with the sentence-medial *V-le* in (2b), we are back to square one!

I would like to pursue a different tack by assuming that (2b) and (3b) do not involve the same *le*: in (2b) we have the perfective *le*, but in (3b) we have the change-of-state *le*, that is *le*₁ and *le*₂, respectively. And the ungrammatical sentences are those that involve at least the sentence-final *le*₂³ being used in construction with the wrong choice of verbs.

3.2 The interactions of the two factors

According to Smith (1997), there are two types of aspect: situation aspect (aktionsarten / verb aspect) and viewpoint aspect. The situation aspects include state, activity, semelfactive, achievement and accomplishment. They are the inherent properties of verbs. Following Smith, Gu (2008) classifies the verbs such as *kesou* ‘cough’ as a semelfactive verb which denotes an event that includes an indefinite number of atomic activities. One example to illustrate the atomic property of such verbs is that we can say *kesuo yisheng* ‘give a cough’. Here, we assume that the verb *ku* ‘cry’ in (16) is also a semelfactive verb because we can add the adverbial *yisheng* ‘a sound’ to it to get *ku-le yisheng* ‘give a cry’. Now, the above examples involve three types of verbs in the post-*you* structure: the activity verb *tie* ‘stick’ in (3b), the activity verb *gai* ‘build’ in (17)⁴, the achievement verb *pao* ‘escape’ in (15) and the semelfactive verb *ku* ‘cry’ in (16). Gu (2008) further assumes that semelfactive verbs and achievement verbs have the [atomic] feature, while

³ Another possibility is that those ungrammatical sentences involve ‘*le*₁ + *le*₂’. Anyway, the *le* in post-*you* construction must not be *le*₁ because sentences are not ended by *le*₁ in Chinese.

⁴ Tai (1984: 290) points out that though in English accomplishment verbs generally imply the achievement of a goal, “their supposed equivalents in Chinese do not contain such an implication as an inherent part of meaning.” To make sure that “the attainment of goal, Chinese resorts to resultative verb compounds, of which the first element indicates action, the second the result”. For example, there are two English verbs *study* and *learn*. The former denotes just an activity, while the latter is an accomplishment verb expressing the goal attained in the process of studying. In Chinese, the counterpart of *learn* is a resultative verb compound *xue-hui* in which *xue* corresponds to *study*, *hui* ‘able’ implies the result of study. Similar examples are *kan-jian* ‘look-perceive’, *sha-si* ‘kill-dead’, *xie-wan* ‘write-finish’, etc. Following Tai, Sybesma (1997) assumes that “Chinese has no inherently telic predicates because all accomplishment (and arguably, achievements) in Chinese are analyzable as activity-result compounds. Therefore, we treat *gai* ‘build’ as an activity verb or an incremental theme verb, which, according to (Lin 2007), carries an accomplishment meaning only when it has an indefinite object. One thing needs to be pointed out is that we agree with Sybesma that Chinese has no inherent accomplishment verbs on one hand, and on the other hand, we argue that Chinese does have inherent telic verbs which are achievements. The different behaviors of the achievement verb *pao* ‘escape’ in (15) and the activity verb *gai* ‘build’ in (17) supports this hypothesis.

activity verbs have the [extended] feature.

Li & Thompson (1981) treated the sentence-final *le* as a perfect marker relating two time points: the time in the past and the speech time. Therefore, we assume that *le*₂ is compatible with the verbs which indicate the change of state. The verbs with the [atomic] feature have such an implication. For example, the achievement verb *pao* ‘escape’ implies two states: the prisoner being in the jail and being away from the jail. Therefore, having combined with *pao*, *le*₂ can relate two time points to the two states: a time when the prisoner is in the jail and a time, which happens to be the speech time here, when the prisoner is away from the jail. Similarly, when *le*₂ is used with the verb *ku* ‘cry’, it links two time points: a time when the child did not cry and a time when it sent out a sound of cry. On the contrary, [extended] verbs describe continuous action and do not include two distinct states to which the two time points of *le*₂ can relate. Thus, they are not compatible with *le*₂. That’s why (3b) and (17) are ungrammatical. This hypothesis can be supported by the fact that when we add some adverbials denoting duration, direction or a result, the sentences become well-accepted, as in (18) and (19).

- (18) a. Qiangshang you liang-zhang bugao tie-le henjiu le
 On the wall have two-CL placards stick-LE1 long time LE2
 ‘On the wall there has been two placards stuck for a long time.’
 b. Qiangshang you liang-zhang bugao tie chu-lai le
 On the wall have two-CL placards stick out-come LE2
 ‘On the wall there has been two placards stuck out.’
 c. Qiangshang you liang-zhang bugao tie fan le
 On the wall have two-CL placards stick upside down LE2
 ‘On the wall, there are two placards which have been stuck upside down.’
- (19) a. Jieshang you xuduo xin dalou gai-le henjiu le.
 street on have many new building build-LE1 long time LE2
 ‘On the street, there are many new buildings built for a long time.’
 b. Jieshang you xuduo xin dalou gai qilai le.
 street on have many new building build rising up LE2
 ‘On the street, there are many new buildings built up.’
 c. Jieshang you xuduo xin dalou gai-hao le.
 street on have many new building build-well LE2
 ‘On the street, there are many new buildings built up.’

The durational adverbial *henjiu* ‘for a long time’ in (18a) and (19a) helps to set up two states: a state in which the action of sticking or building has just started and a state in which the action has been done for a long time. The directional adverbial *chulai* ‘coming out’ and *qilai* ‘rising up’ in (18b) and (19b) also help to set up two states: a state in which the placards are not on the wall or the new buildings are not built up and a state in which

the placards are stuck on the wall and shown to the public or the buildings have been built up. The resultative predicate *fan* ‘upside down’ in (18c) (offered by C.-T. James Huang) and *hao* ‘well’ in (19c) help to bring about two states: a state in which the two placards are not on the wall or the buildings are not built and a state in which the two placards have been stuck on the wall in the wrong way or the new buildings have been built up. Therefore, with these adverbials, the two states, the one in the past and the one at the speech time, are established, to which the two time points of *le*₂ can relate.

4. The distribution of *zhe* in LIC and the post-*you* structure

As we pointed out in section 1, though LICs with *zhe* are perfectly normal, the *you*-sentences with it in the coda sound marginal, as shown in (2a) and (3a), repeated below.

(2) a. Qiangshang tie-zhe liang-zhang bugao (Nie 1989)
 On the wall stick-ZHE two-CL placards
 ‘On the wall are stuck two placards’

(3) a. ?? Qiangshang you liang-zhang bugao tie-zhe (Nie 1989)
 On the wall have two-CL placards stick-ZHE
 ‘On the wall there are stuck two placards.’

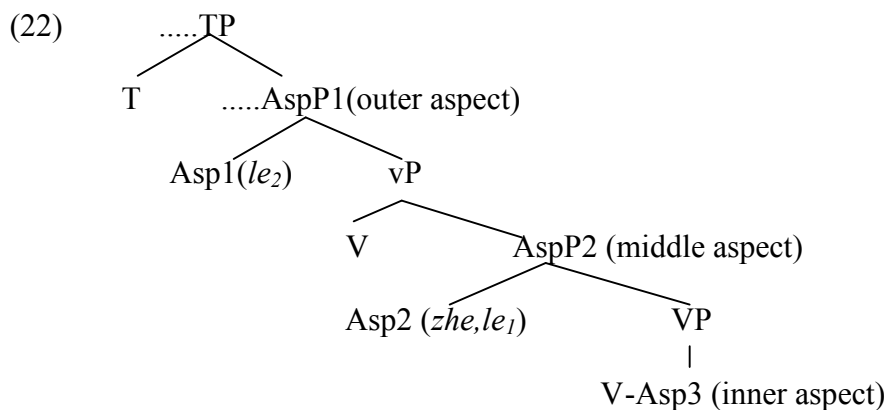
The case of *zhe* seems to be similar to that of *le*. However, there is a significant difference between them. The occurrence of *le* in the post-*you* construction causes the sentence to be totally ungrammatical, while the occurrence of *zhe* in the same situation just makes the sentence to be marginal. What causes the marginality of the *you*-sentences with *zhe* in the coda? We assume the reason is that the aspect marker *zhe* cannot anchor the tense of the clausal complement of *you*. The explanation goes as follows. Huang (2005) states that tense is a constrainer of the event variable. The bare form of the verb denotes an event and the tensed form denotes a specific event. This variable must be licensed by tense morphology or other forms of constrainers. Tsai (2007) further assumes that since Chinese has no overt tense, its underlying event variable will be satisfied by a variety of morpho-syntactic means. The verb raising to v/T is one of them. In a sentence like (2a), the verb *tie-zhe* ‘being stuck’ is raised to an existential light verb in the locative-existential construction to bring out the event variable, as shown in (20).

(20) [_{TP} Qiangshang_j T [_{VP} v tie-zhe_i [_{VP} liang-zhang bugao v t_i t_j]
 wall-on stick-ZHE two-CL placards

In the incomplete sentence (3a), we assume that the existential operator of the sentence is occupied by the modal verb *you* which functions to present an event represented by its complement clause, as shown in (21).

- (21) [_{TP} Qiang-shang_i _T [_{VP} you [_{CP} liang-zhang bugao_i [_{TP} t_i [_{VP} tie-zhe t_i]]]]]]
 wall-on have two-CL placards stick-ZHE

In the complement CP, there is no existential operator. How can the event variable of the CP be licensed? By the aspect marker *zhe*? According to Tsai (2007), there are three layers of aspectual projections, as shown in (22), and only the outer AspP (designated as Asp1) can raise to T to value the lexical tense operator. The aspect marker *zhe* is in the middle layer and can never reach T for tense anchoring. Therefore, it cannot render completeness to a sentence by itself, as in (23).



- (23) ?? Zhangsan ku-zhe.
 Zhangsan cry-ZHE
 ‘Zhangsan is crying’

In the light of Tsai’s analysis, we assume that the marginality of the *you*-sentence in which *V-zhe* occurs in the coda is caused by *zhe*’s being incapable of anchoring tense of the post-*you* CP. This assumption can be somewhat supported by the evidence that if we put the locative phrase *qiangshang* ‘on the wall’ in the embedded CP, as in (24a)⁵ or an adverbial phrase denoting manner (as *bingpai* ‘side by side’ in (24b)) or duration (as *yizhi* ‘for a long time’ in (24c)), the sentence (3a) will become complete, since these adverbials help anchor tense of the CP complement of *you*.

- (24) a. you liang-zhang bugao zai qiangshang tie-zhe
 have two-CL placards at wall-on stick-ZHE
 ‘There are two pictures stuck on the wall.’

⁵ When the locative phrase appears in non-subject position, it is usually preceded by the preposition *zai* ‘at’. As for why the preposition *zai* ‘at’ must be omitted in the sentential subject position, see Huang (1987) for detailed discussions.

- ’
- b. Qiangshang you liang-zhang bugao bingpai tie-zhe
 On the wall have two-CL placard side by side stick-ZHE
 ‘On the wall, there are two placards stuck side by side ’
- c. Qiangshang you liang-zhang bugao yizhi tie-zhe
 On the wall have two-CL placard for a long time stick-ZHE
 ‘On the wall, there have been two placards stuck for a long time ’

These elements cannot be added to save the ill-formed sentence (3b) which involves *V-le* in the complement clause of *you*. This strengthens our hypothesis that the distributions of *le* and *zhe* in post-*you* constructions are controlled by different mechanisms.

In sum, the occurrence of *V-le* in *you*-coda construction is blocked because the [extend] feature of activity verbs is not compatible with *le*₂ which denotes ‘a change of state’. This is supported by the fact that when *V-le* is modified by durational, directional or resultative phrases which help set up a result state, the sentences become well-accepted. At this time, the complement of *you*, such as in (18) and (19), is similar to a middle construction which requires the predicate to be resultative somehow. On the other hand, the [extended] feature of activity verbs is comfortable with *zhe* that denotes imperfective-ness. Though, the marginality caused by *V-zhe* in the *you*-coda construction is caused by *zhe*’s incapability of anchoring tense of the complement clause of *you*.

5. Discussions about the syntax of the complement of *you*

5.1 The implications of the distribution of *zhe/le* on the syntax of the coda of *you*

Huang (1987) assumes that *you* is an auxiliary which might bring a clause as its complement. In his (1988) work, the *you*-sentence with a locative phrase in the sentential subject position behaves quite differently from the one without a locative phrase in that position. The *you* in the former case is a main verb, similar to the possessive *you*. While, the *you* in the latter, which he calls an existential *you*, is a raising auxiliary and subcategorizes for a clause. Tsai (2004) classifies these two types of *you* as the existential *you* and the presentational *you* respectively, with the latter possessing the function of presenting an event which is represented by a clause.⁶ On one hand, we agree with the two scholars that in bare *you* sentences, *you* brings a clause as its complement, and our discussion will provide additional support for this analysis. On the other hand, we assume that in non-bare *you*-sentences, i.e., those with a locative subject, *you* might subcategorize for a clause, similar to the conclusion made by Gu (2004).⁷

⁶ Tsai (2004) summarizes that there are five types of *you*. They are the possessive *you*, e.g., *wo you yidong fangzi* ‘I have a house’, the existential *you*, e.g., *fangzi-li you ren* ‘In the house, there is a man’, the presentational *you*, e.g., *you ren zou-le* ‘Someone left’, the perfective *you*, e.g., *ren mei you lai* ‘The man has not come’ and the assertive *you*, e.g., *wo mei you hen tiaopi wo* ‘I was not naughty’

⁷ Different from her, we will compare the syntax of *you*-coda constructions with locational verb coda constructions and assume that *you* takes a clause as its complement when XP is a stage-level

The distribution of *zhe* discussed in section 4 shows that the complement of *you*, as in (3a), is a tensed clause, because it behaves as a simple incomplete clause with the aspect marker *zhe*, in which when some tense anchoring adverbials are added, the sentence becomes complete, as in (24).

Similarly, the distribution of *le* also shows that the string after *you* is good just in case it is independently good, as shown in the comparison between (25) and (26).

- (25) a. * Qiangshang you liang-zhang bugao tie-le
 On the wall have two-CL placards stick-LE
 ‘On the wall there are stuck two placards.’
 b. Qiangshang you liang-zhang bugao tie fan le
 On the wall have two-CL placards stick upside down LE2
 ‘On the wall, there are two placards which has been stuck upside down.’
- (26) a. * na liang-zhang bugao tie-le
 that two-CL placards stick-LE2
 ‘On the wall there are stuck two placards.’
 b. na liang-zhang bugao tie fan le⁸
 that two-CL placards stick upside down LE2
 ‘On the wall, there are two placards which has been stuck upside down.’

From the observation of the distributions of *zhe* and *le* in post-*you* constructions, we temporarily conclude that the complement of the modal verb *you* involving NP and XP is a clause.

5.2 Two differences between locative inversion constructions and *you*-sentences

The first difference is described as follows. According to Huang (1987), when there is an

predicate. When XP is an individual-level predicate, similar to locational verbs, *you* subcategorizes for an NP with XP being a secondary predicate, as shown in Section 5.2.

⁸ According to C.-T. James Huang (p.c.), another way to save (26a) is to form a contrastive sentence, as shown in (i).

- (i) na liang-zhang bugao tie-le, lingwai san-zhang hai mei tie
 That two-CL placard stick-LE other three-CL still not stick
 ‘That two placards are stuck (on the wall), while the other three are not’.

Each part of the contrastive sentence involves a secondary topicalization. This sentence is different from the sentence (26b) and the complement clause of *you* in (25b), which are middle constructions that require the predicates be accomplishments.

XP in the position 4, the NP in position 3 must be not only indefinite but also specific, as shown in (27).

- (27) a. Wo jiao-guo yige xuesheng hen congming. (Huang 1987: 248)
 I teach-Exp one student very clever
 ‘I have taught one student who is very clever.’
 b. * Wo jiao-guo xuesheng hen congming. (Huang 1987: 248)
 I teach-Exp student very clever
 ‘I taught very naughty students.’

Locational verb existentials follow this rule generally, as in (28a). However, both bare and non-bare *you*-sentences allow non-specific bare NPs in the position 3, as in (28b) and (28c) respectively.

- (28) a. chuang-shang tang-zhe *(liang-ge) ren zai kan shu
 bed-top lie-ZHE two-CL person Prg reading book
 ‘In the bed lies a man reading a book’
 b. you (liang-ge) ren zai wuzi-li shuohua
 have two-CL person at room-inside speak
 ‘there are two men speaking to each other in the room’
 c. wuzi-li you (liang-ge) ren zai shuohua
 room-inside have two-CL person Prg speak
 ‘In the room there are two men speaking to each other’

Therefore, we assume that the XP or coda in locational verb existentials is a secondary predicate, as Huang (1987) and Tsai (1994) suppose, whereas the coda in *you*-sentences may form a clause with the post-verbal NP as its subject. If the XP were only a secondary predicate, then the NP in position 3 would clearly violate the specificity requirement of Huang (1987). Recall also from Huang (1988) that the clausal complement analysis is already available for *you* anyway.

There seems to be a counterexample to the above observation from Tsai (1994), as in (29).

- (29) * fangjian-li you nühai hen piaoliang.
 Room-inside have girl(s) very pretty
 ‘?? In the room, there is/are (Sm) girl(s), who is/are very pretty.’

However, with further observation, we discover that in (29), the XP which follows *nühai* “girl(s)” is an individual level predicate. When it is replaced by a stage-level predicate, the sentence will become well accepted, as in (30).

- (30) fangjian-li you nühai zai deng ni
 Room-inside have girl(s) Prg wait you
 ‘In the room, there is/are (Sm) girl(s), who is / are waiting for you.’

Therefore, we assume that XP can be either a secondary predicate or form a clausal complement with the NP in position 3. When XP is an individual-level predicate, it is a secondary predicate because an individual level predicate forces a secondary predicate reading. Therefore, a sentence like (29) would have been asserting only the existence of an individual, about whom the speaker makes a further comment (the secondary predicate). Hence, (29) is ungrammatical unless *nühai* ‘(Sm)girl(s)’ is turned into *(yi-)ge nühai* ‘a girl’. (30) is grammatical because a clausal analysis is available. The clausal analysis denotes existence of an event, so it must involve a stage-level predicate because an individual-level predicate denotes a generic situation. Since it is a clause, and there is no secondary predication, the NP in the 3rd position does not need to be specific. So all the good cases with bare NP in position 3 must have clausal analysis. Those cases with specific NP in position 3 can have a clausal analysis, but by logic, need not be.

The second difference between *you* sentences and locational verb existential sentences, pointed out by Gu (2004), is that the former can be subcategorized by transitive verbs while the latter cannot, as shown by the contrast between (31a) and (32a).

However, as we observed, locational verbs can also be followed by transitive verbs, as in (31b). The real difference between locational verbs and *you* is that the former can only be followed by the predicate which is in present tense or describes a present situation, as in (31), whereas the latter can be followed by the predicate which is in either present tense or past tense or describes either a present situation or a past event, as in the non-bare *you* sentences in (32) and the bare-*you* sentences in (33).⁹

⁹ At the IACL-18 & NACCL-22 conference, Prof. Gu Yang pointed out that if the verb phrase *tou-le Xiao Ming-de qianbao* ‘stole Xiao Ming’s wallet’ in (31a) is changed into the verb phrase *chi-le Xiao Ming-de pingguo* ‘ate Xiao Ming’s apple’, the sentence will become better, as shown in (i).

- (i) men-kou zuo-zhe yi-ge ren chi-le Xiao Ming-de pingguo
 doorway sit-ZHE one-CL person eat-LE Xiao Ming-DE apple
 ‘There sits a man at the doorway who ate Xiao Ming’s apple.’

We assume that (i) might not be a counterexample to the analysis in this paper. The verb *chi* ‘eat’ is an activity verb, while the verb *tou* ‘steal’ is an achievement verb. Different from *tou-le* ‘steal-LE’ which denotes a past event, *chi-le* ‘eat-LE’ is ambiguous. It can denote a past event and an inchoative meaning as well, i.e., the event of eating Xiao Ming’s apple may start before the speech time, last and overlap with the time of sitting and the speech time. This can be shown

- (31) a. ?? men-kou zuo-zhe yi-ge ren tou-le Xiao Ming-de (Gu 2004)
 doorway sit-ZHE one-CL person steal-LE Xiao Ming-DE
 wallet
 qianbao
 ‘There sits a man at the doorway who stole Xiao Ming’s wallet’
 b. men-kou zuo-zhe yi-ge ren zai kan shu
 doorway sit-ZHE one-CL person Prg reading book
 ‘There sits a man at the doorway reading a book’
- (32) a. men-kou you yi-ge ren tou-le Xiao Ming-de qianbao (Gu 2004)
 doorway have one-CL person steal-LE Xiao Ming-DE wallet
 ‘At the doorway, there is a man who stole Xiao Ming’s wallet’
 b. men-kou you yi-ge ren zai kan shu
 doorway have one-CL person Prg reading book
 ‘At the doorway, there is a man reading a book’
- (33) a. you yige ren zai men-kou tou-le Xiao Ming-de qianbao
 have one person at door way steal-LE Xiao Ming-DE wallet
 ‘There is a man who stole Xiao Ming’s wallet at the door way’
 b. you yige ren zai men-kou kan shu
 have one person at doorway read book
 ‘There is a man reading a book at the doorway’

As observed by C.-T. Huang (p.c.), when the coda in these ill-formed locational verb existentials is turned into a simple clause, as in (34), the sentence becomes natural.

- (34) men-kou zuo-zhe yi-ge ren, ta tou-le Xiao Ming-de qianbao
 doorway sit-ZHE one-CL person, he steal-LE Xiao Ming-DE wallet
 ‘There sits a man at the doorway, and he stole Xiao Ming’s wallet’

In sum, based on the above observations that the existential verb *you* can be followed by a bare NP and a predicate describing a past event, but the locational verb cannot, we conclude that the coda in the locational verb construction is a secondary

in (ii).

- (ii) men-kou zuo-zhe yi-ge ren chi-le Xiao Ming-de pingguo, hai mei chi-wan
 doorway sit-ZHE one-CL person eat-LE Xiao Ming-DE apple yet not eat-finish
 ne.
 PART
 ‘There sits a man at the doorway who eats Xiao Ming’s apple and has not finished it yet.’

predicate, while the coda in the *you*-sentence may form a clause with the NP after *you*, or it may also be a secondary predicate.

6. Conclusion

In this paper, I have proposed that although the *V-le* and *V-zhe* alternate in LICs, they differ in their distributions when occurring in the coda of *you* without additional modifying elements. To account for *zhe/le* alternation in LICs, we adopted Lin's (2002) account that *zhe/le* alternation is irrelevant to the sentence pattern LIC, but is attributed to the overlap of the meanings of the two aspect markers. As for why *V-le* is prevented from appearing in post-*you* constructions, we assume that the aspect marker *le* in such a structure is the sentence-final le_2 (or perhaps ' le_1+le_2 ') and the one in LICs is le_1 . It is the incompatibility between the semantics of le_2 and the [extended] feature of activity verbs that blocks the *V-le* sequence appearing in post-*you* constructions. On the other hand, *zhe* is blocked from the post-*you* construction because it cannot help anchor tense of the CP complement of *you*. The distributions of *le* and *zhe* in post-*you* constructions together with some other facts which distinguish *you*-sentences from locational verb existentials, such as the facts that post-*you* NPs can be bare NPs and the coda of *you* can be past tense predicate, show that the coda in *you*-sentences may form a clause with the post-*you* NP when it is a stage-level predicate, or, it may be a secondary predicate when it is an individual-level predicate.

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