Scope Ambiguity in Syntax and Semantics

Ling324

Reading: *Meaning and Grammar*, pg. 142-157

Scope Ambiguity

(1)   Everyone loves someone.

    a. Wide scope reading of universal quantifier:

        $\forall x[\text{person}(x) \rightarrow \exists y[\text{person}(y) \wedge \text{love}(x, y)]]$
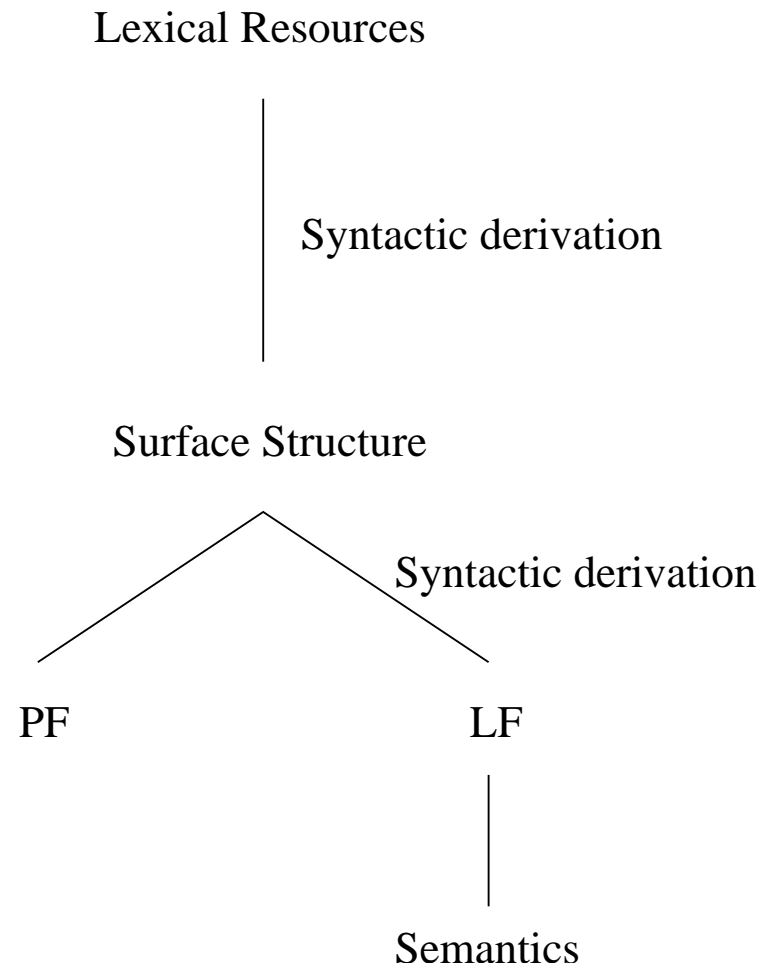
    b. Wide scope reading of existential quantifier:

        $\exists y[\text{person}(y) \wedge \forall x[\text{person}(x) \rightarrow \text{love}(x, y)]]$

Representing Scope Ambiguity in Syntax

- In general, a sentence that is semantically ambiguous is also syntactically ambiguous.

  (2)   a.   John saw a man with a pair of binoculars.

         b.   Competent women and men hold all the good jobs in the firm.

- What about sentences with scope ambiguity? Those sentences do not seem to be syntactically ambiguous.

  (3)   a.   Everyone loves someone.

         b.   A professor talked to every student.

Representing Scope Ambiguity in Syntax (cont.)

- Model of the grammar

Lexical Resources

| Syntactic derivation

Surface Structure
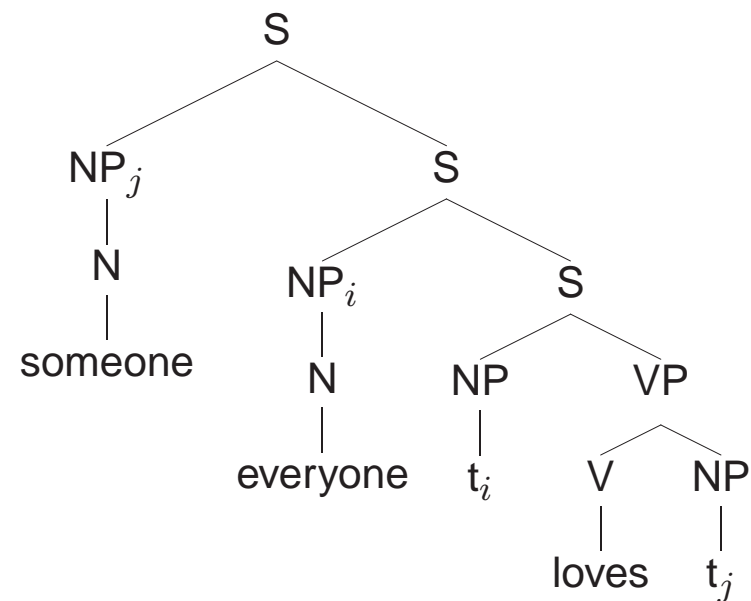
Syntactic derivation

PF   LF

Semantics

Representing Scope Ambiguity in Syntax (cont.)

- Syntactic movement takes place at LF, as well as at S-structure. S-structure movement is overt, and LF movement is covert.

- In sentences with quantifiers, the quantified expressions move at LF. This movement is called Quantifier Raising (QR).

  QR allows for sentences with scope ambiguity to have ambiguous syntactic structure at LF.
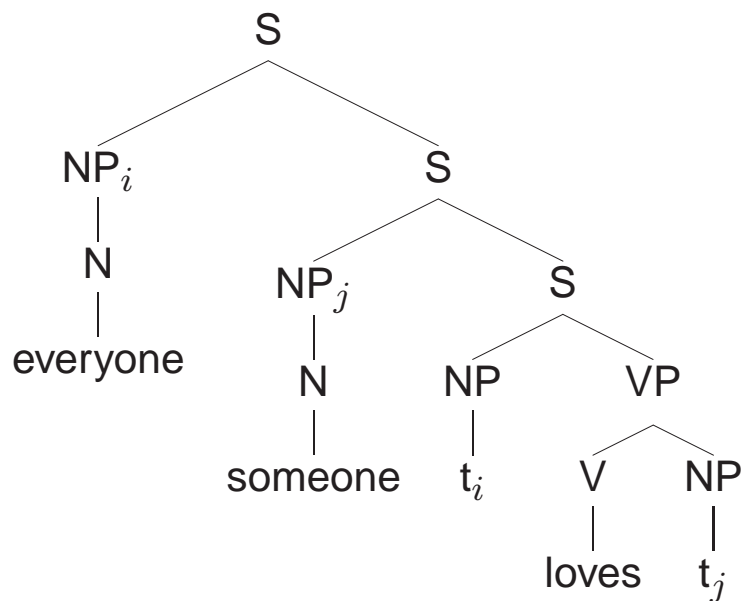
$$\forall x[\mathsf{person}(x) \to \exists y[\mathsf{person}(y) \wedge \mathsf{love}(x, y)]]$$

$$\exists y[\mathsf{person}(y) \wedge \forall x[\mathsf{person}(x) \to \mathsf{love}(x, y)]]$$