

Tense and Aspect

PLIN0020 Advanced Semantic Theory

Yasutada Sudo

24 October 2019

Tense and Aspect in English

English is standardly described as having three types of **tense**:

- (1) a. It **will rain** tomorrow.
- b. It **rains** a lot.
- c. It **rained** yesterday.

Future
Present
Past

Tense and Aspect in English

English is standardly described as having three types of **tense**:

- (1) a. It **will rain** tomorrow.
- b. It **rains** a lot.
- c. It **rained** yesterday.

Future
Present
Past

and three types of **aspect**:

- (2) a. It will rain/rains/rained.
- b. It will **be/is/was** raining.
- c. It will **have/has/had** rained.

Simple
Progressive
Perfect

Obligatory Tense Marking

In English it's obligatory to mark tense on a verb or auxiliary.

- (3) a. *It rains/will rain yesterday.
- b. *It rained/is raining tomorrow.

Obligatory Tense Marking

In English it's obligatory to mark tense on a verb or auxiliary.

- (3) a. *It rains/will rain yesterday.
b. *It rained/is raining tomorrow.

Not so in Mandarin Chinese.

- (4) ta { zuotian (yesterday) }
he { jintian (today) } **huilai.**
 { mingtian (tomorrow) } *come.back*

(Liu 2015)

'Simple Present'

Stative predicates in Simple Present express states that hold at the time of utterance.

- (5) a. Paul lives in Islington.
- b. Paul likes apples.
- c. Paul is happy.
- d. 19 is a prime number.

'Simple Present'

Stative predicates in Simple Present express states that hold at the time of utterance.

- (5) a. Paul lives in Islington.
- b. Paul likes apples.
- c. Paul is happy.
- d. 19 is a prime number.

Eventive predicates in Simple Present express one of two things:

- (6) a. The train arrives at 3 pm. **Scheduled Future**
- b. Paul smokes. **Habitual**

Compare (6) to Simple Past or Simple Future.

Future??

There's a theoretical debate as to whether Future is a tense category at all.

English treats the future marker *will* as the same morphosyntactic category as modal auxiliaries like *may*, *must*, *can*, *shall*, etc.

Note that these have 'past forms': *would*, *might*, *could*, *should*, etc.

In Romance languages, future is a suffix, but is attached to the infinitival form of the verb.

Finish and German can but don't need to mark future, e.g. *Ich gehe morgen* vs. *Ich werde morgen gehen* in German.

See Comrie 1985: §2.3 for more on this.

Progressive

In English Progressive is obligatory with eventive predicates, in order to describe an ongoing event.

(7) a. Paul smokes. b. Paul is smoking.

In French, Dutch, German, Hungarian, Armenian, etc. the simple form can express the progressive meaning.

Progressive

In English Progressive is obligatory with eventive predicates, in order to describe an ongoing event.

- (7) a. Paul smokes. b. Paul is smoking.

In French, Dutch, German, Hungarian, Armenian, etc. the simple form can express the progressive meaning.

Progressive is compatible with stative predicates as long as eventive readings are available ('aspectual coercion').

- (8) a. He is being mean.
 b. He is liking it.

Cf. 'He lives in London' vs. 'He is living in London'.

Perfect

What Perfect means in English is a matter of debate. There seem to be several readings for Present Perfect.

- | | | |
|-----|---------------------------|--------------------------|
| (9) | a. John has been sick. | Continuous state |
| | b. John has left. | Continuous result state? |
| | c. John has been to Rome. | Experiential |

Perfect

What Perfect means in English is a matter of debate. There seem to be several readings for Present Perfect.

- | | | |
|-----|---------------------------|--------------------------|
| (9) | a. John has been sick. | Continuous state |
| | b. John has left. | Continuous result state? |
| | c. John has been to Rome. | Experiential |

Present Perfect has restrictions on temporal modifiers in English, unlike in languages like French. ('Present Perfect Puzzle').

- (10) a. *John has left at 8:00.
b. *John has been to Rome three years ago.

Some exceptions: *just*, *recently*.

Crosslinguistic Variation in Tense

Tenseless Languages

Mandarin Chinese has no obligatory tense marking.

(11) ta { zuotian (yesterday) }
he { jintian (today) } **huilai.**
 { mingtian (tomorrow) } *come.back*

(Liu 2015)

It has a bunch of aspectual markers like *-le*, *-guo*, etc.

Tenseless languages are quite common, e.g. Cantonese, Hawaiian, Waiso, etc.

Past vs. Non-Past

Japanese is a language with two tense categories, past vs. non-past.

- (12) a. $\left\{ \begin{array}{ll} \text{ima} & (\text{now}) \\ \text{ashita} & (\text{tomorrow}) \end{array} \right\} \text{ie-ni kaer-e-ru.}$
house-to return-can-PRES

‘It is/will be possible to go home now/tomorrow.’

- b. kinoo ie-ni kaer-e-ta.
yesterday house-to return-can-PRES

‘It was possible to go home yesterday.’

Other languages with past vs. non-past include Finnish and Korean.

More Pasts

- (13) a. à kè tán'ń 'he bargained yesterday'
b. à lè tán'ń 'he bargained some days ago'
c. à lè lá?ń'tán 'he bargained a long time ago'

(Bamileke-Dschang from Comrie 1985: 11)

A more rigid system (Haya from Comrie 1985: 90):

- (14) a. twákôma 'we tied up earlier today' (hodiernal)
b. tukomíle 'we tied up yesterday' (hesternal)
c. túkakôma 'we tied up before yesterday (remote)

Yagua has the following five-term system:²⁷

- | | |
|--------|----------------------------------|
| -jásiy | proximate-1 (within a few hours) |
| -jáy | proximate-2 (one day ago) |
| -siy | within a few weeks |
| -tíy | within a few months |
| -jadá | distant or legendary past |

(Comrie 1985: 99)

Non-past Interpretations of Past

Affective connotation (Norwegian, from Comrie 1985: 20)

- (15) detta smakte godt
‘This tastes (lit. tasted) good!’

‘Remind me’ reading (German, from Comrie 1985: 20)

- (16) wer bekam die Gulaschsuppe?
‘Who receives (lit. received) the goulash soup?’

Near future (Russian, from Comrie 1985: 20)

- (17) ja pošel.
‘I’m leaving (lit. left).’

More on Future

Hua is said to be a language that only distinguishes future vs. non-future.

In addition to *will*, Modern English also uses *be going to* as a future marker. There seem to be subtle differences between them.

English uses the progressive to express Near Future. Languages often distinguish Near and Remote Future (e.g. Russian Past).

Embedded Tense and Sequence of Tense

Absolute Tense

Unembedded tenses are interpreted relative to the time of utterance.

- (18) a. John is sick. (now)
b. John was sick. (before now)
c. John will be sick. (after now)

Such interpretations are called **absolute tenses**.

It seems no language has an absolute tense category that is relative to some absolute time, e.g. the birth of Jesus Christ.

Embedded tenses are not always absolute.

Sequence of Tense

English is a **Sequence of Tense (SoT)** language:
simultaneity is expressed by matching tense.

- (19) a. John believed**d** that Mary **was** pregnant.
b. John believed**d** that Mary **is** pregnant.

(19b) gets what's called a double access reading (Mary was and still is pregnant, according to John).

Sequence of Tense

English is a **Sequence of Tense (SoT)** language:
simultaneity is expressed by matching tense.

- (19) a. John believed that Mary **was** pregnant.
b. John believed that Mary **is** pregnant.

(19b) gets what's called a double access reading (Mary was and still is pregnant, according to John).

Japanese, Russian, Hebrew, etc. are non-SoT languages.
What corresponds to (19b) expresses simultaneity.

- (20) John-wa [Mary-ga ninshinshitei-**ru** to] omot-**ta**.
John-top [Mary-nom be.pregnant-PRES C] think-PAST

Relative Tense

Japanese embedded tenses receive ‘relative interpretations’: they are evaluated with respect to the embedding tense.

- (21) a. John-wa [Mary-ga ninshinshitei-**ru** to] omot-**ta**.
John-top [Mary-nom be.pregnant-PRES C] think-PAST
Present of the Past = **simultaneous**
- b. John-wa [Mary-ga ninshinshitei-**ta** to] omot-**ta**.
John-top [Mary-nom be.pregnant-PAST C] think-PAST
Past of the Past

Past-under-past in English is ambiguous between simultaneous and Past-of-the-Past. Past Perfect is unambiguously Past-of-the-Past.

- (22) a. John thought that Mary **was** pregnant.
b. John thought that Mary **had been** pregnant.

Slavic

Polish is non-SOT, like Japanese:

- (23) a. Ania powiedziala ze Marcin **jest** chory.
Ania said that Marcin is.PRES sick
'Anna said that Marcin was sick.'
- b. Ania powiedziala ze Marcin **byl** chory
Ania said that Marcin was.PAST sick
'Anna said that Marcin had been sick.' (Sharvit 2014: 263)

In *before*-clauses, it's like English (Present would be ungrammatical).

- (24) Ania przyszia na przyjecie zanim Marcin przysedi.
Ania came to party before Marcin came.PAST
'Ania came before Marcin came.' (Sharvit 2014: 263)

In Japanese it has to be Present.

Relative Future in English

With respect to future, English tenses work like Japanese.

(25) a. John **will** say that he **is** happy.

b. John **will** say that he **was** happy.

- ▶ (25a) can be now, or the same time as the future saying time.
- ▶ (25b) is anytime before the future saying time.

Conditionals

English tense in *if*-clauses is a little funny.

Will is completely banned (unless it has a modal meaning).
'Present' is used instead.

- (26) a. *If it will rain tomorrow, I will bring an umbrella.
b. If it rains tomorrow, I will bring an umbrella.

NB: (26a) is grammatical in some languages, e.g. Russian.

Past can have a past meaning, but it can also mean
'counterfactual' (also marked in the consequent).

- (27) a. If she **called** Paul this morning, he will call us soon.
b. If she **called** Paul tomorrow, he would be upset.

Aspect

Aspectual Morphosyntax

- (28) a. It will rain/rains/rained.
b. It will **be/is/was** raining.
c. It will **have/has/had** rained.

Simple
Progressive
Perfect

French distinguishes more aspectual categories in the past.

- (29) a. il a **bu**.
he has drunk.

‘He drank’

Passé Composé

- b. il **buvait**
he drank

‘He was drinking’

Imparfait

Simple Past (Passé Simple) in French (e.g. *but*) is obsolete.

In the literature the term *aspect* is often used for several different concepts.

Grammatical Aspect/Viewpoint Aspect

One aspectual category is about different ways of locating the eventuality with respect to tense.

- (30) a. il a **bu**.
he has drunk.
'He drank'

Passé Composé

- b. il **buvait**
he drank
'He was drinking'

Imparfait

Roughly, Passé Composé places the entire event within the time under question (**perfective**), while Imparfait describes it as an ongoing event during the time under question (**imperfective**).

Inner Aspect/Lexical Aspect/Aktionsart

The other aspectual category as to do with the structure of the eventuality being described.

Vendler Classes

- ▶ **States**: uniform, lasts for some time
e.g. *know, be happy*
- ▶ **Activities**: non-uniform, no endpoint
e.g. *run, cry*
- ▶ **Achievements**: with endpoint, instantaneous
e.g. *reach the summit, notice me*
- ▶ **Accomplishments**: with endpoint, temporal extension
e.g. *build the house*

Certain linguistic phenomena are sensitive to these classes.

Progressives and Aktionsarten

States are incompatible with progressives. Coersion to non-states makes them acceptable.

(31) ??Paul is knowing the truth.

Activities turn into states (or Near Future).

(32) Paul is running/crying/dancing.

Achievements in Progressive only get the Near Future reading.

(33) Paul is reaching the summit.

Accomplishments can have Near Future reading, or describes an on-going event.

(34) Paul is building the house.

Temporal Adverbials

For-adverbials are not good with events with endpoints.

- (35) a. Paul was asleep for 3 hours.
b. Paul danced for 3 hours.
c. ?? Paul reached the summit for 3 hours.
d. ?? Paul built the house for 3 hours.

In-adverbials are only good with events with endpoints.

- (36) a. ??Paul was asleep in 3 hours.
b. ??Paul danced in 3 hours.
c. Paul reached the summit for 3 hours.
d. Paul built the house for 3 hours.

(Coersion might allow you to use the expression in a non-canonical way; pay attention to the meaning)

- (37) Paul cleaned the flat for/in 3 hours.

Aktionsarten and Composition

In English Aktionsarten are determined at the VP-level.

- | | |
|-------------------------------|-----------------------|
| (38) a. Paul ran. | Activity |
| b. Paul ran to the park. | Accomplishment |
| (39) a. Paul ate a chocolate. | Accomplishment |
| b. Paul ate chocolate. | Activity |
| (40) a. Paul ran. | Activity |
| b. Paul didn't run. | State |

In Slavic, each verb encodes Aktionsarten. Perfectives generally have an endpoint, imperfectives don't.

English: Simple

Simple past in English doesn't overtly mark Viewpoint Aspect or Aktionsart.

- | | |
|--------------------------|-----------------------------|
| (41) a. Paul was asleep. | imperfective, state |
| b. Paul ran in the gym. | perfective, activity |
| c. Paul noticed me. | perfective, achiev. |
| d. Paul built the house. | perfective, accompl. |

Progressive turns perfectives into imperfectives.

Slavic

Russian has **perfective** vs. **imperfective** forms of verbs.

- (42) a. Ja **pročital** knigu.
me.NOM PERF.read.PAST book.ACC

‘I finished reading a/the book.’

perfective

- b. Ja **čital** knigu.
me.NOM IMPERF.read.PAST book.ACC

‘I was reading a/the book.’

imperfective

Slavic

Russian has **perfective** vs. **imperfective** forms of verbs.

- (42) a. Ja **pročital** knigu.
me.NOM PERF.read.PAST book.ACC
'I finished reading a/the book.' **perfective**
- b. Ja **čital** knigu.
me.NOM IMPERF.read.PAST book.ACC
'I was reading a/the book.' **imperfective**

In the 'Present', the perfective expresses Future, the imperfective expresses an ongoing event.

- (43) a. Ja **pročitaju** knigu.
me.NOM PERF.read.PRES book.ACC
'I will finish a/the book.' **perfective**
- b. Ja **čitaju** knigu.
me.NOM IMPERF.read.PRES book.ACC
'I am reading a/the book.' **imperfective**

Markedness

Perfectives in Slavic generally describe events with a natural endpoint (telic), and imperfectives don't (atelic).

It'd be interesting to ask if and how perfective vs. imperfective encode markedness (cf. Lecture 2, 3).

In Slavic, imperfective seems to be semantically unmarked, because when negated, it seems neutral with respect to telicity.

- (44) a. Ne **pročitaj** knigu.
not PERF.read.IMP book.ACC

'Don't read a/the book.'

perfective

- b. Ne **čitaj** knigu.
Not IMPERF.read.IMP book.ACC

'Don't read a/the book.'

imperfective

Perfect

What does Perfect in English mean?

- | | |
|-----------------------------|--------------------------|
| (45) a. John has been sick. | Continuous state |
| b. John has left. | Continuous result state? |
| c. John has been to Rome. | Experiential |

Present Perfect is past and present at the same time.

What about:

- (46) a. John F. Kennedy ??has been assassinated!
 b. Boris Johnson has been assassinated!

Present Perfect Puzzle

Present Perfect are bad with certain temporal adverbials.

- (47) a. *Paul has left at 3 pm.
b. *Paul has been sick last week.
c. *Paul has enjoyed the last party.
cf. Paul has just left, Paul has been sick lately.

Past Perfect is fine.

- (48) a. Paul had left at 3 pm.
b. Paul had been sick the previous week.
c. Paul had enjoyed the previous party.

Infinitival Perfect too:

- (49) a. Paul seems to have left at 3 pm.
b. Paul seems to have been sick last week.
c. Paul seems to have enjoyed the last party.

Towards an Analysis

My PhD student, Ruoying Zhao, is developing the following account:

With temporal adverbs, Present Perfect would mean the same thing as Simple Past. Somehow Simple Past is preferred.

Past Perfect and Simple Past mean different things; Simple Past is out in infinitivals. So Past Perfect and Infinitival Perfect are fine with all temporal adverbs.

French has lost Simple Past, so Present Perfect is fine with anything. (Similarly for German, but more dialectal variation)

References

Survey articles

- ▶ Ogihara (2007) Tense and aspect in truth-conditional semantics. *Lingua*, 117.
- ▶ Ogihara & Sharvit (2012) Embedded tenses. In *The Oxford Handbook of Tense and Aspect*.
- ▶ Verkuyl (2011) Tense, aspect, and temporal representation. In *Handbook of Logic and Language*.
- ▶ Rothstein (2016) Aspect. In *The Cambridge Handbook of Formal Semantics*.

Other references

- ▶ Comrie (1985) *Tense*. CUP.
- ▶ Liu (2015) Tense and aspect in Mandarin Chinese. In *The Oxford Handbook of Chinese Linguistics*.
- ▶ Sharvit (2014) On the universal principles of tense embedding: The lesson from *before*. *Journal of Semantics*, 31.