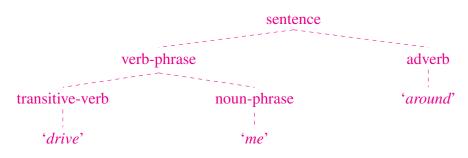
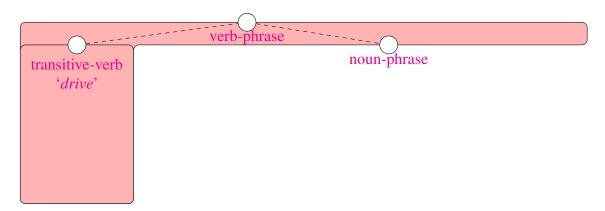
LING5702: Problem Set 4

Due via Carmen dropbox at 11:59 PM 3/6.

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:

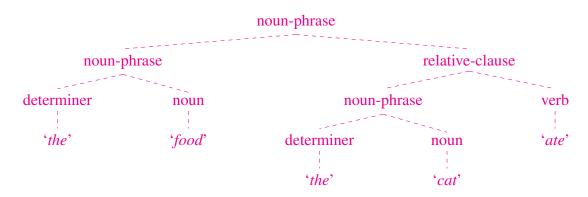


- (a) [6 pts.] Draw the events and event fragments that would exist after one terminal decision.(HINT: As in lecture notes 10.4, draw just one rectangle with a word inside, no tree lines.)
- (b) [2 pts.] Which result (match or no-match) is used in this decision?
- (c) [2 pts.] How many distinct (disjoint) events or event fragments exist in memory now?
- sentence verb-phrase adverb transitive-verb noun-phrase 'around' 'drive' determiner noun-phrase 'my' 'car'
- 2. Now assume the following complex event (a sentence) is being recognized:

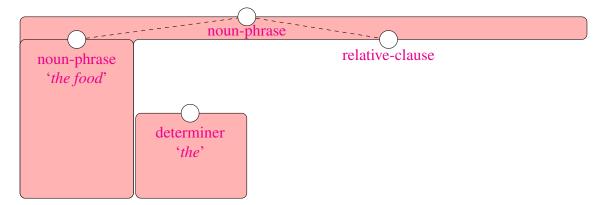
and the following event fragments have already been constructed:

transitive-verb	noun-phrase
'drive'	

- (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:

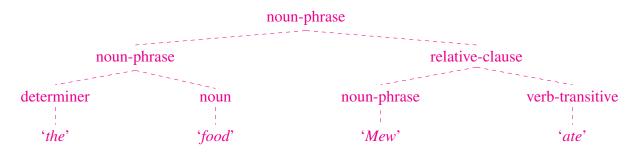


and the following events and event fragments have already been constructed:

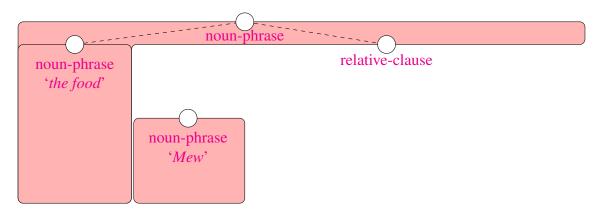


(a) [6 pts.] Draw the events and event fragments that would exist after one nonterminal decision. (HINT: As in lecture notes 10.4, draw just one rectangle with a pair of tree lines inside it.)

- (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?