Lecture 5: Sentences (Syntax)

INDV 101 -- Mind, Self and Language
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Remember “morphology”?  
- A combination of morphemes into words.  
- WORD is not a solid unit in some languages.  
- We can extend the combinatorial property of morphology to syntax—combination of words into sentences.

Syntax
= how we combine words to form phrases and then phrases into sentences

Why is syntax important?
- Consider the following sentences. Which one is English?
  - I yesterday see an old friend.
  - I an old friend saw yesterday.
  - I saw an old friend yesterday.

- Syntax deals with the basic word order problem in language.

Is SYNTAX independent from semantics (meaning)?

- Syntax also deals with inflections, agreement, etc.
  - John read a novel written by Saramago. (past tense)
  - Sue is reading The Tale of an Unknown Island. (present progressive)

- Colorless green ideas sleep furiously.
  - Grammatically sound.
  - Semantically awkward.
Possible Word Orders—
Subject / Verb / Object

- SVO
- SOV
- VSO
- VOS
- OSV
- OVS

There are additional markers (case markers for example) that provide information about the nouns in relation to the verbs.

- Japanese:
  John-wa Mary-o like
  nom  acc

  In these languages, word order may be scrambled at times.
  Mary-o John-wa like

Word order as a typological issue

- **SVO**
  - (English, French, Indonesian, Chinese)

- **SOV**
  - (Turkish, Japanese, Korean, Persian, Latin)
  - Most common among languages.
  - German uses SVO in main clauses, but employs SOV in subordinate clauses.

Word order as a typological issue

- **VSO**
  - (Welsh, Tongan, Arabic; questions in Dutch & French)
  - Polish notation

Polish notation

An alternative representation for symbolic logic, introduced by Jan Łukasiewicz. Use of the basic notation is illustrated in the following table:

<table>
<thead>
<tr>
<th>conect</th>
<th>negacja</th>
<th>disjunction</th>
<th>conjunction</th>
<th>implication</th>
<th>equivalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p \land q$</td>
<td>$\neg p$</td>
<td>$p \lor q$</td>
<td>$p \land q$</td>
<td>$p \implies q$</td>
<td>$p \equiv q$</td>
</tr>
</tbody>
</table>

Word order as a typological issue

- **VOS**
  - (Malagasy, Fijian, mostly Austronesian languages)
**Word order** as a typological issue

- **OSV**
  - Xavante and some Brazilian lgs. such as Apurinã, Kayabi and Nadêb
  - very rare among human languages
  - Speech of Yoda in Star Wars: The order of words sounds very peculiar to English speakers, adding to the strangeness of the character: "A brave man your father was", "My home this is", etc.

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**Speech of Yoda**

- "The Dark Side clouds everything. Impossible to see, the future is."
- "Truly wonderful, the mind of a child is."
- "Victory. Victory you say? Master Obi-Wan, not victory. The shroud of the Dark Side has fallen, begun the clone war hate."
- "Great warrior? Wars not make one great."
- "A Jedi uses the Force for knowledge and defense, never for attack."
- "Size matters not. Look at me. Judge me by my size, do you?"
- "Do not underestimate the powers of the Emperor or suffer your father's fate, you will."

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**Word order** as a typological issue

- **OVS**
  - Guarijio and Hixkaryana
  - the rarest among human languages
  - Created languages of **Klingon** (Star Trek)

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**An interesting question:**

- How is word order related to human cognition and language processing?
  - Is there a default word order?
  - How do people process languages of different word orders?
  - Is there a difference between 1st and 2nd language users?
  - Is syntax independent of other cognitive operations?

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**Why is syntactic structure important?**

- This is the crucial property of human language:
  - We combine words with rules to make sentences.
  - The rules apply in certain orders.
  - Human language is recursive.
  - We compose meaning out of these combinations.
    
    Let me tell you a story about an unknown island.

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**Why is structure important?**

- **Ambiguity** in language--
  - **lexical ambiguity**: bank, table, right/write
  - **syntactic ambiguity (structural ambiguity)**
  - **pragmatic ambiguity**
    - Can you tell me the time?
    - It is pretty late.
    - I am a U of A student. (stated for discount)
**Structural ambiguity**

- He saw the girl with a telescope.
- John blew up the chimney.
- That's a small man's hat.

**Sentences**

- The most important goal in this section is to be able to draw tree diagrams for English sentences.

**Parts of Speech**

- Noun
- Pronoun (treated as Noun here)
- Verb
- Preposition
- Adverb
- Adjective
- Determiner
- Possessive
- Quantifier
- Auxiliary

**Phrases**

- NP
- VP
- PP
- AdvP
- AP (for AdjP)
- Determiner
- Possessive
- Quantifier
- Auxiliary
In our class, you’ll primarily need to know phrase-structure rules to draw trees.

And they will be provided to you.

You should be able to extend these rules into numerous individual rules.

These rules can also be represented visually by **syntactic trees**.