Agenda: evidence of and models for complex structure in language

I. A highly ambiguous sentence  From last lecture:

“I saw her duck with a telescope.”

Many interpretations are possible, but these do not correspond to all possible combinations of possible interpretations of the various “sub-units”.

II. Evidence for constituents  Consider the sentence

“List all flights on Tuesday.”

Are there natural “chunks”, or constituents?

1. “List all flights when?” vs. “List all what Tuesday?”
2. “On Tuesday, list all flights” vs. “Flights on, list all Tuesday”
3. “List ... all ... flights [...] on Tuesday” vs. “List ... all ... flights on ... Tuesday”
4. “All flights on Tuesday, please”

III. Tree representation of (syntactic) sentence structure

\[
S(=VP) \\
| V \\
| List \\
| NP \\
| DET \\
| all \\
| N' \\
| N \\
| flights \\
| P \\
| NP \\
| on \\
| Tuesday \\
| NP
\]

\[
S(=VP) \\
| V \\
| List \\
| NP \\
| DET \\
| all \\
| flights \\
| P \\
| NP \\
| on \\
| N \\
| Tuesday
\]

NP=noun phrase; VP=verb phrase; PP=prepositional phrase. \( N' \) (pronounced “N-bar”) is a “bare noun phrase”. The labels just above the leaves represent parts of speech (POSs); \( DET \)=determiner.

IV. X-bar schemas  Briefly, the main idea is that (in English) a “motif” is the following type of constituent structure:

\[
X'' \\
| A \\
| X' \\
| X \\
| B
\]