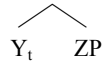


Ling 320. Assignment 6. Due 18 October 2007.

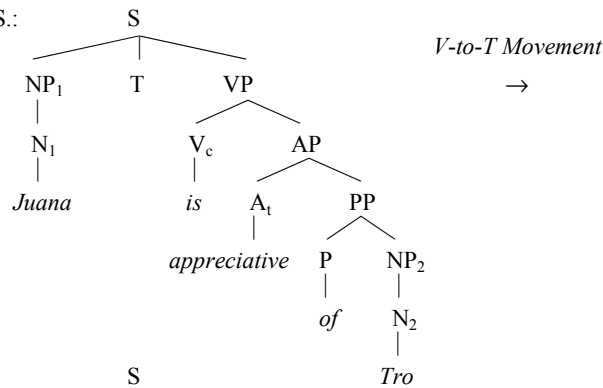
Part 1: Derivations. For this assignment, use the October 11th class grammar, with one change: semantic rule (f) is now generalized to cover all transitive lexical items:

(f) If α has the form YP, $[[\alpha]]^s = \{x \mid \langle x, [[ZP]]^s \rangle \in [[Y_t]]^s\}$.

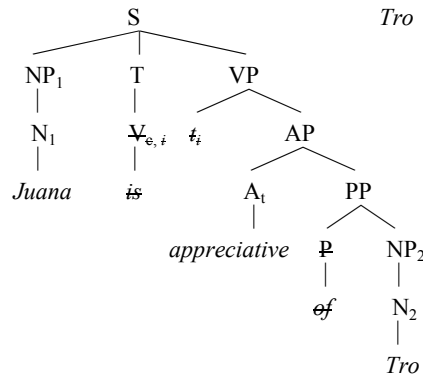


An example derivation is provided in (0) below.

(0) D.S.:



S.S.:



Recall that the strikethrough font designates semantically vacuous nodes (nodes that are invisible to the semantic component).

For any s , $[[S]]^s = 1$ iff

$[[NP_1]]^s \in [[VP]]^s$ by (a)

$[[N_1]]^s \in [[VP]]^s$ by (b)

$[[J.]]^s \in [[VP]]^s$ by (b)

$J. \in [[VP]]^s$ by (c)

$J. \in [[AP]]^s$ by (b)

$J. \in \{x \mid \langle x, [[PP]]^s \rangle \in [[A_t]]^s\}$ by (f)

$J. \in \{x \mid \langle x, [[NP_2]]^s \rangle \in [[A_t]]^s\}$ by (b)

$J. \in \{x \mid \langle x, [[N_2]]^s \rangle \in [[A_t]]^s\}$ by (b)

$J. \in \{x \mid \langle x, [[Tro]]^s \rangle \in [[A_t]]^s\}$ by (b)

$J. \in \{x \mid \langle x, Tro \rangle \in [[A_t]]^s\}$ by (c)

$J. \in \{x \mid \langle x, Tro \rangle \in [[appreciative]]^s\}$ by (b)

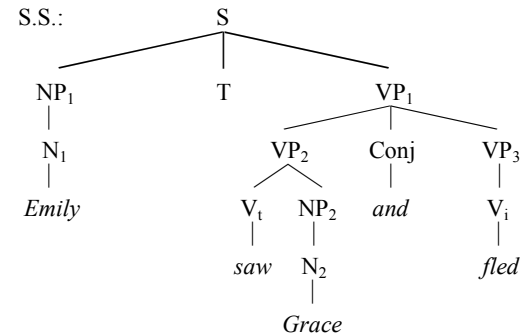
$J. \in \{x \mid \langle x, Tro \rangle \in \{\langle y, z \rangle \mid y \text{ is appreciative of } z \text{ in } s\}\}$ by (c)

$J. \in \{x \mid x \text{ is appreciative of Tro in } s\}$ by def. \in

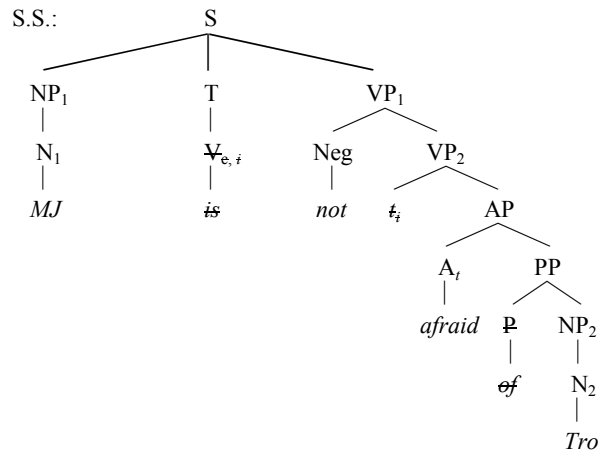
$J. \text{ is appreciative of Tro in } s$ by def. \in

Provide derivations of the truth conditions of the surface structures in (1) and (2). **Show every step of the derivation, as in example (0) above.**

(1) Emily saw Grace and fled.



(2) MJ is not afraid of Tro.



Feel free to use initials for names to cut down on space (e.g., *E* for *Emily*).

Part 2: Conjunction.

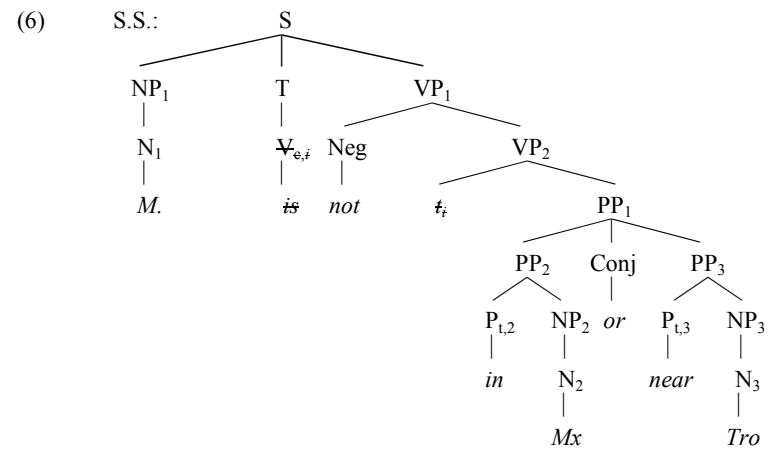
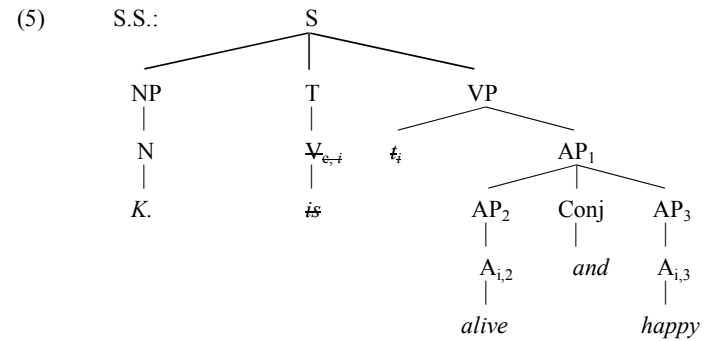
Our grammar does not yet account for conjoined APs or PPs:

- (3) Kris is alive and happy.
- (4) Melissa is not in Mexico or near Tro.

To account for these examples, we can add the following two syntactic rules:

- AP → AP Conj AP
- PP → PP Conj PP

The surface structure trees for these examples would then look as follows:



Your job: (i) Revise the semantic rules so that they can interpret these structures;
 (ii) Given your new rule, provide a derivation of (6).