Neural networks

Natural language processing - recursive network

FROM WORDS TO PHRASES

Topics: word phrase representations

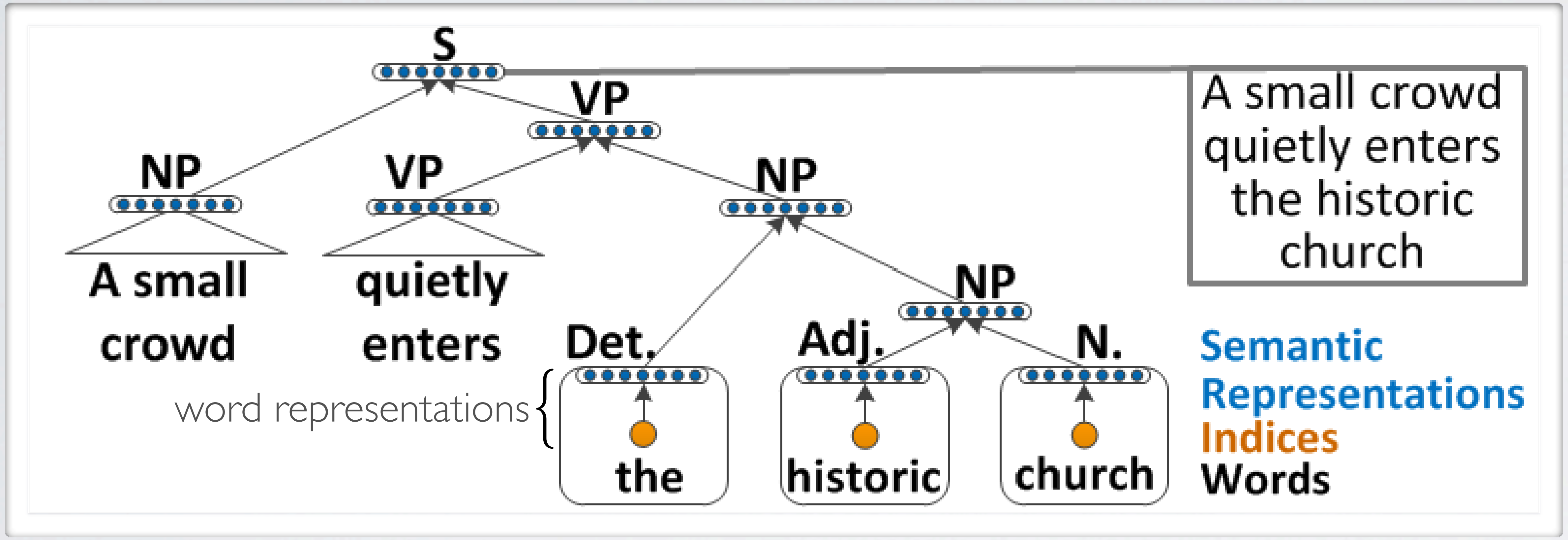
- We've seen how to learn representations for single words

- How could we learn representations for phrases of arbitrary length?
  - can we model relationships between words and multiword expressions
    - ex.: "`consider`" ≈ "`take into account`"
  - can we extract a representation of full sentences that preserves some of its semantic meaning
    - ex.: "`word representations were learned from a corpus`" ≈ "`we trained word representations on a text data set`"

RECURSIVE NEURAL NETWORK

Topics: recursive neural network (RNN)

- Idea: recursively merge pairs of word/phrase representations



Socher, Lin, Ng and Manning, 2011

- We need 2 things
  - a model that merges pairs of representations
  - a model that determines the tree structure