

A close-up photograph of a pineapple growing on its plant. The pineapple is yellow and ripe, with a green crown of spiky leaves. It is surrounded by many long, green, spiky leaves of the plant, some of which are in the foreground and some in the background. The lighting is natural, and the colors are vibrant.

11-711 Recitation

Nikita Srivatsan

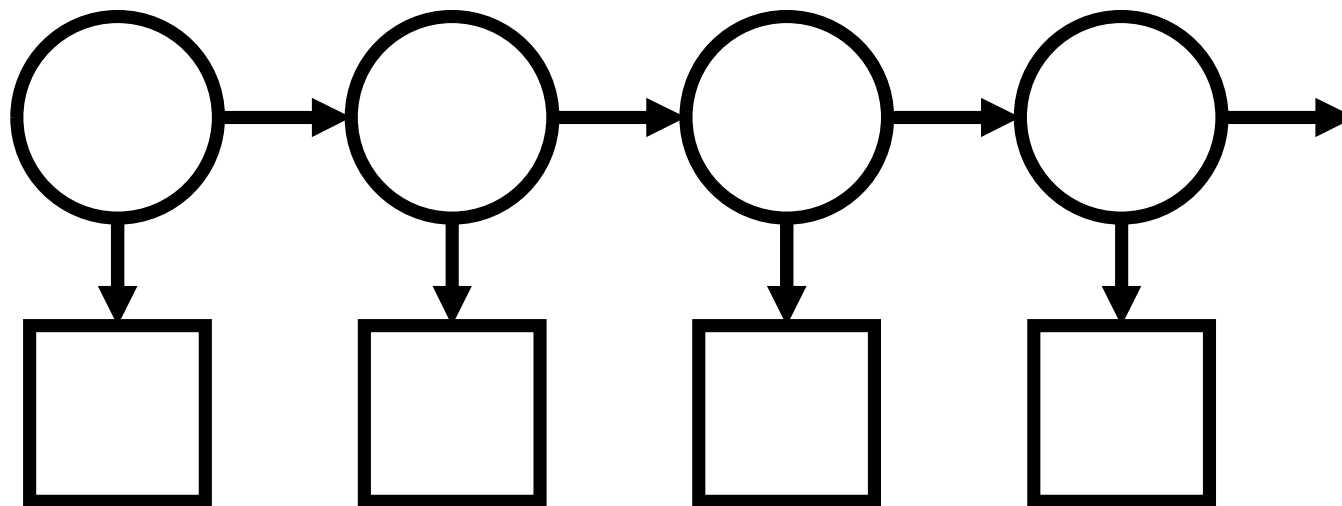
2017-10-06

THE FOLLOWING **PREVIEW** HAS BEEN APPROVED FOR

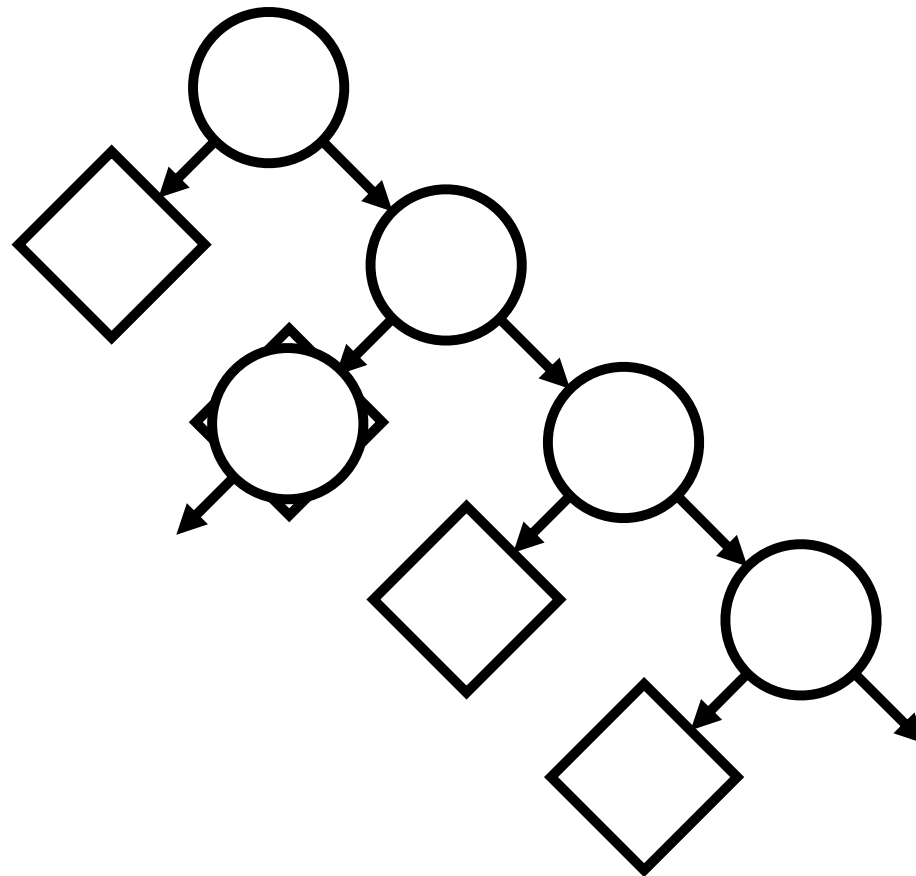
11-711 AUDIENCES

BY THE MOTION PICTURE ASSOCIATION OF AMERICA, INC.

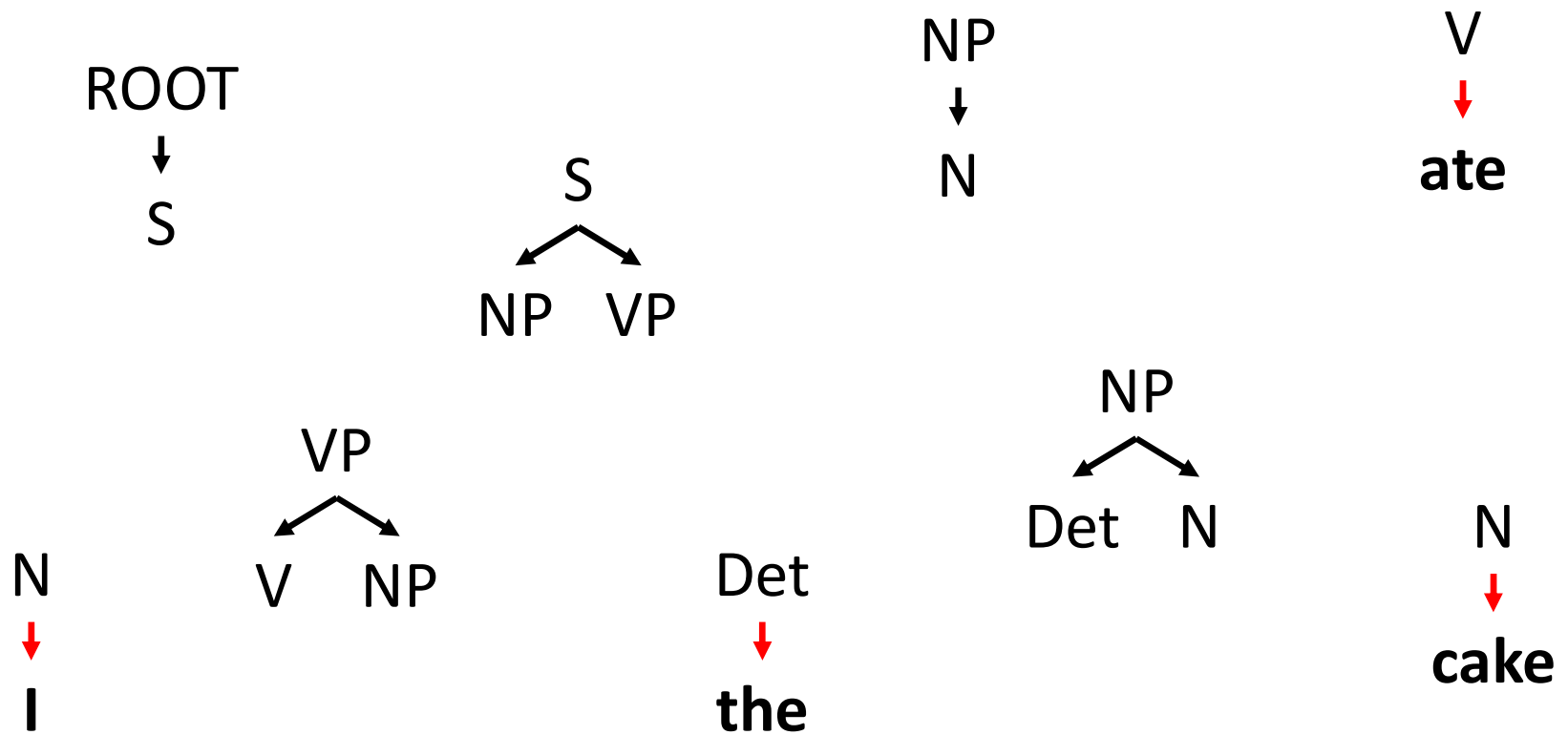
Reminder on HMMs



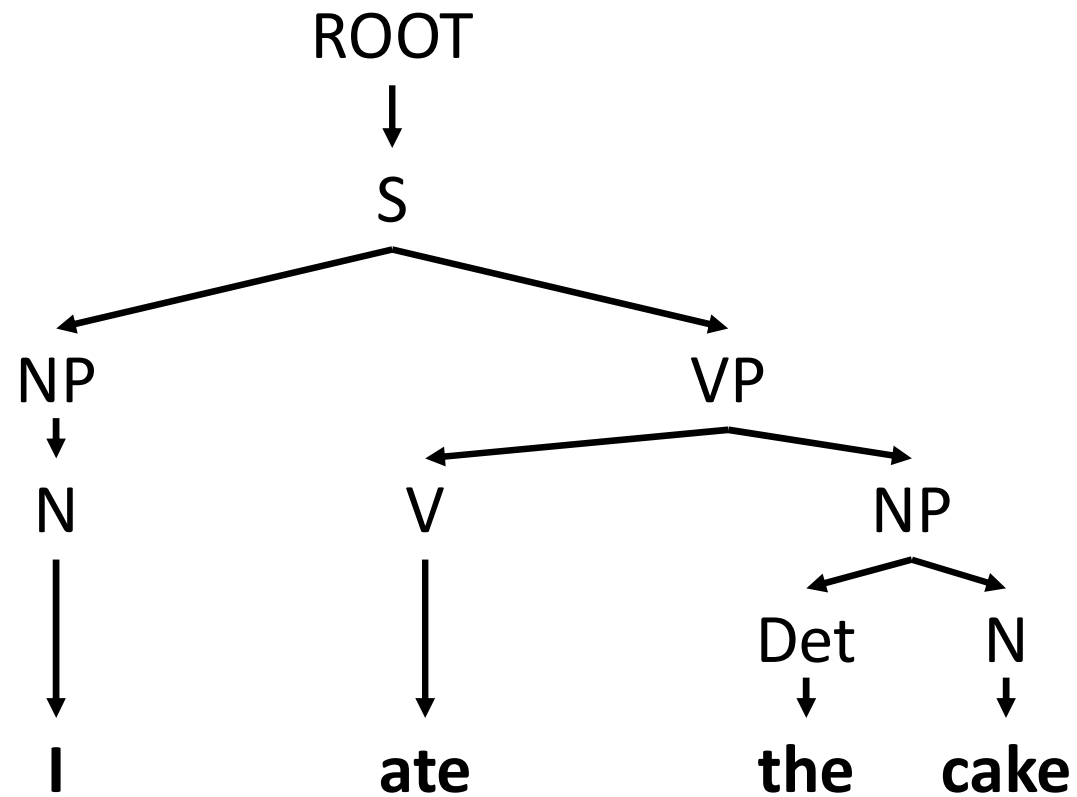
Reminder on HMMs



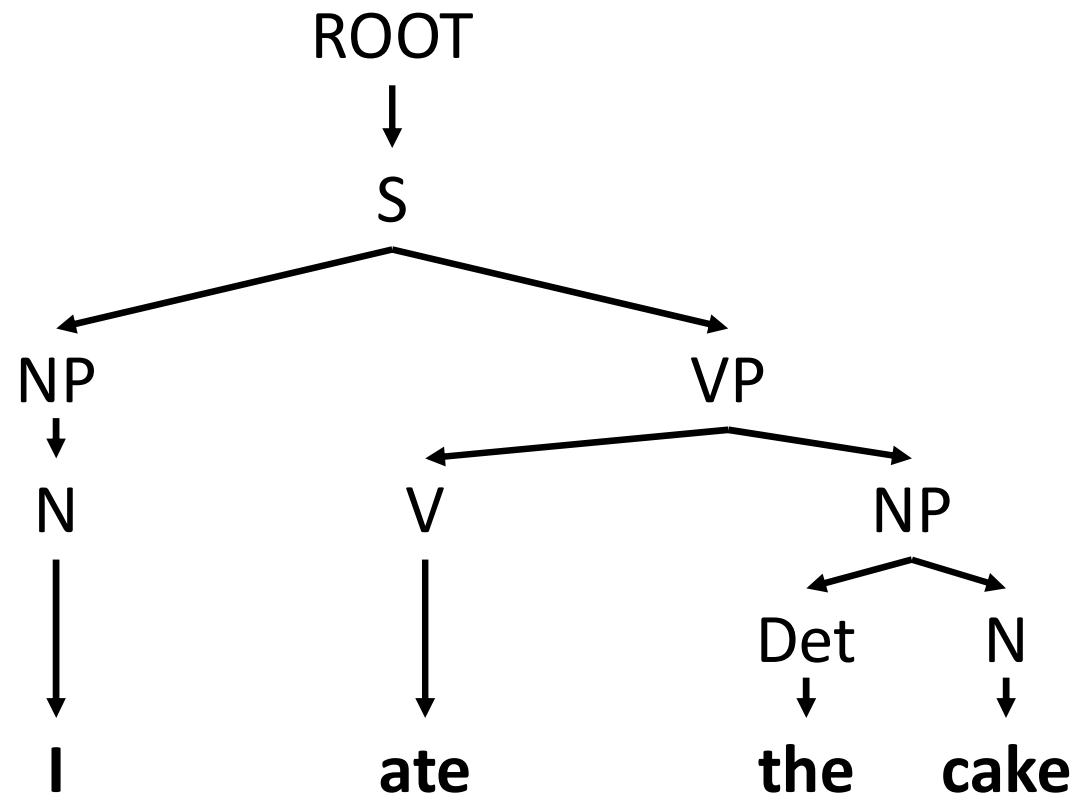
Context-Free Grammars



The Generative Story



Parsing

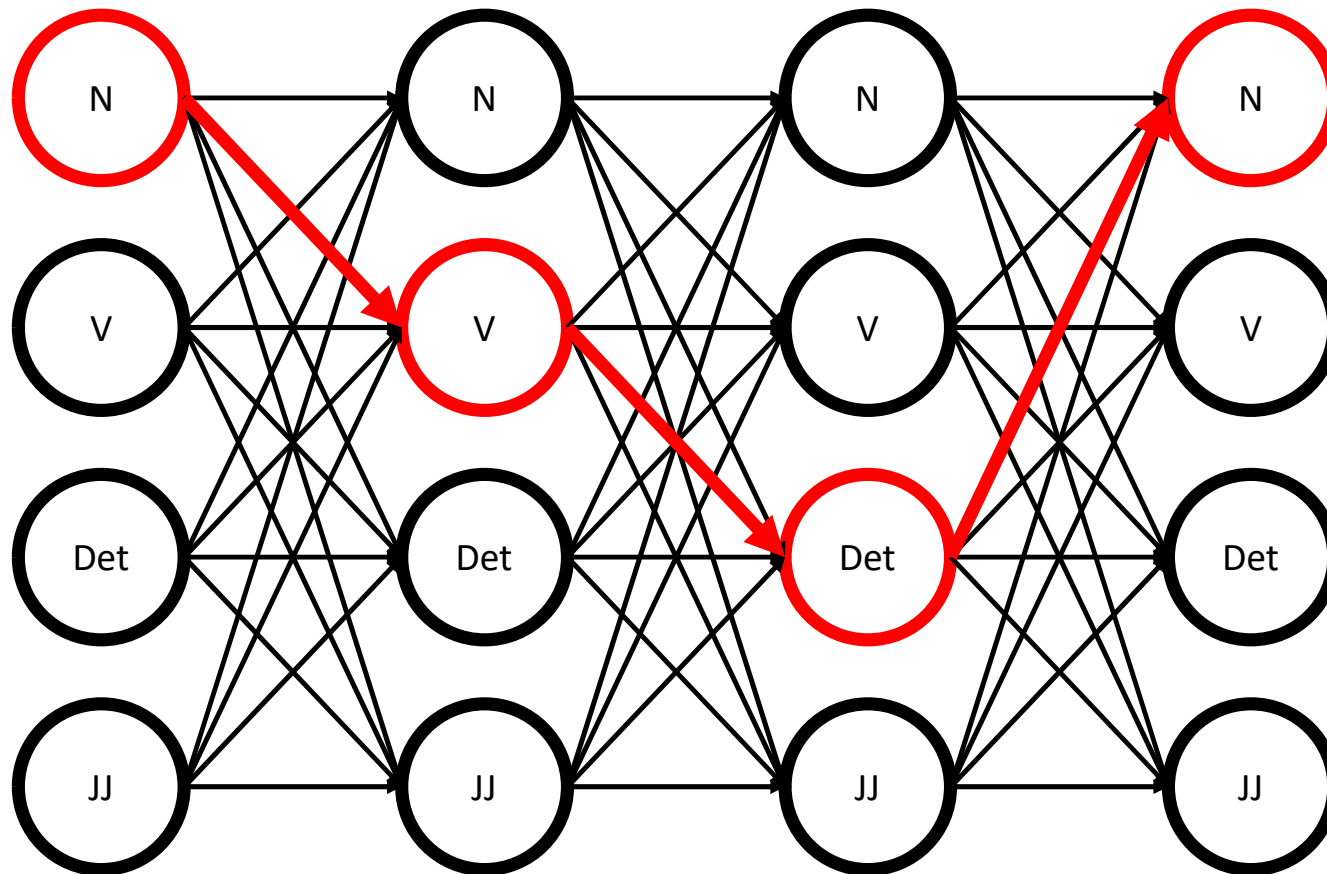


One morning I
shot an elephant
in my pajamas.
How he got into
my pajamas I'll
never know.

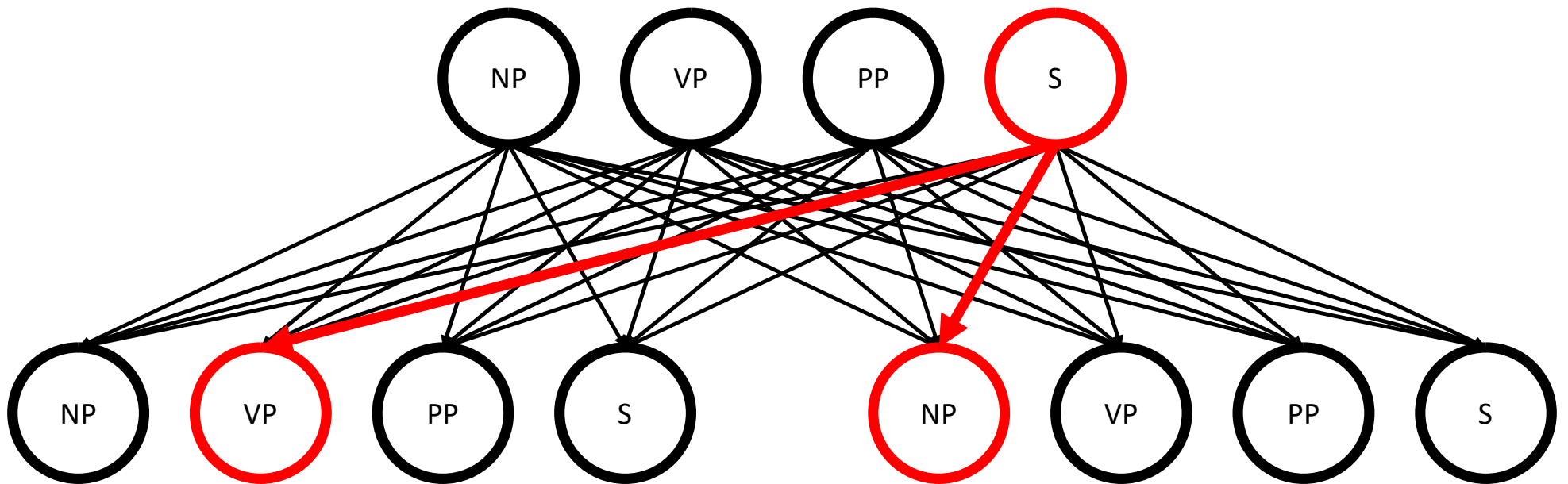
-Groucho Marx



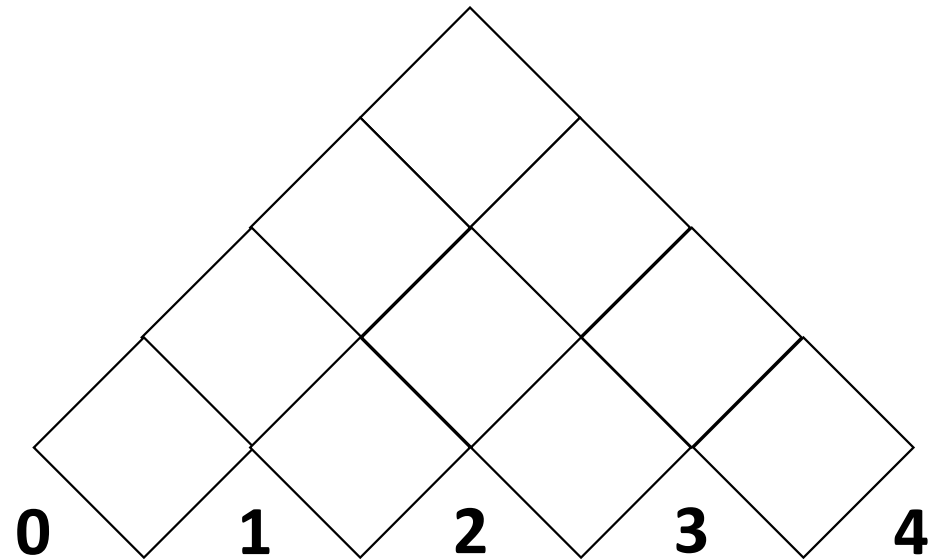
Viterbi – Decoding an HMM



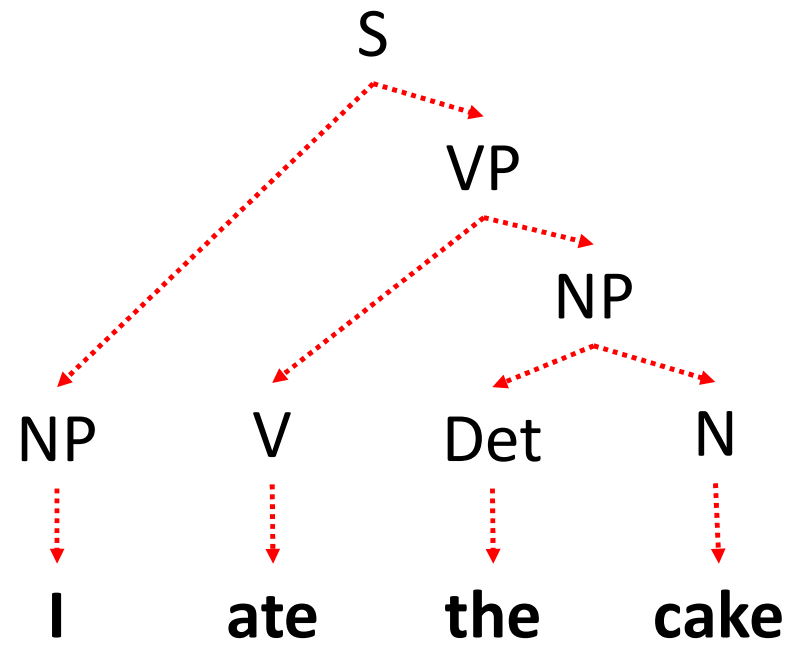
CKY – Decoding a Tree



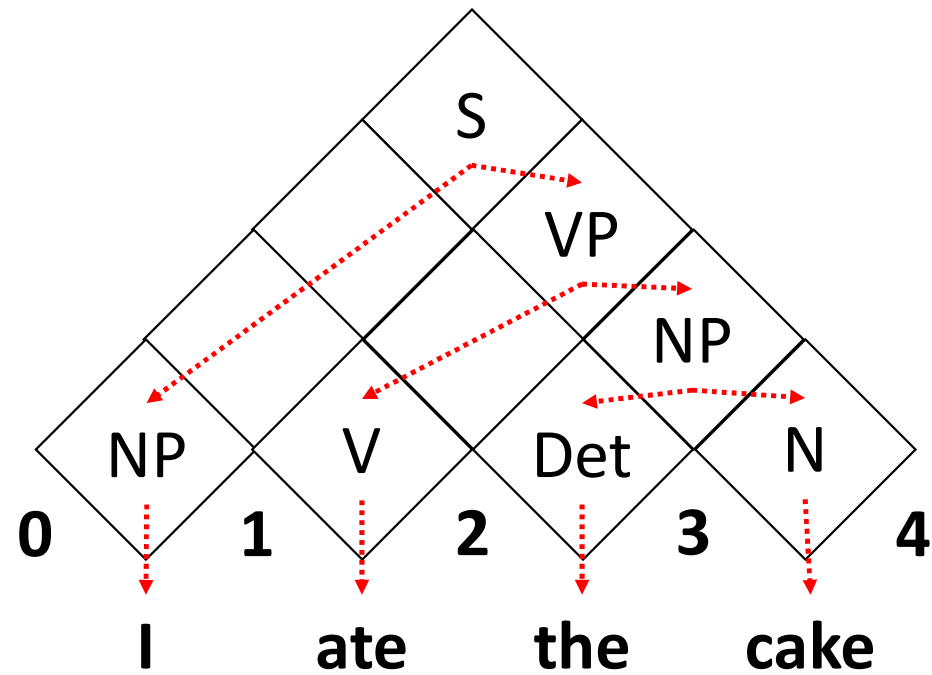
The Chart



The Chart



The Chart





*“Time flies like
an arrow”*



*“Fruit flies like a
banana”*

Parsing with CKY

PCFG Rules

1 : NP -> Det N
3 : VP -> V NP
2 : PP -> P NP
2 : VP -> VP PP
1 : S -> NP VP
3 : NP -> NP NP

1 : NP -> time
3 : NP -> flies
2 : VP -> flies
3 : V -> like
2 : P -> like
1 : Det -> an
1 : N -> arrow

