Tense and Aspect

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Tense

- Grammatical expression of the time of the situation described, relative to some other time (e.g., moment of speech)

George admires Adolf.
George admired Jesus.
Reichenbach

- Tensed utterances introduce references to 3 ‘time points’
  - Speech Time: S
  - Event Time: E
  - Reference Time: R


\[
I \text{ had } [\text{mailed the letter}]_E [\text{when John came & told me the news}]_R
\]

\[E < R < S\]

- The concept of ‘time point’ is an abstraction — it can map to an interval
- Three temporal relations are defined on these time points
  - at, before, after
- 13 different relations are possible
Reichenbachian Tense Analysis

- Tense is determined by relation between R and S
  - R=S, R<S, R>S

- Aspect is determined by relation between E and R
  - E=R, E < R, E > R

- Relation of E relative to S not crucial
  - Represent R<S=E as E>R<S

- Only 7 out of 13 relations are realized in English
  - 6 different forms, simple future being ambiguous
  - Progressive no different from simple tenses
    - But I was eating a peach ≠> I ate a peach
### Tense as Operator: Prior

<table>
<thead>
<tr>
<th></th>
<th>Anterior past</th>
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- Free iteration captures many more tenses,
  - *I would have slept* $PFP\phi$
- But also expresses many non-NL tenses
  - $PPPP\phi$ [It was the case] $^4$ John had slept
Aspect

- Two Varieties
  - Grammatical Aspect
    - Distinguishes viewpoint on event
  - Lexical Aspect
    - Distinguishes types of events (situations)(eventualities)
    - Also called Aktionsarten
Grammatical Aspect

- **Perfective** – focus on situation *as a whole*
  
  - John built a house

- **Imperfective** – focus on *internal phases* of situation
  
  - John was building a house
Aktionsarten

- **STATIVES** *know, sit, be clever, be happy, killing, accident*
  - can refer to state itself (ingressive) *John knows*, or to entry into a state (inceptive) *John realizes*
  - *John is knowing Bill, *Know the answer, *What John did was know the answer*

- **ACTIVITIES** *walk, run, talk, march, paint*
  - if it occurs in period t, a part of it (also an activity) must occur for every/most sub-periods of t
  - X is V-ing entails that X has Ved
  - *John ran for an hour, *John ran in an hour

- **ACCOMPLISHMENTS** *build, cook, destroy*
  - culminate (telic)
  - x V-s for an hour does not entail x V-s for all times in that hour
  - X is V-ing does not entail that X has Ved.
  - *John booked a flight in an hour, John stopped building a house*

- **ACHIEVEMENTS** *notice, win, blink, find, reach*
  - instantaneous accomplishments
Different types of tense systems across languages

• Using verbal inflection:
  – Languages with a two-way contrast:
    • **English**: Past (before the moment of speaking) vs. Nonpast
      past -ed: *She worked hard.*
      nonpast (unmarked): *We admire her. I will leave tomorrow.*
    • **Dyirbal** (Australian language): Future vs. nonfuture:
      future -ñ: *bani-ñ* ‘will come’
      nofuture -ñu: *bani-ñu* ‘came, is coming’
  – Languages with a three-way distinction:
    • **Catalan, Lithuanian**: Past vs. Present vs. Future
      (Cat.) past: *treball-à.* (Lit.) Dirb-au. ‘I worked’
      present: *treball-a.* Dirb-u. ‘I work’
      future: *treball-arà. Dirb-
      siu. ‘I will work’
Different types of tense systems across languages

- A much richer distinction:
  - Chibemba (Bantu language):
    For past:
    - Remote past (before yesterday) *Ba-àlí-bomb-ele* ‘they worked’
    - Removed past (yesterday) *Ba-àlíí-bomba* ‘they worked’
    - Near past (earlier today) *Ba-àcí-bomba* ‘they worked’
    - Immediate past (just happened) *Ba-á-bomba* ‘they worked’
    For future:
    - Immediate future (very soon) *Ba-áláá-bomba* ‘they’ll work’
    - Near future (later today) *Ba-léé-bomba* ‘they’ll work’
    - Removed future (tomorrow) *Ba-kà-bomba* ‘they’ll work’
    - Remote future (after tomorrow) *Ba-ká-bomba* ‘they’ll work’
Aspect

- Internal temporal organization of the situation described by an event.
- Most common:
  - **Perfective**: Situation viewed as a bounded whole.
  - **Imperfective**: Looking inside the temporal boundaries of the situation.
    - **Habitual**
    - **Progressive**
- Other related aspectual distinctions:
  - **Iterative**: The action is repeated.
  - **Inceptive**: The action is began.
  - **Inchoative**: Entering into a state.
Different types of aspect systems across languages

- Some languages use auxiliaries and particles associated with the verb:
  
  **English:**
  - **Perfective:** *have* + Past Participle  
    
    I have eaten.
  - **Progressive:** *be* + Present Participle  
    
    I am eating.
  - **Habitual:** *use to* + Base form  
    
    I used to sing.
  
  **Catalan:**
  - **Habitual:** *soler* + Infinitive  
    
    Sol parlar.  
    Solia cantar.  
    ‘She generally talks.’  
    ‘She used to talk’
  - **Iterative:** *anar* \(_{\text{past}}\) (‘to go’) + Present Participle  
    
    Va tornant  
    go\_past coming\_back  
    ‘She keeps coming back’
Different types of aspect systems across languages

- Other languages use a derivational component:
  - **Russian**: by means of a system of verbal prefixes
    - **Imperfective**: simple verbs  *Ja ?citál*  ‘I was reading’
    - **Perfective**: prefixed verbs  *Ja pro?citál*  ‘I (did) read’

- **Finnish**: by means of the case of the object
  - **Perfective**:  *Hän luki kirjan*<sub>acc.</sub>  ‘He read the book’
  - **Imperfective**:  *Hän luki kirjaa*<sub>part.</sub>  ‘He was reading the book’.

  Basic meaning: only part of the object being referred to is affected by the situation.
Tense and Aspect

- Aspect and Tense generally cross-classify:
  - **Russian**:
    - Present:
      - Only imperfective: *citáju* ‘I read’
    - Past:
      - Imperfective: *Ja ?citál* ‘I was reading’
      - Perfective: *Ja pro?citál* ‘I (did) read’
    - Future:
      - Imperfective: **?
      - Perfective: *Ja pro?citáju* ‘I shall read’
Tense and Aspect

- **Basque:**
  - Present:
    - Imperfect (Gerund + Present tense auxiliary) *ekartzen du* ‘he is bringing it’
    - Perfect (Past Participle + Present tense aux.) *ekarri du* ‘he has brought it’
  - Past:
    - Imperfect (Gerund + Past tense aux.) *ekartzen zuen* ‘he brought, used to bring’
    - Perfect (Past Participle + Past tense aux.) *ekarri zuen* ‘he brought, had brought’
  - Future:
    - Simple (Future Participle + Pres. tense aux.) *ekarriko du* ‘he will bring it’
    - Past Future (Future Participle + Past tense aux.) *ekarriko zuen* ‘he would bring’
An interesting case

- Tense and Aspect in 2 different creoles, evolved independently from each other:

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<td>(he walks, he walked)</td>
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