The Typology of Mandarin Infinitives
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GOALS
- Synthesize the debate in the literature about whether Mandarin distinguishes between finite and non-finite clauses.
- Provide additional evidence in support of Mandarin having non-finite clauses.
- Illustrate the semantic nuances of control constructions with respect to embedded "reflexives" and aspect markers.
- Propose that what looks like a reflexive is actually an adverbial.
- Evaluate diagnostics that have been used to distinguish between finite and non-finite clauses.

BACKGROUND
The Distinction Camp (DC): Mandarin has both finite and non-finite clauses.

• Li (1985/1990): Some modal markers are actually tense markers. An embedded clause that contains a tense marker is finite.
• Li also argues that negative polarity items and certain time adverbs can only be licensed across a nonfinite clause boundary.
• Huang (1998): Assesses modal and aspectual markers to belong to AUX. The grammaticality of embedded aspectual markers indicates a finite clause.
• Lin (2011/2012): Within predicates that take nonfinite clauses, there are raising and control predicates. Epistemic modals are raising predicates, while root modals are control predicates.

The No Distinction Camp (NDC):
- The stronger position: Mandarin has only finite clauses. No morphological indication of non-finiteness. (Huang 1994)
- The weaker position: Mandarin doesn't distinguish between finite and non-finite clauses. (Hu, Pan, Xu 2001; Xu 2003) (This suggests that Mandarin has only finite clauses.)

OUR PROPOSAL
- Mandarin has infinitival clauses.
- Overt 'subjects' of infinitives are actually adverbials.
- The various interpretations of "forget" clauses suggest a finite/non-finite distinction.
- Aspect markers are allowed in non-finite clauses.
- They allow for telic or atelic interpretations with raising.
- They force a telic interpretation with control.
- The embedded question diagnostic fails to distinguish different kinds of clauses.

EVIDENCE OF INFINITESIVES

Silent subject of infinitives.
- Ziji in Mandarin has at least two meanings: (i) reflexive meaning 'oneself', or (ii) an adverb meaning 'on one's own'.
- When ziji is not in an argument position, it necessarily takes on the adverbial meaning. In (1), Xiaoming overtly occupies the subject position and ziji has the adverbial meaning.

1. (1) Xiaoming ziji chi shoushi. Xiaoming adverb eat sushi 'Xiaoming eats sushi by himself.'
   - In (2), the subject of the embedded clause is obligatorily silent when the matrix verb is xihuan 'like'.

2. (2) Xiaoming xihuan ziji chi shoushi. Xiaoming like (he) eat sushi 'Xiaoming likes to eat adverb eat sushi'
   - Xiaming likes to eat sushi by himself.'

- Many verbs that are canonically classified as subject control in English also display this pattern in Mandarin - changshii 'try', jueding 'decide', xiang 'want', dasuan 'intend', jujie 'refuse'.

- By contrast, xiangxin 'believe' seemingly takes a finite clause.

3. (4) Xiamong, xiangxin (ta), nenggou dedao zhe fen gongzuo. Xiamong, believe he, can get DET CL job
   - Xiamong believes that he can get this job.'

4. (5) Xiamong, xiangxin ziji, nenggou dedao zhe fen gongzuo. Xiamong, believe reflexive, can get DET CL job
   - Xiamong believes that he can get this job'

Aspect markers distinguish between raising and control.
- The embedded subject ta is usually pronounced in (4). In (5) ziji occupies the same subject position of the embedded clause and can only be interpreted as a reflexive co-indexed with Xiamong.

- Aspect markers distinguish between raising and control.

1. (6) ta kanqilai chi le le wu fen fan. (7) ta dasuan chi le le wu fen fan. he appear eat ASP this bowl rice he plan eat ASP this bowl rice
   - He appears to have eaten this bowl of rice. 'He plans to finish this bowl of rice.'
   - In (6), some rice can be left in the bowl, while all of the rice must be eaten in (7), le allows for telic or atelic interpretations with raising, while le is necessarily telic with control.

2. (8) Xiamong wangji dai shubao le. (9) Xiamong wangji ta dai shubao le. Xiamong forget bring backpack ASP Xiamong forget he, bring backpack ASP
   - 'Xiaoming forgot to bring the backpack' (The backpack was not brought.) (The backpack was brought.)

3. (10) is ambiguous:

   10. (10) Xiamong wangji ziji dai shubao le. Xiamong, forget adverb/reflexive, bring backpack ASP
      - Reading a: 'Xiaoming forgot to bring the backpack by himself.' (The backpack was not brought)
        - Same meaning as (8). Ziji acts as an adverb and adds an 'on one's own' meaning to the sentence.

      - Reading b: 'Xiaoming forgot that he brought the backpack.' (The backpack was brought)
        - 'Same meaning as (9). Ziji acts as a reflexive that is co-indexed with Xiaoming.'

      - Echoes the semantic difference in the following English sentences:
        - 'Xiaoming forgot to bring his backpack. (Non-finite. The backpack was not brought)
        - Xiaoming forgot that he brought his backpack. (Finite. The backpack was brought)

      - Suggests that in Mandarin there are two different constructions.

      - Reading a: The embedded clause is non-finite and has an obligatorily silent subject. Ziji is a fake reflexive; it is not in the subject position and acts as an adverb.

      - Reading b: The embedded clause is finite and ziji is a true reflexive co-indexed with Xiamong.

EMBEDDED QUESTIONS
- Mandarin and English pattern alike w.r.t. the interpretation of wh words with control infinitives. The wh word can scope over the matrix or embedded clause.
- Embedded scope
  - (11) Sally told Jim how to eat chocolate.
  - (12) Zhangsan gaosu Lisi zhenme chi jiaoqiao. Zhangsan tell L how eat chocolate 'Z told L how to eat chocolate.'

- Matrix scope
  - (13) How did Sally tell Jim to eat chocolate?
  - (14) Zhangsan zhenme gaosu Lisi chi jiaoqiao de. Z how tell L eat chocolate? 'How did Z tell L to eat chocolate?'

- Raising patterns differently in Mandarin than in English. In English, there is no clear scope distinction in raising infinitives.
- In (15) 'how could refer to either 'seem' or 'get fat.'

- (15) How does Alex seem to have gotten fat?
- Mandarin raising constructions have wh-scope interpretations similar to control.
- If zeme 'how' appears outside of the embedded clause, it questions 'seem' rather than 'get fat.'

- (16) Xii zeme kankan jianghang le. Xii how seem grow fat ASP 'How does Xii seem to have gotten fat?'

- A possible answer to (16) would explain why the speaker thinks that Xii seems fat. For example, his/her clothes don't fit.

- Zeme can also take scope over only the lower clause, while this specificity is impossible in English.

- (17) 'Alex seems how to have gotten fat.'

- (18) Xii kankan zeme jianghang le. Xii seem how grow fat ASP 'How does Xii seem to have gotten fat?'

- In (18), zeme takes scope over only the upper clause, 'get fat.'

- A possible response would be that Xii didn't exercise and ate a lot of junk food. That the wh can scope over just the lower clause might suggest that Mandarin raising clause is structurally larger than that in English.

SUMMARY
- Mandarin infinitives allow for aspectual markers and their interpretation distinguishes between raising and control.
- When ziji appears inside of an infinitive, it functions as an adverbial.
- The behavior of ziji with 'forget' provides additional evidence for infinitival clauses.
- The interpretation of embedded questions suggests that raising clauses can host a wh operator and are, thus, larger than TP.