

Complementation in Mandarin

Richard Luo

Harvard University

July 31, 2022

Contents

- 1 Evidence for finiteness
- 2 Restructuring in Mandarin

Evidence for finiteness

Introduction

There have been several different suggestions proposed for how to diagnose the existence of finiteness as a property in Mandarin:

- Licensing of TMA elements (e.g. aspect markers)
- Overtness of embedded subject
- Scope relations and reference times
- Speaker-oriented properties
- Anchoring of speech events via pseudo-imperative elements (PIE)

Licensing of TMA elements

Huang 1989: embedded clauses are finite if they are able to accommodate modals or aspect markers felicitously

- (1) a. Zhangsan_i shuo [(ta_i) lai **le**]
 Zhangsan say [3.SG come PFV]
 'Zhangsan said that (he) came.'
- b. Zhangsan_i xiangxin [(ta_i) **hui/yao** lai]
 Zhangsan believe [3.SG FUT come]
 'Zhangsan believes that (he) will come.'
- (2) a. Lisi_i shefa [PRO_i lai]
 Lisi try [PRO come]
 'Lisi tried to come.'
- b. *Lisi_i shefa [PRO_i **hui/neng/keyi/zai** lai]
 Lisi try [PRO will/can/may/PROG come]
- c. *Lisi_i shefa [PRO_i lai **zhe/guo/le**]
 Lisi try [PRO come DUR/EXP/PERF]

Licensing of TMA elements

Li 1990: finite vs. non-finite distinction does not lie in the potential occurrence of modals or aspect markers in general, but in the possible occurrence of those that have become “tense markers”

- (3) a. Wo_i zhunbei [PRO_i mingtian **yao** canjia yige hui]
 1.SG prepare [PRO tomorrow will attend one-CL meeting]
 ‘I am planning to attend a meeting tomorrow.’
- b. Wo quan ta_i [PRO_i chi-**le** zhe wan fan]
 1.SG persuade 3.SG [PRO eat-PFV this bowl rice]
 ‘I persuade him/her to finish eating this bowl of rice.’
- c. Wo quan ta_i [PRO_i mingtian **yao**/*hui lai]
 1.SG persuade 3.SG [PRO tomorrow FUT come]
 ‘I persuade him/her to come tomorrow.’

Licensing of TMA elements

Even so, there are instances in which aspect markers do appear in the embedded predicate for complements that are traditionally viewed to be non-finite, which suggests evidence for restructuring, e.g. aspect lowering (Hu et. al. 2001).

- (4) a. Wo bi ta_i [PRO_i lai le]
 1.SG force 3.SG [PRO come PFV]
 'I forced him/her to come.'
- b. *Wo bi ta_i [PRO_i meiyou lai]
 1.SG force 3.SG [PRO NEG-PFV come]
- c. Wo meiyou bi ta_i [PRO_i lai]
 1.SG NEG-PFV force 3.SG [PRO come]
 'I didn't force him/her to come.'

Overtness of embedded subject

N. Zhang 2016: null PF form of controllee is not universal in control constructions with non-finite complements; other variables are sometimes allowed, such as reflexive *ziji*, bound pronouns (with partial control possible), or *cpro* = complex complement pronouns (pronouns followed by a complement of the form 'numeral + classifier + noun'), though PRO is most preferred.

- (5) a. Wo_i dasuan [_{tian} hei yihou **women**_{*i+j*} **liang-ge-ren** yiqi qu]
 1.SG plan [sky black after 1.PL two-CL-person together go]
 'I plan for the two of us to go together after it gets dark.'
- b. $Fumu_i$ jue ding [wanshang **ziji**_{*i*} chuqu kan dianying]
 parents decide [evening self go-out see movie]
 'Mom and Dad decided to go watch a movie this evening.'

Scope relations and reference times

T.H. Jonah-Lin 2011: finiteness may license scoping over sentence-final particle *le* (assumed to be perfect/inchoative aspect marker which requires reference time); epistemic modals can, whereas root modals and future tense marker *hui* cannot

- (6) a. Zhangsan **keneng** [qu Taipei **le**]
 Zhangsan be-likely-to [go Taipei PERF]
 'Zhangsan may have gone to Taipei.'
- b. *Zhangsan [[**keneng** qu Taipei] **le**]
 Zhangsan [[be-likely-to go Taipei] PERF]
 Intended: 'It has become possible that Zhangsan goes to Taipei.'
- (7) a. *Zhangsan **neng** [qu Taipei **le**]
 Zhangsan be-able-to [go Taipei PERF]
 Intended: 'Zhangsan is able to have gone to Taipei.'
- b. Zhangsan [[**neng** qu Taipei] **le**]
 Zhangsan [[be-able-to go Taipei] PERF]
 'It has become the case that Zhangsan is able to go to Taipei.'

Restructuring in Mandarin

Aspect lowering and actuality entailment

A motivating example from early literature (Hu et. al. 2001):

- (8) a. Wo qing **guo** ta_i [PRO_i chi fan], keshi ta_i mei lai
 1.SG invite EXP 3.SG [PRO eat meal], but 3.SG NEG come
 'I invited him/her to have dinner, but he/she didn't come.'
- b. #Wo qing ta_i [PRO_i chi **guo** fan], keshi ta_i mei lai
 1.SG invite 3.SG [PRO eat EXP meal], but 3.SG NEG come
 'I invited him/her to have dinner, but he/she didn't come.'

Hu et. al. argue, however, that there is no finite vs. non-finite distinction in Mandarin. The problem is they do not take into consideration the fact that a matrix verb can take more than one kind of complement, nor the fact that the complement could influence the meaning of the matrix verb (cf. the *synthesis* approach from Wurmbrand, Lohninger 2019).

Rather, such “counterexamples” may demonstrate the flexibility of syntax-semantics mapping in complementation via processes such as restructuring.

Research summary

Evidence for restructuring in Mandarin:

- Inner topicalization
- Focus fronting
- Aspect lowering

Monoclausality vs. biclausality:

- Return to discussion on modals
- Problem with monoclausal approach
- Synthesis?

Inner topicalization

Preposing of the object to a position following the matrix subject and before the matrix predicate (hence, it is also sometimes called *object fronting*), introducing some kind of contrast. Movement of inner topics is clause-bounded.

- (9) a. Wo xiangxin [Lisi [**zhe-pian baogao**₁] xie-wan-le t₁]
 1.SG believe [Lisi [this-CL report] write-finish-PFV t₁]
 'I believe that Lisi has already written this report.'
- b. *Wo [**zhe-pian baogao**₁] xiangxin [Lisi xie-wan-le t₁]
 1.SG [this-CL report] believe [Lisi write-finish-PFV t₁]

Inner topicalization

Inner topicalization is available for *Situation* and *Event* complements, indicating that these have no clause boundary between the matrix and embedded predicate

- (10) a. Wo [**zhe-pian baogao**₁] hui shefa [jinkuai xie-wan t₁]
 1.SG [this-CL report] will try [asap write-finish t₁]
 'I will try to finish this report as soon as possible.'
- b. Lisi [**jinzhan baogao**₁] dasuan [zai zhe zhou nei tijiao t₁]
 Lisi [progress report] plan [at this week in submit t₁]
 'Lisi plans to submit the progress report this week.'

Focus fronting

Universal wh-phrases and focus elements with an ‘even...’ interpretation are also clause-bounded in Mandarin

- (11) a. Lisi xiangxin [Zhangsan [**shenme shi**]₁ dou ziji chuli t₁]
 Lisi believe [Zhangsan [what matter] all self handle t₁]
 ‘Lisi believes that Zhangsan handles everything by himself.’
- b. *Lisi [**shenme shi**]₁ dou xiangxin [Zhangsan ziji chuli t₁]
 Lisi [what matter] all believe [Zhangsan self handle t₁]

Focus fronting

Universal wh-phrases and focus elements with an ‘even...’ interpretation are also clause-bounded in Mandarin

- (12) a. Lisi xiangxin [Zhangsan [**lian zhe zhong xiao shi**]₁ dou ziji
 Lisi believe [Zhangsan [even this kind small matter] all self
 chuli t₁]
 handle t₁]
 ‘Lisi believes that Zhangsan handles even trivial matters like this by himself.’
- b. *Lisi [**lian zhe zhong xiao shi**]₁ dou xiangxin [Zhangsan ziji
 Lisi [even this kind small matter] all believe [Zhangsan self
 chuli t₁]
 handle t₁]

Focus fronting

In *Situation* and *Event* complements, however, focus fronting is possible out of the embedded clause

- (13) a. Lisi_i [**shenme shi**]₁ dou {shefa/dasuan} [PRO_i ziji chuli t₁]
 Lisi [what matter] all {try/plan} [PRO self handle t₁]
 'Lisi {tries/plans} to handle everything by himself.'
- b. Lisi_i [**lian zhe zhong xiao shi**]₁ dou {shefa/dasuan} [PRO_i
 Lisi [even this kind small matter] all {try/plan} [PRO
 ziji chuli t₁]
 self handle t₁]
 'Lisi {tries/plans} to handle even trivial matters like this himself.'

Aspect lowering

Some *Situation* and *Event* complements allow aspect lowering. In particular, this is well-attested for perfective aspect markers *le* and *guo*:

- (14) a. Zhangsan_i bi Lisi_i [PRO_i canjia-**le** bisai]
 Zhangsan force Lisi [PRO participate-PFV match]
 'Zhangsan forced Lisi to participate in the match.'
- b. Zhangsan_i shefa [PRO_i zuo-**guo** zhe-dao cai]
 Zhangsan try [PRO make-EXP this-CL dish]
 'Zhangsan tried to make this dish.'

For *Situation* complements, the temporal interpretation is still in the future with respect to the matrix event, but it is no longer irrealis. Rather, the complement eventuality becomes *factive*, i.e. there is actuality entailment.

Aspect lowering

Perfective aspect markers on the verb in *Situation* and *Event* complements **do not change** the temporal relation between matrix event and complement event. They only situate both events as having occurred in the past of the utterance time:

- (15) a. **Zuotian** Zhangsan bi Lisi_i [PRO_i zuo-le yujia]
 yesterday Zhangsan force Lisi [PRO do-PFV yoga]
 'Yesterday Zhangsan forced Lisi to do yoga.'
- b. ***Zuotian** Zhangsan bi Lisi_i [PRO_i **shang-ge xingqi** zuo-le yujia]
 yesterday Zhangsan force Lisi [PRO last-CL week do-PFV yoga]
 'Yesterday Zhangsan forced Lisi to do yoga next week.'
- (16) a. **Zuotian** Zhangsan_i shefa [PRO_i zuo-guo zhe-dao cai]
 yesterday Zhangsan try [PRO make-EXP this-CL dish]
 'Yesterday Zhangsan tried to make this dish.'
- b. ***Zuotian** Zhangsan_i shefa [PRO_i **di'er tian** zuo-guo zhe-dao cai]
 yesterday Zhangsan try [PRO 2nd day make-EXP this-CL dish]
 'Yesterday Zhangsan tried to make this dish the next day.'

Aspect lowering

cf. *Proposition* complements, where the occurrence of *guo* and *le* indicate that the embedded event happened *before* the matrix event, i.e. the attitude holder's 'now'; in these cases, there is no real aspect lowering

- (17) a. Lisi xiangxin [wo mai-**guo** zhe zhong baoxian]
 Lisi believe [1.SG buy-EXP this kind insurance]
 'Lisi believes that I have previously bought this kind of insurance.'
- b. Lisi shuo [wo mai-**le** zhe zhong baoxian]
 Lisi say [1.SG buy-PFV this kind insurance]
 'Lisi said that I bought this kind of insurance.'

Aspect lowering and actuality entailment (cont.)

With lowering of perfective aspect markers, the world argument associated with the complement is identical to one associated with the matrix clause, and thus one cannot negate the occurrence of the complement event

- (18) a. Zhangsan bi Lisi_i [PRO_i zuo-le yujia], #keshi Lisi meiyou zuo
 Zhangsan force Lisi [PRO do-PFV yoga] but Lisi NEG-PFV do
 'Zhangsan forced Lisi to do yoga, #but Lisi didn't do it.'
- b. Wo qing ta_i [PRO_i chi **guo** fan], #keshi ta_i mei lai
 1.SG invite 3.SG [PRO eat EXP meal], but 3.SG NEG come
 'I invited him/her to eat dinner before, #but he/she didn't come.'

Aspect lowering and actuality entailment (cont.)

Speaker judgments vary in acceptability of aspect lowering. Some matrix verbs prefer one aspect marker more strongly than another (*le* vs. *guo*), and embedded predicates with resultative compounds tend to favor selection of *le*. Negation environment may also license aspect lowering:

- (19) a. Dajie jiao Xiaoming [tan-**?le/guo** gangqin]
 elder-sister teach Xiaoming [play-PFV/EXP piano]
 'The elder sister taught Xiaoming to play piano.'
- b. Lisi_i shefa [PRO_i dang-shang-**?guo/le** shizhang]
 Lisi try [PRO become-up-EXP/PFV mayor]
 'Lisi tried to become the mayor (and he succeeded).'
- c. Zhangsan **mei** zhunbei [xie-**guo** zhe-yang de shu]
 Zhangsan NEG prepare [write-EXP this-kind DE book]
 'Zhangsan has never prepared to write this kind of book.'

Aspect lowering and actuality entailment (cont.)

He 2020: Evidence which seems to disprove actuality entailment may not actually be robust cases of aspect lowering. For example, the particle *le* may not function as an aspect marker, but rather as a resultative morpheme. Also, some matrix verbs may not be strictly control predicates:

- (20) a. Wo quan ta_i [PRO_i chi-**le** zhe wan fan], keshi ta_i mei chi
 1.SG urge 3.SG [PRO eat-PFV this bowl rice] but 3.SG NEG eat
 'I urged him/her to eat this bowl of rice, but he/she didn't.'
- b. Dajie jiao Xiaoming [PRO tan-**guo** gangqin]
 elder-sister teach Xiaoming [PRO play-EXP piano]
 'The elder sister taught Xiaoming to play piano.'

Aspect lowering and actuality entailment (cont.)

Yet another (attempted counter)example: with verbs such as *shefa* 'try', it is hard to determine whether the complement event was truly achieved or not (i.e. realis or irrealis). But using resultative compounds does lead to actuality entailment:

- (21) a. Lisi_i cengjing shefa [PRO_i zuo-**guo** zhe-dao cai], keshi mei
 Lisi previously try [PRO make-EXP this-CL dish], but NEG
 zuo chenggong
 make successful
 'Lisi had tried to make this dish, but he wasn't successful in making it.'
- b. Lisi_i cengjing shefa [PRO_i wancheng-**le** zhe-dao cai], #keshi
 Lisi previously try [PRO complete-PFV this-CL dish], but
 mei zuo chenggong
 NEG make successful
 'Lisi had previously tried to complete this dish, #but he didn't succeed.'

Return to discussion on modals

Let's revisit the examples given by T.H. Jonah-Lin (2011) to test finiteness distinction in Mandarin via scope relations between modals and the SFP *le*:

- (22) a. Zhangsan **keneng** [qu Taipei **le**]
 Zhangsan be-likely-to [go Taipei PERF]

'Zhangsan may have gone to Taipei.'

- b. Zhangsan [[**neng** qu Taipei] **le**]
 Zhangsan [[be-able-to go Taipei] PERF]

'It has become the case that Zhangsan is able to go to Taipei.'

It is observed that *Situation* and *Event* complements cannot take epistemic modals, such as *yinggai* 'should' or *keneng* 'might,' the reason being that these tend to sit high in the structure above TP. In general, the distribution of modals is more limited for these complements compared to the *Proposition* class.

Problem with monoclausal approach

N. Huang 2018: elements such as clause introducer *shuo* or focus sensitive item *ye* ‘also’, which are located high in the structure above *vP*, also seem to occur in restructured *Event* complements:

- (23) a. Lisi hui zai zhe zhou nei wancheng ziliao souji gongzuo. Ta hui
 Lisi will at this week in finish data collection work he will
 shefa [**ye** zai zhe zhou nei tijiao jinzhan baogao]
 try [also at this week in submit progress report]
 ‘Lisi will finish data collection this week. He will try to also submit a
 progress report this week.’
- b. Zhangsan_i xiang changshi [**shuo** PRO_i huan yixia bie-de
 Zhangsan want try [SHUO PRO switch a-bit another
 xifalu]
 shampoo]
 ‘Lisi wants to try switching to another shampoo.’

Synthesis?

A possible explanation for this data is that syntax can be computed freely (Wurmbrand and Lohninger 2020). Thus, the size of the complement can be larger than it needs to be, which would allow for more options like the inclusion of these CP-level elements in the embedded complement clause after restructuring.

Thank you!