

# LING3701/PSYCH3371: Lecture Notes 17

## Acquisition of Meaning

### Contents

17.1 Acquisition of Semantics . . . . .	1
17.2 Syntactic Bootstrapping . . . . .	1
17.3 Syntactic Bootstrapping . . . . .	2

### 17.1 Acquisition of Semantics

Semantic acquisition presents a major challenge ...

Willard Quine '60: A rabbit hops by; your companion says '*Gavagai!*'

- may mean '*Rabbit!*' — species
- may mean '*Animal!*' — general class (kingdom)
- may mean '*American Fuzzy Lop!*' — specific class (breed)
- may mean '*Peter!*' — proper name
- may mean '*Edible!*' — purpose class
- may mean '*Female!*' — gender class
- may mean '*Ears!*' — sub-part
- may mean '*Bucolic scene!*' — super-part
- may mean '*Hopping!*' — eventuality involving rabbit
- may mean '*Hunting!*' — eventuality involving speaker

With all this ambiguity, how does child learn meaning?

### 17.2 Syntactic Bootstrapping

Roger Brown '57: kids use syntactic categories to guide word learning

- **subjects:** 3- to 5-year-old children
- **stimuli:** someone kneading dough / cutting cloth / ..., followed by:
  - (a) '*show me the sib*' (count noun form, following '*the*')
  - (b) '*show me some sib*' (mass noun form, following '*some*')
  - (c) '*show me sibbing*' (gerund form, with suffix '*-ing*')

- **measure:** what subjects pointed to
- **results:**
  - (a) *'show me the sib'* — subjects indicate bowl/knife
  - (b) *'show me some sib'* — subjects indicate dough/cloth
  - (c) *'show me sibbing'* — subjects make kneading/cutting gesture

Brown thought these vary across languages (e.g. no count/mass distinction).

### 17.3 Syntactic Bootstrapping

Sylvia Yuan & Cynthia Fisher '09: extend Brown results to syntax

- **subjects:** 2-year-old children
- **stimuli:** recorded sentence:
  - (a) *'She blicked!'* (intransitive)
  - (b) *'She blicked her!'* (transitive)
 followed by images of person raising arm, pulling another person's leg  
 followed by request: *'Can you show me blicking?'*

- **measure:** what subjects pointed to
- **results:**
  - (a) *'She blicked!'* — person raising arm
  - (b) *'She blicked her!'* — person pulling another person's leg

Stephen Pinker '94: problems with syntactic bootstrapping

- children may have instinct for semantic frame