

Homework No. 3

(due at beginning of class Monday, April 26)

1. The following sentences are ambiguous. Identify the ambiguity in ten of those sentences (5 points each) by providing two paraphrases and stating (in one or two sentences) what causes the ambiguity:

- (1) I know a man with a dog who has fleas.
- (2) Ban On Soliciting Dead in Trotwood
- (3) Visiting relatives can be boring.
- (4) Students hate annoying professors.
- (5) I saw her duck.
- (6) We deplore the shooting of the hunters.
- (7) The Duchess handled the launching beautifully, confidently smashing the champagne against the prow. The crowd cheered as she majestically slid down the greasy runway into the sea.
- (8) We do not tear your clothing with machinery; we do it carefully by hand.
- (9) Dr. Benjamin Porter visited the school yesterday and lectured on “Destructive Pests”. A large number were present.
- (10) Miners Refuse to Work after Death
- (11) Juvenile Court to Try Shooting Defendant
- (12) Red Tape Holds up New Bridge
- (13) Include your Children when Baking Cookies
- (14) New Vaccine May Contain Rabies

2. Consider the following grammar capturing a small fragment of English:

- (a) $S \rightarrow NP V (NP (NP)) (PP)$
- (b) $NP \rightarrow Det (Adj) N (PP)$
- (c) $PP \rightarrow P NP$

- (d) $N \rightarrow \{\text{girl, boy, book}\}$
- (e) $V \rightarrow \{\text{sleeps, gives, sees}\}$
- (f) $Adj \rightarrow \{\text{small, nice, interesting}\}$
- (g) $Det \rightarrow \{\text{a, the}\}$
- (h) $P \rightarrow \{\text{to, with}\}$

Find:

- a. Two sentences that are correct according to both this grammar and are correct sentences of English.
Draw the corresponding syntactic trees. (20 points)
- b. Two sentences that are licensed by this grammar, but are not sentences of English.
Write down the sentences and say in one sentence why they're licensed but not part of English. (15 points)
- c. Two sentences that are not licensed by this grammar, but are sentences of English.
Write down the sentences and say in one sentence why they're not licensed but part of English. (15 points)

3. **Bonus: Web form.**

Go to <http://hotspur.ling.ohio-state.edu/~dm/04/spring/201/form/> enter or upload a short text, and click on submit.

- (a) Describe what the web form does to the text? Be specific about which classes are shown in which way. (10 points extra)
- (b) The automatic system does not do a perfect job. Try to brake it by giving it sentences with words that can be classified in different ways. Provide two examples for where it goes wrong. (20 points extra)