

Name:

Phrase Structure Rules

Here are the Phrase Structure Rules that we have developed in class:

$$S \rightarrow NP VP$$
$$VP \rightarrow V (NP) (PP)$$
$$NP \rightarrow (D) N (PP)$$
$$PP \rightarrow P NP$$

Part 1: For each of the following sentences, diagram a syntax tree for each one (you'll probably need an extra sheet of paper). Be sure to only use these rules we have created. If you want to second guess the structure you make, use constituency tests like clefting or wh-fronting!

1. The balloon flew into the air.
2. A monkey climbed up that tree.
3. A couple of children threw eggs at the wall.
4. The books fell onto the floor.
5. The printer ruined the papers.
6. The girl in the coat wanted the cake with icing.

Part 2: With these four rules we can account for an infinite number (although not all) sentences in English. How are Phrase Structure Rules (or abstract rules in general) more efficient than behaviorism at accounting for language production?