

## Brown's 14 morphemes

The acquisition of grammatical morphemes

## Brown's morphemes

- Brown studied the acquisition of a variety of English morphemes:
  - In
  - On
  - Articles (a & the)
  - Possessive ('s)
  - Plural ('s)
  - Progressive (-ing)
  - Past tense
  - Third person present tense
  - Different forms of "be"

## Brown's 14 morphemes

- **-ing:** 19-28 months
  - Verb; present progressive tense used without auxiliary
  - e.g. Daddy running.
- **In:** 27-30 months
  - Locative state utterances
  - e.g. baby in bed.
- **On:** 27-30 months
  - Locative state utterances
  - e.g. spoon on floor

## Brown's 14 morphemes

- **-s (regular noun plural):** 24-33 months
  - Regular noun plural
  - e.g. cats. 24 - 33
- **irregular past tense:** 25 - 46 months
  - e.g. went, broke, came. 25 - 46
- **-s (noun possessive):** 26- 40 months
  - e.g. Billy's cup.
- **verb to be as main verb in uncontractible form:** 27 - 39 months
  - Uncontractible copula
  - e.g. "Who is happy?" "I am".

## Brown's 14 morphemes

- **articles a & the:** 28 - 46 months
  - indicate definite and indefinite referents
  - e.g. kick the ball, I want a drink.
- **-ed:** 26 - 48 months
  - regular past tense
  - e.g. I walked home.
- **-s (regular 3rd person verb):** 26 - 46 months
  - e.g. He eats.
- **has, does (irregular 3rd person verb):** 28 -50 months
  - e.g. He does that.

## Brown's 14 morphemes

- **verb to be as helping verb in uncontractible form:** 29 -48 months
  - uncontractible auxiliary
  - e.g. In "Who is going outside?" "He is".
- **contractible copula:** 29 -49 months
  - e.g. It's your coat. Daddy is tall.
- **contractible auxiliary:** 30 -50 months
  - e.g. Mummy's eating lunch. They are eating, too.

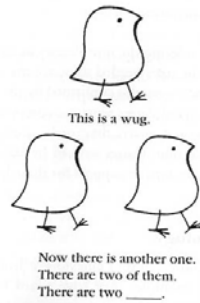
## Order of acquisition

- These morphemes seem to be acquired in a set order for most children
- Why?
  - Possibility one: Frequency in input
  - Possibility two: Linguistic complexity
- The latter suggests that there will be differences in this order across different languages.

## More on plurals

- Plural has three different phonological forms
  - Voiceless (/s/): cats, books
  - Voiced (/z/): dogs, cookies
  - Syllabic (/əz/): couches, boxes
- Children do not acquire all three at the same point.

## Berko's wug test



## Why this order?

- Frequency?
- Perceptual salience?
- Cue validity
- Analysis of CHILDES database
  - /z/ is most frequent
  - /əz/ is most salient
  - /əz/ has highest cue validity

## Stages of plural production

- No plural use, but numbers and “more” sometimes used to indicate concept
  - More milk, Two bunny
- Plural used some of the time
- Plural marker overgeneralized irregular form
  - Tooths, deers, fishes
- Regular & irregular used correctly

## Plurals - one view of stages

Phases/ stages	Voiced	Voiceless	Sibilant	Irregular
1	Boy	Cat	Bus	Man
2	Boy	Cat	Bus	Men or man
3	Boyz	Cats	Bus	Manz
4	Boyzez	Catsez	Busez	Manzez
5	Boyz	Cats	Busez	Manz
6	Boyz	Cats	Busez	Men

### More on past tense

- Past tense has a number of the same issues.
- Different production types
  - Voiceless (e.g., walked)
  - Voiced (e.g., played)
  - Syllabic (e.g., scolded)
- Overregularization

### Other morphemes

- Other auxiliary verbs
- Adjectival endings -er, -est
- Derivational noun -er (one who does)