

### Background: Imperfectives in Chinese

In Mandarin Chinese, aspectually unmarked sentences can obtain some of the typical imperfective readings, but not episodic readings (Klein et al 2000; Sun 2014).

- (1) Lisi he cha.  
Lisi drink tea  
✓ Generic: 'Lisi drinks tea (on mornings)'  
✓ Futurate: 'Lisi is drinking tea (tomorrow)'  
✗ Episodic: 'Lisi {was drinking, drank} tea (just now)'  
⇒ **Sounds incomplete without overt aspect!**

Puzzle: We do see "exceptions" (Smith 1997; Smith and Erbaugh 2005; Lin 2006)

#### 1. Adding focus (Tang and Lee 2000)

- (2) zhiyou LISI he (-le) cha.  
only Lisi drink PERF tea  
'Only [Lisi]<sub>F</sub> drank tea (just now).'

#### 2. Embedding another Asp-marked clause

- (3) Lisi tingshuo (-le) [Mali zai he cha].  
Lisi hear PERF Mary PROG drink tea  
'Lisi heard that [Mary was drinking tea].'

#### 3. Followed by another Asp-marked clause

- (4) Lisi (zai) he cha. turan beizi sui -le.  
Lisi PROG drink tea abruptly cup break PERF  
'Lisi was drinking tea. The cup broke abruptly.'

### Proposal

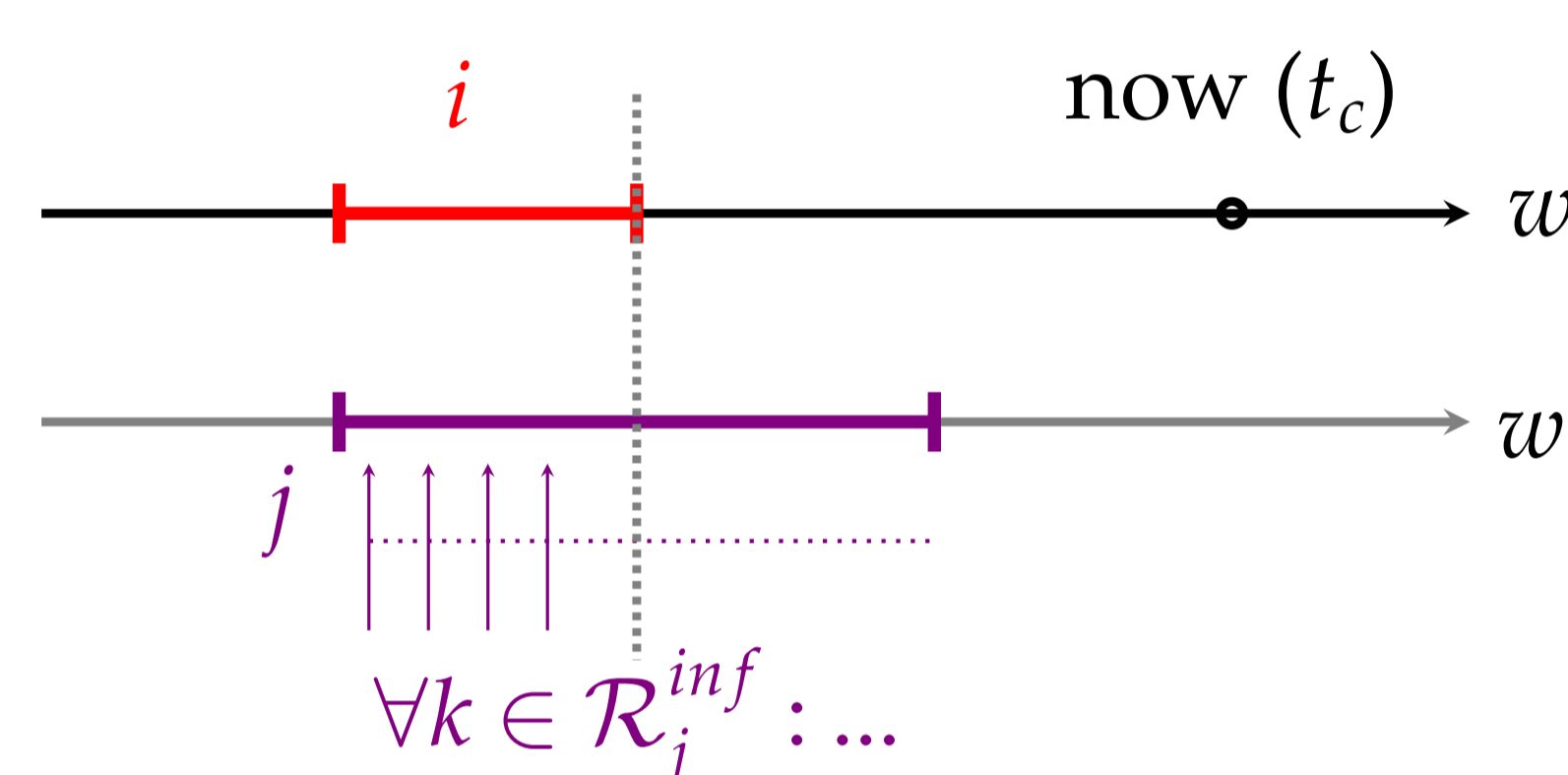
Aspectually unmarked sentences are **imperfective**; Their episodic readings arise as **Quantity-2 IMPLICATURES**.

$$(8) \llbracket \emptyset_{\text{IMPF}} \rrbracket^w = \lambda P \lambda i. \forall w' \in \text{INERT}(w, i) : \exists j [i \subseteq_{\text{ini}} j \wedge \forall k \in \mathcal{R}_j^c : \text{COIN}(P, k, w')]$$

- ①  $\text{INERT}(w, i)$  returns a set of inertia worlds relative to  $w$  and  $i$  (Dowty 1979)  
②  $\mathcal{R}_j^c$  is regular partition of  $j$  whose length is contextually decided (Deo 2009)  
③  $\text{COIN}(P, k, w') = \begin{cases} \exists e [P(e, w') \wedge \tau(e, w') \circ k] & \text{if } P \text{ is a property of eventualities} \\ P(k, w') & \text{if } P \text{ is a property of time intervals} \end{cases}$

#### Illustration

$$(9) \llbracket (\text{just.now}) \emptyset_{\text{IMPF}} \text{Lisi drink tea} \rrbracket^w = \exists i < t_c [\forall w' \in \text{INERT}(w, i) : \exists j [i \subseteq_{\text{ini}} j \wedge \forall k \in \mathcal{R}_j^{\text{inf}} : \text{COIN}(\text{Lisi-drink-tea}, k, w')]]$$



"If things go on normally since the end of the topic time  $i$ , then there is a future-extending superinterval  $j$  of  $i$ , in which the event time of Lisi's drinking tea coincides with  $j$ ."

The (partial) instantiation of the event during the topic time is not asserted in (9), but can be implied based on **Quantity-2 Maxim: "Say no more than you must"**.  
⇒ If the speaker doesn't comment about whether the things go on normally, then the stereotypical case would be that they do go on normally!

Indeed, the episodic reading is defeasible: (4) can be continued with "Unfortunately he hadn't even started drinking any tea."

### Why the contrast in (1) vs (2-4)?

When the instantiation of the matrix event is **at-issue**, the imperfective form is competing with the overt perfective (-le) or progressive marker (zai), both of which are more informative in that they entail (partial) instantiation of the event.

**Quantity-1 Maxim: "Say as much as you can"**  
⇒ The speaker either doesn't know or potentially, do not believe that the event is (partially) instantiated.

### Future research

The perfective-like reading of imperfectives in other languages is similarly constrained (Arregui et al 2014)

- Narrative imperfectives in Romance languages (Reyes 1990; Labelle 2003)

- (10) En 1492, Christophe Colomb  
In 1492, Christopher Columbus  
découvrait l'Amérique.  
discovered(Impf) the America  
'In 1492, Columbus discovered America.'

- Factual imperfectives in Slavic languages (Grønn 2004)

- (11) Lena (uže) primala eto lekarstvo.  
Lena (already) took(Impf) this medicine  
'Lena has (already) taken this medicine.'

### Generalizations

The need for overt aspect correlates with **what is at-issue**:

- Shared by (2-4): They allow the instantiation of the matrix event **NOT at-issue**.

- (5) A: Both Lisi and Mali drink-PERF tea.  
B: No, (2). ⇒ Lisi's drinking tea event is presupposed in this context.

- (6) A: What was Mary doing?  
B: (3). ⇒ Lisi's hearing event is an evidential source (Fall 2002, a.o.)

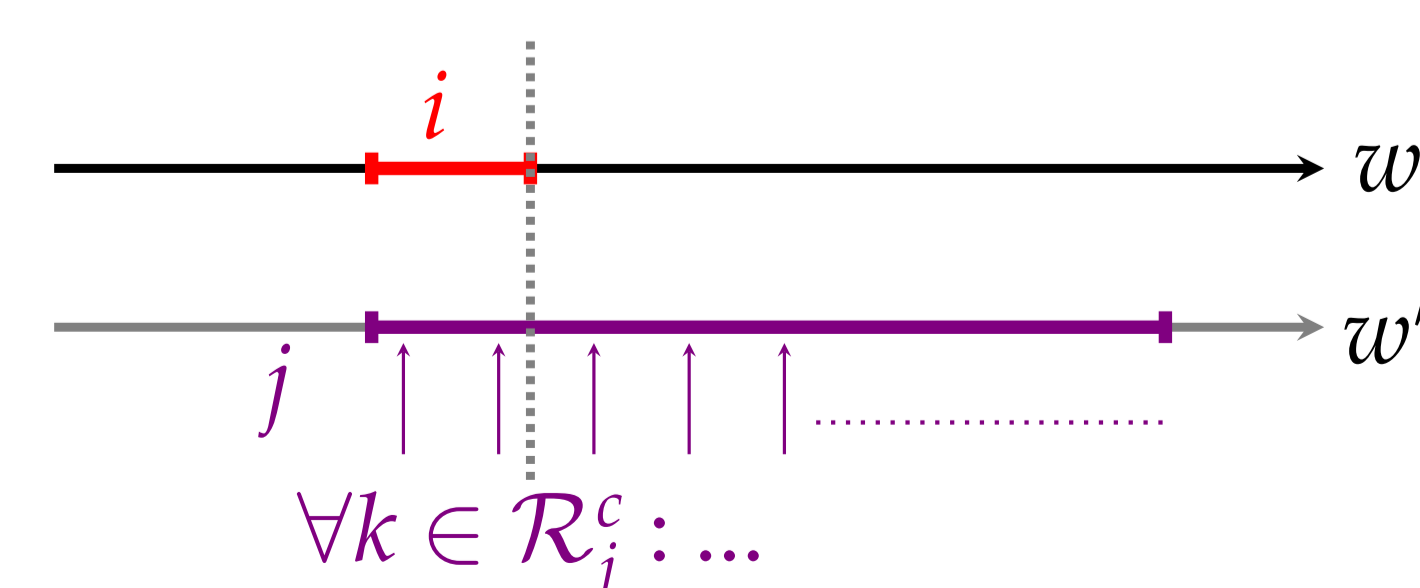
- (7) A: What is that sound?  
B: (4). ⇒ Lisi's drinking tea event is not directly addressing the QUD.

- For (1) with broad focus, the instantiation of the matrix event has to be **at-issue**.

### Bonus: Unifying three uses of Asp-unmarked sentences

#### Generic readings

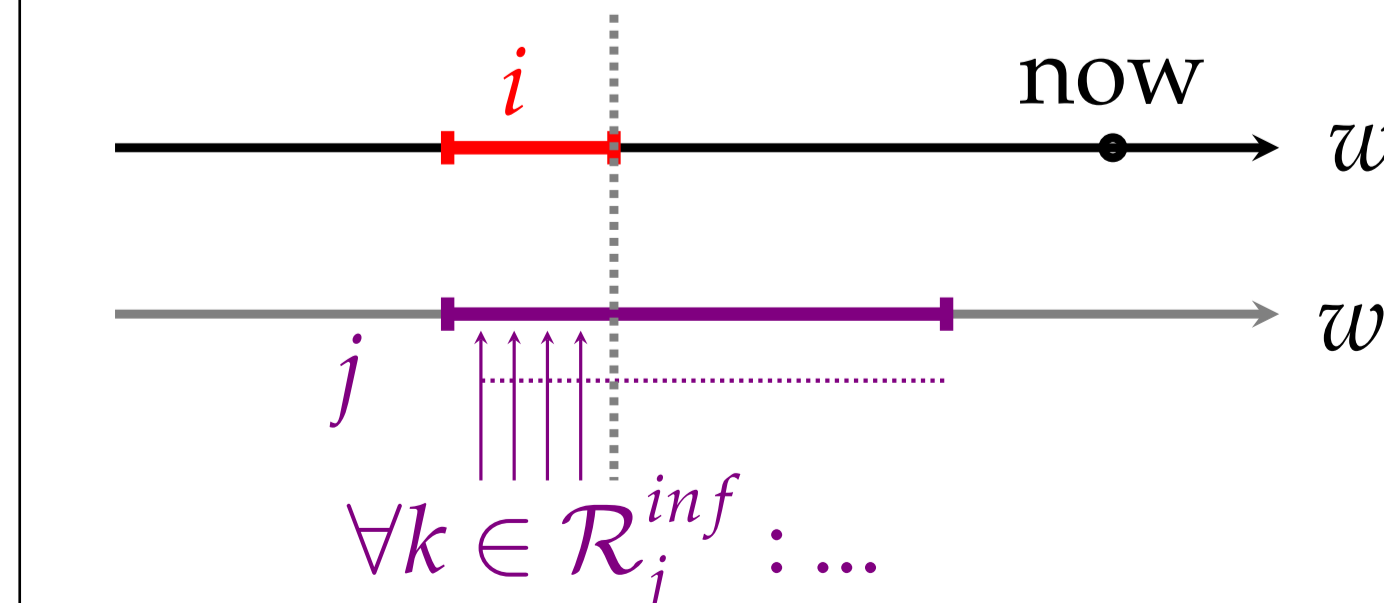
When  $j$  is an larger interval and  $c$  is not infinitely small as in (9) (following Deo 2009):



#### Futurate readings

When the future frame adverb combines with the eventuality description first (Dowty 1979):

$$P: \lambda w \lambda i. \text{AT}(\text{Lisi-drink-tea}, \text{DAY}_{+1}(i), w)$$



### Selected references

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