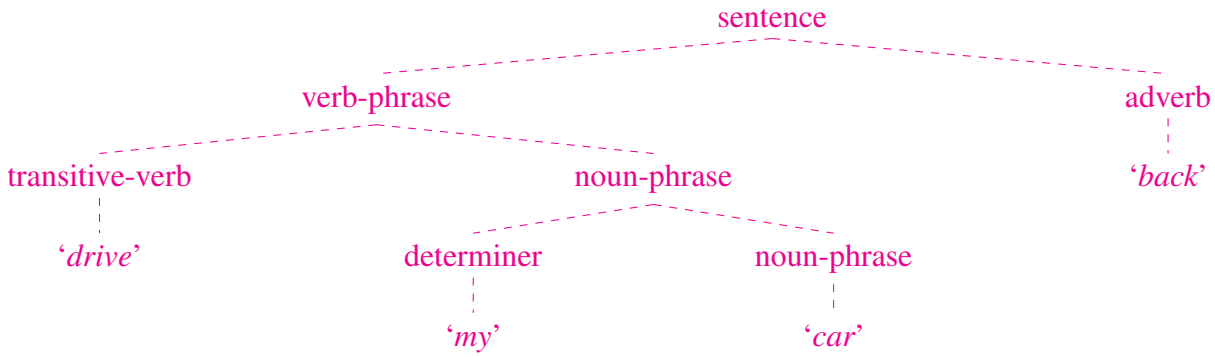
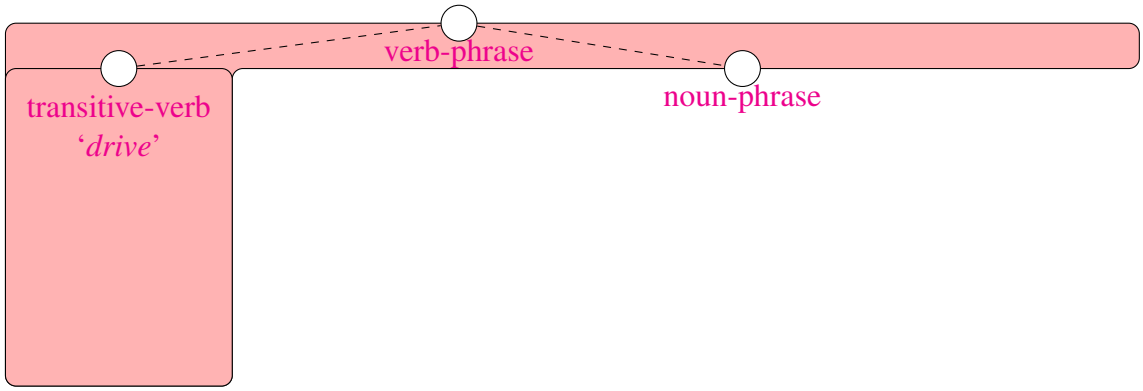
LING5702: Problem Set 4

Due via Carmen dropbox at 11:59 PM 3/8.

1. Consult the lecture notes (#10) on hierarchical sequential prediction. According to the model in those notes, assume the following complex event (a sentence) is being recognized:



and the following event fragments have already been constructed:

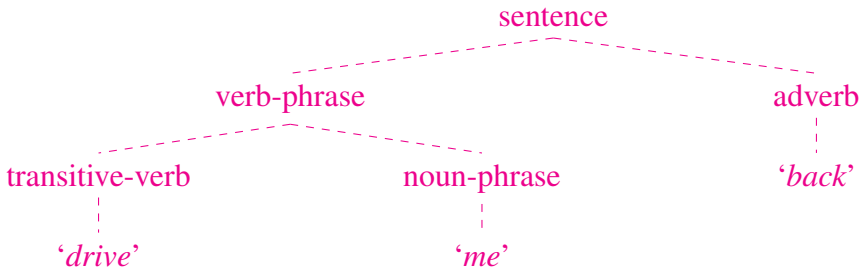


(a) [6 pts.] Draw the events and event fragments that would exist after one terminal decision. (HINT: As in lecture notes 10.4, draw just one rectangle with a word inside, no tree lines.)

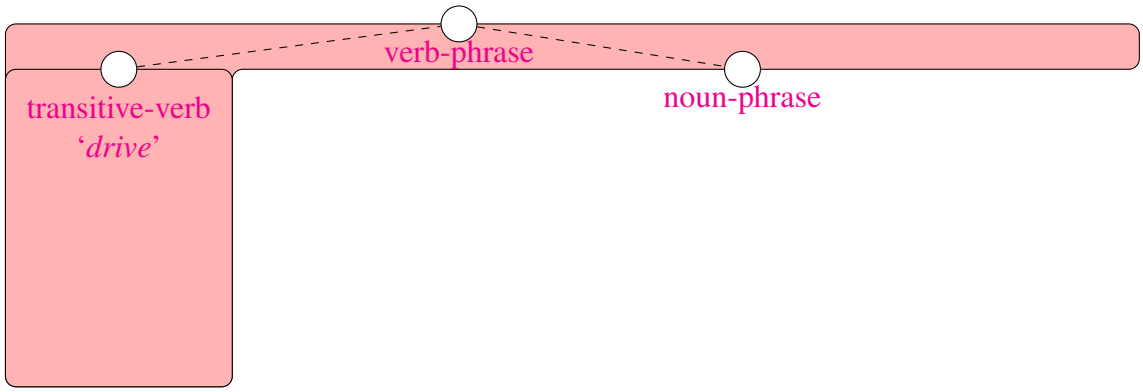
(b) [2 pts.] Which result (match or no-match) is used in this decision?

(c) [2 pts.] How many distinct (disjoint) events or event fragments exist in memory now?

2. Now assume the following complex event (a sentence) is being recognized:



and the following event fragments have already been constructed:

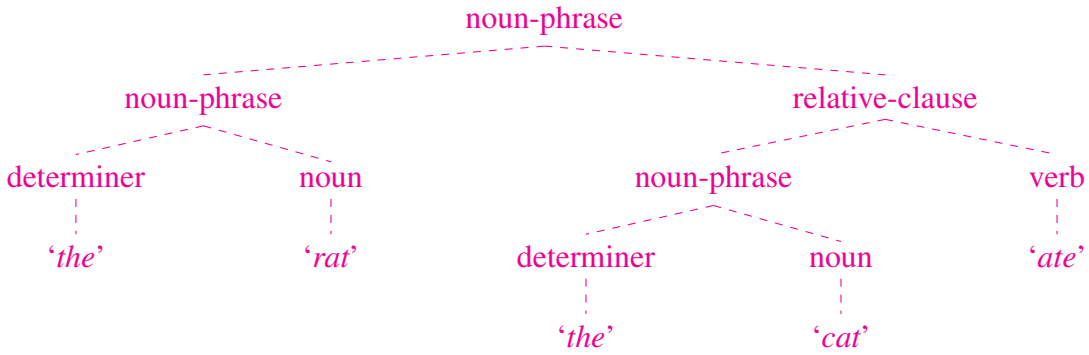


(a) [6 pts.] Draw the events and event fragments that would exist after one terminal decision. (HINT: As in lecture notes 10.4, draw just one rectangle with a word inside, no tree lines.)

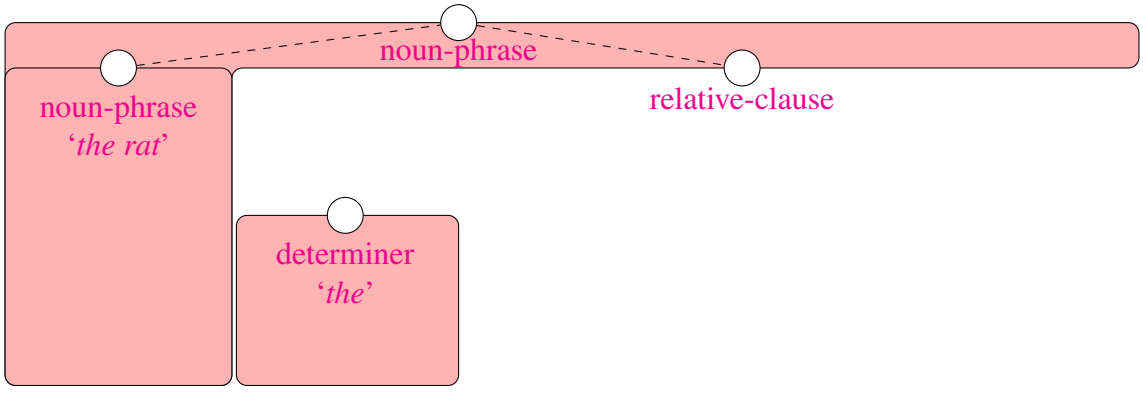
(b) [2 pts.] Which result (match or no-match) is used in this decision?

(c) [2 pts.] How many distinct (disjoint) events or event fragments exist in memory now?

3. Now assume the following complex event (a noun phrase) is being recognized:



and the following events and event fragments have already been constructed:

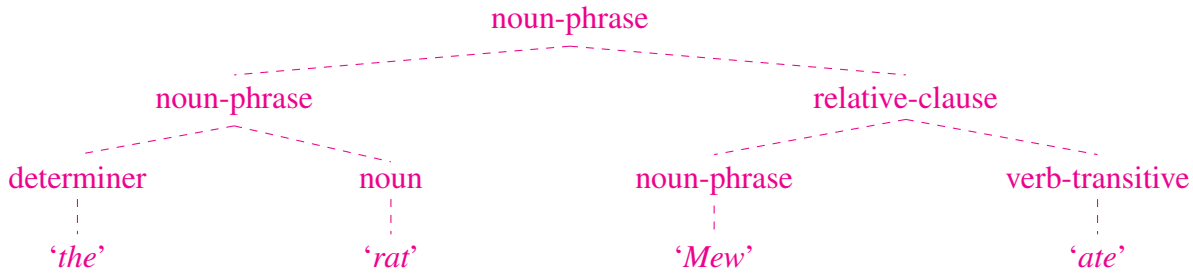


(a) [6 pts.] Draw the events and event fragments that would exist after one nonterminal decision. (HINT: As in lecture notes 10.4, draw just one rectangle with a pair of tree lines inside it.)

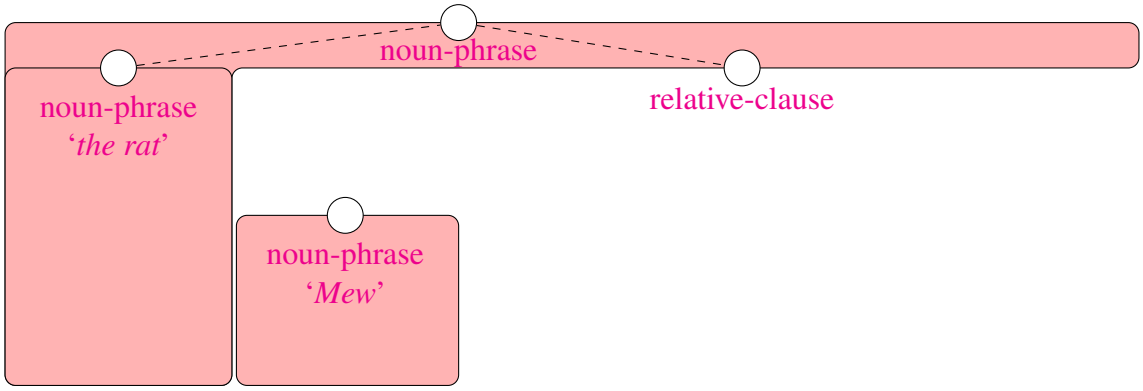
(b) [2 pts.] Which result (match or no-match) is used in this decision?

(c) [2 pts.] How many distinct (disjoint) events or event fragments exist in memory now?

4. Now assume the following complex event (a noun phrase) is being recognized:



and the following events and event fragments have already been constructed:



(a) [6 pts.] Draw the events and event fragments that would exist after one nonterminal decision. (HINT: As in lecture notes 10.4, draw just one rectangle with a pair of tree lines inside it.)

(b) [2 pts.] Which result (match or no-match) is used in this decision?

(c) [2 pts.] How many distinct (disjoint) events or event fragments exist in memory now?