#### LIN241

#### Introduction to Semantics

Lecture 11

### Tense and its relation to Grammatical Aspect

#### Tense and the Topic Time

- Sentences make comments about what goes on at a time.
- We call this time the Topic Time (TT).
- Tense is used to locate TT with respect to the Time of Utterance (TU).

#### Tense and the Topic Time

Sentences make comments about what goes on at a time:

A: What did you see when you entered the room?

B: There was a book on the table.

- TT in B's answer is the time of entering the room
- TT is before TU
- TT is included in the time when the book is on the table

#### Tense and the Topic Time

Sentences make comments about what goes on at a time:

This morning, Jess wrote an email his mother.

- TT is some interval during the morning
- TT is before TU
- TT includes the time of writing an email

## Tense in English

• In English, there are three ways to relate TT to TU:

```
present: TT = TU
```

∘ past: TT < TU

∘ future: TT > TU

### Tense in English

- These three different tenses are expressed by a combination of inflection and auxiliaries:
  - o present: I believe in you.
  - past: I believed in you.
  - future: I will believe in you.
- They also combine with grammatical aspect.

#### Tense and Aspect combinations: Present

- Present progressive:
  - Jess is smoking.
  - TT = TU & TT ⊆ TSit
- Present stative:
  - Jess is happy.
  - $\circ$  TT = TU & TT ⊆ TSit

### Tense and Aspect combinations: Past

- Past progressive:
  - Jess was smoking.
  - TT < TU & TT ⊆ TSit
    </p>

### Tense and Aspect combinations: Past

- Past, unmarked aspect with stative predicate:
  - Jess was happy.
  - TT < TU & TT ⊆ TSit</li>
- Past, unmarked aspect with dynamic predicate:
  - Jess smoked.
  - TT < TU & TSit ⊆ TT</li>

### Tense and Aspect combinations: Future

- Future progressive:
  - Jess will be smoking.
  - TT > TU & TT ⊆ TSit

#### Tense and Aspect combinations: Future

- Future, unmarked aspect with stative predicate:
  - Jess will be happy.
  - TT > TU & TT ⊆ Tsit
- Future, unmarked aspect with dynamic predicate:
  - Jess will smoke.
  - TT > TU & TSit ⊆ TT

# Sequence of Tense

### Embedded tense in English

- Things become more fun when we embed an inflected verb under another one:
  - Jess said that she will leave.
- In this example:
  - that she will leave is embedded under said
  - the matrix verb **said** is past
  - the embedded verb will leave is future

- Past tenses embedded under a present tense are not problematic:
  - Jess believes that Alex left.
- The embedded past locates TT before TU:
  - the time of leaving is included in the embedded TT
  - the embedded TT precedes TU

### Past-under-future in English

- Past tenses embedded under a future tense are more interesting:
  - Jess will say that Alex left.
  - the time of leaving is included in the embedded TT
  - the embedded TT precedes the time of Jess's report
  - the embedded TT does not have to precede TU!

### Past-under-future in English

- Past tenses embedded under a future tense are more interesting:
  - Jess will say that Alex left.
- The embedded past tense locates TT with respect to the matrix TSit, rather than with respect to TU.
- Embedding can change the temporal anchor of tense.

- A past tense in the complement of a past tense verb cannot have a *forward-shifted* interpretation:
  - Jess said that Alex left.
  - Alex's leaving cannot be later than Jess's report
- The following sentence is ungrammatical:
  - \*Last week, Jess said that Alex left yesterday.

- A past tense in the complement of a past tense verb can have a back-shifted interpretation:
  - Yesterday, Jess told me that Alex left a week ago.
  - Alex's leaving precedes Jess's report
- This suggest that the embedded past tense is interpreted with respect to the matrix TSit

- However, things get more complicated.
- Simultaneous intepretations are also possible:
  - Yesterday, Jess told me that she was sick.
  - Jess's being sick is simultaneous to her report
- This cannot be analyzed as past with respect to matrix TSit

- Crucially, simultaneous interpretations of past-under-past do always locate the TT before TU:
  - John decided a week ago that in ten days at breakfast he would say to his mother that they were having their last meal together. (Abusch 1988)
- The last past tense denotes a future time!
- This time is simultaneous with the time of the saying event.

- Crucially, simultaneous interpretations of past-under-past do not always locate the TT before TU:
  - John decided a week ago that in ten days at breakfast he would say to his mother that they were having their last meal together. (Abusch 1988)
- This simultaneous interpretation is licensed by embedding under another past tense.
- This is known as sequence of tense.

## Tenseless languages

### What is a tenseless language?

 Jo-Wang Lin (2012): a tensed language requires the presence of a morpheme that locates a situation in time whether or not similar temporal information is conveyed by other temporal expressions.

### Mandarin Chinese as a tenseless language

 Mandarin Chinese verbs are not inflected for tense or aspect and need not co-occur with a temporal, aspectual or modal marker.

#### Present Tense in Mandarin Chinese

• For stative sentences, present time reference is expressed by an unmarked verb, adjective or nominal:

a.	Wŏ	xiànzài	bú	xìn	shén
	1	now	not	believe	god
	"Now I don't	believe in God."			
b.	Zhāngsān	(jīntiān)	hěn	máng	
	Zhangsan	today	very	busy	
	"Zhangsan is	s busy (today)."			
C.	Tā	nánbù	rén		
	he	southern-part	person		
	"He is from the south "				

#### Present Tense in Mandarin Chinese

• Unmarked dynamic verbs are compatible with a present habitual interpretation.

```
Wŏ (měi tiān/chángcháng) mànpăo

I every day/often jog

"I jog (every day/often)."
```

Progressive interpretations are available with the marker zài.

```
Wŏ zài mànpăo
I Prog jog
"I am jogging."
```

#### Present Tense in Mandarin Chinese

• *Zài* is compatible with past and future adverbs:

Wŏ	zuótiān	zhèi-ge	shíhòu	zài	mànpăo
1	yesterday	this-CL <sup>6</sup>	time	Prog	jog

<sup>&</sup>quot;I was jogging at this time yesterday."

#### Past Tense in Mandarin Chinese

• Unmarked dynamic predicates are compatible with a past interpretation:

```
Lĭsì dăpò huāpíng
Lisi break vase
"Lisi broke a vase."
```

#### Past Tense in Mandarin Chinese

• Perfective and experiential aspect marker may be added:

Lĭsì	dăpò-le	huāpíng
Lisi	break-ASP	vase
"Lisi broke a vase	"	
Lĭsì	dăpò-guò	huāpíng
Lisi	break-ASP	vase
"Lisi broke a vase	before."	

#### Past Tense in Mandarin Chinese

• Bare stative predicates are not compatible with a past tense interpretation:

```
Xiaoming hěn cōngmíng

Xiaoming very smart

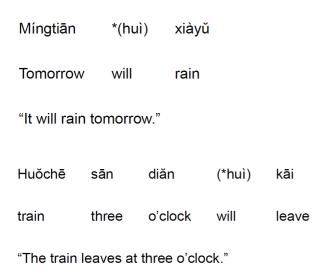
a. "Xiaoming is smart."

b. *"Xiaoming was smart."

c. *"Xiaoming will be smart."
```

#### Future Tense in Mandarin Chinese

• Future Time reference is expressed with modal operators, except for predicates of scheduled or planned events:



#### An aspect based system

- Atelic/imperfective/stative predicates have a present interpretation by default.
- Telic/perfective predicates have a past interpretation by default.

#### Correlates of tenselessness

• Existence of Bare Nominal Predicates

Tā dà bízi he big nose

<sup>&</sup>quot;He has a big nose."

#### Correlates of tenselessness

• Lack of expletive subjects:

Yŏu	yì-zhī	cāngyíng	zài	nĭ	de	tāng	Ιĭ	
have	one-CL	fly	in	you	Poss	soup	inside	
"There	is a fly in yo	our soup."						
Xià		уй				le		
fall		rain				Par		
"It is raiı	ning now."							
Bù	kěnéng	Zhāı	ngsān		yĭjīng		zŏu	le
not	possible	Zhar	ngsan		already		leave	ASP
"It's impo	ssible that Z	hangsan has le	eft."					

#### Correlates of tenselessness

• Lack of Finite/Nonfinite Distinction

Tā	líkāi	xuéxiào	sān	tiān	le
He	leave	school	three	day	PAR

"It has been three days since he left school."

Tā	shèfă	líkāi	xuéxiào
He	try	leave	school

<sup>&</sup>quot;He tried to leave school."