

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.

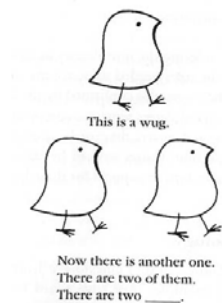
Order of acquisition

- 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
 - /ez/ is most salient
 - /ez/ 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)
