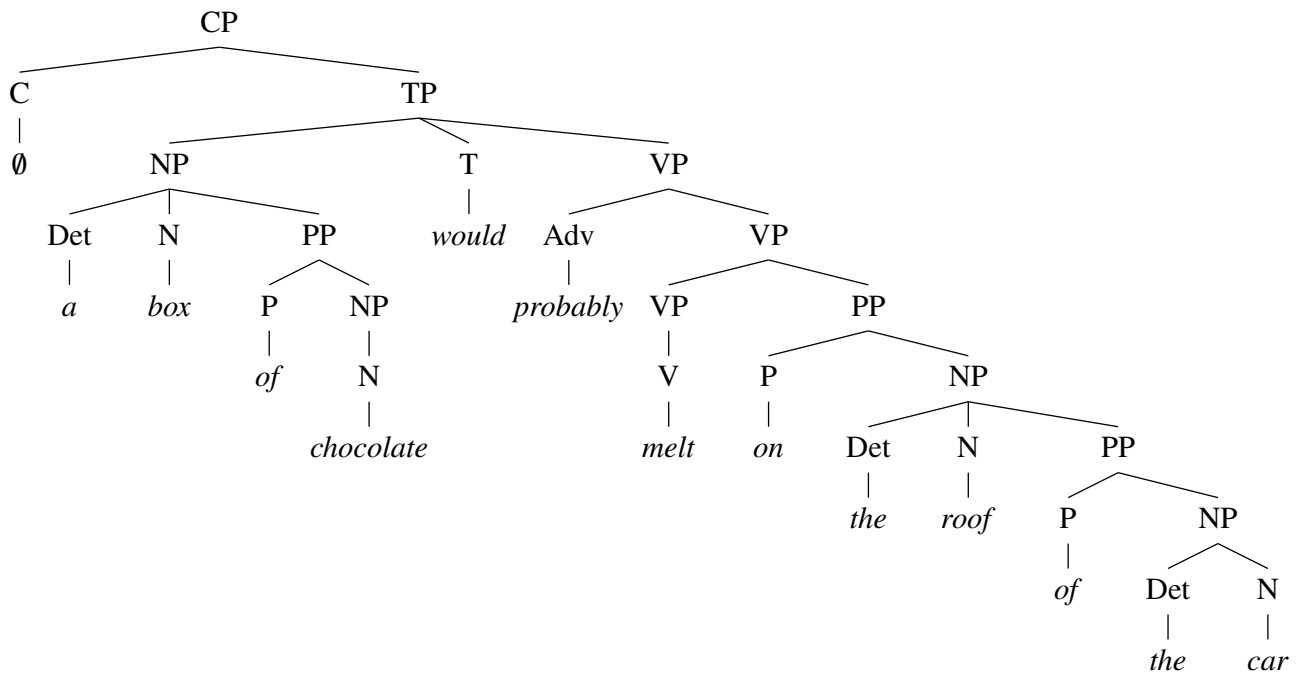


1 From trees to rules and *vice versa* (10 points; 5 points per task)

1.1 Tree to PS rules

Provide the PS rules that derive the following tree. Give the simplest rule system you can, avoiding redundancy. **For this question, just give the lexical items with their category (no other features).**



-
- CP → C TP
 - TP → NP T VP
 - VP → V
 - PP → P NP
 - VP → VP PP
 - VP → Adv VP
 - NP → Det N PP
 - NP → Det N
-

-
- a*, Det
 - the*, Det
 - box*, N
 - chocolate*, N
 - roof*, N
 - car*, N
-

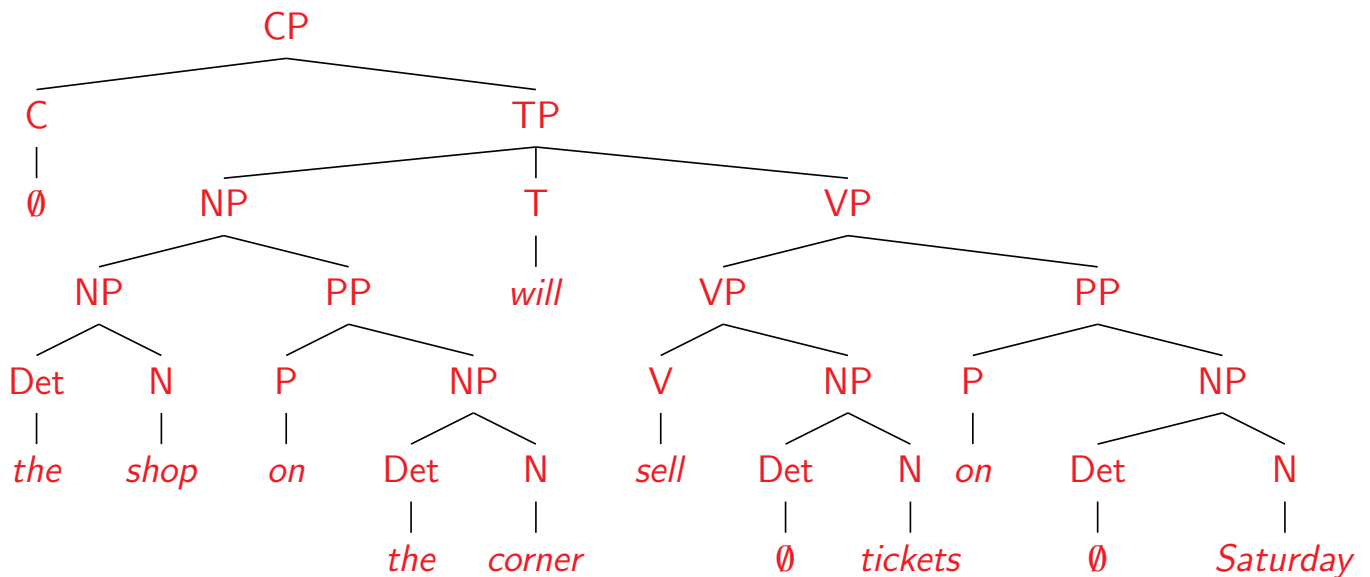
-
- of*, P
 - on*, P
 - probably*, Adv
 - melt*, V
 - would*, T
 - \emptyset , C
-

1.2 PS rules to tree

Provide a tree diagram for the following sentence based on the grammar below. (Assume the lexical items that would be appropriate.) You may find that the rule system allows for more than one possible structure. If so, provide the structure that best captures the meaning of the sentence. The root node of the tree should be CP.

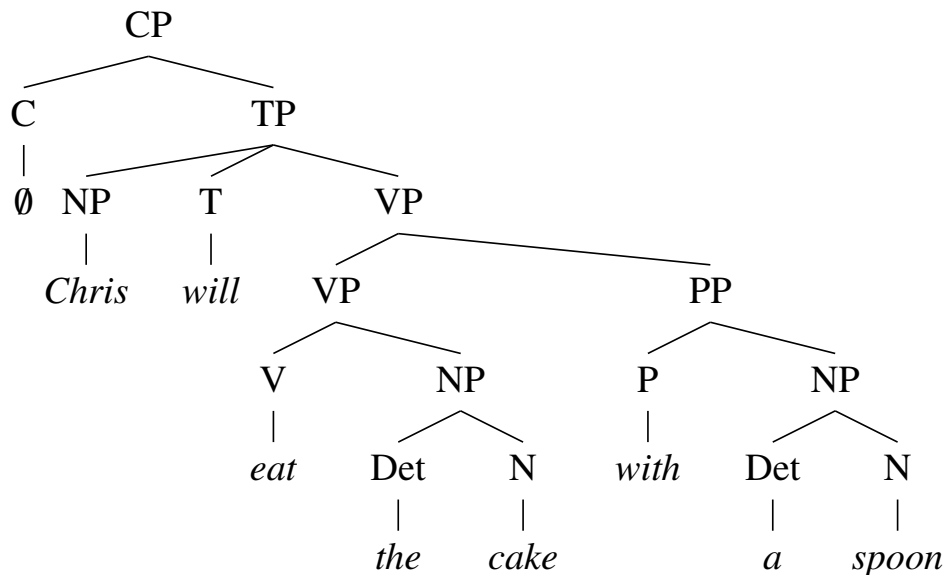
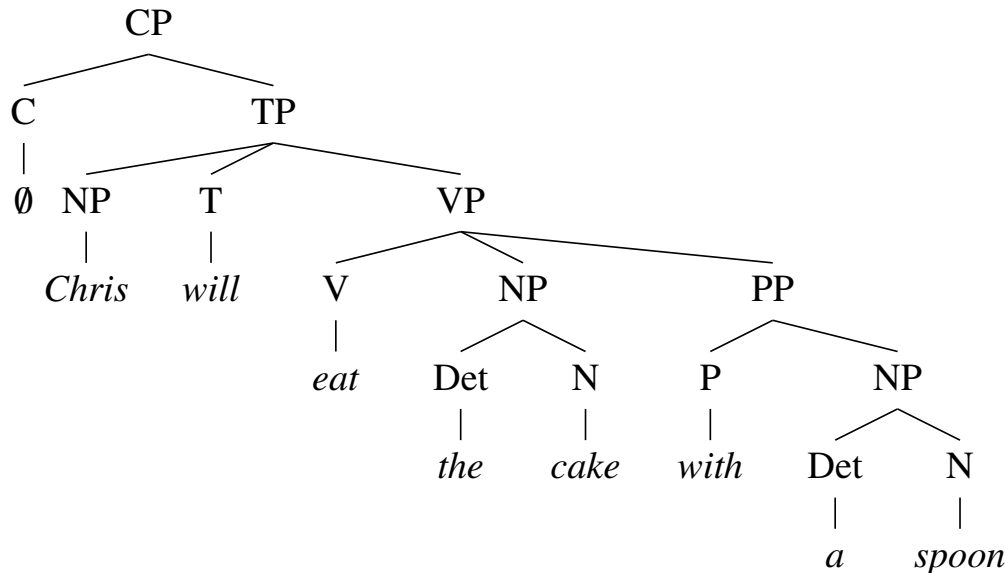
The shop on the corner will sell tickets on Saturday.

CP	→	C TP
TP	→	NP T VP
VP	→	VP PP
VP	→	V
PP	→	P NP
VP	→	V NP
NP	→	Det N
NP	→	NP PP



2 Developing an argument

Consider these two hypotheses concerning the structure of the sentence *Chris will eat the cake with a spoon*.



Which of these diagrams better represents the structure of this sentence? Construct an argument based on constituency for one over the other. Use at least two tests for constituents that distinguish the two structures. Briefly explain how the tests lead you to the conclusion you reach.

Eat the cake is a constituent in the second structure but not in the first. So we can test to see if *eat the cake* passes constituency tests. Witness: Displacement: *Eat the cake, Chris will with a spoon*; Do so (proform replacement): *Chris will do so with a spoon*; Coordination: *Chris will eat the cake and play the national anthem with a spoon* (where the eating of the cake is also with the spoon).

3 Building a lexicon (5 points)

Observe the following data. For each, come up with a lexical entry for the underlined word, and explain in a few words how your lexical entry explains the data in question.

- (1) a. * Rosemary hates
b. Rosemary hates clementines

hates, V, [+ _ NP]

The ungrammaticality of “Rosemary hates” is explained by the fact that this lexical entry requires an NP complement.

- (2) a. John placed the book on the table.
b. * John placed the book.
c. * John placed on the table.
d. * John placed.
e. * John placed the book the magazine on the table.

placed, V, [+ _ NP PP]

The bad examples are ruled out by the subcategorization frame, which requires that “placed” must have both an NP and a PP complement. (2b) and (2c) are missing one, (2d) is missing both, and (2e) has too many NPs. It might be that the PP needs to be a location as well, though this data set is not telling us that (this would be something you know only via other examples). It’s not *wrong* to add that information exactly, but the restriction to location PPs is not necessary for this data set.

- (3) a. * Bill majored Linguistics at BU.
b. Bill majored in Linguistics at BU.
c. Bill majored in Linguistics.
d. * Bill majored at BU.

major, V, [+ _ PP_[+in]]

“Major” requires a PP, and moreover, it has to be one with “in” as its head. This can be ensured by assuming that “in” has a feature [+in], and “major” is looking for that in its subcategorization frame. Thus, the good examples are good because they have an “in” PP, and the bad ones are bad because they do not.

- (4) a. Bill seems angry.
b. * Bill seems.
c. * Bill seems the teacher.

seems, V, [+ _ AdjP]

This is only good when an adjective follows “seems”, and the subcategorization frame ensures that there is an adjective following “seems.”

- (5) a. He did it for the sake of politeness. *Note: sake* here is one syllable.
b. * He did it for the sake. It is not a liquid.
c. * He did it for the sake politeness.

sake, N, [+ _ PP]

The badness of (5b) and (5c) is derived from a complement being required, and that it be a PP. In fact, it’s probably always “of” as well, so you could say PP_{+of} instead of PP in the subcategorization frame.