On syntactic tense in Mandarin Chinese

NACCL 27 (April 5, 2015) - Nick Huang - University of Maryland, College Park

• Is Mandarin Chinese tenseless?
  – Arguments are built on indirect evidence.
  – This talk: Yes, Mandarin Chinese has syntactic tense, alternating between future jiang (将) and an unpronounced non-future.
  – Why is this question important?
    * Chinese is frequently thought of and described as a tenseless language. To what extent is this description adequate or fair?
    * How similar or different is clause structure in Chinese, relative to other languages that have tense / have been analyzed as having tense?
    * Influential discussions of tense systems in natural languages e.g. Klein (1994) and Comrie (1985) suggest that very few languages make a future vs. non-future distinction[1] — if this proposal is on the right track, to what extent can we still say that this distinction is typologically rare?

1 Preliminaries

1.1 Outline

• Four reasons to think why jiang is syntactic tense:
  – Appears in a syntactically “high” position, but …
  – Not an auxiliary
  – Not an adverb
  – Not irrealis mood
• A proposal on tense and clause structure
• Discussion
  – Prediction 1: Verb always required with jiang, even if semantically vacuous
  – Prediction 2: A finite vs. non-finite distinction
  – Issues with a syntactic tense analysis of jiang
• Conclusion

1.2 What is tense?

• “Tense” actually is shorthand for two closely-related concepts:
  1. Syntactic tense: e.g. a syntactic node + morphological manifestations — scope of today’s presentation
  2. Semantic tense: temporal interpretation

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[1] Comrie (1985) reports only one language (Hua, a Papuan language) known to have a future vs. non-future distinction.

*Special thanks to the NACCL-27 organizers. I am grateful to the help and feedback by Valentine Hacquard, Howard Lasnik, Colin Phillips, Alexander Williams, and other members of the UMD S-Lab community. Comments welcome at znhuang@umd.edu
1.3 What does the literature say about future time marking and *jiang*?

- The future-marking particles typically discussed in the literature are *hui* 会 and *yao* 要. Typically glossed as “will” or “have to” or “must” depending on context.

- To the best of my knowledge, the literature has not said much about *jiang*.

  - [Wu and Kuo (2010)] contains the first published detailed discussion (to my knowledge) of the semantics of *jiang*. Claim is that *jiang*, *hui*, *yao* are all modals, but with different modal bases.

  - [Ren (2008)] (dissertation on future time interpretation in Mandarin) presents a comprehensive discussion of modal auxiliaries, future-oriented main verbs, grammatical and lexical aspect, but not *jiang*.

  - [Smith and Erbaugh (2005)] only comment on *jiang* is that it is a modal verb conveying future time and is used for “scheduled, planned situations” (p. 322).

- Possibly because of the formal register with which *jiang* is associated; not usually used in casual speech.

- However, *jiang* is used productively. Academia Sinica treebank (361,834 words (ci 词), 61,087 trees): 827 instances of epistemic and deontic *hui*, 942 instances of epistemic and deontic *yao*, 559 instances of *jiang*).

2 Four reasons to think why *jiang* is syntactic tense

2.1 Appears in a syntactically high position

- *Jiang* is structurally high – it precedes *hui* (and *yao*), but not the other way round.

(1) (a) 李四 將 會 去 北京。
Lisi *jiang* hui qu Beijing.
Lisi will go to Beijing.

(b) * 李四 會 將 去 北京。
Lisi hui *jiang* qu Beijing.
Lisi will go to Beijing.

- *Jiang* is compatible with a large range of future time references

  - Note that (2b) contradicts the claim in [Smith and Erbaugh (2005)] that *jiang* is for “scheduled” events

(2) (a) 炸彈 一分鐘 後 將 爆炸。
Zhadan yi fenzhong hou *jiang* baozhua.
The bomb will explode in a minute.

(b) 太陽 五十億 年 後 將 成為 紅巨星。
Taiyang wu-shiyi nian hou *jiang* chengwei hongxujing.
The sun will become a red giant after five billion years.

2.2 Not an future-marking auxiliary

- Adopt Ren’s (2008) criteria for auxiliaries, which were in turn adopted from diagnostics previously proposed by [Chao (1968); Li and Thompson (1981); Li (2004)] to distinguish auxiliaries from main verbs and adverbs.

- Ren excludes ellipsis-licensing as a diagnostic; it is included here because future-marking *hui* and *yao* do license ellipsis.

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Is it true for <em>jiang</em>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occur only with a main verb</td>
<td>Yes</td>
</tr>
<tr>
<td>Cannot take a direct object</td>
<td>Yes</td>
</tr>
<tr>
<td>Cannot take aspect markers</td>
<td>Yes</td>
</tr>
<tr>
<td>Can form A-not-A questions</td>
<td>No</td>
</tr>
<tr>
<td>Can be negated with <em>bu</em> 不 “not”</td>
<td>No</td>
</tr>
<tr>
<td>License ellipsis</td>
<td>No</td>
</tr>
</tbody>
</table>

- Occurs only with a verb (ellipsis contexts notwithstanding), therefore not an intransitive verb:

(4) 李四 將 / 會 / 要 [去 北京]。
Lisi *jiang* / hui / *yao* [qu Beijing).
Lisi will go to Beijing.

- Cannot take a direct object, therefore not a transitive verb.

(5) * 李四 將 / 會 / 要 北京。
Lisi *jiang* / hui / *yao* Beijing.
Lisi will go to Beijing.

2 "Epistemic" and “deontic” as defined by the Academia Sinica.
Cannot take aspect markers \((6a)\), therefore unlike some control verbs \((6b)\).

(6) \((a)\) * 李四 [將了 / 會了 / 要了] 去 北京。
L JIANG-PF HUI-PF YAO-PF go Beijing
Lisi would be going to Beijing.

(b) 我 請 过 她 吃 飯。
Wo qing-guo ta chi fan.
I invited her to a meal.

(7) \((a)\) 李四 會 不 會 唱歌？
Lisi hui bu hui changge?
L HUI NEG HUI sing
Will Lisi sing?

(b) 李四 能 不 能 唱歌？
Lisi neng bu neng changge?
L can NEG can sing
Can Lisi sing?

(c) * 李四 將 不 將 唱歌？
Lisi jiang bu jiang changge?
L JIANG NEG JIANG sing
Will Lisi sing?

(8) \((a)\) 李四 明天 不 會 唱歌。
Lisi mingtian bu hui changge.
L tomorrow NEG HUI sing
Lisi won’t sing tomorrow.

Not an adverb

• Another hypothesis is that jiang is a adverb that denotes certain points in time, such as jianglai 將來 “in the future”, mingtian 明天 “tomorrow” etc., or even a speaker-oriented time adverb, like hai 還 “still/yet”, zai 再, you 又 “again” etc.

• Jiang does not pattern after either type of adverb.

Adverb diagnostics Is it true for jiang?

<table>
<thead>
<tr>
<th>Appears sentence-initially</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appears in imperatives</td>
<td>No</td>
</tr>
</tbody>
</table>

• Adverbs denoting points in time may appear sentence-initially; jiang does not.

(10) (a) 明年 李四 去 北京。
Mingnian Lisi qu Beijing.
L next.year go Beijing
‘Lisi goes to Beijing next year.’

(b) * 李四 明天 不 將 唱歌。
Lisi mingtian bu jiang changge.
L tomorrow NEG JIANG sing
Lisi won’t sing tomorrow.

• Jiang does not license ellipsis, unlike hui (or yao).

(9) \((a)\) 李四 明天 (會 / 要) 去 北京。 我 也 (會 / 要) 去 北京。
Lisi mingtian [hui / yao] qu Beijing, wo ye [hui / yao] qu Beijing I also HUI yao.
I will go to Beijing tomorrow, and so will I.

(b) * 李四 明天 將 去 北京。
Lisi mingtian jiang qu Beijing.
L tomorrow JIANG go Beijing
‘Lisi will go to Beijing tomorrow, and so will I.’
Adverbs can appear in imperatives; jiang cannot.

(12) (a) 別 再 去 美國 了。
    Bie zai qu Meiguo le.
    Don't go to America again.
(b) * 別 將 去 美國 了。
    Bie JIANG qu Meiguo le.
    Don't go to America.

2.4 Not irrealis mood

• A third hypothesis is that jiang is an irrealis mood marker; i.e., there is a phonologically-null realis morpheme used for describing events that have happened or are ongoing, while jiang is used for all other contexts.
• Because the future by definition has not happened, jiang as an irrealis marker can be used to describe scenarios set in the future.
• This hypothesis also predicts that jiang appears in non-future irrealis contexts.
• Adopt diagnostics for irrealis mood in Matthewson (2006).

<table>
<thead>
<tr>
<th>Irrealis diagnostics</th>
<th>Is it true for jiang?</th>
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<tbody>
<tr>
<td>Can appear in negation</td>
<td>No</td>
</tr>
<tr>
<td>Can appear in yes-no questions</td>
<td>No</td>
</tr>
<tr>
<td>Can occur in conditionals</td>
<td>No</td>
</tr>
<tr>
<td>Can occur in imperatives</td>
<td>No</td>
</tr>
</tbody>
</table>

• Does not occur in non-future negation
  - We have seen earlier that negation cannot precede jiang to negate a statement about the future.

(13) * 李四 以前 (*將) 不 (*將) 喜歡 吃 蔬菜。
    Lisi yiqian (*jiang) bu (*jiang) xihuan chi shucai.
    L in.the.past JIANG NEG JIANG like eat vegetables
    Lisi didn’t like to eat vegetables in the past.

(b) * 李四 昨天 (*將) 沒 (*將) 去 跑步。
    Lisi zuotian (*jiang) mei (*jiang) qu paobu.
    L yesterday JIANG NEG JIANG go run
    Lisi didn’t go / hadn’t gone running yesterday.

2.5 Interim summary

• Jiang cannot occur in yes-no questions about past situations.

(15) (a) 李四 以前 (*將) 喜歡 吃 蔬菜 吗?
    Lisi yiqian (*jiang) xihuan chi shucai ma?
    L in.the.past JIANG like eat vegetables Q
    Did Lisi like to eat vegetables in the past?

(b) 李四 昨天 (*將) 去 跑步 吗?
    Lisi zuotian (*jiang) qu paobu ma?
    L yesterday JIANG go run Q
    Did Lisi go running yesterday.

• Jiang cannot occur in conditionals on past events.

(16) 如果 內馬爾 昨天 (*將) 能夠 參賽，
    Ruguo Neima’er zuotian (*jiang) nenggou can-sai,
    if Neymar yesterday JIANG can participate
    巴西隊 或許 就 不 會 輸 給 德國隊 了。
    Baxi-dui huoxu jiu bu hui shu gei Deguo-dui le.
    Brazil-team perhaps then NEG HUI lose to Germany-team PRT
    If Neymar were able to play yesterday, perhaps Brazil wouldn’t have lost to Germany.’ e.g. said the day after Germany beat Brazil in the 2014 FIFA World Cup

• Jiang cannot occur in imperatives.

(17) (a) * 別 將 來 了。
    Bie JIANG lai le.
    Don’t come. (= 12 b)
3 Proposal

- Jiang is syntactic tense.
- More specifically, I propose the following syntactic architecture for Mandarin clauses:


- Having two negation heads allows the following sentence to be generated:

(19) 李四將不 理睬我。

Lisi jiang bu hui bu licai wo.
Lisi won’t ignore (i.e. will pay attention to) me.

- This ordering of syntactic heads in (18) is consistent in part or in whole with the clausal structure for Mandarin cited in e.g. Soh (2007), Sybesma (2007), and Lin (2012), and, not surprisingly, in direct variance with the accounts of Hu et al. (2001) as well as Lin (2006), which claim that there is no syntactic tense in Mandarin.

- This clausal structure, where T scopes over negation and aspect, is not unique to this account; similar analyses have been developed for other languages with recognised tense paradigms, such as English, French, Malagasy (see van Gelderen (2013), Adger (2003), Pollock (1989), Pearson (2001), a.o.). Also syntactically similar to Matthewson’s proposal for St’át’imcets, which she considers to be a “superficially tenseless” language.

- This proposal enables us to easily account for most of the syntactic properties examined above. Among others:

1. Jiang precedes hui and yao in a clause, assuming that in Chinese in general, linear precedence reflects c-command relations.
2. Jiang cannot be negated nor undergo A-not-A (assuming A-not-A is triggered by a Neg with a question feature); jiang (as T) c-commands Neg, so a Neg-T linear order is not available (pace Wu and Kuo (2010) who attribute this to semantics; jiang is “not defeasible”) (p. 66).

3 Two predictions

4.1 Jiang as verbal affix: Verb always required with jiang, even if semantically vacuous

- Assuming that jiang is Tense, then we might expect it to require a verb-like host, as English tense morphemes do.
- Lin (2010) observes that Mandarin allows bare nominal predicates, without the copula.

(20) (a) 今天 星期天。

Jintian xingqitian.
today Sunday
Today is Sunday. (ibid., ex. 30a)
(b) 我的 月 工資 320 元。

Wode yue gongzi 320 yuan.
my month salary is 320 dollars. (ibid., ex. 30c)
(c) 我們 村 只有 二千人。

Women quan cun cai liang-qian ren.
we whole village only two-thousand people
There are only two thousand people in our village. (ibid., ex. 30d)

- Similar sentences in English need the copula be, even though it is arguably semantically vacuous: the predicate can be predicated from the subject semantically.

(21) (a) Yesterday was Saturday.
(b) * Yesterday (-ed) Saturday. (cf. Lin (2010) ex. 29 *Today Wednesday.)

- Presumably because English has tense, and tense needs to be expressed on a verb.

- Same logic as do-support in ellipsis and question formation, e.g. Chomsky (1957), Lasnik (1995).

- The absence of an equivalent semantically vacuous verb is argued to be evidence against the presence of tense in Mandarin: no verb ⇒ no requirement for a verbal host ⇒ no tense morpheme.

- However, similar sentences in Mandarin set explicitly in the future with jiang behave like English, requiring a semantically vacuous verb. (This property is not unique to jiang. Auxiliaries also require the presence of a semantically vacuous verb.)
• Adopting Lin’s reasoning leads us to conclude that verbs obligatorily appear with jiang because jiang, as T, has features that only verbs can check.

(22) (a) 明天 將 *(是) 星期一。
   Mingtian jiang *(shi) xingqiyi.
   tomorrow JIANG be Monday
   Tomorrow will be Monday.
(b) 我的 月 工資 將 *(是) 320 元。
   Wode Yue gongzi jiang *(shi) 320 yuan.
   My monthly salary JIANG be 320 dollar
   My monthly salary is 320 dollars.
(c) 我們 全 村 將 *(有) 兩千 人。
   Women quan cun jiang *(you) liang-qian ren.
   We whole village JIANG exist two-thousand people
   There will be two thousand people in our village.

4.2 A finite vs. non-finite distinction in clauses
• If there is a future vs. non-future distinction within tense in Mandarin Chinese, is there also a tense vs. non-tensed distinction? i.e., are there finite and non-finite clauses?
  – Note that the claim so far is that there is a future vs. non-future distinction; nothing said about a tense vs. non-tensed distinction.

• Jiang provides evidence to think that there is also a finite vs. non-finite distinction, contra Hu et al. (2001).
  – If so, then the clausal syntax of Mandarin Chinese is really very much similar to that of languages with overt tense morphology.

• Observe that jiang can appear in embedded clauses.

(23) 他們 *(認為 / 希望 / 否認) 李四 將 去 美國。
   Tamen *(renwei / xiwang / fouren) Lisi jiang qu Meiguo.
   They think / hope / deny L JIANG go America
   They think / hope / denied that Lisi will go to America.

• Jiang cannot appear in the complements of control constructions; this is expected if jiang is tense, and complements of control constructions are infinitive.

4 Compare with the observation in Li (1985) that future-marking hui in clausal complement is unacceptable (pp. 48-49).

5 Some issues related to a tense analysis of jiang

5.1 Why jiang is not obligatory on all sentences set in the future
• If jiang is future tense, one might expect it to be present in all sentences that describe events in the future.
• This is evidently not the case: a sentence about the future is acceptable without jiang.

(25) 李四 明天 會 去 北京。
   Lisi mingtian hui qu Beijing.
   L tomorrow HUI go Beijing
   Lisi will go to Beijing tomorrow.

• Speakers have several options available – tense, aspect, and modal – when they wish to make an assertion about the time of a situation; this is true in English (and all languages) as well as in Mandarin Chinese.
• No a priori reason to expect an exclusive one-to-one correspondence between future time interpretation and tense morphology.
• A language with tense morphology has several ways to talk about the present and the past. Comrie (1985) and Klein (1994): English past tense can be used in non–past contexts.

(26) I wanted to ask you about your car, (meaning “I want to ask you about your car,” not “In the past I wanted to ask you about your car.”)

(27) That’s perfect. (that referring to some event in the recent past.)
• Events that have taken place in the past can be felicitously described using the present tense (albeit with perfect aspect).

(28) She has gone to the station.
5.2 Incompatibility with certain predicates

• If tjiang is future tense, then it should be compatible with all predicates

• Possible counterexamples:

(29) (a) 每個病人 都將死。 Every patient will die.
(b) 我們 下星期 將 回。 We will go back next week.

• However, there is a marked improvement in acceptability when there is something appearing after the verb – an adjunct or a direct object:

(30) (a) 每個病人 都將死於癌症。 Every patient will die of cancer.
(b) 我們 下星期 將 回韓國。 We will go back to Korea next week.

• The adjunct requirement above is somewhat similar to what has been observed for certain middle and passive verbs in English (Grimshaw and Vikner (1993); Goldberg and Ackerman (2001)):

(31) This house was built #(in 1819 / in ten days / with straw).

• A pragmatic account (e.g. Goldberg and Ackerman (2001)) attributes (30a) to the lack of new information. But this fails to explain (30b).

• Perhaps a phonological or prosodic requirement (Omer Preminger, p.c.): tjiang requires some kind of a multi-syllabic unit to appear after it.

• But whatever the constraint might be, it is unlikely to be syntactic – therefore does not affect the analysis of tjiang as syntactic tense.

5.3 Some issues for a semantic tense analysis of tjiang

• Presented above were arguments for treating tjiang as a syntactic future tense.

• Wu and Kuo (2010), for example, argue that tjiang is semantically modal, like khi and xiao are. Smith and Erbaugh (2005) also claim that tjiang is modal in nature.

• However, proposals of temporal interpretation by Smith and Erbaugh (2005) and Lin (2006; 2010) are mostly concerned with how aspect can produce a present vs. past interpretation.

• It is possible to develop an account that is consistent with these claims: tjiang is syntactically tense but semantically has modal properties — in the sense that tjiang involves some kind of operation over possible worlds.

  – In this account, tjiang is not necessarily semantic tense.
  – Empirical parallels: In English, modals are syntactically T.
  – Theoretical argument by Matthewson (2006): languages have options in terms of what semantic features to bundle in a single syntactic node
  – One such implementation in Lin (2006): tense relations can be encoded in aspect.

6 Conclusion

• Laid out new evidence and arguments that Mandarin has:
  – Syntactic tense,
  – A future vs. non-future distinction in terms of syntactic tense, and
  – A finite vs. non-finite distinction.

• Typologically interesting, since most languages do not make a future vs. non-future distinction.

• Clause structure proposed for Chinese is similar to unrelated languages.

  – Additional evidence supporting the notion that there is a universal clause structure in which Tense is a core component.
References


