Russ Ronalds Comp Ling

4/16/19 HW6

Q1 (10 POINTS) For the sentence “every fine fly and monkey want to understand him .”, there are two parses with the same weight. What meanings do these parses correspond to? Why does the grammar assign the same weight to the two parses? Could you change the weights in this grammar to prefer one of the parses over the other? Explain. Be specific!

Q2 (10 POINTS) For the sentence “the monkey think -ed that the president want -ed his pickle on his sandwich .”, there are three parses. Explain what meaning each of these parses corresponds to. Are any of these parses the one you get when you read the sentence? Explain.

Q3 (20 POINTS) How does this grammar prefer to parse the PP in sentences of the form NP V NP PP? a) Construct a sentence your grammar can generate of this form and parse it. Save this sentence as Q3.sen and your parser’s output on this sentence as Q3.out. b) Why does the grammar prefer this parse? (hint: consider the rules involved) c) Keeping the rules the same, change the weights in the grammar so the other parse is preferred for your sentence. What rule weights did you have to change and how? Save your updated grammar as Q3.gr. d) Consider the meanings of sentences like “I ate soup with a spoon” and “I kissed the puppy with a tan coat”. Why are both grammars (the original one and your modified one) inadequate for parsing sentences like these? Be specific!