

Ling 315 Lecture notes. 7 Feb 2007.

1. Current class grammar.

Lexicon

N → *kittens*-[N; Pl], *kitten*-[N; Sg], *destruction*-[N; Sg; (uP)], etc.

V → *disappear*-[V; uPl], *mangle*-[V; uPl; uN], etc.

A → *happy*-[A; (uP)]; *fond*-[A; uP], etc.

P → *out*-[P; (uN)]; *of*-[P; uN], etc.

D → *the*-[D]; *these*-[D; uPl], *this*-[D; uSg], *my*-[D; Sg, 1st, Gen], etc.

C → *that*-[C; uS], *whether*-[C; uS], *if*-[C; uS]...

Deg → *very*-[Deg]; *so*-[Deg], *too*-[Deg], ...

Pron → *I*-[N; Sg, 1st, Nom], *me*-[N; 1st, Acc], ...

T → *might*-[T], *will*-[T], *have*-[T], ...

ProP → *there*-[P], *then*-[P], ...

Phrase Structure Rules

S → NP T VP

NP → (D) (AP) N (PP) (CP)

NP → Pronoun

VP → V (NP) (PP) (PP) (AP) (CP)

AP → (Deg) A (PP) (CP)

PP → P (NP) (CP)

PP → Pro-PP

CP → C S

Other Principles

That-Deletion. The C *that* is optionally unpronounced when it heads a verb's CP complement.

Projection. The head of a phrase projects its features up to the phrasal level.

Full Interpretation. The structure to which the semantic interface rules apply contains no uninterpretable features.

Checking. Uninterpretable features must be checked; once checked, they delete.

Checking under Sisterhood. An uninterpretable **c-selectional** or **inflectional** feature on a syntactic object Y is checked when Y is sister to another syntactic object Z that bears a **matching** feature.

Reflexives Rule. A reflexive pronoun must be coreferential with a preceding expression in the same minimal sentence.

Pronouns Rule. A non-reflexive pronoun must not be coreferential with a preceding expression in the same minimal sentence.

Coreferentiality Hypothesis. For two expressions to be coreferential, they must bear the same ϕ -features.

2. Practice with feature structures. Determine the feature structures for the following underlined lexical items, based on the following examples:

- (1)
 - a. We feel confident.
 - b. We feel confident about this.
 - c. *We feel confident interested.
 - d. We feel confident that you will live.
- (2)
 - a. They talked about that.
 - b. They talked about whether they should stay.
 - c. *They talked about interested.

3. The S Rule. (Based on Chapter 5 from the textbook.)

Most of the phrases we have looked at so far share a common anatomy in that they all have *heads*, e.g., N is the head of NP, V is the head of VP, etc.

The one rule that does not obviously fit this generalization is S. This raises the question of whether the S rule too has a head, and what that head might be.

We will look at reasons to think that the head of S is T. Since heads are obligatory, this would require a change in the S rule, so that T is no longer optional:

- (3) S → NP T VP

The hypothesis that T heads S has interesting implications for sentences that contain a finite verb but no auxiliary:

- (4) a. Ruben swims.
b. Ruben swam.

The question is: what is T in these examples, if T does indeed occur here?

We will try to motivate T in these examples by systematically looking at the behavior of auxiliaries in English -- that is, items that we *know* may occupy T, and then showing that sentences like (4) also show properties of T.

The three types of items that may occupy T that we have looked at so far are (i) the modals, (ii) the perfect auxiliary *have*, and (iii) the progressive auxiliary *be*:

- | | | |
|-----|---------------------------|-----------------------|
| (5) | Ruben might swim. | Modals |
| (6) | Ruben has swum. | Perfect auxiliary |
| (7) | Ruben is swimming. | Progressive auxiliary |

Each type of auxiliary may be marked for tense morphologically (e.g., *can* vs. *could*, *has* vs. *had*, *is* vs. *was*), and each has a particular morphological effect on the next verbal element: modals are always followed by the bare (or infinitive) form of the verb, the perfect *have* auxiliary is always followed by the past participle form of the verb, and the progressive *be* auxiliary is always followed by the present participle (-*ing*) form of the verb.

Modals. *May* is one of a small class of auxiliaries, the **modal** auxiliaries, which occur in a position preceding the lexical verb, and which semantically signify notions such as obligation, possibility, permission, futurity, and so on. Other examples of modals are:

- (8) Ruben {must/can/should/will} be late.

Modals appear to inflect for tense, although the past tense of modals is different in semantics from what we find for lexical verbs (e.g., *walked*). Traditional grammars treat the modals as inflecting for tense as follows:

- | | | |
|-----|----------------|-------------|
| (9) | <i>Present</i> | <i>Past</i> |
| | may | might |
| | can | could |
| | shall | should |

will	would
must	

Must is assumed to have no past form.

The perfect auxiliary have. *Have*, like the modal auxiliaries, behaves syntactically like a T in that it inflects for tense, and precedes the main verb:

- (10) Ruben has swum.
(11) Ruben had swum.

The progressive auxiliary be. *Be*, like the other auxiliaries, also inflects for tense, and precedes the main verb:

- (16) Ruben is swimming.
(17) Ruben was swimming.

To account for the fact that tense and agreement features show up on auxiliaries, we can propose that these features occupy T.

To account for the fact that auxiliaries require a certain morphological shape on a following verb, we can use features:

- (18) *have*-[T; Perf]
(19) *be*-[T; Prog]

The perfect participle form of a verb would then be marked as [uPerf], and the present participle (or progressive) form would be marked as [uProg], to ensure that the right form of the verb links up with the auxiliary.

In the case that there is just a main verb, it has been proposed is that the T node actually *lowers* down to V, in order for tense and agreement features to be realized overtly.

This would account for a number of facts. First, auxiliaries and tense inflection on a verb are in complementary distribution, that is, a sentence may contain either an auxiliary, or a verb that bears tense features:

- (20) a. Ruben will swim.
 b. Ruben might swim.
 c. Ruben is swimming.
 d. Ruben has swum.

- (21) a. Ruben swims.
 b. Ruben swam.

- (22) a. *Ruben is swims.
 b. *Ruben is swam.

In other words, the analysis predicts that there is just a single tensed/inflected element per sentence.

A number of environments appear to *block* lowering of T to V, in which case *do* is inserted under T. This process is known as *do*-support. These environments are as follows:

Negation:

- (23) a. Ruben will not swim.
 b. Ruben might not swim.
 c. Ruben is not swimming.
 d. Ruben has not swum.

- (24) a. *Ruben not swim.
 b. *Ruben not swim.

- (25) a. Ruben does not swim.
 b. Ruben did not swim.

VP-Ellipsis (a VP can be elided when its content can be recovered from an identical VP in preceding discourse):

- (26) a. Ruben will ~~swim~~.
 b. Ruben might ~~swim~~.
 c. Ruben is ~~swimming~~.
 d. Ruben has ~~swum~~.

- (27) a. *Ruben ~~swims~~.
 b. *Ruben ~~swam~~.

- (28) a. Ruben does ~~swim~~.
 b. Ruben did ~~swim~~.

Yes/no-questions:

- (29) a. Will Ruben swim?
 b. Might Ruben swim?
 c. Is Ruben swimming?
 d. Has Ruben swum?

- (30) a. *Swims Ruben?
 b. *Swam Ruben?

- (31) a. Does Ruben swim?
 b. Did Ruben swim?

Tag-questions:

- (32) a. Ruben will swim, won't he?
 d. Ruben is swimming, isn't he?

- (33) a. *Ruben swims, swims he?
 b. *Ruben swam, swam he?

- (34) a. Ruben swims, doesn't he?
 b. Ruben swam, didn't he?

In sum:

-Auxiliaries appear in a position in the sentence associated with tense features.

-This position precedes VP.

-Tense features occupy this position.

-Tense features need to be realized on a lexical item. To accomplish this,

-T may lower to V; or, when this is not possible,

-*Do*-support inserts *do* in T.