Verb subcategorization

- **Problem:** Constraints on verbs and their complements.

  Nadia told / instructed / *said / *informed Ross to sit down.
  Nadia *told / *instructed / said / *informed to sit down.
  Nadia told / *instructed / *said / informed Ross of the requirement to sit down.

  Nadia gave / donated her painting to the museum.
  Nadia gave / *donated the museum her painting.

  Nadia put / ate the cake in the kitchen.
  Nadia *put / ate the cake.
Verb subcategorization

- VPs are much more complex than just V with optional NP and/or PP.
  - Can include more than one NP.
  - Can include clauses of various types: that Ross fed the marmoset to pay him the money

- **Subcat**: A feature on a verb indicating the kinds of verb phrase it allows: _np, _np_np, _inf, _np_inf, ...

Write this way to distinguish from constituents.
Verb tense and aspect

- **Tense** and **aspect** markings on verb:
  - Locate the event in time (relative to another time).
  - Mark the event as complete/finished or in progress.

*Nadia rides the horse.* — In progress now.
*Nadia rode the horse.* — Completed before now.
*Nadia had ridden the horse.* — Completed before before now.
*Nadia was riding the horse.* — In progress before now.
Verb tense and aspect

- Tense: past or present
- Aspect: simple, progressive, or perfect

Nadia …

<table>
<thead>
<tr>
<th></th>
<th>Simple</th>
<th>Progressive</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>rides</td>
<td>is riding</td>
<td>has ridden</td>
</tr>
<tr>
<td>Past</td>
<td>rode</td>
<td>was riding</td>
<td>had ridden</td>
</tr>
</tbody>
</table>

Auxiliary verb

Present participle

Past participle

… the horse
Verb tense and aspect

- Tense: past or present
- Aspect: simple, progressive, or perfect

<table>
<thead>
<tr>
<th></th>
<th>Simple</th>
<th>Perfect progressive (continuous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>rides</td>
<td>has been riding</td>
</tr>
<tr>
<td>Past</td>
<td>rode</td>
<td>had been riding</td>
</tr>
</tbody>
</table>

Nadia ... Auxiliary verbs ... the horse
Modal verbs

- **Modal verbs**: Auxiliary verbs that express degrees of certainty, obligation, possibility, prediction, etc.

Nadia

{could, should, must, ought to, might, will, …}
{ride, be riding, have ridden, have been riding}

the horse.
English auxiliary system

• Structure (so far):
  [MODAL] [HAVE] [BE] MAIN-VERB

• General pattern:
  VP → AUX VP
  AUX → MODAL | HAVE | BE
  • Use features to capture necessary agreements.
Voice

- **Voice**: System of assigning thematic roles to syntactic positions.
  - English has **active** and **passive** voices.

- Passive expressed with *be*+past participle. Other auxiliaries may also apply, including progressive *be*.

  - *Nadia was kissed.*
  - *Nadia had been kissed.*
  - *Nadia could be kissed.*
  - *Nadia was being kissed.*
  - *Nadia had been being kissed.*
  - *Nadia could have been being kissed.*

- **Structure:**
  - `[MODAL] [HAVE] [BE₁] [BE₂] MAIN-VERB`
The goalie kicked the ball.

Event: kicked

Role: Agent (doer)

Role: Theme (thing affected)

Thing: the goalie

Thing: the ball

kick (agent=goalie, theme=ball)
The ball was kicked.

Event: \textit{kicked}

Role: \textbf{Theme} (thing affected)

Thing: \textit{the ball}

kick (agent=?, theme=ball)
The ball was kicked by the goalie.

Event: **kicked**

Role: **Agent**
(Doer)

Role: **Theme**
(Thing affected)

Thing: **the ball**

Thing: **the goalie**

kick (agent=goalie, theme=ball)
Passive as *Diathetic alternation*

the goalie kicked the ball
Passive as *Diathetic alternation*

The ball was kicked by the goalie

From object position in VP to subject position in S

From subject position in S to PP in VP

But the semantic representation doesn’t change
Some useful features

- **VForm**: The tense/aspect form of a verb: passive, pastprt, ...
- **CompForm**: The tense/aspect form of the complement of an auxiliary.