

## 1 The Dependency Parsing Problem (Part 2)

### 1.1 Question (time: 3:45, slide: 6)

Consider the sentence "John saw a movie".

Draw the following dependency parses. Which are valid (projective) parses?

- (a)  $(2, 1), (0, 2), (1, 3), (3, 4)$
- (b)  $(2, 1), (0, 2), (2, 3), (3, 4)$
- (c)  $(2, 1), (0, 2), (2, 4), (3, 4)$
- (d)  $(0, 1), (1, 2), (2, 3), (3, 4)$

## 2 GLMs for Dependency Parsing (Part 1)

### 2.1 Question (time: 4:01, slide: 12)

Say we have a sentence "John saw a movie" and we are computing features. How many possible arcs  $(h, m)$  are there for this sentence?

## A Answers

- (b) (d)

The incorrect parses either have a crossing dependencies or have a word used multiple times as a modifier.

- 20

The answer is 20. There are four words that are possible modifiers and five words that a possible heads. The total is  $5 \times 4 = 20$ .