## Chapter 4, sections 4.6-4.10:

## Agreement <br> (and other cooccurrence restrictions) <br> Revisited

## Reminder: Last time we...

- Replaced atomic-valued VAL features with list-valued ones.
- Generalized Head-Complement and Head-Specifier rules, to say that heads combine with whatever their lexical entries say they should combine with.
- Introduced the Valence Principle to "cancel" things off the COMPS and SPR lists.


## The Parallelism between S and NP

- Motivation:
- pairs like Chris lectured about syntax and Chris's lecture about syntax.
- both S and NP exhibit agreement
- The bird sings/*sing vs. The birds sing/*sings
- this/*these bird vs. these/*this birds
- So we treat NP as the saturated category of type noun and S as the saturated category of type verb.


# Question: Is there any other reason to treat V as the head of S ? 

- In standard English, sentences must have verbs. (How about non-standard English or other languages?)
- Verbs taking S complements can influence the form of the verb in the complement: I insist/*recall (that) you be here on time.
- Making V the head of S helps us state such restrictions formally


## A possible formalization of the restriction on insist

$\left.\left[\begin{array}{lll}\text { HEAD } & \text { verb } & \\ & {\left[\begin{array}{ll}\text { SPR } & \langle\text { NP }\rangle\end{array}\right.} \\ & & \\ \text { COMPS } & \left.\left\langle\begin{array}{ll}\text { HEAD } & \\ \text { VAL } & {\left[\begin{array}{ll}\text { verb } & \\ \text { MOOD } & \text { subjunctive }\end{array}\right]} \\ \text { VOMPS } & \rangle \\ \text { SPR } & \rangle\end{array}\right]\right\rangle\end{array}\right]\right]$

Note that this requires that the verb be the head of the complement. We don't have access to the features of the other constituents of the complement.

## An Overlooked Topic: Complements vs. Modifiers

- Intuitive idea: Complements introduce essential participants in the situation denoted; modifiers refine the description.
- Generally accepted distinction, but disputes over individual cases.
- Linguists rely on heuristics to decide how to analyze questionable cases (usually PPs).


## Heuristics for Complements vs. Modifiers

- Obligatory PPs are usually complements.
- Temporal \& locative PPs are usually modifiers.
- An entailment test: If X Ved (NP) PP does not entail $X$ did something PP, then the PP is a complement.
Examples
Pat relied on Chris does not entail Pat did something on Chris Pat put nuts in a cup does not entail Pat did something in a cup Pat slept until noon does entail Pat did something until noon Pat ate lunch at Bytes does entail Pat did something at Bytes


## Agreement

- Two kinds so far (namely?)
- Both initially handled via stipulation in the Head-Specifier Rule
- But if we want to use this rule for categories that don't have the AGR feature (such as PPs and APs, in English), we can't build it into the rule.


## The Specifier-Head Agreement Constraint (SHAC)

Verbs and nouns must be specified as:

$$
\left[\begin{array}{lll}
\text { HEAD } & {\left[\begin{array}{ll}
\text { AGR } & 1
\end{array}\right]} \\
\text { VAL } & \left.\left.\left[\begin{array}{ll}
\text { SPR } & \langle[\text { AGR } \\
1
\end{array}\right]\right\rangle\right]
\end{array}\right]
$$

## The Count/Mass Distinction

- Partially semantically motivated
- mass terms tend to refer to undifferentiated substances (air, butter, courtesy, information)
- count nouns tend to refer to individuatable entities (bird, cookie, insult, fact)
- But there are exceptions:
- succotash (mass) denotes a mix of corn \& lima beans, so it's not undifferentiated.
- furniture, footwear, cutlery, etc. refer to individuatable artifacts with mass terms
- cabbage can be either count or mass, but many speakers get lettuce only as mass.
- borderline case: data


## Our Formalization of the Count/Mass Distinction

- Determiners are:
- [COUNT -] (much and, in some dialects, less),
- [COUNT +] (a, six, many, etc.), or
- lexically underspecified (the, all, some, no, etc.)
- Nouns select appropriate determiners
- "count nouns" say SPR <[COUNT +]>
- "mass nouns" say SPR <[COUNT -]>
- Nouns themselves aren't marked for the feature COUNT
- So the SHAC plays no role in count/mass marking.


